

THIS FILM MAY NOT BE USED TO REPRODUCE ADDITIONAL FILM COPIES

Use of this film in reproduction is limited to individual page reprints when occasional demands require paper copies for use and study.

Micro Photo Inc.

OFFICIAL
GAZETTE
UNITED STATES
PATENT OFFICE

VOL. 262 - 263

MAY - JUNE

1919

MICRO PHOTO INC. MAL
CLEVELAND, OHIO

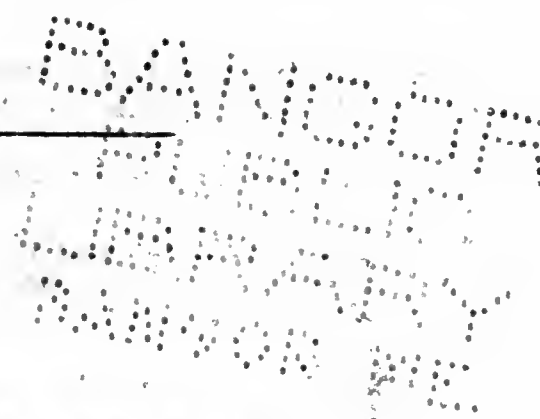
OFFICIAL GAZETTE

OF THE



UNITED STATES PATENT OFFICE.

414122



VOLUME CCLXII

MAY,

1919.

WASHINGTON
GOVERNMENT PRINTING OFFICE
1919

ERRATA.

1,304,414, page 35, third claim, line 10, strike out the article "the".
 1,303,636, page 342, first claim, line 18, strike out the words "correspondingly located narrow address panels".
 1,303,676, page 36, in heading, assignments, for name of assignee, "Fred C. Kennedy" read *Fred T. Kennedy*.
 Alphabetical list of Patentees, May 4, 1927, page 411, first column, strike out lines 50-51; same page and column, after line 58, insert *Electric and Manufacturing Company. (See Conrad and Aalborg.)*
 Vol. 262.

CONTENTS.

PATENTS AND DESIGNS GRANTED, May 4, 12, 20, 27	Page.
TRADE-MARKS PUBLISHED AND REGISTERED, May 4, 12, 20, 27	2, 171, 321, 489
LANDS AND PLOTS REGISTERED, May 4, 12, 20, 27	147, 300, 457, 631
DECISIONS OF THE COMMISSIONER OF PATENTS, May 4, 12, 20, 27	311, 479, 644
INDEX TO THE DECISIONS OF THE COMMISSIONER OF PATENTS	167, 313, 461, 635
ALPHABETICAL LIST OF PATENTERS AND INVENTORS	651

ANNOUNCEMENTS.

ADDRESS OF APPLICANT—	Page.
Rule 35	1
ADVERSE DECISIONS IN INTERFERENCE—	
Campbell, 1,353,308	1
Cox, 1,118,375	487
Fonda, 1,311,126	487
Guild, 1,371,716	1
Skinner, 1,344,900	319
AMENDMENTS—	
Rule 73	100
APPLICATIONS—	
Access to pending	100
Condition of pending	2, 170, 320, 489
ATTORNEYS—	
Order disbarring Richard J. Jackson	100
BRIEFS IN APPEALED CASES	487
CLASSIFICATION OF INVENTIONS—	
Changes in—Order 2,401	484
Order 2,402	486
Order 2,403	486
Order 2,404	486
Order 2,405	486
DISCLAIMERS—	
Goodrum, Charles L.	319
INTERFERENCE—	
Definition of—Rule 35	319
INTERFERENCE NOTICES—	
Brushvegal, Robert A.	1, 100
Dime Company	487
Draper, F. S.	100, 319, 487
Hamburger & Company	1
PATENT OFFICE PUBLICATIONS—	
Where sold	1
PATENTS—	
List of adjourned	484, 487
TRADING WITH THE ENEMY ACT—	
List of applications for licenses under enemy-controlled patents	100
WAR SAVINGS STAMPS—	
Notice relative to buying	1, 100, 319, 487

Patents Nos. 1,302,490 to 1,303,223.

THE OFFICIAL GAZETTE

OF THE

United States Patent Office. *sd*

Vol. 392—No. 1.

TUESDAY, MAY 6, 1919.

Price—\$5 per year.

[PUBLISHED MAY 14, 1919.]

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each. Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
Issue of May 6, 1919.....	1
INTERFERENCE NOTICES.....	1
ADVERSE DECISIONS IN INTERFERENCE.....	1
PATENT OFFICE PUBLICATIONS.....	1
APPLICANT'S ADDRESS.....	1
APPLICATIONS UNDER EXAMINATION.....	2
PATENTS GRANTED.....	3
DESIGNS.....	142
TRADE-MARKS—REGISTRATION APPLIED FOR.....	147
TRADE-MARK REGISTRATIONS GRANTED.....	148
DECISIONS OF THE U. S. COURTS—	
In re Hillard.....	167
In re The Barrett Company, Formerly Barrett Manu- facturing Company.....	167
In re Kawneer Manufacturing Company.....	167
Field v. Rugh.....	168
In re Sims.....	168
In re Hunt.....	168
In re Eckrood.....	168
Fischer v. Chas. R. Long, Jr., Co.....	168
APPLICATIONS MADE TO THE FEDERAL TRADE COMMISSION FOR LICENSES UNDER ENEMY-CONTROLLED PATENTS AND TRADE-MARKS PURSUANT TO THE "TRADING WITH THE ENEMY ACT".....	168

Issue of May 6, 1919.

Patents.....	734—No. 1,302,490 to No. 1,303,223, inclusive.
Designs.....	15—No. 53,265 to No. 53,270, inclusive.
Trade-Marks.....	28—No. 125,283 to No. 125,290, inclusive.
Labels.....	None.
Prints.....	None.
Rescues.....	3—No. 14,643 to No. 14,644, inclusive.
Total.....	790

Don't try to argue with Benjamin Franklin.
He said:

*"Always taking out of the meal tub and
never putting in soon comes to the
bottom."*

Just buy another W. S. S.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,

Washington, D. C., April 19, 1919.

*Hamburger & Company, its assigns or legal representa-
tives, take notice:*

An interference having been declared by this Office between the application of Henry M. Rynchart Co., 17 Fulton street, Brooklyn, N. Y., for registration of a trade-mark and trade-mark registered December 15, 1894, No. 29,504, to Hamburger & Company, No. 20 West Third street, New York, N. Y., and a notice of such declaration sent by registered mail to the said address of record having been returned by the post-office undeliverable, notice is hereby given that unless said Hamburger & Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,

Washington, D. C., April 23, 1919.

*Robert A. Brachvogel, his assigns or legal representa-
tives, take notice:*

An interference having been declared by this Office between the application of the Chic-Mint-Gum Co., 223 French street, Wilmington, Del., for registration of a trade-mark and trade-mark registered June 19, 1906, No. 54,053, to Robert A. Brachvogel, 1206 Tacoma Building, 131 La Salle street, Chicago, Ill., and a notice of such declaration sent by registered mail to said Robert A. Brachvogel at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Robert A. Brachvogel, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default. This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

Adverse Decisions in Interference.

PATENT No. 1,255,385.

On April 12, 1919, a decision was rendered that Argyle Campbell was not the first inventor of the subject-matter covered by claim 1 of his Patent No. 1,255,385, subject, "Door-operating mechanism," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,277,714.

On April 7, 1919, a decision was rendered that Henry J. Guild was not the first inventor of the subject-matter covered by claims 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, and 6 (substantially) of his Patent No. 1,277,714, subject, "Method and means for finishing paper," and no appeal having been taken within the time allowed such decision has become final.

Patent Office Publications.

The stock of publications, exclusive of printed copies of patents, formerly held for sale by the Patent Office, has been transferred to the Superintendent of Documents, Government Printing Office. Orders for Patent Office publications should NOT be sent to the Patent Office, but to the "Superintendent of Documents," to whom all remittances for such publications should be made payable. Printed copies of specifications and drawings of patents will be furnished by the Patent Office, as heretofore.

Applicant's Address.

The requirement of Rule 33, that the post-office address of the applicant must be stated in the petition, means that the applicant must give the post-office address at which he customarily receives his mail.

The rule was made in order that the Office in necessary cases might correspond directly with the applicant and not through his attorney. The address of the attorney with instructions to send communications to the applicant in his care will not be accepted as a compliance with this rule.

12944

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 2, 1919.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Planting; Seeding; Unloading; Trees, Plants, and Flowers.	Mar. 13	Mar. 12	284
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Paper Filing and Binders; Medicines; Preservatives; Preserving; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Dec. 28	Jan. 31	588
175	3. Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Forming; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Mar. 19	Dec. 17	162
264	4. Conveyors; Elevators; Extruding; Heating; Material or Article Handling; Pneumatic Dispatch; Pumping and Pulling Implements; Railway Mail Delivery; Store-Service; Traveling Bells.	Nov. 20	Apr. 3	228
167	5. Book-Making; Books, Strips and Leaves; Harvesters; Jewels; Manufacturing; Masts; Printed Matter; Tying Cords or Strands.	Jan. 20	Jan. 9	164
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Substance Preparation.	Jan. 10	Feb. 3	313
312	7. Educational Appliances; Games and Toys; Optics; Voleypoles.	Mar. 3	Mar. 26	284
131	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Carpets.	Mar. 3	Mar. 31	189
221	9. Air and Gas Pumps; Hydraulic Motors; Injectors and Ejectors; Motors, Fluid; Motors, Fluid-Current; Pumps.	Nov. 3	Jan. 20	347
235	10. Carriages and Wagons; Motor Vehicles.	Feb. 17	Apr. 5	513
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Eyelet, and Rivet Setting; Harness; Leather Manufacture; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Feb. 20	Apr. 13	185
329	12. Journal-Boxes, Pulleys, and Shaking; Machine Elements.	Nov. 9	Nov. 9	989
323	13. Ammunition and Explosive Charge Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Drives, Hoisted, and Screw-Threaded Fasteners; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Dec. 23	Mar. 19	697
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Ferriery; Metal-Bending; Packaging Liquids; Sheet-Metal Ware, Making; Tools; Wire Fabric and Structure; Wire-Working.	Jan. 31	Mar. 7	179
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber; Libration; Plastic Block and Earthenware Apparatus; Plastics.	Dec. 16	Jan. 18	470
112	16. Radiant Energy; Telegraphy; Telephony.	Dec. 12	Dec. 19	588
307	17. Label Fastening and Paper Hanging; Ornamentation; Paper Manufacture; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Mar. 1	Mar. 15	137
729	18. Fluid-Pressure Regulators; Liquid Heaters and Vaporizers; Power Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Dec. 7	Jan. 27	540
226	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels.	Feb. 7	Feb. 3	273
170	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Saws; Undertaking.	Apr. 1	Apr. 1	198
313	21. Brakes and Gears; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Nov. 3	Jan. 6	361
249	22. Aeronautics; Firearms; Ordnance.	Feb. 3	Mar. 12	266
217	23. Acoustics; Con-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Jan. 15	Feb. 4	245
144	24. Apparel; Apparel Apparatus; Garment Supporters; Sewing-Machines.	Sept. 31	Jan. 25	461
313	25. Agitating; Butcherling; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Nov. 24	Apr. 3	164
105	26. Electricity, Generation; Motive Power; Prime Mover and Dynamo Plants.	Nov. 4	Jan. 3	688
314	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Feb. 3	Mar. 3	494
225	28. Internal-Combustion Engines.	Jan. 10	Feb. 6	265
147	29. Boring and Drilling; Chucks or Sockets; Coopering; Fire-Rescues; Ladders; Red Joints or Couplings; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Dec. 26	Feb. 1	381
150	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Feb. 12	Feb. 5	266
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue; Sugar and Salt.	Feb. 12	Feb. 5	266
378	32. Gas and Liquid Contact Apparatus; Heat Exchange; Refrigeration.	Nov. 4	Feb. 14	686
70	33. Bridges; Hydraulic and Earth Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving; Roads and Pavements; Roofs.	Jan. 14	Feb. 3	268
304	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Switches and Signals; Railway Ties and Fasteners; Railway Wheels and Axles; Track-Sanders; Vehicle-Fenders.	Jan. 26	Feb. 14	265
37	35. Buckles, Buttons, Clips, Etc.; Card, Picture, and Sign Exhibiting; Signals; Ties.	Mar. 27	Apr. 1	276
294	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring.	Mar. 27	Mar. 24	594
107	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, General Applications.	Dec. 20	Dec. 19	940
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Mining, Quarrying, and Ice-Harvesting; Stationery; Stone-Working; Walls.	Apr. 3	Apr. 2	120
220	39. Joint Packings; Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Valved Pipe Joints or Couplings; Valves; Water Distribution.	Dec. 16	Dec. 6	661
273	40. Bagnage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Feb. 22	Mar. 24	363
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Feb. 3	Dec. 28	280
114	42. Electricity, Conductors; Electricity-Transmission to Vehicles; Electricity, Conductors; Electric Signaling.	Dec. 13	Dec. 26	685
383	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Beverage; Surgery; Water Purification.	Feb. 13	Mar. 14	95
282	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Boats; Ships.	Feb. 3	Mar. 7	127
379	45. Crutches; Lubrication; Motors; Railway Brakes.	Feb. 3	Mar. 7	267
Oldest new case, Sept. 21; oldest amended, Nov. 2.				14,340
Total number of applications awaiting action.				14,340
163	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.	Mar. 27	Apr. 17	1070
	Designs.	Mar. 12	Apr. 5	285
	Labels and Prints.	Apr. 12	Apr. 26	121

PATENTS

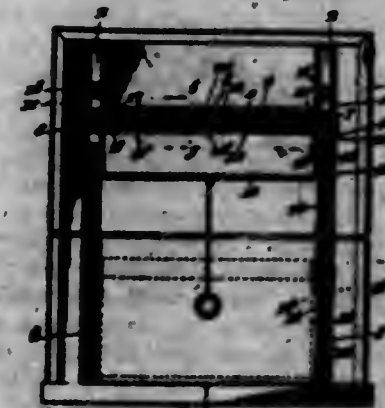
GRANTED MAY 6, 1919.

1,302,490. DRYING-CHAMBER. OSBORNE HEDLEY AB-
BOTT, London, England. Filed Nov. 21, 1918. Serial
No. 263,478. 5 Claims. (Cl. 34-39.)



1. In drying-apparatus the combination of, a drying-chamber, a number of superposed drying-compartments therein having spaced bottoms at one side of a vertical air-supply conduit common to them all and at the other side to a vertical exhaust-conduit common to them all, a series of baffles projecting approximately horizontally from the wall of the vertical air-supply conduit in line one with the bottom of each drying-compartment, the distance between the edges of the baffles and the one wall as well as the opposed edges of the drying-compartment floors being graded so that a narrower space as inlet is provided for each successive compartment from the bottom one upward, and heating-means for heating the air admitted to the air-supply conduit between the lower baffle and the lowest bottom.

1,302,491. ADJUSTABLE WINDOW-SHADE. WILLIAM
L. AMSTADEN, Coloma, Calif. Filed Nov. 23, 1917.
Serial No. 204,253. Renewed Oct. 2, 1918. Serial No.
256,628. 4 Claims. (Cl. 156-27.)



4. In combination with a window frame, notched tracks on said window frame, cog wheels running on said tracks, a roller supported by said cog wheels and movable vertically of the window frame, a shade wound about said roller, a dog having a tooth adapted to engage in the notches in one of said tracks to hold the shade roller in the adjusted vertical position, a loop carried by said dog, and an operating means movable with said cog wheels

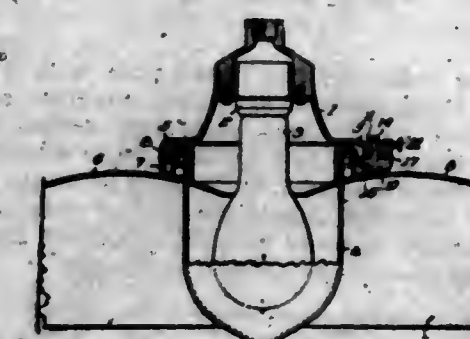
and shade roller and passing through said loop whereby to lift the dog to disengage its tooth from the notch track and to draw the shade roller down, substantially as described.

1,302,492. LIGHTING UNIT. ALBERT L. ARNBERG,
Chicago, Ill. Filed June 22, 1918. Serial No. 241,414.
4 Claims. (Cl. 240-92.)



1. A lighting unit having a lamp socket and a reflector shade held in definite relation to it, the shade having a crown conforming substantially to an ellipse with one focus at the point from which the light emanates, there being an annular flange depending from the rim of the crown, and passing approximately through the other focus of said ellipse whereby all the light rays which strike the crown are deflected to the flange.

1,302,493. SHADE-HOLDER. ALBERT L. ARNBERG, Chi-
cago, Ill. Filed Oct. 2, 1918. Serial No. 256,590. 4
Claims. (Cl. 240-115.)

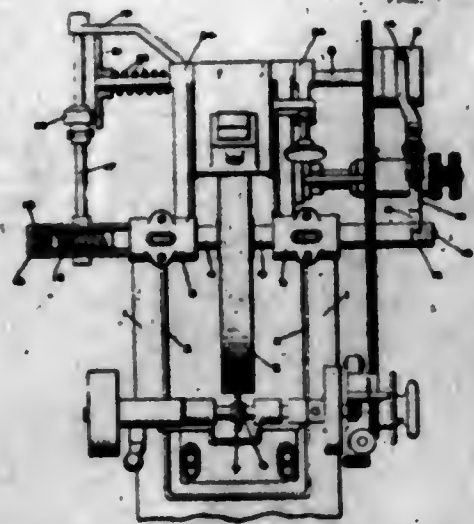


1. A shade holder having a catch adapted to swing toward and from the shade for engaging and disengaging it, and a bar pivoted to the shade holder and adapted to drop behind the catch for holding it in acting position.

1,302,494. EDGING-MACHINE. ARTHUR A. ARNOLD,
Southbridge, Mass., assignor to American Optical Com-
pany, Southbridge, Mass., a Voluntary Association of
Massachusetts. Filed Nov. 24, 1917. Serial No.
203,790. 2 Claims. (Cl. 74-26.)

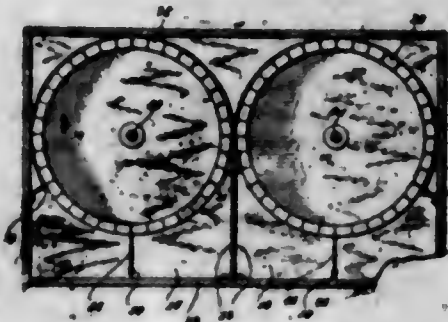
1. An edging machine including a drive shaft, a driven shaft, a disk on the driven shaft, a longitudinal shaft adjacent the ends of the above mentioned shafts, means connecting one end of the longitudinal shaft with the drive shaft, a friction pulley on the other end of the longitudinal shaft, a lever loosely connected with the pulley, an actuating lever connected with the first lever

and adapted to be manually operated for adjusting the friction pulley over the face of the disk whereby to drive



the driven shaft at different rates of speed, and means for retaining the actuating lever in various adjusted positions.

1,302,495. STREET-CAR INDICATOR. FRANKMACH ASCHMOTAT, Perth Amboy, N. J. Filed Aug. 6, 1918. Serial No. 248,516. 3 Claims. (Cl. 40-73.)



1. In a car indicator, the combination with a casing having two compartments, of drums rotatably mounted therein, ratchet wheels fixed upon said drums, a pawl engageable with both of said ratchet wheels whereby they are simultaneously operated, a plurality of sheets bearing designations, attached to said drums and adapted to be displayed through openings in said casing, and means for actuating said pawl from the ends of the car.

1,302,496. NON-SKID CHAIN. WILLIAM J. ASHUM, Newark, N. J. Filed Feb. 27, 1918. Serial No. 219,427. 9 Claims. (Cl. 152-14.)



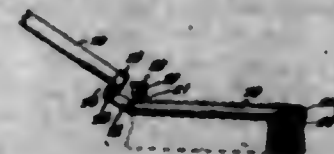
1. An anti-skid device for tires including a bar bent into a substantially U-shaped member adapted to straddle the wheel felly formed with a spoke receiving offset at its middle part and means at each end to engage in a link of a chain, a chain removably carried by said means, said bar having means integral therewith for holding the same with a spoke in said offset.

1,302,497. METHOD OF ROLLING FLANGED SECTIONS. GEORGE H. BARBOUR, Pittsburgh, Pa. Continuation in part of applications Serial No. 527,818, filed Nov. 13, 1909, and Serial No. 772,092, filed June 6, 1913. This application filed Mar. 20, 1916. Serial No. 85,367. 4 Claims. (Cl. 80-66.)



2. In the art of making flanged shapes, the method which consists in providing a blank having a web and flanges at opposite sides of its web, and subjecting said blank to a series of reducing operations in which substantially the exact concave contours are transposed in successive operations and the opposite flanges of the blank are alternately reduced in thickness without varying the height of the web between the flanges by said reducing operations, substantially as described.

1,302,498. SELF-OILING MOP. ORA M. BARRON, Scottsbluff, Nebr. Filed June 20, 1918. Serial No. 241,016. 3 Claims. (Cl. 15-51.)



1. In a device of the class described, the combination of an outer ring, an inner ring movably mounted within the outer ring, said rings having openings formed there-through, means for shifting the rings for permitting the openings to move into or out of registry, means for supplying said inner ring with liquid, and a mopping element carried by the outer ring.

1,302,499. REMOVABLE DENTURE. EMMETT C. BOWMAN, New York, N. Y. Filed Mar. 20, 1919. Serial No. 283,762. 7 Claims. (Cl. 32-12.)

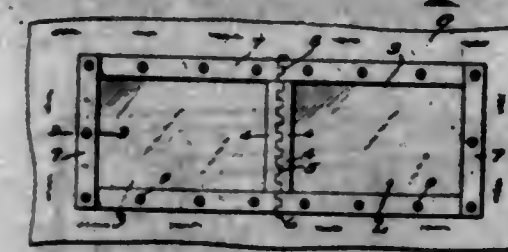


1. A denture comprising two separated stationary teeth, a blade secured to one tooth and extending toward the other tooth but entirely free thereof, one tooth being inclined relatively to the other in combination with a removable bridge shaped to embrace the sides of the rear tooth and to fit under the overhanging edge of the inclined tooth and provided with a sheath for the blade, one of said two latter mentioned parts being resilient so as to afford a yielding connection.

1,302,500. CURTAIN-LIGHT. CHARLES J. U. BLOWERS, Bridgewater, S. D. Filed June 12, 1918. Serial No. 230,500. 2 Claims. (Cl. 21-230.)

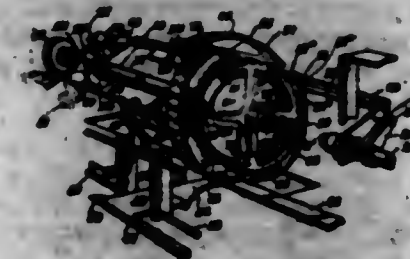
1. In combination with a vehicle curtain having an opening there-through, a light adapted to overlie the opening of the curtain, said light comprising a plurality of

separable panels, strips engaged with adjacent marginal portions of the panels, said strips being provided with



interlocking knuckles, a pintle disposed through said knuckles, and means for holding the light in applied position over the opening in the curtain.

1,302,501. CALCULATING-MACHINE. AUGUSTUS BONTEMPI, Cortesville, N. J., assignor to The Bontemp Arithmetic Corporation, New York, N. Y., a Corporation of New York. Filed Mar. 11, 1914. Serial No. 523,908. Renewed Feb. 7, 1916. Serial No. 76,796. 92 Claims. (Cl. 235-82.)



1. In a calculating machine, a series of slide-bars adapted by sliding movement to actuate the calculating mechanism, a series of key levers attached thereto, and said slide-bars being adapted to receive on their tops and be actuated by the number keys of a typewriting machine, substantially as set forth.

4. A rotary member provided with two adjacent working faces set at different angles, means for rotating said rotary member by contact with one of said rotary faces and holding the same against further rotation, and means for moving said rotary member lengthwise to bring the second working face opposite the first named means, substantially as set forth.

14. In combination, a sector provided with indicating numerals on its outer face and comprising a radial arm, a slide movable radially on said arm and provided with a projecting nose on one side, and with a pawl on the other side of said arm, substantially as set forth.

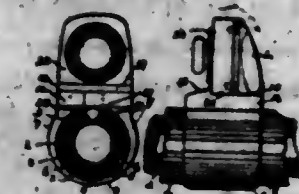
29. In a calculating machine, a shaft, a plurality of sectors mounted to oscillate thereon, means secured to said shaft for controlling the movement of said sectors, a movable window over said sectors, and means whereby rotation of said shaft also serves to impart longitudinal movement to said window, substantially as set forth.

50. The combination with a series of co-axial wheels occupying different denominational positions, of a series of indicating sectors operated from said wheels, and means borne by said sectors for carrying from one denominational wheel to the wheel of next higher order, substantially as set forth.

1,302,502. AUTOMOBILE-LOCK. FLETCHER O. BOWELL, Philadelphia, Pa. Filed Feb. 18, 1918. Serial No. 217,971. 6 Claims. (Cl. 70-90.)

1. In combination a vehicle steering post provided with a keeper cavity, a casing surrounding said post, said casing having an opening therein with which the keeper cavity is adapted to align, a clamp comprising two hinged members, a semicircular lug at the free meeting edge of each member having threads on its arcuate portion, said

legs having channels therein, said channels aligning with the opening in the casing, a lock support having threaded engagement with the semicircular lugs for holding the



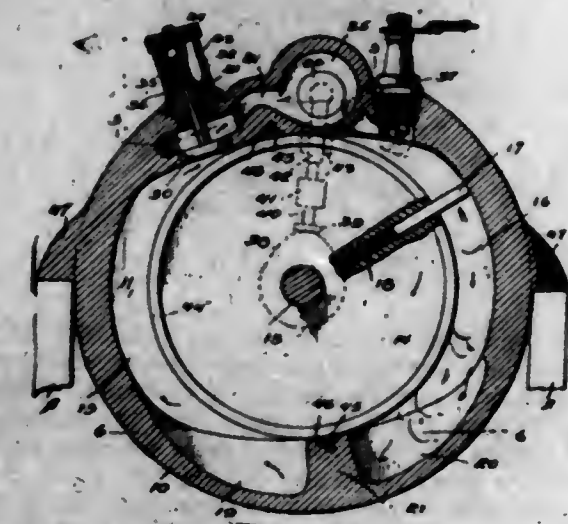
clamp closed and a combination lock carried by the lock support, the bolt of said lock registering with the channels, the opening in the casing and the keeper cavity in the steering post for locking the latter.

1,302,503. RAIL-ANCHOR. THOMAS B. BOWMAN, New York, N. Y., assignor to Anchor Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 2, 1917. Serial No. 194,359. 8 Claims. (Cl. 238-330.)



6. A rail anchor comprising a pair of jaws adapted when tilted in a vertical plane to increasingly grip the rail base, a depending leg for abutting a tie to tilt the jaws in a vertical plane, a pin passing through the web of the rail to form a pivot about which the jaws tilt, and a retaining member diagonally disposed below the rail base and engaging an edge thereof to relieve said pin from the lateral forces set up by the creeping thrust.

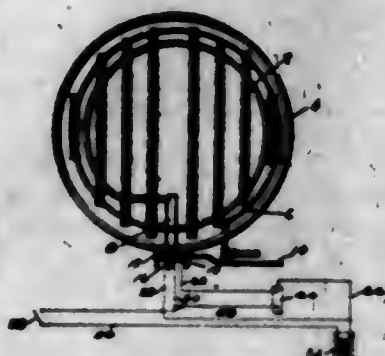
1,302,504. ROTARY INTERNAL-COMBUSTION ENGINE. ARTHUR M. BRIGGS, Redondo Beach, Calif. Filed June 11, 1917. Serial No. 174,093. 1 Claim. (Cl. 128-16.)



In a rotary internal-combustion engine the combination of a casing provided with a substantially elliptical opening therein, a circular rotor arranged concentrically in the casing and contacting therewith on the minor axis of the opening and forming a compression intake chamber at one side of the rotor and a combustion chamber at the other side, a passage way formed in said casing and communicating with said compression chamber, a spring controlled normally closed valve controlling the passage of fuel under pressure into said passage way, a

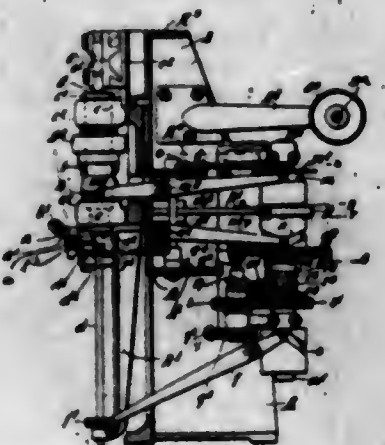
second passage way formed in the casing and having communication with the combustion chamber, said first and second passage ways separated by a wall, a valve in said wall for controlling the passage of fuel from the combustion chamber to the combustion chamber.

1,302,505. APPARATUS FOR UTILIZING LIQUID FUELS. CHARLES E. BROAD, Newton, Mass., assignor to Stanley Motor Carriage Company, Newton, Mass., a Corporation of Delaware. Filed Sept. 1, 1917. Serial No. 189,373. 9 Claims. (Cl. 158-31.)



1. A vapor generating apparatus, having, in combination, a supply pipe for liquid fuel, an apparatus to which said pipe delivers fuel, and an electric circuit including the portion of said pipe adjacent to its delivery end, whereby the flow of electricity through said pipe will heat the fuel therein sufficiently to vaporize it and thereby supply vaporized fuel to said apparatus, the portion of said pipe immediately behind its delivery end being of a greater electrical resistance than the other portions of the pipe in said circuit.

1,302,506. GRINDING-MACHINE. LOUIS NAELER BAUNER, Zurich, Switzerland. Filed Nov. 8, 1916. Serial No. 130,282. 4 Claims. (Cl. 51-3.)

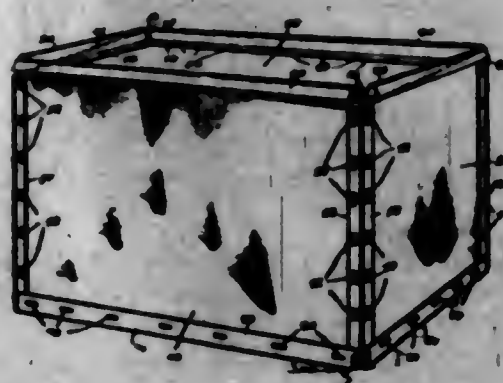


1. In a machine for grinding glass articles and for analogous purposes, the combination of a revolving chuck, a hollow spindle therefor, means for inserting the articles one by one axially into said chuck from the opposite end of said spindle, and for removing them after the grinding, a non-rotary grinding tool, cam-controlled means for applying said tool to the work and for removing it therefrom, and a single spindle which carries all of the cams for operating the different parts of the machine, substantially as described.

1,302,507. BOX. ELISHA JAMES CADY, Chicago, Ill. Filed Mar. 17, 1917. Serial No. 155,394. 2 Claims. (Cl. 229-43.)

1. A box structure comprising a body-unit formed of panels of paperboard and flexible corner-pieces, and closure-units comprising plane-surfaced inset lids provided at their edges with metallic closing strips each of which is

composed of a wing secured to an edge of its associated lid and outwardly bent to provide a vertical trough which is flared to nest with other troughs when the parts are packed and to embrace the associated edge of a panel and



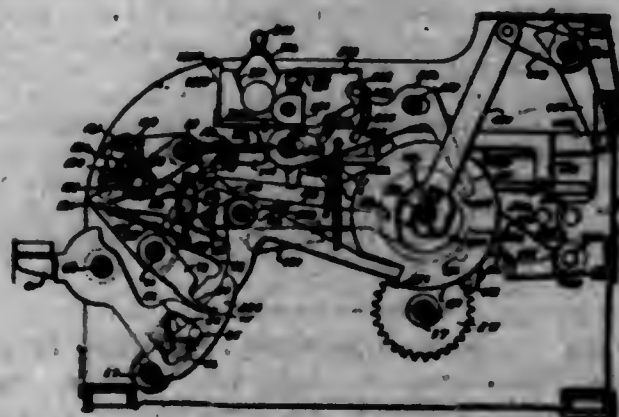
is compressible to contain the edge when the lid is assembled on the body-unit erected in box-like form, and clasher fasteners passing through both walls of the trough and the contained panel-edge.

1,302,508. AEROPLANE. FEDERICO CARONI, Milan, Italy. Filed Mar. 26, 1918. Serial No. 224,867. 2 Claims. (Cl. 244-2.)



1. The combination with an aeroplane, of a framework located on each side of the center of gravity of the aeroplane and each including a longitudinally extending bow, a plurality of axles located beneath each bow and secured intermediate their ends to the bow by means of elastic bands, the axles of each framework being located to the front and rear of the center of gravity of the aeroplane, wheels mounted on said axles, rocking beams secured to the frameworks by universal joints, the rods pivotally connected to said beams and to each of said axles.

1,302,509. CASH-REGISTER. THOMAS CARROLL, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio. Filed June 12, 1916. Serial No. 103,100. 23 Claims. (Cl. 235-9.)



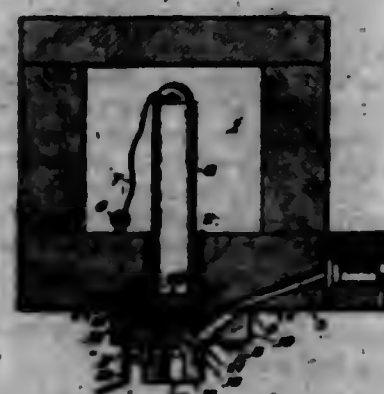
1. In a machine of the ten key class, the combination with a key for each of the ten digits, of a plurality of pairs of members having differential relative movements, and means whereby the keys control said movements.

1,302,510. RETAINING MEMBER FOR EDGE-SETTING TOOLS. JAMES CAVANAGH, Boston, Mass., assignor, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 20, 1915. Serial No. 51,697. 8 Claims. (Cl. 12-104.)



2. A retainer for an edge setting tool formed of a single piece of metal having a portion constructed and arranged for engagement with the neck of the edge setting tool, and a portion having no sudden changes in cross-sectional area extending from said engaging portion for attachment to the tool carrier, and a screw clamp for attaching the retainer to the tool carrier.

1,302,511. ELECTROPNEUMATIC ORGAN-VALVE. GEORGE H. CHAPMAN, Chicago, Ill. Filed June 28, 1918. Serial No. 242,940. 6 Claims. (Cl. 84-95.)



1. An electropneumatic organ valve, comprising a one-piece valve-casing block adapted to be attached to the outer surface of a wall of the action box and having a transverse bore forming the side walls of a valve chamber and a lateral air duct leading from said valve chamber to the face of the block which lies against said action box, a metal insert mounted in the same face of the block and formed with an inlet duct to said valve chamber, an electro-magnet having its core mounted in said metal insert, a removable plug secured in the opposite face of said valve-casing block and formed with an outlet duct, and a valve in said valve chamber operated by said magnet to control said inlet and outlet ducts.

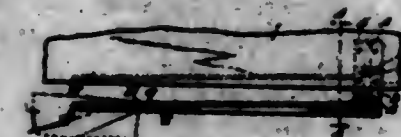
1,302,512. GUN-WAD FELT AND PROCESS OF MAKING. ALBERT L. CLAPP, Braintree, Mass., assignor to The Metalite Company, Amesbury, Mass., a Corporation of Delaware. Filed May 27, 1918. Serial No. 30,764. Renewed Apr. 1, 1916. Serial No. 68,393. 3 Claims. (Cl. 92-39.)

1. As an improved article of manufacture, a gun-wad felt consisting in the mixture of a quantity of hair treated with a small percentage of caustic soda, a proportion of wood pulp from 20% to 40% in quantity of the prepared hair, separately treated with a small percentage of caustic soda, and both quantities mixed throughout with binding and adhesive agent, and molded into sheets.

1,302,513. WHITE LEATHER-BOARD AND PROCESS OF MAKING SAME. ALBERT L. CLAPP, Marblehead, Mass., assignor to The Metalite Company, Amesbury, Mass., a Corporation of Delaware. Filed Apr. 27, 1916. Serial No. 94,080. 15 Claims. (Cl. 92-3.)

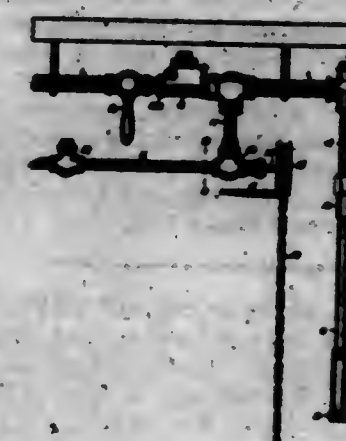
1. As an article of manufacture, white leatherboard comprising a proportion of asbestos fiber.

1,302,514. ENVELOP-OPENER. THOMAS F. CONNOR, Decorah, Iowa. Filed Apr. 2, 1916. Serial No. 88,787. 1 Claim. (Cl. 120-35.)



In an envelop opener for desk tops and in combination, a base plate and means for attaching the same to the underside of the projecting edge of a desk, a cooperating member having a slot therein closed at the ends provided with a cutting blade having the inner edge sharpened and its free end beveled, and adjustable means extending through said slot for slidably securing and locking said cooperating member on said plate and limiting its sliding movement, whereby the plate may be positioned beneath the desk top or drawn therefrom with its cutting edge substantially parallel to the desk edge but spaced therefrom, said base plate provided with a flange at one side arranged to engage with said cooperating member at the end opposite the cutting blade and prevent turning movement of the cooperating member on said adjustable securing and locking means when in operation.

1,302,515. METHOD AND APPARATUS FOR HUMIDIFYING AIR. GEORGE W. D'ANCI, Boston, Mass. Filed June 29, 1917. Serial No. 177,734. 3 Claims. (Cl. 137-80.)

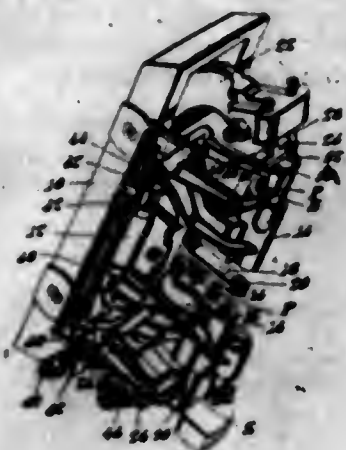


2. Humidifying apparatus comprising in combination a liquid churning chamber, an admission nozzle leading thereto, a discharge nozzle leading from approximately the center of the chamber, a liquid admission opening in the chamber wall in a plane between the admission and discharge nozzles, so positioned that the liquid admitted to the chamber will pass between the admission and discharge nozzle ends.

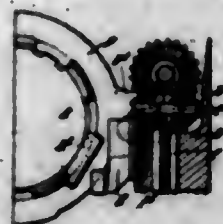
1,302,516. FASTENER-INSERTING MACHINE. JOHN F. DAVY, Beverly, Mass., assignor, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 24, 1917. Serial No. 198,237. 3 Claims. (Cl. 218-15.)

1. In a fastener inserting machine, a tool, a frame constructed and arranged to support said tool for movement

toward and away from the work to be operated upon, means for moving said tool toward the work, and means arranged to retract said tool from the work, one of said means having a connection to the tool constructed and arranged to overhang the edge of the supporting frame.

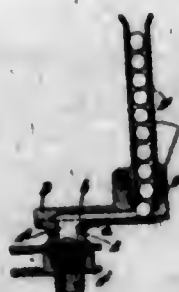


1,302,517. BREECH MECHANISM OF ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed Apr. 13, 1915. Serial No. 21,119. 5 Claims. (Cl. 89-20.)



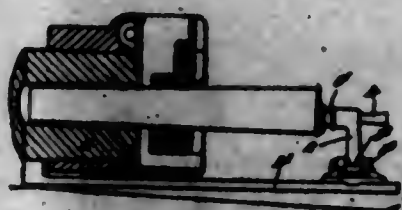
1. In breech mechanism for ordnance, the combination with the carrier axis pin or hinge bolt, of two pinions thereon, a crank, driven from one of said pinions, for unlocking the breech screw, and a second crank, driven from the other of said pinions, for withdrawing said breech screw, said second crank being arranged to rotate in a vertical plane substantially parallel to a vertical plane containing the axis of the gun and between the said axis and the axis of the said pin or bolt.

1,302,518. LOCK MECHANISM OF BREECH-LOADING GUNS. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed Apr. 13, 1915. Serial No. 21,120. 5 Claims. (Cl. 89-27.)



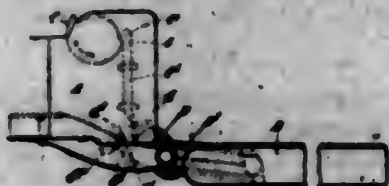
1. In the lock mechanism of ordnance, the combination with the rectilinearly and laterally moving lock frame and the bolt sleeve carried thereby, of a stationary primer magazine so positioned that its outlet opening is situated at one side of the bolt sleeve when the lock frame is in its fully open position.

1,302,519. ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed Apr. 13, 1915. Serial No. 21,123. 5 Claims. (Cl. 89-4.)



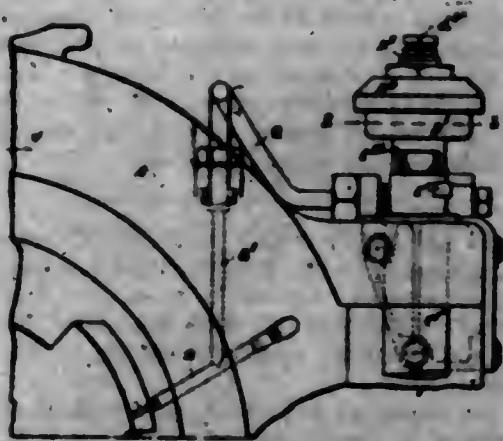
1. The combination with a breech loading gun, of means for preventing the used cartridge case from becoming completely ejected from the breech chamber during the opening of the breech, the cartridge case remaining partly within the breech chamber when the gun reaches its run-out position, and having to be removed by hand from this chamber.

1,302,520. BREECH-LOADING ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed Apr. 13, 1915. Serial No. 21,124. 4 Claims. (Cl. 89-24.)



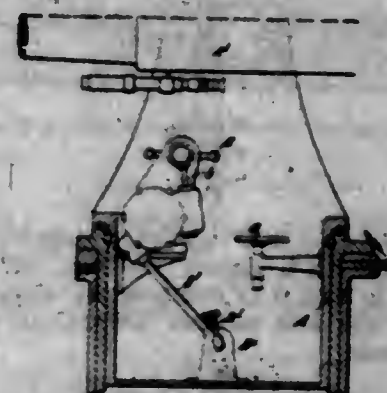
1. In breech-loading ordnance of the sliding-block type, the combination with the breech-actuating mechanism and a movable loading tray, of locking mechanism interposed between said tray and the breech-actuating mechanism and comprising a member adapted to be moved longitudinally during the final locking movement of the breech-actuating mechanism, and means comprising a member whose position is shifted by movement of the tray to lock said member against longitudinal movement when the tray is displaced into the path of recoil of the gun, and hence prevent the breech-actuating mechanism from performing its final locking movement.

1,302,521. AIR-BLAST GEAR OF BREECH-LOADING ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed Apr. 15, 1915. Serial No. 21,621. 12 Claims. (Cl. 89-1.)



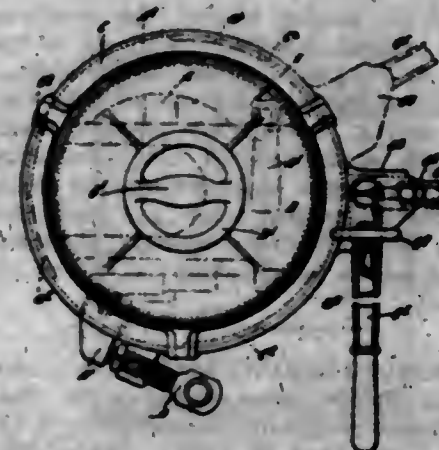
1. In air blast gear for ordnance, the combination with the control valve thereof, of means for opening said valve and means for automatically retarding its closing movement.

1,302,522. GUN-MOUNTING. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed Apr. 15, 1915. Serial No. 21,622. 8 Claims. (Cl. 89-41.)



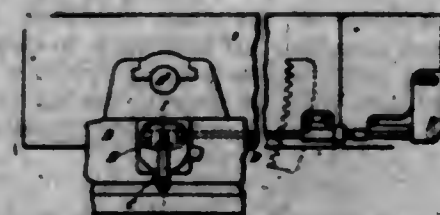
1. In a gun mounting, the combination with the elevating gear, of a hand operated device for actuating said gear and a foot-operated device for actuating said gear, said devices being operable by the same gunner and the foot operated device being auxiliary to the hand operated device.

1,302,523. BREECH-LOADING ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed Apr. 15, 1915. Serial No. 21,623. 6 Claims. (Cl. 89-1.)



1. In breech loading ordnance, the combination of a single rigid cover for inclosing the whole of the breech mechanism and the firing mechanism and means for detachably connecting said cover in a watertight manner on the breech end of the gun.

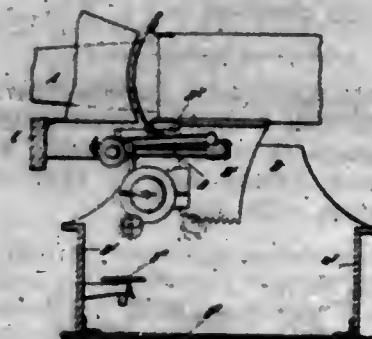
1,302,524. PERCUSSIVE FIRING MECHANISM OF ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed Apr. 16, 1915. Serial No. 21,983. 6 Claims. (Cl. 89-27.)



1. In percussive firing mechanism for ordnance, the combination with the manually operated firing device arranged on the gun carriage in a position which is some

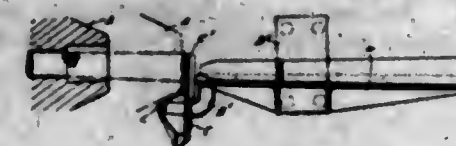
distance removed from the gun trunnions, of a rotary firing shaft carried by the gun cradle, a longitudinally pivoted member for transmitting movement thereto, and a member operated by said firing device, said members being in loose contact with one another at all angles of elevation of the gun notwithstanding the movement taking place between said members during the elevation of the gun.

1,302,525. GUN-MOUNTING. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Original application filed Nov. 12, 1914, Serial No. 871,876. Divided and this application filed May 15, 1915. Serial No. 28,489. 3 Claims. (Cl. 89-37.)



1. In a gun mounting, the combination with the carriage having downwardly extending side cheeks and the sighting apparatus, of means for arranging the whole of the sighting apparatus at the front part of the cradle and beneath the level of the gun trunnions, the eye piece of the sight being situated between the said side cheeks between which the sighting number is situated.

1,302,526. LOADING APPARATUS FOR ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed May 15, 1915. Serial No. 28,490. 6 Claims. (Cl. 89-45.)

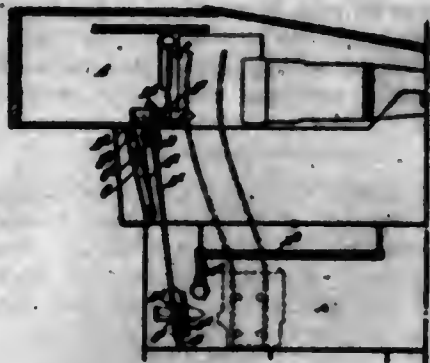


1. In ammunition loading apparatus for ordnance, the combination of a projectile tray arranged some distance behind the breech end of the gun and a pivoted guide member for bridging the gap between the tray and the breech end of the gun, said guide member normally occupying a position across the forward end of the tray and being rocked about its pivot to assume its guiding position by the nose of the projectile when the latter is being moved into the gun.

1,302,527. AMMUNITION-HOISTING APPARATUS. ARTHUR TREVOR DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, London, England. Filed May 15, 1915. Serial No. 28,492. 3 Claims. (Cl. 89-46.)

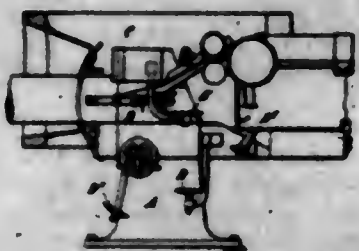
1. In ammunition hoisting apparatus, the combination with the gun loading cage, of an auxiliary projectile cage additional to the usual gun loading cage, for raising projectiles independently of said gun loading cage, a transversely pivoted tray forming part of said auxiliary cage normally occupying a horizontal position and

being capable of being moved to an approximately vertical position for the ascent and descent of the cage, and



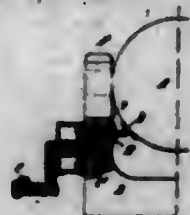
single means for locking said tray to the auxiliary cage in either of its said positions.

1,302,528. GUN-MOUNTING. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed July 7, 1915. Serial No. 38,690. 6 Claims. (Cl. 89-37.)



1. In a shielded gun mounting, the combination with the carriage cheeks, of a seat for the sight setting member arranged contiguous to one of the gun trunnions and between one of the cheeks and the shield.

1,302,529. PERCUSSIVE FIRING MECHANISM OF ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Original application filed Apr. 16, 1915, Serial No. 21,932. Divided and this application filed July 14, 1915. Serial No. 39,924. 2 Claims. (Cl. 89-27.)



1. In a percussive firing mechanism for ordnance, the combination with the manually operated firing device arranged on the gun carriage in a position which is some distance removed from the gun trunnions, of a rotary firing shaft, a member interposed between said firing device and the rotary firing shaft and having an operating surface concentric with the gun trunnions, and means for pivotally supporting said member longitudinally with respect to the gun.

1,302,530. HANG-FIRE DEVICE FOR BREACH-LOADING ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed Nov. 24, 1915. Serial No. 62,286. 8 Claims. (Cl. 89-27.)

1. In a hang fire arrangement for ordnance the combination with the breech actuating hand lever, the hang

fire catch carried by the gun and adapted to engage with the hand lever, and the relatively stationary member for displacing said catch during the run out movement of the gun after recoil, of a device operating upon said



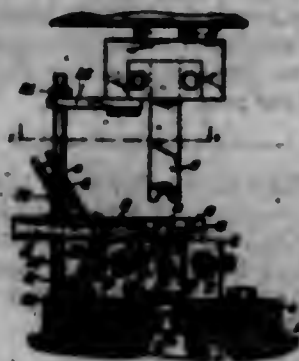
catch and operated by the relatively stationary member to disengage the catch during the run out movement of the gun and to hold it in this position when the device moves clear of the said member toward the end of the run out movement.

1,302,531. CRANBERRY-HARVESTER. PHILLIP W. DILLEY, Seaview, Wash. Filed Nov. 9, 1915, Serial No. 60,578. Renewed Oct. 23, 1918. Serial No. 289,454. 1 Claim. (Cl. 56-89.)



In a device for picking berries, the combination with a casing, of a hood mounted interiorly of the casing and having its bottom inclined downwardly, the forward edge of said bottom being spaced from the adjacent wall of the casing, a vertically disposed flexible sheet arranged in the space between the lower edge of said bottom and the adjacent wall, downwardly inclined strips mounted in the casing and below the hood, said flexible sheet serving to retard the movement of berries leaving the hood, and means for drawing, by suction, the berries into said hood.

1,302,532. END-TRIMMING MACHINE. AUGUSTUS F. DONALDSON, Toledo, Ohio, assignor to The Bunting Brass & Bronze Company, Toledo, Ohio, a Corporation of Ohio. Filed June 26, 1917. Serial No. 177,000. 6 Claims. (Cl. 164-47.)



1. In a machine of the class described, two transversely spaced dies, each die forming a V-shaped opening having cutting walls, and means for forcing a work piece between said dies with its ends projecting in the openings thereof to effect a simultaneous trimming of such ends.

1,302,533. FREIGHT-CAR. FRANK M. POOTE, Arcata, N. Y. Filed May 26, 1917. Serial No. 171,145. 12 Claims. (Cl. 105-451.)

1. The combination with a hopper bottom car, of a removable heating device comprising a steam pipe having

a long member, a short member and an inclined member connecting said long and short members, said long mem-



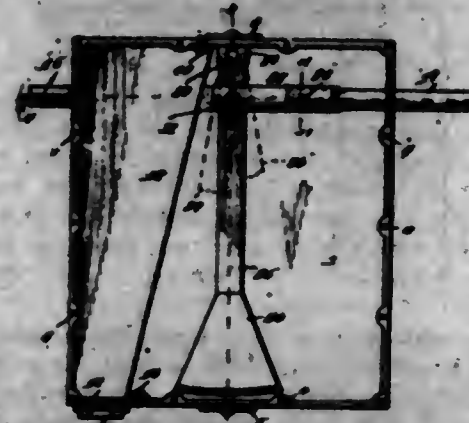
bers and said inclined members having steam escape openings therein.

1,302,534. CARBURETOR ATTACHMENT. HILSON FRANKLINSON, Chicago, Ill., assignor of one-half to Carl Bloomberg, Chicago, Ill. Filed Apr. 23, 1917. Serial No. 163,820. 3 Claims. (Cl. 251-10.)



1. The combination with a cylinder, of an obliquely arranged flange formed therefrom, a gate valve pivoted adjacent to said flange, and lips projecting beyond said gate valve created by triangularly bifurcating said cylinder.

1,302,535. APPARATUS FOR CONTROLLING THE FLOW OF LUBRICATING OIL IN MOTORS OF MOTOR-VEHICLES. ERST GILBERT GASTIN, Fellows, Calif. Filed May 23, 1918. Serial No. 236,236. 5 Claims. (Cl. 184-11.)



4. In an apparatus of the class described, the combination with a controller casing provided with inlet and outlet pipes, of a valve device in said controller casing comprising a weighted pendulum, a pipe pivotally connected to said pendulum and slidably mounted upon the inner end of said discharge pipe, and said discharge pipe and slidably mounted pipe of the pendulum both provided with apertures adapted to register for permitting a lubricant to flow through said apertures and into said discharge pipe.

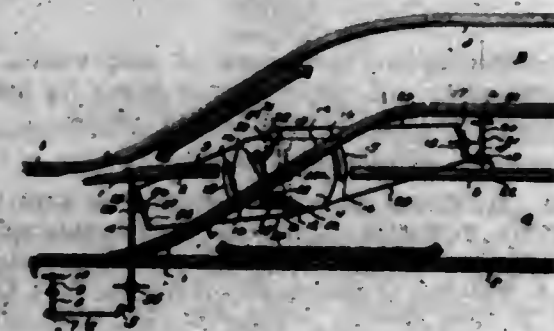
1,302,536. CHAIR-SEAT. JOSEPH GOLDBERG, Brooklyn, N. Y. Filed Apr. 12, 1918. Serial No. 228,530. 2 Claims. (Cl. 155-25.)



2. A chair seat frame for cushion seats comprising a frame member having side pieces and end pieces joined

together to inclose an opening therebetween, a resilient bottom comprising a plurality of links and perforated plates for interconnecting said links, perforated anchor plates bridging the joints of said frame member, and helical springs held in the perforations in said anchor plates and the end plates of the bottom to yieldingly stretch the latter across said opening.

1,302,537. SWITCHING MEANS. WILHELM F. K. GOSZKOWSKI, La-Salle, Ill. Filed Apr. 30, 1918. Serial No. 281,717. 7 Claims. (Cl. 246-274.)



1. In a switch, the combination with crossing rails broken at their intersection, a frog plate mounted at such point, an operating beam underlying this plate and having its shaft extending upwardly through the same, a movable rail section carried by the upper end of said shaft, and means for swinging said beam; of two triangular locking blocks pivoted upon said plate at opposite sides of said rail section, the plate having arcuate slots around their pivots, and links connected with the ends of said beam and projecting through said slots for swinging the blocks alternately to project their tips toward said rail section, for the purpose set forth.

1,302,538. BALL-COCK, OTHERWISE KNOWN AS FLOAT-VALVE. DAVID E. GULICK, San Francisco, Calif. Filed Jan. 28, 1918. Serial No. 214,170. 5 Claims. (Cl. 137-104.)

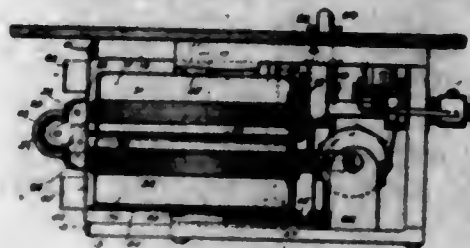


1. A float operated supply valve comprising a casing, movable means for dividing said casing into two chambers, one of said chambers having an inlet port, a main valve attached to said movable means and controlling the main discharge outlet, a waterway joining the aforementioned two chambers, a bypass joining the discharge outlet with said waterway, a float operated initiating valve controlling the opening and closing of said bypass, a stem attached to the initiating valve and within said waterway and moving with initiating valve thus keeping the said waterway free of obstructions.

1,302,539. INDICATOR MECHANISM FOR SPRING-MOTORS. ARTHUR V. GOLDBERG, Chicago, Ill. Filed Jan. 19, 1918. Serial No. 212,578. 5 Claims. (Cl. 168-44.)

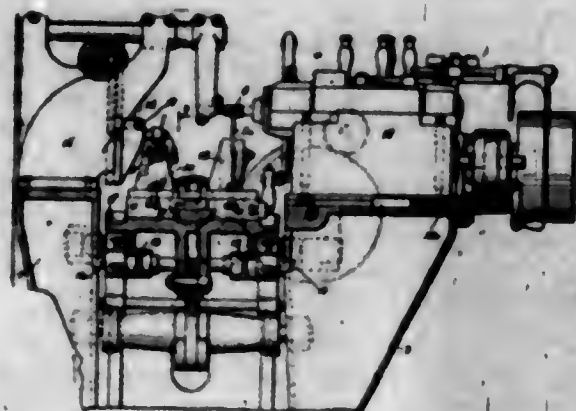
5. A spring motor comprising a spring driving means, means for winding said spring, a worm driven by said

winding means, means driven by said spring driving means, a worm driven by said last named means, means



for differentiating the movements of said worms, and means actuated by said differentiating means for indicating the difference in movements of said worms.

1,302,540. METHOD OF AND APPARATUS FOR GENERATING FORMERS FOR MILLING-MACHINES. BENOR M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 15, 1917. Serial No. 186,299. 3 Claims. (Cl. 90-13.)

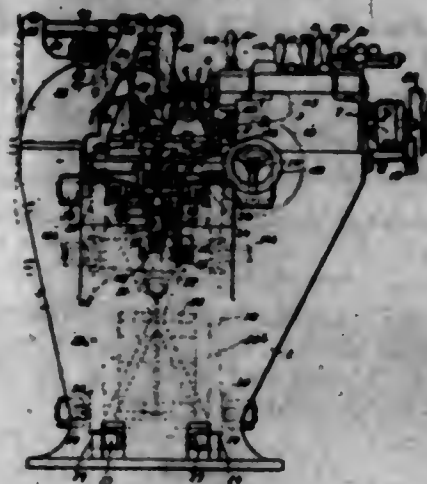


1. The herein-described method of generating a former for a milling machine having a rotatable operating cutter, a horizontally movable blank carrying table and a former and a former pin for controlling relative vertical movements between the table and the cutter, whereby the machine is adapted to cut spaced longitudinal grooves in a blank of varying diameter and to vary the depth of cut so as to leave a land of uniform width between each two adjacent grooves, the method consisting in substituting a temporary former pin having the size and shape of the normal operating cutter, substituting a temporary cutter having the size and shape of the normal former pin, securing a former blank to the table in operative relation to the temporary cutter, locating in engagement with the temporary former pin a temporary former positioned at an angle corresponding to the desired angle between the grooves to be cut and having the contour of the blank to be grooved, and then operating the machine to mill the former blank while maintaining the temporary former and the temporary former pin in engagement with each other.

1,302,541. CONTOUR-CUTTER MILLING-MACHINE. BENOR M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 15, 1917. Serial No. 186,298. 25 Claims. (Cl. 90-12.)

1. In a milling machine, the combination of a rotatable horizontal cutter-carrying spindle, a table longitudinally movable at an angle to the spindle, longitudinally arranged means on the table for holding a blank in operative relation to a cutter on the spindle, guiding means permitting relative vertical movements in parallelism between the cutter and the table, and a former and a

former pin arranged to engage each other one being associated with the table and the other with the cutter



spindle, whereby relative vertical movements to control the depth of cut may be effected simultaneously with the horizontal movements of the table.

1,302,542. COMBINED TABLE AND ROBE-RAIL FOR AUTOMOBILES. JOHN R. HARDMAN, Columbus, Ohio. Filed Oct. 24, 1918. Serial No. 239,515. 3 Claims. (Cl. 45-51.)



1. In combination with a table and hinging members therefor, the latter comprising a part for a fixed object with a double lug and a part for the table including two teeth, one of said teeth adapted to engage one of said lugs to hold the table in elevated position and the other tooth adapted to engage the other lug to hold the table in lowered position.

1,302,543. METHOD OF SOIL CULTIVATION. MILLER H. HART, Pittsburgh, Pa. Filed Aug. 12, 1918. Serial No. 249,482. 3 Claims. (Cl. 47-36.)



1. The herein described method of soil cultivation, which consists in breaking the soil and then cultivating it to form it into a series of substantially parallel ridges, allowing the soil to dry while in this ridged condition, and then splitting the original ridges and forming new ridges the centers of which occupy approximately the positions occupied by the bottoms of the furrows between the original ridges; substantially as described.

1,302,544. ADJUSTABLE INTERLOCKING CLAMP. HEMMAN L. HARTSHORN, Denver, Colo. Filed Sept. 28, 1917. Serial No. 193,608. 7 Claims. (Cl. 248-32.)

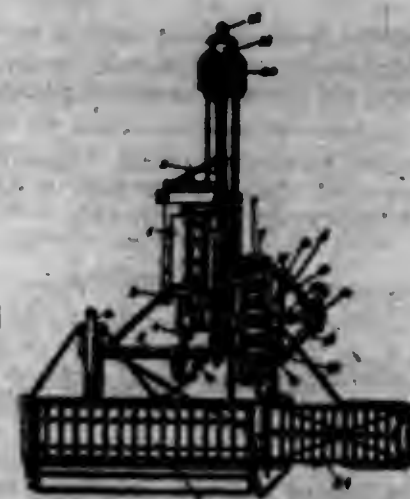
1. In a device of the class described, a clamp unit, comprising a body portion and a beam-engaging end por-

tion, said body portion comprising spaced side walls, and upper and lower angularly projecting portions, one of



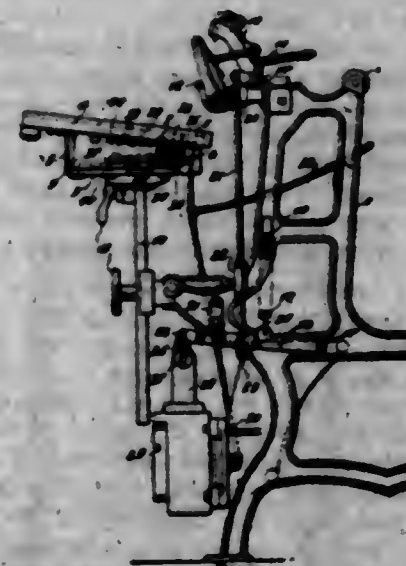
said angularly projecting portions being offset with respect to its side wall to permit intimate sliding relation of a coacting clamp unit.

1,302,545. MOTOR-VEHICLE. MATTHIAS P. HAUFF, Spokane, Wash. Filed Aug. 18, 1917. Serial No. 185,935. 3 Claims. (Cl. 180-9.)



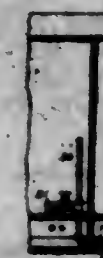
1. The combination with a tractor as described and with its main frame, of an extension frame, a pivoted arm on the extension frame and an auxiliary wheel on the arm, and an extensible bracket pivoted on the frame at one end and to said arm at the other end, whereby the arm may be adjusted and held in adjusted position by said bracket.

1,302,546. BOX-COVERING MACHINE. EDGAR M. HAWKINS, Rochester, N. Y., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed July 19, 1917. Serial No. 181,510. 11 Claims. (Cl. 164-43.)



1. In a box covering machine, the combination with a movable knife, of a movable work table, and electrically operated means controlled by the movement of the table for controlling the movement of the knife.

1,302,547. PIPING SYSTEM FOR CONCRETE SHIPS AND TANKERS. EVELYN LEE HENDERSON, Kansas City, Mo. Filed Aug. 29, 1918. Serial No. 261,879. 18 Claims. (Cl. 114-126.)



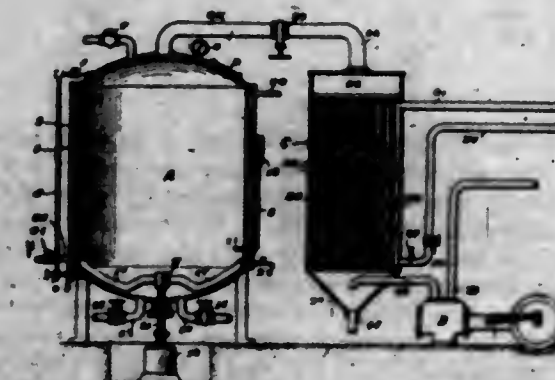
1. In a concrete vessel a plurality of liquid containing compartments, a plurality of pipes embedded in the concrete, each of said pipes entering a compartment.

1,302,548. OPHTHALMIC MOUNTING. PERRY H. HENNING, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Aug. 1, 1917. Serial No. 182,960. 3 Claims. (Cl. 20-182.)



1. The process of forming a reinforced spectacle bridge, consisting in centrally and terminally reducing a blank to provide intermediate enlargements thereon and forming the bridge to prevent the enlargements at the points subject to greatest wear.

1,302,549. PROCESS FOR BREWING BEER. HERMAN HUSMAN, Chicago, Ill. Filed Aug. 2, 1918. Serial No. 48,067. 7 Claims. (Cl. 195-20.)



6. In the manufacture of alcohol-reduced beer, the process which consists in simultaneously boiling and fermenting the wort in a vacuum and at yeast fermentation temperature to preserve live yeast in the beverage, stopping the combined fermentation and boiling of the wort when it contains a predetermined amount of fermentable elements, and then completing the fermentation of the wort at atmospheric pressure.

1,302,550. MANUFACTURE OF NON-INTOXICATING HOPPED BEVERAGES. HERMAN HUSMAN, Chicago, Ill. Filed July 8, 1918. Serial No. 248,951. 6 Claims. (Cl. 195-1.)

6. In the manufacture of non-intoxicating hopped beverages, the process which consists in reducing the alcohol content of beer or fermented wort, rectifying this body of liquid to its original volume, cooling the liquid, adding hops to the cooled liquid, hopping a dextrin-rich solution at a temperature below boiling, cooling the hopped solution, and adding the solution to the liquid.

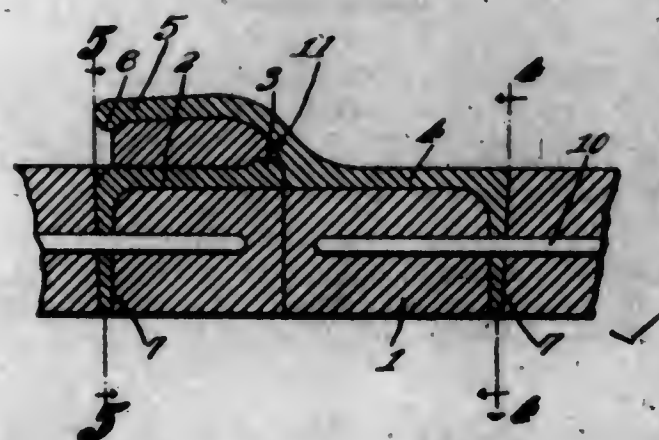
1,302,551. MANUFACTURE OF ALCOHOL-REDUCED BEER. HERMAN HUBBARD, Chicago, Ill. Filed Nov. 4, 1918. Serial No. 280,952. 3 Claims. (Cl. 196-1.)

2. In the manufacture of alcohol-reduced beer, the process which consists in reducing the alcohol content of beer below one-half of one per cent. by volume, subjecting the alcohol-reduced beer to the action of fermenting wort in such manner that the alcohol content of the fermented beer is below one-half of one per cent. by volume and without carbonating the beer, and then artificially carbonating the beer.

1,302,552. MANUFACTURE OF ALCOHOL-REDUCED BEVERAGES. HERMAN HUBBARD, Chicago, Ill. Filed Dec. 9, 1918. Serial No. 285,948. 4 Claims. (Cl. 196-1.)

1. In the manufacture of alcohol-reduced hopped beverages, the step of increasing to the normal extract-percentage of alcohol-reduced beer the unfermented extract of a wort containing less than the normal unfermented extract in beer.

1,302,553. CONCRETE PIPE. JOSEPH HICKSON, Mount Gilead, Ohio. Filed Oct. 29, 1917. Serial No. 190,014. 1 Claim. (Cl. 72-53.)



In a device of the class described, a pair of concrete pipes, a first metal ring surrounding one end of one pipe and provided adjacent its free extremity with an outwardly projecting annular rib; a second metal ring surrounding one end of the other pipe and provided with a projecting annular hood spaced from the first ring and receiving the first ring, the second ring being provided adjacent its free extremity with an inwardly projecting annular rib spaced from the first ring and cooperating with the rib of the first ring to form a calking holding means, the first ring being plain in alignment with the rib of the second ring and the outer surface of the pipe which carries the first ring being approximately flush with the outer surface of the first ring to permit the driving of calking between the first ring and the hood, the inner end of the hood being inclined and cooperating with the rib of the first ring to define a V-shaped groove for the reception of calking.

1,302,554. AEROPLANE-BOMB. JOSEPH HILL, Windom, Minn. Filed Aug. 7, 1917. Serial No. 164,900. 1 Claim. (Cl. 102-2.)

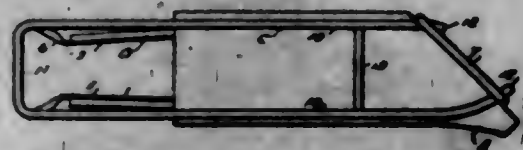
In a projectile, a cylindrical casing containing a main explosive charge, a downwardly tapering solid member secured to the lower end of said casing and forming a closure therefor, said member being provided with an axial bore, a disk secured in said bore adjacent the upper end thereof and provided with a central downwardly directed firing pin, a hollow cylindrical detonator slidable in the bore of said solid member so as to be detonated

by the firing pin when forced upwardly in said bore, said detonator being provided with a solid end portion pro-



jecting beyond the solid member carried by the casing, and means frictionally engaging said detonator for releasably securing the same in operative position.

1,302,555. PLOWSHARE-FRAME. AUGUST HOLLENMOSE, Greenwald, Minn. Filed Sept. 6, 1918. Serial No. 282,917. 3 Claims. (Cl. 81-3.)



1. A device of the character described comprising a pair of opened framed sections, one frame being formed with an offset yoke and the other frame being substantially U-shaped and having its ends removably engaged in the yoke, and a plurality of seating pins carried by the side limbs of one of the frame sections.

1,302,556. SPRING FOR EXHAUST-VALVES AND THE LIKE. GEORGE T. HUBBARD, Gloucester, Mass., assignor to one-half to Abbott S. Coffin, Gloucester, Mass. Filed Feb. 1, 1918. Serial No. 214,995. 6 Claims. (Cl. 267-40.)

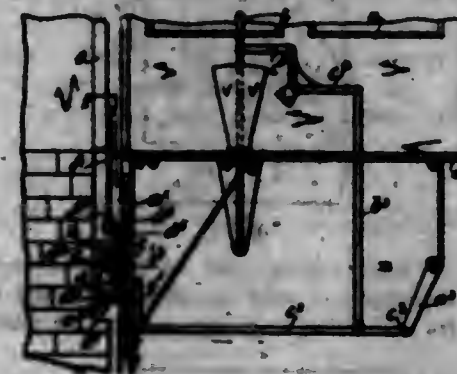


1. A spring for valves and the like, comprising a central portion adapted to engage a valve stem, other portions symmetrical with respect to the valve stem and adapted to engage the casing of said stem, spring portions on opposite sides of the stem at a distance therefrom, and elements extending from the said spring portions to said central and other portions and applying approximately equal pressure to the central portion.

1,302,557. CONTROLLING MECHANISM FOR ELEVATOR-CARS. ALAN W. HUMPHREY, New York, N. Y., assignor to Henry F. Hubert, New York, N. Y. Filed Mar. 15, 1917. Serial No. 154,922. Renewed Mar. 1, 1919. Serial No. 280,187. 3 Claims. (Cl. 187-47.)

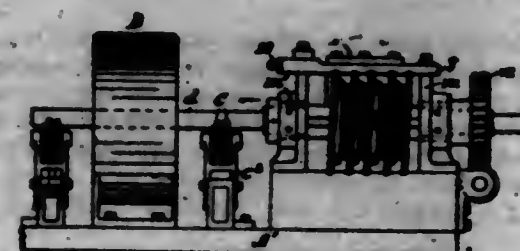
1. The combination with the controller of an elevator car, of a slidable rack element, vertical guide channels for the rack secured to the underside of the floor along the front edge thereof, operative connections between the rack and the controller carried on the underside of the car floor, a detent below the landing stage engageable with said rack element and a rigid arm depending from the door and formed with a cam to cooperate with the detent for throwing the same into and out of engagement with the rack upon the opening and closing of the door.

2. The combination with the controller of an elevator car, of a slidable rack element mounted below the car floor, operative connections between the rack and the controller carried on the underside of the car floor, a detent engageable with said rack element comprising a rack shaft journaled in the elevator shaft, a swinging tooth



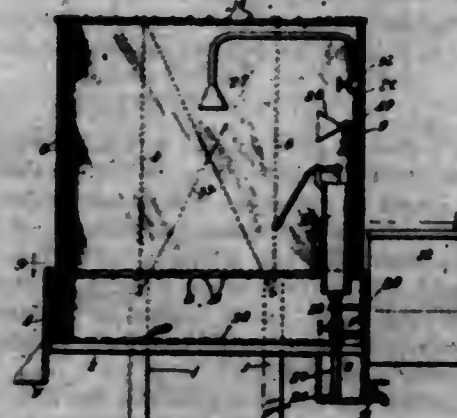
fixed to the rack shaft, an arm on the rack shaft, a swinging lever pivoted in the shaft, a link connection between said arm and the lever, a roller on the end of the lever and a depending arm fixed on the shaft door and mounted in operative relation to said roller, whereby the toothed detent is thrown into and out of engagement with the rack on the opening and closing of the door.

1,302,558. APPARATUS FOR COLD-ROLLING SHAFT-BARS. JOHN WINSLEY HYATT, East Orange, N. J. Filed Aug. 26, 1918. Serial No. 116,765. Renewed Feb. 7, 1919. Serial No. 275,878. 12 Claims. (Cl. 80-22.)



1. A head for the cold-rolling of shafting, having a series of conical roll-disks disposed about a central axis with their axes inclined in two directions to operate spirally upon the surface of the shafting, an annular bed surrounding the rolls to sustain the entire thrust of the same, and collars fitted to the ends of the roller-disks, to hold the disks in their inclined position when in operation, and arranged to rotate within the head, substantially as herein set forth.

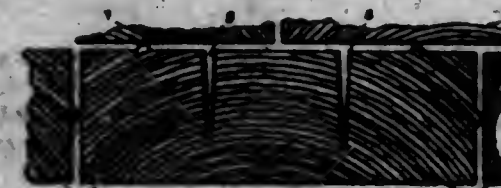
1,302,559. PORTABLE SHOWER-BATH. FREDERIC I. S. HYNEK, Chicago, Ill. Filed Sept. 16, 1918. Serial No. 254,276. 2 Claims. (Cl. 4-26.)



1. In a device of the kind described, a portable bathroom, a pair of liquid vessels in proximity thereto, means

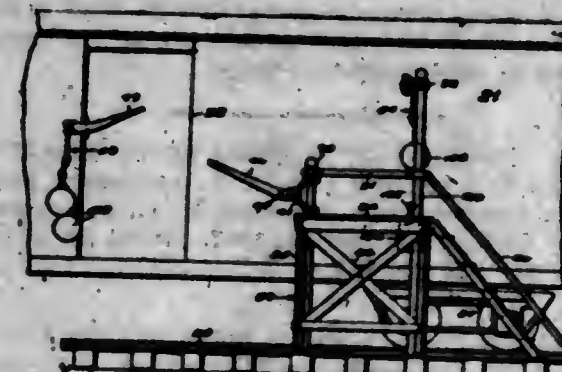
for heating the liquid in one of the vessels, in combination with a pump within the bath-room, pipes extending from the vessels to the pump, valves controlling the passage of liquid through the pipes, a wall provided at the bottom of the room, a piped extension from the pump to the wall, and a valve for controlling the passage of liquid through the latter pipe, whereby fluid may be drawn from the pair of liquid vessels or from the wall at will.

1,302,560. WOOD PAVEMENT. HENRY G. JENNISON, Toledo, Ohio. Filed Oct. 23, 1914. Serial No. 868,177. 2 Claims. (Cl. 94-14.)



1. A pavement comprising rigid grain-up wood paving blocks providing arcs of age rings in cross sections parallel to the pavement face of the block, said blocks being independently removable from the face of the pavement, and said blocks having within the contour of the blocks, interception means for the longer arc age rings, said interception means extending through the pavement from the pavement face to break up longer arc age rings into a plurality of arc sections whereby expansion and contraction disturbances may be dissipated within the region as laid of the respective blocks of the pavement.

1,302,561. MAIL-BAG CATCHING AND DELIVERING APPARATUS. HENRY KERSHAW, Newark, N. J., assignor to Kershaw Corporation, Newark, N. J., a Corporation of New Jersey. Filed Apr. 26, 1917. Serial No. 164,868. Renewed Mar. 18, 1919. Serial No. 282,489. 6 Claims. (Cl. 258-26.)



1. In apparatus of the character described, a support, a stationary head secured to the support and having a substantially flat face provided thereon with a recess, a pivoted head having a substantially flat face provided thereon with an extension to enter the recess, said pivoted head having an opening formed through the central portion thereof, an arm carried by the head, a pivot element carried by the first named head and passing through the opening in the pivoted head and provided at its free end with a stop, a compressible coil spring surrounding the pivot element and confined between the stop and pivoted head, and a protecting tube formed integral with the pivoted head and completely inclosing the spring.

1,302,562. CATCHING DEVICE FOR MAIL-BAGS. HENRY KERSHAW, Newark, N. J., assignor to Kershaw Corporation, Newark, N. J., a Corporation of New Jersey. Original application filed Apr. 26, 1917, Serial No. 164,868. Divided and this application filed Aug. 13, 1917, Serial No. 198,019. Renewed Mar. 18, 1919. Serial No. 282,440. 3 Claims. (Cl. 258-22.)

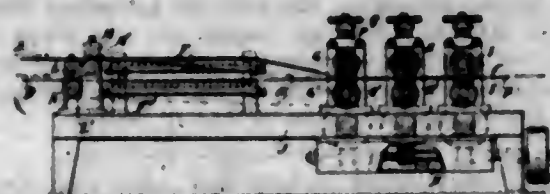
1. In apparatus of the character described, the combination with a pair of relatively stationary superposed

brackets, of a head arranged between the brackets and provided with a plurality of notches, a pivot element passing through the brackets and head, a small bag handling arm secured to the head, an extension carried by the upper bracket, a lock lever pivoted at its upper end with



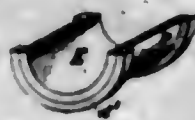
said extension and provided near its center with a tooth adapted to enter a selected notch, and an extension carried by the lower bracket and adapted to have interlocking engagement with the lock lever when the same is moved to the lower active position.

1,302,563. METHOD FOR MAKING LINED BEARINGS. WILLIAM KLOCKE, Brooklyn, N. Y., assignor to Pressed Bearing Company Inc., Brooklyn, N. Y., a Corporation of New York. Filed May 31, 1916. Serial No. 100,674. 13 Claims. (Cl. 29-148.)



4. A process for the production of lined half bearings which consists in feeding a strip of lining metal and a strip of body metal one of which has solder thereon adjacent heaters and pressing the same together between rolls whereby they are soldered together and the liner is densified, cutting the soldered strips into blanks and pressing the blanks to semi-cylindrical shape.

1,302,564. PROCESS OF MAKING LINED BEARINGS. WILLIAM KLOCKE, New York, N. Y., assignor to Pressed Bearing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed July 21, 1917. Serial No. 182,066. 6 Claims. (Cl. 29-141.)

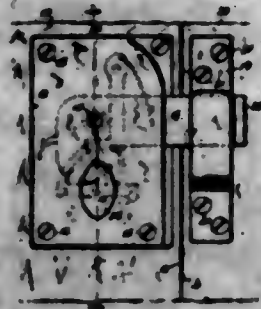


5. A method of forming a lined half-bearing consisting in uniting a face of lining metal to a base of backing metal, the latter having lateral flanges, turning portions of the lining metal over said flanges to form a facing thereon, bending the composite blank to semi-cylindrical form, with such flanges on its exterior, and subjecting it while in a die having the contour of the finished product to final pressure sufficient to cause it to fill such die and bring its exterior out to its final shape.

1,302,565. LOCK. JACOB KOHN, New York, N. Y., Filed Dec. 11, 1917. Serial No. 200,678. 16 Claims. (Cl. 70-46.)

1. In a lock, the combination of a casing, a bolt pivotally mounted in said casing and permanently extending exteriorly thereof, an extension projecting transversely from said bolt, pivoted means permanently mounted in said casing and normally out of engagement with said extension, said means being arranged to describe a circular path intersecting said extension, means for moving

said pivoted means into cooperative engagement with said extension to swing said bolt on its pivot, a locking mem-



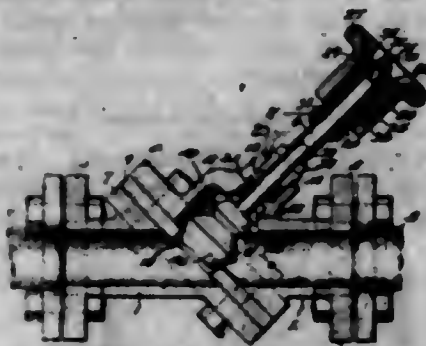
ber pivoted in said casing and cooperating devices on said locking member and said extension whereby said bolt is locked in its operative and its inoperative position.

1,302,566. TYPE-WRITING MACHINE. ALFRED G. F. KUSOWSKI, Brooklyn, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Original application filed Mar. 16, 1917, Serial No. 184,080. Divided and this application filed Sept. 6, 1917. Serial No. 180,907. 13 Claims. (Cl. 107-129.)



1. In a typewriting machine, the combination with a revoluble platen fast to an axle removably supported by its ends, of an extension of said platen supported at one end on said axle, a sleeve upon said axle between the ends thereof and forming a bearing for the other end of said extension, means detachably securing said sleeve to said axle, and a bushing for said extension journaled on said sleeve.

1,302,567. VALVE. HARRY E. LA BOUR, Chicago Heights, and GEORGE A. GRASSETT, Jr., Fernwood, Ill., assignors, by direct and mesne assignments, to Chemical Equipment Company, Chicago Heights, Ill., a Corporation of Illinois. Filed Mar. 13, 1918. Serial No. 222,106. 18 Claims. (Cl. 251-155.)



13. In a valve, a yoke having a hollow boss threaded outside and inside, a valve stem passing axially through the boss, a gland on the stem, a follower having a threaded head engaging the threads on the inside of the boss, a hand wheel having a hub threaded over the outside of the boss, said hand wheel being secured to the stem, the threads on the boss being normally covered by the threaded hub, and said valve having a stuffing box cooperating with said gland.

15. In a valve for use in a pipe line for corrosive fluids, a valve body comprising two complementary sections meeting on a plane at 45° to the axis thereof, a flat soft metal valve plate of substantially uniform thickness clamped

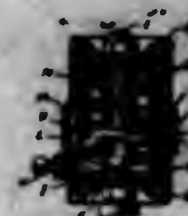
between said sections and removable edgewise from its operative position without disturbing the said sections or the pipe line, said plate having a circular axial bore providing similar valve seats at each face thereof, whereby the said plate is reversible for use, and a non-rotatable valve plug mounted in one of said sections for cooperation with the rim of said bore for making a tight joint.

1,302,568. PEANUT-DIGGER. JAMES T. LEE, Salt City, and SAMUEL T. HOSS, Camilla, Ga. Filed Aug. 28, 1918. Serial No. 261,822. 2 Claims. (Cl. 55-139.)



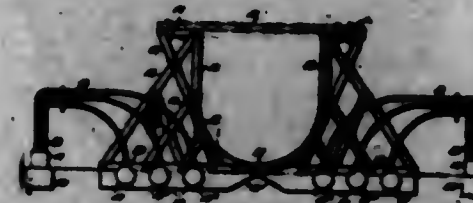
1. A peanut digger comprising a supporting member, a digging element carried thereby, and a rod secured to the support in advance of the digging element, said rod being inclined downwardly and transversely in advance of and across the path of travel of the digging element and terminating in close proximity to the ground over which the device traverses, said rod also extending alongside the digging element.

1,302,569. SPRING-HINGE. CHARLES M. LAMER, Milwaukee, Wis., assignor to Edward A. Kichhafer, Milwaukee, Wis. Filed Sept. 18, 1916. Serial No. 120,681. 2 Claims. (Cl. 16-25.)



1. A positioning hinge consisting in the combination of a set of cup shaped members having their open ends adjusted in opposition, a pivot bolt extending axially through said members and connecting them with each other, each of said members being provided with sleeves through which the bolt passes, adapted to prevent lateral shifting movements of said members, a bearing block in one of said members, means for rotatively adjusting said block and locking the same in various positions of adjustment, an opposing bearing block in the other cup shaped member, means for preventing said bearing block from rotating while permitting it to move longitudinally in its casing member, a compression spring between said last mentioned bearing block and the outer end of the casing member, and a set of balls located between the bearing blocks and adapted to hold said blocks to the casing members in spaced relation, each of said bearing blocks being provided with registering depressions progressively deepening from their ends toward the central portions.

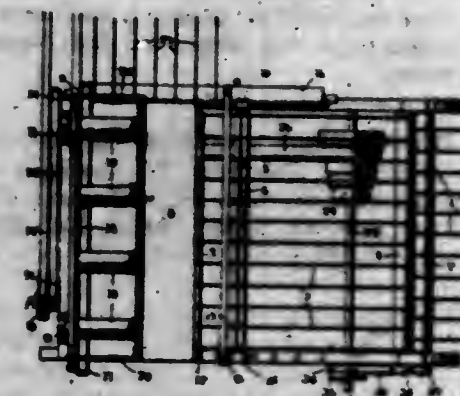
1,302,570. FLOATING SHIP-FORM. JOHN A. LYNCH, Philadelphia, Pa. Filed Sept. 20, 1918. Serial No. 254,968. 3 Claims. (Cl. 25-180.)



3. A floating form for the construction of concrete ships, comprising opposed cradle members hingedly connected.

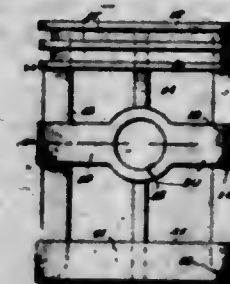
ected longitudinally of the keel line, strong beams connected to said cradle members and supported by spaced pontoons, said spaced pontoons at intervals being provided with sluice connections, a cover for connecting said cradle members at their upper parts in proper spaced relation, lattice connections between said cradle members and the strong beams, and means for connecting said spaced pontoons with a source of supply of compressed air.

1,302,571. PAPER-RULING MACHINE. GEORGE F. MCADAMS, Brooklyn, N. Y., Filed July 5, 1917. Serial No. 173,743. 6 Claims. (Cl. 271-76.)



1. In a ruling machine, an endless carrier arranged in a substantially horizontal plane for carrying the sheets in one direction, a horizontally arranged table forming an extension of said endless carrier, and a horizontally arranged endless cross carrier arranged in a substantially horizontal plane for carrying the sheets in another direction comprising two belts located along opposite sides of said table.

1,302,572. SKELETON ADJUSTABLE PISTON. GEORGE McCADDEN, St. Cloud, Minn. Filed May 7, 1918. Serial No. 283,185. 7 Claims. (Cl. 74-85.)



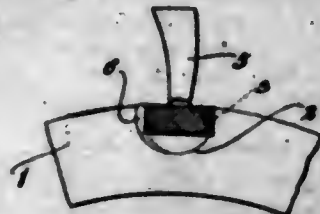
5. A skeleton piston including spaced intermediate and base rings connected at separate points therearound, and each of which is split at points between their connections, and means normally connecting the split portions of the rings and for adjustably spacing the ends of the rings to regulate the diameter of the latter.

1,302,573. THRESHING-MACHINE CYLINDER. ALVIN M. MASON, Roseman, Mont. Filed Apr. 8, 1918. Serial No. 227,311. 2 Claims. (Cl. 130-27.)



2. The combination with a recessed support of a detachable tooth bar having a rounded face to turn in the recessed support, and a friction member to engage the support and lock the bar, and an abutment on the support and a flat face on the bar to engage the abutment to limit the turning movement of the bar.

1,302,574. **THRESHING-MACHINE CYLINDER.** ALVIN M. MASON, Roseman, Mont. Filed Apr. 8, 1918. Serial No. 227,812. 2 Claims. (Cl. 130-27.)



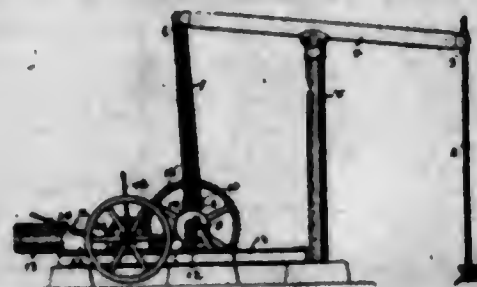
2. A tooth bar having a rounded face and spaced locking flanges forming friction members and said rounded face terminating in a flat abutment face opposite the friction members.

1,302,575. **SUPPORTING MECHANISM FOR BRAKES.** ORMAN R. MITCHELL, Oak Park, Ill., assignor to American Steel Foundries, Chicago, Ill., a Corporation of New Jersey. Filed Feb. 13, 1918. Serial No. 216,941. 6 Claims. (Cl. 188-70.)



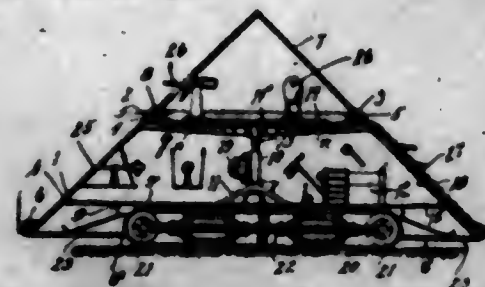
1. In combination, a brake beam, a safety member therefor, a member operatively connected with the safety member and beam for supporting the latter, and serrated means whereby said member may be adjusted for leveling the brake beam.

1,302,576. **REVERSING-GEARING FOR WELL-RIGS.** FRANK JOSEPH MOSSA, Kane, Pa. Filed May 19, 1918. Serial No. 29,191. 3 Claims. (Cl. 74-34.)



1. In a reversing gear for well rigs, the combination of a driving shaft, a gear secured to the shaft, a drum operating gear having inner and outer teeth, pinions connecting the gears, a carrier for said pinions, frictional means for connecting the carrier and the shaft, and other frictional means for retarding rotation of the carrier.

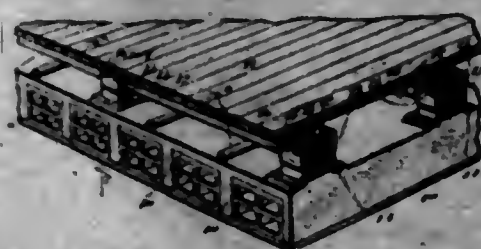
1,302,577. **ARMORED CAR.** LEO M. MOSSA, Moscow, Idaho. Filed Jan. 2, 1918. Serial No. 209,886. 4 Claims. (Cl. 89-40.)



3. In an armored motor car the combination with a main frame and propelling mechanism, of an inclosing shell supported by the frame and having an open base plate

to accommodate the propelling mechanism, and means for transferring the weight of the frame and mechanism to the shell and supporting them thereby.

1,302,578. **FLOOR CONSTRUCTION.** EVERETT N. MURPHY, Chicago, Ill., assignor to Stevens Partition & Floor Deadener Co., Chicago, Ill., a Corporation of Illinois. Filed Sept. 11, 1917. Serial No. 190,742. 5 Claims. (Cl. 20-4.)



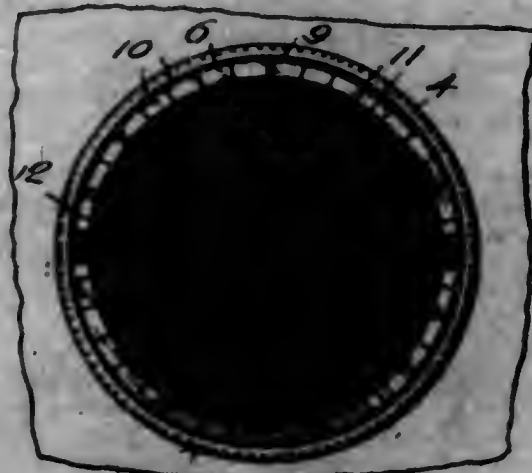
1. In a building floor construction, the combination with upper and lower floors, and sound-insulating means for supporting the upper floor on the lower floor, of means for anchoring said upper floor to said lower floor, said anchoring means being the only non-cushioned connection and including connected elements normally out of physical contact with each other under the load effect of the upper floor, and which may be drawn into physical contact to positively limit the maximum permissible rise of said floor.

1,302,579. **CINEMATOGRAPH-MACHINE.** MORTON KARL MYERS and MARTIN A. J. HARPER, New York, N. Y. Filed Jan. 30, 1918. Serial No. 214,479. 9 Claims. (Cl. 88-19.2.)



1. A cinematograph machine embodying therein a shutter having a cover blade provided with a multitude of closely juxtaposed, alternate opaque and translucent portions and a transparent area, whereby a portion of the light rays is intercepted, another portion thereof is diffused without defining an image upon the screen, and other portions thereof pass through said blade in a manner to faintly define an image upon the screen.

1,302,580. **INCLINATION-INDICATOR.** WESLEY HAMMON NELSON, Los Angeles, Calif., assignor of forty-nine one-hundredths to Bertie May Priest, Los Angeles, Calif. Filed June 27, 1918. Serial No. 242,818. 8 Claims. (Cl. 83-203.)



5. An indicator for indicating tilting, comprising an annular hollow transparent ring having partitions located at

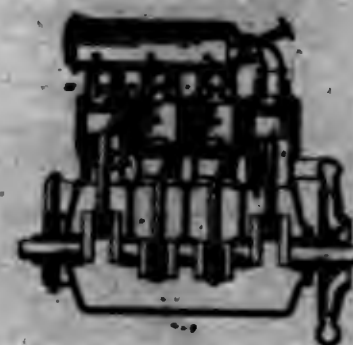
diametrically opposite points and dividing the interior of the ring into two compartments and each compartment containing a fluid, and a ball mounted to roll in each compartment.

1,302,581. **SAW-SET.** JONAS VICTOR NORLEN, Youngstown, Alberta, Canada. Filed Nov. 24, 1917. Serial No. 208,843. 4 Claims. (Cl. 78-64.)



1. In a saw set, a pair of arms connected together to form jaws and handles, one of said jaws being relatively movable, a plate pivoted to one of said jaws, a red terminally embedded in said plate and adjustably connected to the said jaw, a compression spring carried by the pivot of said jaws and bearing against the said plate, and a second plate carried by said compression spring for yielding engagement with the first named plate.

1,302,582. **CONTINUOUS-COMBUSTION ENGINE.** CARL A. NORMAN, Columbus, Ohio. Filed Feb. 23, 1918. Serial No. 218,060. 1 Claim. (Cl. 60-14.)

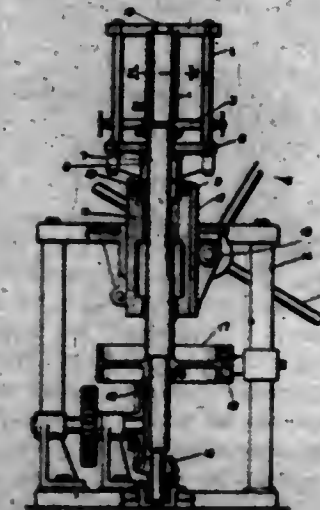


In a continuous combustion engine, the combination of one or more compressors, a combustion chamber receiving air therefrom, one or more working cylinders receiving gas from said combustion chamber and being provided with inlet and exhaust valves, means for admitting scavenging air to said cylinders, and the closing of the exhaust and the opening of the inlet valves being so timed that part of the scavenging air will be discharged into the combustion chamber.

1,302,583. **MANUFACTURE OF AMYL ACETATE AND ITS HOMOLOGUES FROM CHLOR-HYDROCARBONS OF THE PARAFFIN SERIES.** GEORGE G. OSWALD and HUGH T. BOYD, Homer, Ohio, assignors to The Ohio Fuel Supply Company, Pittsburgh, Pa., a Corporation of Ohio. Filed Jan. 22, 1918. Serial No. 212,250. 3 Claims. (Cl. 23-84.)

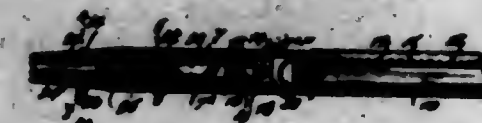
1. A method of esterifying chlor-hydrocarbons of the paraffin series which consists in treating the chlor-hydrocarbons with an alkali acetate and acetic acid in the presence of a sulfate of an alkali metal.

1,302,584. **METHOD OF FORMING BEARINGS.** LAWRENCE OLSEN, Indianapolis, Ind. Filed Mar. 2, 1918. Serial No. 220,077. 13 Claims. (Cl. 22-203.)



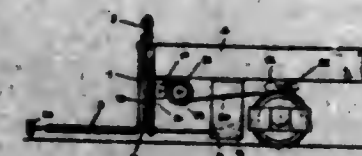
13. The process of applying a babbit lining to the interior of a cylindrical shell, which consists in temporarily closing one end of said shell and rapidly rotating it while pouring upon the end closure a quantity of fluid babbit.

1,302,585. **PENCIL ATTACHMENT FOR FOUNTAIN-PENS.** ARNOLD L. OPPENHEIM, New York, N. Y. Filed Sept. 4, 1917. Serial No. 189,514. 1 Claim. (Cl. 120-18.)



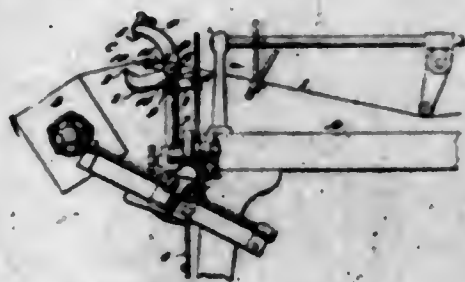
In combination, a pair of tubular sections of uniform diameter, a head fitting frictionally in one of said tubular sections flush with one edge thereof, a tube having one end fitted frictionally within said head and its main body disposed concentrically within said last-named tubular section, a tube longer than the other tube projecting into said other tube and having a flange adapted to engage the inner edge thereof so as to be limited in movement in one direction accordingly, a head frictionally attached upon the projecting end of the longer tube, and engaging the adjacent edge of the first head so as to confine the longer tube against longitudinal displacement, the other tubular section being attached over, so as to rotate together with said longer tube, and means for advancing a pencil point out of the last-named tubular section when said last-named head and tube are rotated.

1,302,586. **CAR-FENDER.** ISRAEL PASCAL, Montreal, Quebec, Canada, assignor of thirty-one eightieths to David Gordon and one-fourth to Joseph Schwartz, Montreal, Quebec, Canada. Filed June 17, 1918. Serial No. 240,419. 5 Claims. (Cl. 203-8.)



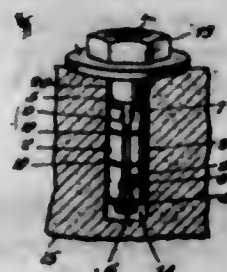
1. In a car fender, a vertically slidable member, a latch spring-held from the car and normally supporting a guard member, a central bar supported by suitable bearings before and behind said latch and engaging the same intermediate of the length, and a push rail secured to said bar.

1,302,587. BOX-COVERING MACHINE AND THE LIKE. CYRUS B. FRASSELL, Rochester, N. Y., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed July 28, 1917. Serial No. 183,246. 8 Claims. (Cl. 164-43.)



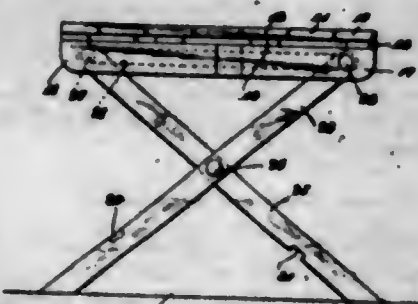
1. In combination with a cutting device comprising two cooperating cutters one of which is movable relative to the other, a device operative to move the cut end of a strip away from one of the cutters upon the opening of the other following the cutting operation, said device being associated and movable with the movable cutter.

1,302,588. RAILING-BASE. HENRY W. PLISTER, Westfield, N. J., assignor to Henry B. Newhall. Filed Dec. 4, 1917. Serial No. 205,304. 3 Claims. (Cl. 85-28.)



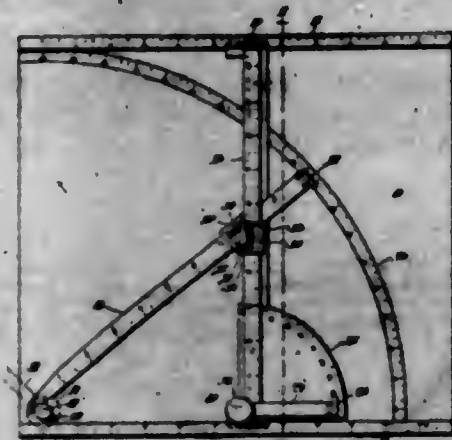
1. The combination in a railing base of gripping members, a screw to operate said gripping members, and a recessed cap to operate said screw.

1,302,589. FOLDING TABLE OR STAND. MICHAEL FIASCCHI, Baltimore, Md., assignor of one-half to Anton Iwanowski, Baltimore, Md. Filed Sept. 4, 1918. Serial No. 252,546. 1 Claim. (Cl. 45-11.)



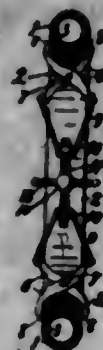
In a foldable stand, the combination with two pairs of spaced parallel rails, each of said rails being formed in sections and having interengaging elements therebetween whereby they may be extended or contracted, transverse plates secured to the upper end of said rails, a sectional table top engaged by said transverse plates, said sectional top being expansible or contractible, pairs of support elements hingedly engaged at their upper end with the outer end of said rails, a second pair of support elements pivotally engaged with the first named support elements midway of their length, longitudinal slots extending through the inner pair of said rails, and a bar secured at the outer ends of said support elements traversable within said longitudinal slots whereby said stand may be collapsed or folded.

1,302,590. ANGLE-CALCULATOR. WILLIAM N. REASON, JR., Elmira, N. Y. Filed Feb. 2, 1918. Serial No. 215,063. 2 Claims. (Cl. 38-84.)



2. In a device of the class described, the combination of a base scale, a fixed pivot, a pivot movable in a line parallel with said base scale and which extends through said fixed pivot, two right angularly arranged scale arms movable on said fixed pivot, a protractor in fixed relation with said base scale and cooperating with one of said scale arms to measure the angle between the latter and the base scale, a scale arm arranged to swing on said movable pivot, a protractor movable with said movable pivot, and means on the last-mentioned scale arm adapted to cooperate with the last-mentioned protractor for measuring the angular relation of this scale arm and said base scale.

1,302,591. TIRE AND RIM TOOL. EMMETT S. REILAND, St. Paul, Minn. Original application filed May 10, 1918. Serial No. 233,816. Divided and this application filed July 6, 1918. Serial No. 243,711. 2 Claims. (Cl. 157-1.)



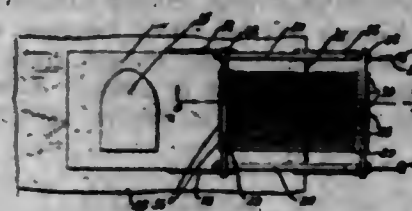
1. In a device of the class described, two pairs of crossed and at the crossings pivoted levers forming two grippers, each with angular jaws adapted to grip the rim and with hooks at the other ends of the levers, two V-shaped springs, each of which has its arms perforated and engaged one with each of the hooks so as to normally tend to close the grippers; a screw engaged with the heads of the springs to pull them toward the center of the rim.

2. The structure specified in claim 1, said screw connection comprising two nuts one retained in and by the head of each spring and provided one with right-hand threads the other with left-hand threads, and the screw having its opposite ends threaded to fit in said nuts, and at its middle means by which to rotate the screw; said springs having each an aperture for the screw-bar to pass through and reach the nut.

1,302,592. SLICING APPARATUS. STEVE RACHET, Dunlo, Pa. Filed Oct. 12, 1918. Serial No. 257,983. 1 Claim. (Cl. 146-12.)

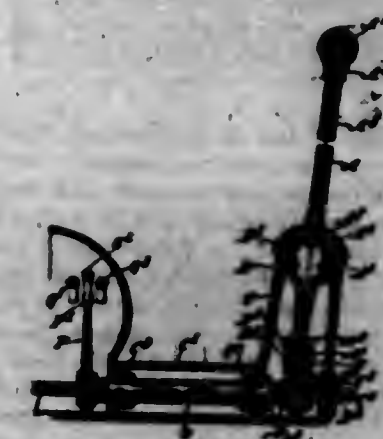
In a slicing machine, having a base plate and a pair of linked arms secured at spaced intervals on the side edges of said base plate, and bars arranged parallel and en-

gaged pivotally with the outer ends of said arms, transverse bars secured to the first named bars at the ends thereof, in combination a plurality of knives, rectangular ends formed with said knives, said ends abutting against the interior surfaces of said transverse bars, stems ex-



tending beyond said rectangular heads, said stems being engageable in openings appropriately formed in said transverse bars, and means for actuating said transverse bars, whereby said knives may be forced downward upon the upper surface of said base plate.

1,302,593. CONTROL DEVICE FOR CHANGE-SPEED AND REVERSING MECHANISM. GEORGE ROSSCH, London, England, assignor of one-half to Clement Talbot Limited, Ladbroke Grove, London, England. Filed Jan. 10, 1918. Serial No. 213,544. 5 Claims. (Cl. 74-36.)



1. In gear-changing mechanism of the type described, the combination with a rotatable and longitudinally slidable shaft, and a laterally projecting selecting finger fast thereon for actuating the gear changing rods, of an arm fixed on the same shaft, a single operating lever pivotally mounted to rock in two planes at right-angles to one another about a point located intermediate of the ends of the lever and having one end operatively connected to said arm, an abutment fixed relatively to the shaft, a stop mounted movably on said arm and adapted to bear against said abutment in one position of the operating lever and thereby prevent the latter from being rocked in one direction out of that position, and means mounted on the operating lever for moving said stop to clear said abutment, substantially as described.

1,302,594. MULTIPLE REPRODUCING-MACHINE. GEORGE ROSSCH, Toledo, Ohio. Filed Sept. 21, 1917. Serial No. 192,455. 12 Claims. (Cl. 90-13.7.)



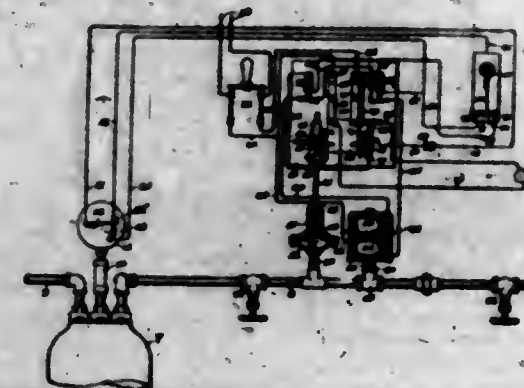
1. In a reproducing machine, a guiding pointer having a spherical surface at the end thereof and a cutting tool connected to the guiding pointer for movement of the tool by the pointer and having a spherical end.

1,302,595. SICKLE-PULLER. STANLEY D. RUSSELL, Winfield, Kans. Filed July 1, 1918. Serial No. 242,075. 2 Claims. (Cl. 29-84.)



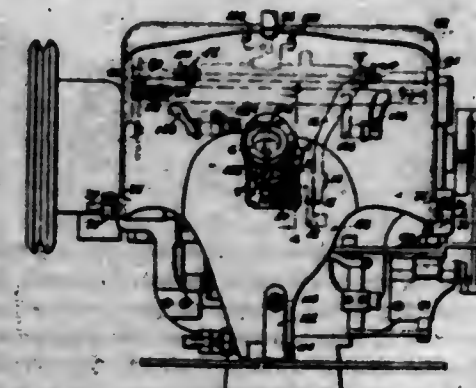
2. A device of the character specified, comprising a lever having at one end a grip, a latch or pawl pivoted to the other end, said lever having intermediate its ends and near the end provided with the pawl a depending pin for the purpose specified, the latch or pawl having an upwardly extending grip.

1,302,596. CONTROL MECHANISM FOR REFRIGERATING APPARATUS. CHARLES SCHWENK and JOHN J. HAUSERMAN, Milwaukee, Wis., assignors to Sanitary Refrigerating Machinery Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 2, 1917. Serial No. 190,824. 10 Claims. (Cl. 62-4.)



1. In a refrigerating apparatus, the combination, with the refrigerant cooling system, a work circuit, of a motor in said circuit for driving the compressor, of a switch for opening and closing said circuit, fluid pressure operated means for controlling said switch on a change in pressure of the fluid in the refrigerant cooling system, a valve in said refrigerant cooling system for controlling the passage of fluid therethrough, a regulator circuit thermostatically controlled electrically operated means in said regulator circuit for operating said valve, and means for opening and closing the regulator circuit on the opening and closing of said switch.

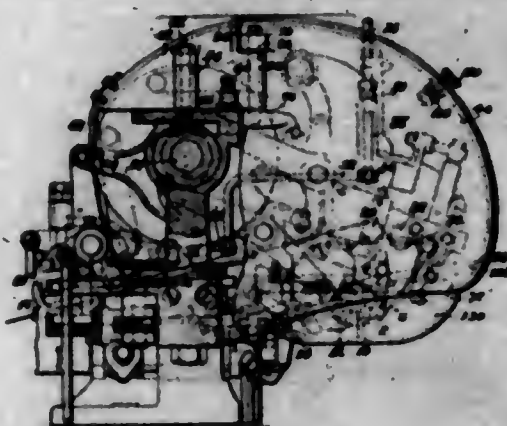
1,302,597. WAX-THREAD SEWING-MACHINE. THOMAS H. SMELY, Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 25, 1915. Serial No. 4,269. 17 Claims. (Cl. 112-20.)



1. A wax thread sewing machine for sewing outsoles to the welts of welted shoes, having, in combination, stitch forming devices including a curved hook needle, a work

support, a presser foot, means for heating the machine, an inclosing casing for the machine comprising a top section, a series of hollow sections inclosing substantially the whole front of the machine above, below, and at each side of the sewing point, having a relatively small opening through which the stitch forming devices, work support and presser foot project beyond the contour of the casing into position for the presentation of a shoe thereto, and shaped to hug the machine closely adjacent the opening to permit the manipulation of the shoe outside of the casing so as to present the different parts of the outsole and welt in proper position to the stitch forming devices as the point of operation is transferred about the shoe, and means for movably supporting the front sections of the casing to enable these sections to be opened to expose the parts of the machine covered thereby.

1,302,598. WAX-THREAD SEWING-MACHINE. THOMAS H. SMITH, Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 23, 1915. Serial No. 9,977. 12 Claims. (Cl. 112-20.)



1. An in-seam shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, work positioning devices, machine heating devices, and an inclosing casing for the head of the machine comprising a fixed section extending over the top of the machine and two hollow front sections fitted to the top section at their upper edges and extending over and forming a chamber inclosing substantially the whole front of the machine from the top section down to the sewing point, and having a relatively small opening at the sewing point through which the stitch forming devices and work positioning devices project downwardly, and means for movably supporting the two front sections to enable these sections to be opened to expose the parts of the machine covered thereby.

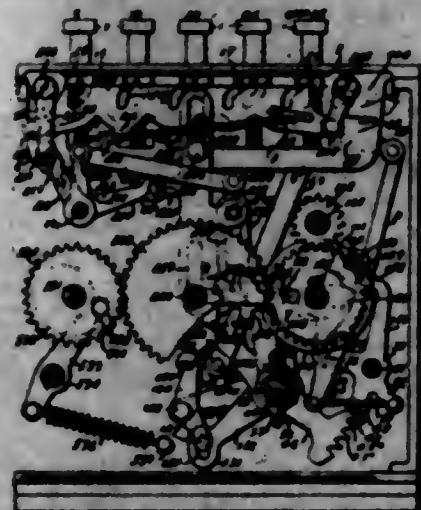
1,302,599. SEAMLESS-TUBE-DRAWING BENCH. EDWARD C. SAVIGNY, Jacksonville, Fla. Filed Nov. 5, 1913. Serial No. 261,312. 5 Claims. (Cl. 205-1.)



1. A tube drawing bench comprising a movable chain mounted in a frame, a carriage mounted on said frame and provided with a pair of clamping jaws for grasping and releasing a tube, a lever pivoted on the carriage for closing and opening said clamping jaws, a dog carried by the carriage and adapted to be moved into and out of engagement with the movable chain, a weighted lever connected to said dog for disengaging the dog from the movable chain, and means connected to the lever on the carriage

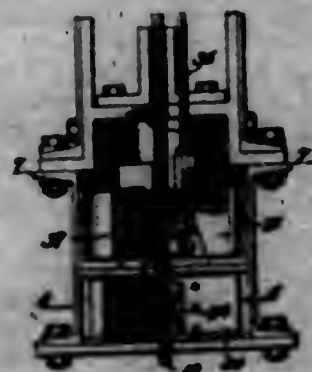
whereby the lever will be rocked, the clamping jaws opened so as to release the tube, the weighted lever allowed to disengage the dog from the movable chain and the carriage returned to initial position for drawing another tube.

1,302,600. TICKET-ISSUING ACCOUNTING-MACHINE. FRANCISCO SUMI, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (Incorporated in 1906.) Filed Nov. 20, 1913. Serial No. 902,101. 33 Claims. (Cl. 235-3.)



1. In a machine of the class described, the combination with a totalizer; of an actuating member therefor; a lever connected to the actuating member and having a slot; operating means for giving one end of the lever an invariable extent of movement; a differentially movable plate carrying a projection which passes through the slot in said lever and serves as a fulcrum for the lever; and means for moving the differentially movable plate to position the projection on the plate in the slot in the lever so that the actuation of the lever carrying the slot will differentially actuate the actuating member for the totalizer.

1,302,601. SAFETY-CLUTCH FOR ELEVATOR SAFETY AND OTHER DEVICES. RUSSELL C. SMITH, Yonkers, N. Y., assignor to Otis Elevator Company, New York, N. Y., a Corporation of New Jersey. Filed May 26, 1915. Serial No. 30,909. 6 Claims. (Cl. 187-30.)



1. In a car-supported, cable-controlled, rail-slide, wedge, car brake and catch, the combination of a series of pairs of jaws at one end and the same end of the car brake, the pairs of jaws being superposed, one above the other, members adapted to be wedged between the safety or guide rail and one of the jaws of each pair of jaws, one member superposed from the pair of superposed jaws and the other member adapted to be connected to the cable that controls the application of the car brake to the rail; resilient members, to engage the rail, one of the said members being carried in the part of the suspended wedge member that is in the superposed jaw, and the other resilient member carried in the face of an underneath jaw.

1,302,602. GLOBE-MAP. WALTER P. SMITH, Boston, Ala. Filed Aug. 7, 1918. Serial No. 246,748. 4 Claims. (Cl. 35-5.)



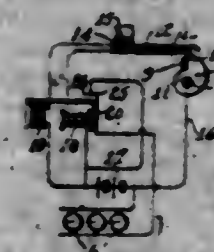
1. In an educational globe, the combination with a globe proper, a headed member rising from its north pole, and trunnions projecting from diametrically opposite points on its equator; of a skeleton structure including two standards and a cross bar connecting them above the globe, bearings on the standards for said trunnions, and a clip on the cross bar for said headed member, the bearings and trunnions or the clip and member being employed selectively.

1,302,603. SECONDARY CLOCK. ALFRED L. SOHN, Chicago, Ill., assignor to Sohn Electric Company, Chicago, Ill., a Corporation of Illinois. Filed May 21, 1917. Serial No. 160,373. 4 Claims. (Cl. 58-27.)



1. In a secondary clock, a rotatable step-by-step disk having a concentric series of through holes, a spring pressed locking pin adapted to enter said holes to hold the disk against rotation, a magnetically movable member on the opposite side of the disk having a free end adapted to enter said holes and push said locking pin out to unlock the disk, and means for moving said free end of the member after the disk is unlocked to rotate said disk in a definite distance.

1,302,604. SECONDARY-CLOCK SYSTEM. ALFRED L. SOHN, Chicago, Ill., assignor to Sohn Electric Company, Chicago, Ill., a Corporation of Illinois. Filed May 21, 1917. Serial No. 160,374. 5 Claims. (Cl. 58-26.)



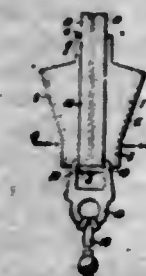
3. In a clock system of the kind described, a master clock having a rotatable cam provided with a contact for controlling a secondary clock circuit, a pair of terminals one controlling a secondary circuit closing magnet and the other a secondary circuit opening magnet, said terminals adapted to successively close upon said contact as the cam rotates, and means cooperating with said terminals to prevent retrograde movement of the cam immediately after the terminals close upon said contact.

1,302,605. SECONDARY CLOCK. ALFRED L. SOHN, Chicago, Ill., assignor to Sohn Electric Company, Chicago, Ill., a Corporation of Illinois. Filed May 21, 1917. Serial No. 160,375. 2 Claims. (Cl. 58-26.)



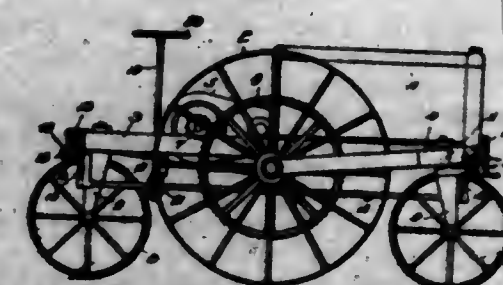
1. In a secondary clock mechanism, a toothed wheel for step-by-step rotation, an electromagnetically operated reciprocable member movable radially relatively to said wheel, a fixed plate, a spring pressed pawl pivoted to said plate and having an arm adapted to engage in the notches of said wheel to lock same against rotation, a spring pressed pawl carried by said member and having an arm adapted to engage the teeth of said wheel to rotate same, cooperating arms on said pawls for releasing the holding pawl in advance of the engagement of the operating pawl, and a rigid stop carried by said member adapted to engage the teeth of said wheel after the wheel has been rotated a predetermined amount to prevent over-rotation thereof.

1,302,606. SEPARABLE FASTENER-SLIDER. GIBSON SUNDACK, Meadville, Pa., assignor to Hookless Fastener Company, a Corporation of Pennsylvania. Filed June 20, 1917. Serial No. 175,787. 15 Claims. (Cl. 24-205.)



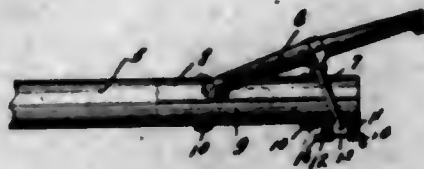
2. A slider comprising connected wings forming diverging channels and having actuating means adapted to positively actuate it in either direction on either side.

1,302,607. TRACTOR. WILLIAM E. VAN DORN, Chicago, Ill. Filed Mar. 21, 1917. Serial No. 156,235. 7 Claims. (Cl. 180-21.)



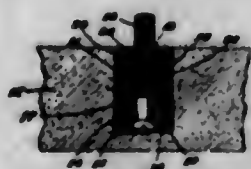
1. In a tractor, a pair of traction wheels, a body structure balanced on said traction wheels, steering wheels arranged at approximately the same distance from the longitudinal axis as the traction wheels and located one in front of one of the traction wheels and the other behind the other traction wheel, and a steadying arm extending from each steering wheel to the adjacent end of the body structure.

1,302,606. SUPPORTING ATTACHMENT FOR NECK-YOKES. HOWAR Y. VITTS, Maddock, N. D. Filed June 16, 1917. Serial No. 175,239. 1 Claim. (Cl. 21-92.)



An attachment for vehicle tongues including cooperating plates secured to the top and bottom of said tongue, retaining blocks depending from one of said plates in spaced relation and longitudinal alignment with each other, the lower ends of said blocks having aligned openings extending therethrough, and a locking pin slidable in said openings to bridge the space therebetween whereby to retain a neck yoke ring between said blocks, said pin having lateral extensions at its ends projecting in the same direction and adapted to assume a depending position in engagement with said blocks after bridging said space whereby to prevent sliding movement of said pin relative to said blocks, one of said slots being formed for the passage of one of the extensions therethrough when said extension is out of depending position.

1,302,609. EXPANSIVE SCREW-ANCHOR. ALVIN H. WAUGH, New York, N. Y. Filed May 16, 1918. Serial No. 234,910. 1 Claim. (Cl. 72-105.)



The combination, in an expansive screw anchor, of an unyielding tubular element having one end portion of its passage threaded while the second end portion of the passage is flared, and the exterior configuration of said element being tapered from its interiorly flared end to its interiorly threaded end, an annular shoulder on the exterior of the tubular element intermediate its ends, provided by forming the lower part of the exterior in the fashion of a cone and forming the upper part of the exterior in the fashion of a second cone superimposed on the apex of the first mentioned cone, a ductile sleeve on the exterior of the tubular element, said sleeve having the wall of its passage tapered to conform with the taper of the second cone-shaped part of the tubular element as well as to overhang the annular shoulder of the element, and a split hard metal ring surrounding the apex of the second cone-shaped part of the tubular element as well as being on the top of the ductile sleeve and the exterior of the ring being beveled to a cutting edge in opposed relation to said ductile sleeve.

1,302,610. VACUUM FEED APPARATUS. FREDERICK WEINBERG, Detroit, Mich. Filed June 14, 1917. Serial No. 174,680. 10 Claims. (Cl. 138-36.)

1. In combination with a vacuum feed apparatus having a vacuum chamber, an internal combustion engine having a liquid circulating pump adapted to be actuated by the same, and a vacuum producing passage communicating with said vacuum chamber and with the intake of said pump.

2. In a vacuum feed apparatus, an auxiliary reservoir consisting of two shells fastened together at their open ends, operating apparatus in said auxiliary reservoir, and a spring secured at its ends between said parts so that the spring shall be bowed between its ends and adapted to actuate said operating apparatus in both directions.

3. In a vacuum feed apparatus, an auxiliary reservoir having a vacuum chamber, a vacuum producing passage communicating with said chamber, a passage communicating with said chamber and with the outer air, a U-

shape wire having two valves secured thereon, one of said valves being adapted to close the communication with the vacuum producing passage and the other of said valves being adapted to close the passage to the outer air, said valves being so located on said wire that one shall be off its seat when the other is engaged upon its seat, and a float adapted to move said wire for the purpose described.



5. In a vacuum feed apparatus, an auxiliary reservoir having an upper and a lower chamber, a vent tube extending through said upper chamber and continuously communicating at its lower end with the lower chamber and at its upper end with the outer air, and a float in said upper chamber, said tube acting as a guide for said float.

8. The combination with a vacuum actuated apparatus of an internal combustion engine having a water circulating system, a passage communicating with said water circulating system at a point where the pressure in said system is less than atmospheric pressure, said passage communicating with said vacuum actuated apparatus for the purpose described.

1,302,611. OPHTHALMIC MOUNTING. JOHN C. WELLS, Southbridge, Mass. Filed Oct. 16, 1917. Serial No. 196,837. 5 Claims. (Cl. 88-50.)



1. In an ophthalmic mounting, the combination with a support, of a pivot carried thereby, a cylinder loosely mounted on the pivot, a lever having a tube loosely mounted on the cylinder and an actuating spring for the lever encircling the tube and out of engagement with both the pivot and cylinder.

1,302,612. HAMMER FOR MOLDING-MACHINES. GEORGE WHELEY WENDELL, Johnstown, Pa., assignor to Union Radiator Company, Johnstown, Pa., a Corporation of Pennsylvania. Filed July 28, 1917. Serial No. 183,276. 7 Claims. (Cl. 22-41.)



1. A mold-molding machine comprising a plurality of reciprocating ramming tools, power means for reciprocating

cutting said tools, and spring means for varying the individual action of each of the tools, substantially as described.

1,302,613. REGISTERING AND RECORDING MECHANISM. JOHN A. WARRICK, Dayton, Ohio, assignor to the National Cash Register Company, Dayton, Ohio. Filed Aug. 16, 1918. Serial No. 45,702. 23 Claims. (Cl. 235-3.)



1. In a machine of the class described, the combination with a plurality of accounting slides having an accounting and a restoring movement, of means for operating the slides for accounting, and means controlled by the slides for positively restoring slides which have completed their accounting movement.

1,302,614. DUST-SHIELD FOR BEARINGS. CARL JONAN WESTMAN, Stockholm, Sweden, assignor to Aktiebolaget Zeus, Stockholm, Sweden, a Corporation of Sweden. Filed Apr. 9, 1918. Serial No. 227,583. 2 Claims. (Cl. 64-36.)

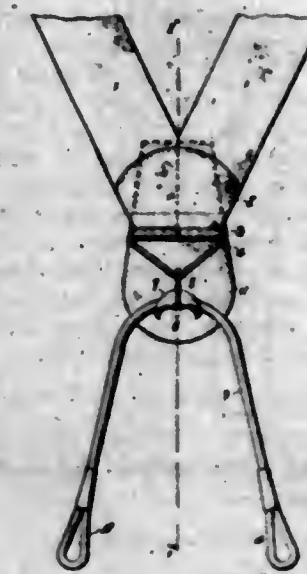


1. In a ball-bearing, roller-bearing or bearing of any other type, the combination of a disk-shaped dust shield provided in its edge with substantially radial slots, the corners at the said slots being bent laterally, a peripheral groove provided in the bearing, and notches extending from the bearing to the said groove, substantially as described and for the purpose set forth.

1,302,615. SUSPENDERS. DAVID F. WISE, Ashland, Ohio. Filed Dec. 8, 1917. Serial No. 265,996. 1 Claim. (Cl. 241-19.)

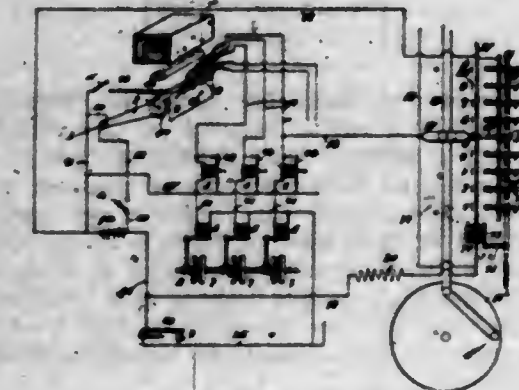
In a suspender, a supporting strap, a link secured to the supporting strap, a saddle supported on the bottom

bar of the link, said saddle being arcuate in shape and having upwardly extending flanges, ears struck from the bottom of the saddle and bent downwardly to engage



around the bottom bar of the link, and a button cord slidably carried by the saddle between the side flanges thereof.

1,302,616. AUTOMATIC TABULATING-MACHINE. ROBERT NEIL WILLIAMS, London, England, assignor to Powers Accounting Machine Company, New York, N. Y., a Corporation of Delaware. Filed May 19, 1915. Serial No. 29,244. 11 Claims. (Cl. 235-92.)



1. In an electrically operating tabulating machine having adding units, relays and magnets for the adding units, keys, a movable contact for controlling the circuit to the relays for the magnets of the adding units, and a series of contacts closed by the keys and arranged in the path of the said moving contact.

1,302,617. GARMENT-DRYING FORM. EARL M. WITHERELL, Duluth, Minn., assignor of one-fourth to Olaf I. Johnson, Duluth, Minn., and one-half to F. A. Patrick & Company, Duluth, Minn., a Corporation of Minnesota. Filed May 13, 1918. Serial No. 234,051. 7 Claims. (Cl. 223-17.)

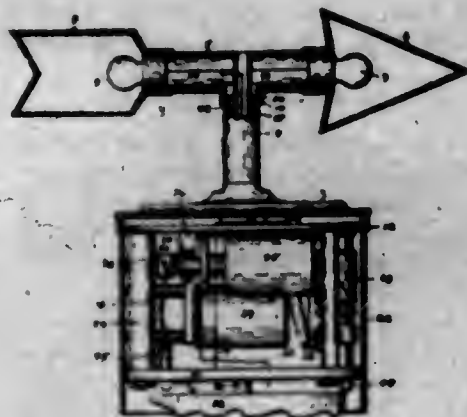
1. A hollow drying form of the character described having perforations therethrough communicating with the

interior of the form, a centrally disposed convex rib on each side of the form extending substantially the entire



length thereof whereby the central internal capacity of the form is increased.

1,302,618. WARNING-SIGNAL. JOHN M. WITMER, Lancaster, Pa. Filed June 11, 1917. Serial No. 174,184. 1 Claim. (Cl. 177-327.)



In a warning and indicating signal for vehicles, the combination with a casing secured to the vehicle and provided with a tubular stem extending upward therefrom and having an indicating means mounted thereon, of a locking disk formed with notches and secured to the lower end of said stem, a latch mounted adjacent thereto and an electric magnet adapted to operate said latch, a pin mounted on said locking disk, a forked arm for engaging said pin for moving said disk, and a pair of electrically operated solenoids for moving said arm.

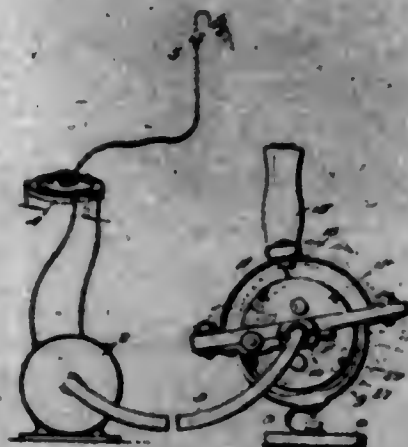
1,302,619. COLLET-CHUCK. HOWARD C. WOOLOM, Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 22, 1917. Serial No. 187,576. 8 Claims. (Cl. 279-1.)



2. In a draw-back collet chuck, the combination of a body having a beveled surface, a plurality of jaws having

beveled surfaces cooperating with that of the body, and three angularly spaced stop members carried directly by the body and serving to definitely position a work blank held by the jaws.

1,302,620. MEDICAL VIBRATOR. WILLIAM HENRY WOOLVENTON, Washington, D. C., assignor of one-half to John C. Scarborough, Bishopville, S. C. Filed Nov. 20, 1917. Serial No. 292,981. 3 Claims. (Cl. 128-34.)



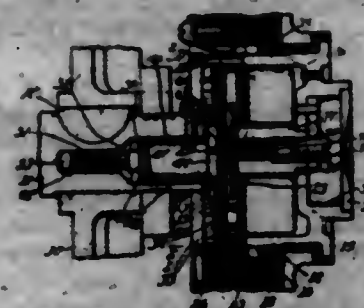
1. A machine of the type described, including a rotor comprising a shaft, an annular chambered shell rigidly secured to said shaft, a lens diametered or intermediary shell within the aforesaid shell, said lens diametered shell being provided with a shaft receiving elongated opening, a relatively heavy and resiliently mounted member positioned within the aforesaid intermediary shell, means for variably and eccentrically positioning said intermediary shell, said shaft being adapted to have imparted thereto rotary movement.

1,302,621. TYPE-WRITING MACHINE. CLAU B. YAW, Arlington, N. J., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Original application filed June 9, 1916, Serial No. 102,641. Divided and this application filed Dec. 14, 1918. Serial No. 137,014. 32 Claims. (Cl. 197-60.)



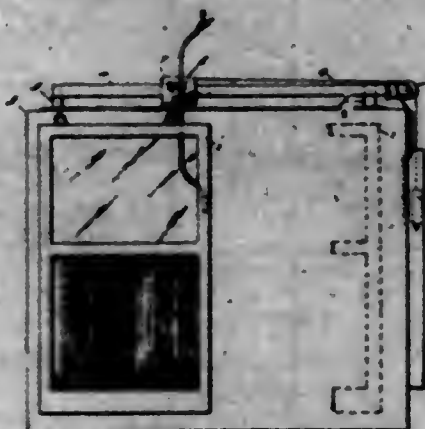
1. In a typewriting machine, the combination with a main frame, of a platen, a suspended support therefor comprising two relatively movable parts, and devices for fixing the relationship between one of said parts and the main frame of the machine, said relationship being maintained solely by the weight of the parts.

1,302,622. CONTACT MEMBER FOR VIBRATING CURRENT-CONTROLLING REGULATORS. VINCENT G. APPLE and JAMES G. KING, Dayton, Ohio; said King assignor to said Apple. Original application filed Apr. 23, 1917, Serial No. 163,803. Divided and this application filed Feb. 14, 1918. Serial No. 217,155. 8 Claims. (Cl. 178-349.)



1. Two vibratable contact members having paths of movement at substantial right angles to each other and a relatively fixed plate through which one member projects to make contact connection with the other member.

1,302,623. SAFETY ELEVATOR APPLIANCE. ARTHUR P. BACOT and JOHN B. THOMPSON, Birmingham, Ala. Filed Feb. 7, 1919. Serial No. 275,489. 9 Claims. (Cl. 187-31.)



1. A device of the character described comprising a cam mounted on a landing door, a circuit breaker switch mounted on and adapted to control electrically the starting of an elevator cab, a switch closing carriage on the cab adapted to be engaged and moved with said cam as the door opens to open said switch, and means independent of the door to urge said carriage to follow said door's closing movements and to close said switch when the door is fully closed.

1,302,624. TICKET-HOLDER. CHARLES N. BARTON, Indianapolis, Ind. Filed Aug. 7, 1916. Serial No. 113,560. 1 Claim. (Cl. 299-40.)



In a ticket-holder of the character described, the combination with a case bottom and sides and a front end and also a top extending above the front end at a distance therefrom, the bottom and the top being each equal in

length with each of the sides, the middle portion of said top having a relatively short guide slot therein, of a knob shank movable in said slot and having an extension on its inner end that is diametrically smaller than the body of the shank, an ejector plate secured on said extension and having two long elastic fingers thereon that are supported at all times relatively nearer to said front end than to the opposite end of said top, each finger having a tooth thereon extending downwardly toward said front end, a guide plate on said top that is appreciably longer than said slot and constantly covering the slot, the guide plate receiving a portion of said shank, a knob rigid on said shank and having a portion bearing upon said guide plate, a coil spring on said bottom adjacent to said front end, and a follower plate between said sides that is relatively shorter in length than said top and extending at one end to said front end of the case, the portion of said follower plate adjacent to said front end being secured to the top of said spring, the opposite end of said follower plate extending downwardly toward said bottom.

1,302,625. EVAPORATOR. GEORGE HILLARD BENJAMIN, New York, N. Y. Filed Dec. 20, 1917. Serial No. 209,412. 4 Claims. (Cl. 257-199.)



1. In an evaporator, the combination of an inclosing shell, steam connections attached permanently to the shell, upper and lower manifolds projecting into the shell, each of such manifolds provided with a projecting member adapted to enter and cooperate with the steam connection near which it is placed, means for detachably securing the manifolds to the steam connections and steam coils interposed between the manifolds.

1,302,626. THREAD-SPINNING MECHANISM. BENJAMIN L. BLOOM, Brooklyn, N. Y., assignor to Julius Kayser & Co., New York, N. Y., a Corporation of New York. Filed Dec. 15, 1917. Serial No. 207,870. 2 Claims. (Cl. 28-34.)



1. In a thread spinning machine, the combination of a movable feed roller frame, feed rollers and pinions therefor carried by said frame, a spacing bar made entirely of seamless porcelain and having a substantially vertical part and a substantially horizontal part which are united on the arc of a circle, detachably attached to the feed roller frame, and a flexible apron also attached to the feed roller frame and which rests upon the cover of the main driving shaft and will automatically adjust itself upon the separation of the feed roller pinions from the driving gear sliding upon the said cover.

1,302,627. AUTOMOBILE-RADIATOR. KINDERMAN M. BOSLEY, Toledo, Ohio. Filed May 17, 1915. Serial No. 28,681. 4 Claims. (Cl. 257-130.)



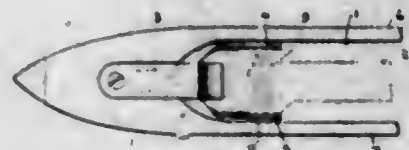
1. A radiator member comprising a plate having oppositely disposed laterally projecting flanges at its opposite edges, one of said flanges being serrated to form a plurality of tongues and the other flange being perforated, substantially as specified.

1,302,628. SEPARABLE FASTENER. DAVID BOUQUE, Amesbury, Mass., assignor to G. W. J. Murphy Co., Amesbury, Mass., a Corporation of Massachusetts. Filed July 28, 1917. Serial No. 183,232. 6 Claims. (Cl. 24-216.)



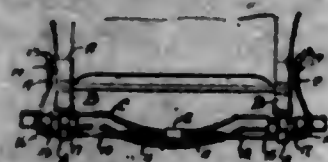
1. An eyelet for a fastening device comprising an annular channelled body having its interior flange severed to provide one or more resiliently yieldable segments and abutment means adjacent the mouth of the channel adapted and arranged to receive the ends of said segments on undue displacement thereof and before they have been strained beyond their elastic limit.

1,302,629. SHUTTLE FOR SIDE-MOTION FEELER-LOOMS. THOMAS F. BRAZILL, New Bedford, Mass., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Sept. 16, 1918. Serial No. 254,230. 4 Claims. (Cl. 139-27.)



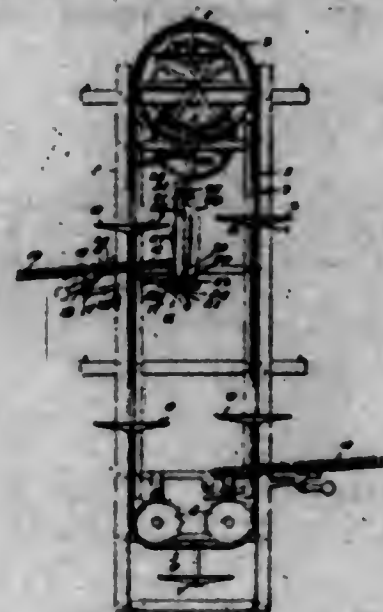
3. A shuttle for use in side motion feeler looms provided with a filling carrier recess and with a bifurcated metal clamping guide in said recess to clamp and hold a filling carrier by its butt, one wall of said recess being slotted to permit the passage of the feeler therethrough, the said slot being extended toward the butt end of the shuttle recess and opposite said clamping guide, and the said clamping guide having its external face exposed by said extended slot serrated, whereby, if the shuttle be longitudinally mis-positioned at the time of feeling, premature actuation of the feeler will be prevented by its engagement with said serrated surface.

1,302,630. SHOCK-ABSORBER FOR AUTOMOBILES. ROBERT W. BETAN, Aberdeen, Wash. Filed Aug. 10, 1918. Serial No. 240,352. 10 Claims. (Cl. 267-2.)



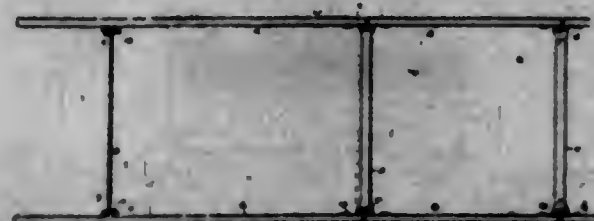
2. A shock absorber or member for automobiles comprising a main spring adapted to be operatively connected to the axle of the automobile, a flexible strap attached at one end to the main spring, adapted to be passed beneath a part operatively connected to the axle, and then extended upward, said strap at its end opposite the main spring having means whereby it may be attached to the body supporting frame of the automobile, and resilient means normally holding a portion of the strap deflected from a straight line.

1,302,631. AUTOMATIC EJECTOR FOR STRAIGHT-LIFT ELEVATORS. HERMAN J. BUCK, Ellwood City, Pa., assignor to Mathews Gravity Carrier Company, Ellwood City, Pa., a Corporation. Filed Feb. 16, 1914. Serial No. 516,967. 14 Claims. (Cl. 193-8.)



3. The combination, with a gravity carrier station and carriages mounted to move past the same and deposit their load thereon, of a swinging ejector having means for contacting with the load on said station and adapted to exert continuous uniform pressure thereon and remain in positive engagement with the load until it is discharged from the station, and mechanism actuated by a carriage leaving the station for operating said ejector device.

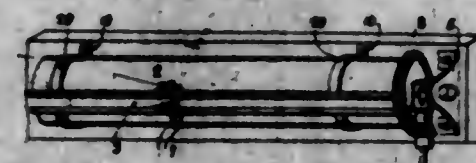
1,302,632. HOSE-BRIDGE FOR RAILROAD-TRACKS. JOHN CARLSON, Jr., Portland, Me. Filed Feb. 20, 1919. Serial No. 278,203. 3 Claims. (Cl. 104-275.)



1. In a hose bridge for railroad tracks, the combination of a pair of central sections having hose openings, tapering end sections extending from the ends of the central sec-

tions, each end section and the central sections having at their connecting ends a half locking dovetailed projection and cross ties each having a socket at each end for fitting over adjacent projections for uniting the two halves of the bridge.

1,302,633. ROLLER-AWNING. ALFRED L. CLARK, Dubuque, Iowa. Filed Oct. 6, 1917. Serial No. 198,060. 4 Claims. (Cl. 156-12.)



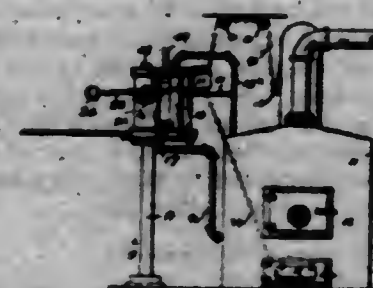
1. In a device of the character described, a back board, a cylindrical container, an awning mounted on a roller within the container, brackets secured to the back board near each end in which the roller has its bearings, and means for adjustably securing the container to the back board consisting of plates fastened to the back board and providing sockets therein and clamps adapted to adjustably grasp the container from opposite sides and engage the sockets in the plates and said clamps fastened to the back board.

1,302,634. FRONT AXLE AND BOLSTER CONSTRUCTION FOR VEHICLES. JAMES W. CONSUM, Highland Park, Mich. Filed Feb. 25, 1918. Serial No. 218,978. 5 Claims. (Cl. 21-182.)



1. In a vehicle, an axle, a yoke pivoted to the axle to oscillate in a vertical plane longitudinally thereof, said yoke being formed with a cylindrical cup-shaped member, a complementary cup-shaped member fitting thereover in telescopic relation, a frame member to which said complementary member is attached, a spring positioned between the cup-shaped members, and means for rigidly holding the axle in position transversely to the frame adapted to allow the axle to oscillate in a vertical plane.

1,302,635. DAMPER-REGULATOR. THOMAS CONNELL, Iowa City, Iowa. Filed Nov. 30, 1917. Serial No. 204,790. 2 Claims. (Cl. 226-1.)



1. In a device of the class described, a pair of compartments, the lower ends of said compartments being in communication with each other, means for connecting the upper portion of one of said compartments with the upper part of a boiler, a tube pivotally mounted on the wall of the other of said compartments at the upper portion thereof, and communicating with the interior of said other com-

partment, a receptacle on the free end of said tube communicating therewith, a counterbalance device for said tube and said receptacle, a return fluid receptacle having an intake opening near its upper end, and a discharge opening at its lower end, the upper portion of said second receptacle being in communication with the compartment which communicates directly with said pivoted tube, said last named compartment having an air vent, a valve seat adjacent to said air vent, a valve for coacting with said seat, and means actuated according to the movement of said first receptacle for closing said valve.

1,302,636. AGRICULTURAL MACHINE. CLAUD C. CHAVES, Kansas City, Mo. Original application filed Sept. 8, 1915, Serial No. 49,457. (Patent No. 1,224,716, dated May 1, 1917.) Divided and this application filed Jan. 19, 1918. Serial No. 212,636. 3 Claims. (Cl. 97-24.)



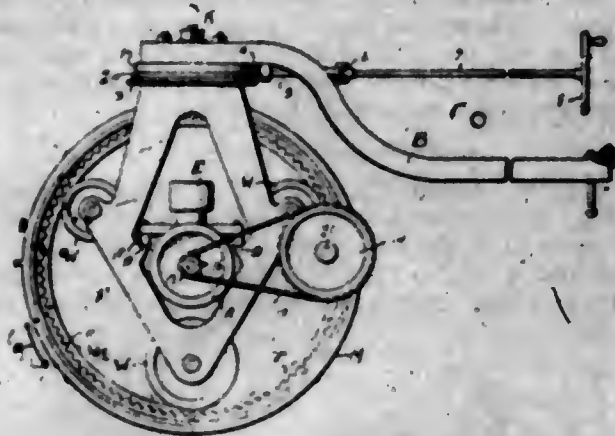
1. A machine of the character described comprising a main frame, a transversely disposed auxiliary frame co-acting with the forward end portion of the main frame, a transversely disposed beam carried by the main frame rearwardly of the auxiliary frame, ground working elements connected with the auxiliary frame adjacent the opposite ends thereof and mounted for vertical swinging movement, another ground working element connected to the auxiliary frame between the first named ground working elements and also mounted for vertical swinging movement, a rock shaft supported by the beam, connections between the first named ground working elements and the rock shaft whereby said first named elements are raised and lowered in unison, means for rocking the shaft, a second rock shaft carried by the beam, a connection between said second shaft and the last named ground working element, and means for rocking the second named shaft.

1,302,637. EXPLOSIVE-ENGINE STARTER. POWELL CROSLBY, Jr., Cincinnati, Ohio. Filed June 18, 1918. Serial No. 240,640. 3 Claims. (Cl. 74-54.)



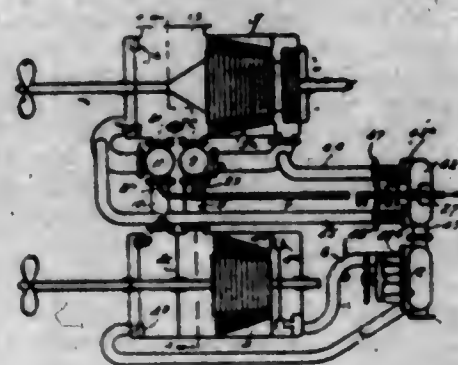
1. In an explosive-engine starter, in combination with the shaft of the engine, a toothed ratchet wheel rotating with said shaft, an arm swinging around said shaft, a pawl, a pivot for said pawl on said arm from which said pawl projects toward said ratchet wheel, a dog pivotally connected to said arm and adapted to engage with a stationary part of the automobile when said arm is in initial position, and to engage with said pawl and hold it away from said ratchet wheel and to prevent material movement of said pawl either toward or away from said ratchet wheel, said dog releasing said pawl to swing either toward or away from said wheel when said arm is swung around said shaft, and means for swinging said arm around said shaft.

1,302,638. TRACTOR. EDWARD T. DANIELS, Townsend, Del., assignor of one-half to Ernest Weldon, Townsend, Del. Filed Nov. 20, 1918. Serial No. 263,298. 3 Claims. (Cl. 180-10.)



1. A device of the character described comprising a support, forks depending therefrom, each of said forks having their central portion cut away, and provided with oppositely disposed and inwardly directed lugs, a motor supported by the lugs of the forks and operatively engaged with the annular ground-engaging member.

1,302,639. CONTROL MECHANISM FOR COMPOUND TURBINES. JAMES A. DAVISS, Swisnawale, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed July 17, 1916. Serial No. 100,695. 11 Claims. (Cl. 60-70.)



4. In combination with a compound engine having a high pressure section and a low pressure section, a valve for establishing communication between said sections or between the high pressure section and the exhaust, pressure actuated means for controlling the operation of said valve, a valve for delivering high pressure motive fluid to said low pressure section, and means interlocking with said last mentioned means for controlling the operation of said pressure actuated means.

1,302,640. MEASURING-PUMP. JOHN B. DAVIS, Springfield, Mass., assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass., a Corporation of Massachusetts. Filed June 10, 1918. Serial No. 239,134. 5 Claims. (Cl. 221-103.)

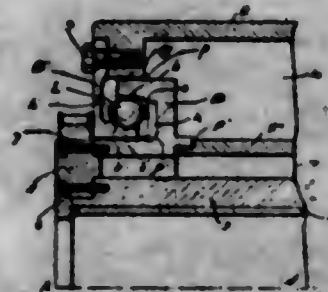
1. In a reciprocating piston pump, a stop to limit the stroke of the piston, means reciprocable with the latter to engage said stop, means actuated by fluid pressure to lift the pump piston, supporting means for said stop constructed to permit the latter to yield a predetermined distance when engaged by the first named means, a two way valve manually movable to a position wherein fluid is admitted to said second named means to lift the pump pis-

ton, a latch to releasably hold said valve in said position, means operable by the yielding of said stop to withdraw the latch from holding engagement with said valve, and



means to automatically return the latter to another position wherein fluid may be exhausted from said actuating means.

1,302,641. BEARING FOR CASTING-MACHINES. DIMITRI SANSAUD DE LAVAUD, New York, N. Y. Filed Oct. 5, 1917. Serial No. 194,977. 23 Claims. (Cl. 64-36.)



1. In a centrifugal casting machine, the combination with a rotary mold and a journaling member therefor of a ball bearing for the mold comprising an inner race, an outer race, and a plurality of balls between the two races, the second race being secured to the mold and the first race to said member and the two races having substantially parallel straight surfaces substantially parallel to the length of the machine.

18. In an apparatus including rotary and journaling bodies wherein the rotary body is adapted to have greatly higher temperatures than the journaling body, an anti-friction bearing for the rotary body comprising an inner race, an outer race, and a plurality of anti-friction rolling members between the two races, the two races being so formed and arranged and respectively connected to the said two bodies that on an expansion of the rotary body due to a temperature higher than that of the journaling body the race connected to the rotary member expands to move away from the other race.

1,302,642. AMUSEMENT APPARATUS. EDGAR STUART DOUGHERTY, Red Wing, Minn. Filed Feb. 13, 1919. Serial No. 276,764. 7 Claims. (Cl. 104-124.)

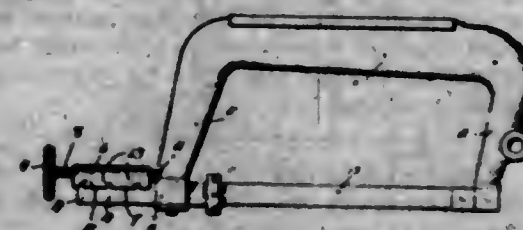
1. A device of the character specified comprising a trackway consisting of a series of steps and arranged in inclined position, so that the risers of the steps are vertical, side boards at the opposite sides of the track and extending above the steps, and cars mounted to slide on

the steps, each car having its under face composed of two surfaces meeting at an obtuse angle, said car being



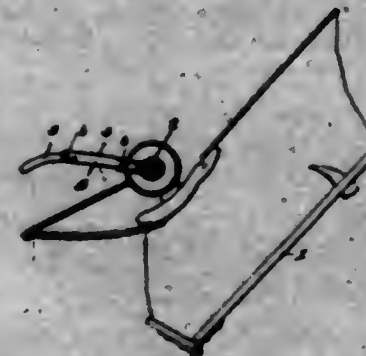
of greater length than the distance between two steps, and the forward inclined surface being of greater length than the rearward inclined surface.

1,302,643. HACKSAW-BLADE ADJUSTER. CHARLES H. DAVIES, Racine, Wis., assignor to J. Moores Jones, Racine, Wis. Filed Jan. 25, 1918. Serial No. 212,061. 5 Claims. (Cl. 145-33.)



1. In a device of the class described the combination with a carrying frame, a cutting blade or the like carried by said frame, of means for tensioning said blade or the like comprising a channeled housing slidably engaged with one edge of the blade or the like, cooperative retaining means on said housing and blade or the like, and means engageable with said carrying frame for moving said housing away from the latter.

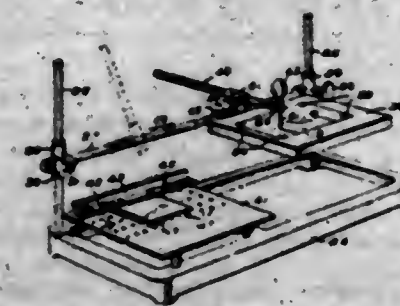
1,302,644. KNIFE ATTACHMENT FOR KICKER-ARMS OF BINDERS. ARTHUR J. HENSLY, Independence, Ind. Filed Aug. 3, 1918. Serial No. 248,116. 1 Claim. (Cl. 56-449.)



The combination with a shaft mounted for rotation, and a kicker arm extending from and revoluble with the shaft, of means for preventing vines from wrapping about the shaft, said means including a cutting blade

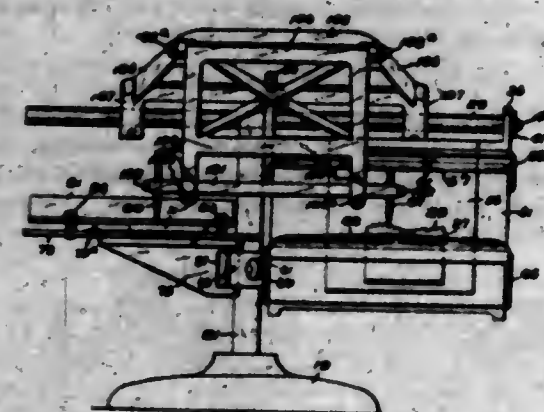
secured to one side of the arm and having teeth upon the advancing edge projecting beyond the advancing edge of the arm.

1,302,645. INSTRUMENT FOR LAYING OUT THE CUTTING EDGES OF CUTTER-KNIVES. RAYMOND D. EMERY, Winchendon, Mass., assignor to William M. Whitney, Winchendon, Mass. Filed Oct. 3, 1917. Serial No. 194,590. 11 Claims. (Cl. 33-189.)



1. An instrument for laying out the cutting edges of knives of molding cutters and the like, comprising, in combination, a guide member, means to support a pattern a distance from the axis of said member determining the radial distance of the cutting edge of the cutter from the axis of the cutter head, means to support a knife blank a distance from the axis of said member determining the distance of the plane of the knife from the axis of the cutter head, and tracer means arranged to rock transversely about and slide axially of said member to lay out on said knife blank a contour determined by adjustments of said tracer means to progressive points on said pattern.

1,302,646. KNIFE-MARKER. WILLIAM C. FARNUM, Winchendon, Mass., assignor to William M. Whitney, Winchendon, Mass. Filed Oct. 3, 1917. Serial No. 194,625. 17 Claims. (Cl. 33-24.)

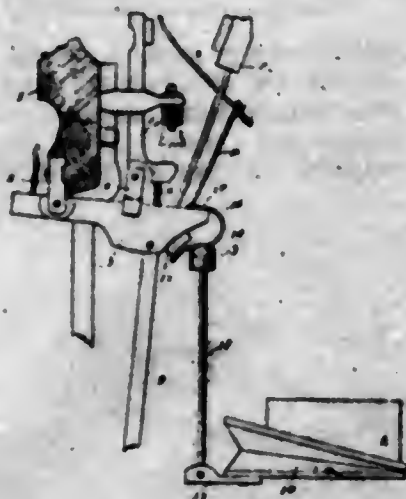


1. An instrument for laying out the cutting edges of knives of molding cutters and the like, comprising, in combination, means for supporting a pattern, means for supporting a knife blank, relatively fixed tracers movable concurrently over the pattern and knife blank respectively and means connecting said tracers.

1,302,647. WIPPEN CONNECTION FOR PLAYER-PIANOS. JOHN FARR, Cincinnati, Ohio. Filed July 2, 1918. Serial No. 242,008. 2 Claims. (Cl. 84-223.)

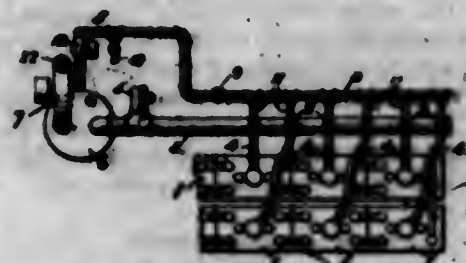
1. In a player piano, the combination with the wippen and abstracts of the piano action, of player pneu-

matics, with strikers secured to the movable members thereof, and curved spring plates secured to the upper



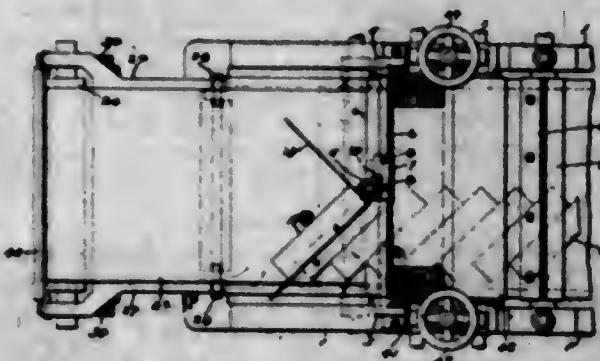
surface of the wippen, with the free ends of the spring plates forming contact members for the strikers when actuated by the pneumatics.

1,302,648. VENTILATION OF STORAGE BATTERIES. LOUIS H. FLANDERS, Jenkintown, Pa. Filed May 10, 1917. Serial No. 167,688. 18 Claims. (Cl. 204-29.)



7. Ventilation for storage batteries comprising the combination of a plurality of cells, an exhaust main, a fluid supply manifold, a series of ejectors interposed between the main and manifold, connections from said ejectors to individual cell units, and means including a storage tank for circulating fluid through the manifold and main, substantially as described.

1,302,649. HOPPER-FEED FOR WOODWORKING-MACHINES. ARTHUR E. FOLSOM, Winchendon, Mass., assignor to WILLIAM M. WHITNEY, Winchendon, Mass. Filed Jan. 4, 1917. Serial No. 140,680. 18 Claims. (Cl. 144-245.)



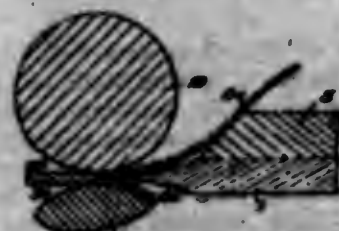
1. In a surface planing machine, the combination of a cutter for acting upon the surface of wooden strips, feed rolls for feeding the strips to the cutter, a hopper for holding a series of wooden strips in diagonal relation to the axis of the feed rolls, and a smooth surfaced belt for taking the wooden strips successively from the hopper and moving them to the feed rolls in diagonal relation thereto.

1,302,650. PHONOGRAPH-STOP MECHANISM. ARTHUR H. FRANKER, Manitowoc, Wis. Filed Aug. 29, 1918. Serial No. 252,101. 2 Claims. (Cl. 74-48.)



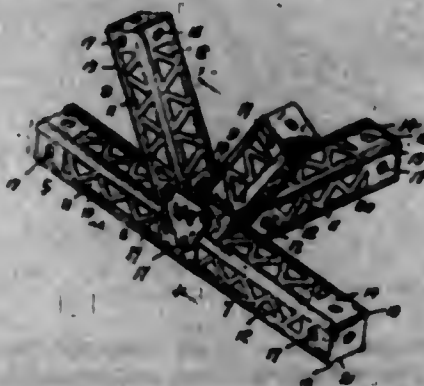
1. A phonograph stop mechanism including a base member, a brake lever pivoted on the base member, a brake member carried by said lever, means urging said lever to braking position, a second lever pivoted on the base member and engageable with the first lever to hold it against the action of said means, a bearing surface on the second lever, a slide bar, a trip lever carried by said slide bar and engageable with various portions of the bearing surface of the second lever to move the second lever upon engagement of said trip lever by a phonograph tone-arm, means for holding the slide bar against sliding movement, and symbols associated with the slide bar for determining positions of the trip lever for engagement by the phonograph tone-arm.

1,302,651. LEATHER-SPLITTING MACHINE. JACOB F. FUNCK, Rochester, N. Y. Filed Feb. 23, 1916. Serial No. 79,933. 12 Claims. (Cl. 60-13.)



7. In a leather splitting machine, the combination of a knife, and means extending forwardly of the cutting edge of the knife for feeding and directing a piece of stock thereto, said means comprising a roller having a spiral surface.

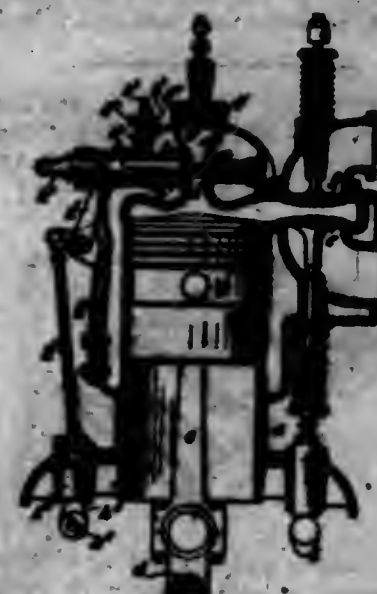
1,302,652. TOY BUILDING CONSTRUCTION. ALFRED C. GILBERT, New Haven, Conn., assignor to The A. C. Gilbert Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 6, 1916. Serial No. 70,096. 8 Claims. (Cl. 189-34.)



1. In toy building construction, a girder formed of two interconnected sections each composed of a plurality of

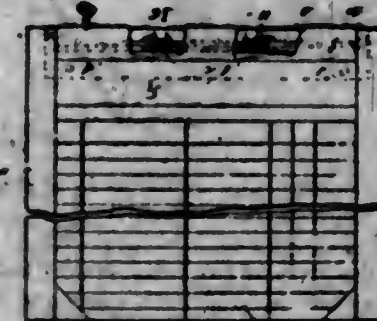
sheet metal strips, said sections placed endwise relatively to each other with the strips of one section overlapping the corresponding strips of the other section, a box girder section arranged obliquely with respect to said girder and having one end contiguous to said girder at the point where said sections are interconnected, and means for detachably securing said oblique girder section to said girder comprising plates and bolts passing through said plates and through the adjacent end portions of said girders, said bolts serving also as means for retaining said strips in place to form said girders; substantially as described.

1,302,653. INTERNAL-COMBUSTION ENGINE. ARTHUR B. GOODEMAN, Hadlyme, Conn., assignor to Industrial Development Company, New York, N. Y., a Corporation of New York. Filed Feb. 9, 1918. Serial No. 216,338. 4 Claims. (Cl. 129-33.)



2. In an internal combustion engine, the combination of a working cylinder, means to introduce the main charge at the head end of the cylinder, an igniting cylinder in communication with the combustion chamber of the working cylinder, a plunger in said igniting cylinder, said igniting cylinder having a port uncovered by the plunger in its rearward movement, and means to admit an igniting charge to the igniting cylinder through said port from a source external to the combustion chamber of the engine.

1,302,654. LOOSE-LEAF HOTEL-REGISTER DEVICE. WILLIAM H. HARR, Cicero, Ill., assignor to The American Hotel Register Co., Chicago, Ill. Filed June 8, 1918. Serial No. 238,868. 1 Claim. (Cl. 129-35.)



In a loose leaf hotel register device, a substantial board having an elongated notch cut in one side, a spring-pressed holding clip adapted to fit into said notch, said clip having a right bottom member adapted to extend beyond the inner edge of said notch and be secured to the bottom side of the board, a rocking spring-pressed member hinged to said right base, its inner edge extending beyond the inner edge of the slot in said board and normally resting upon the top surface thereof.

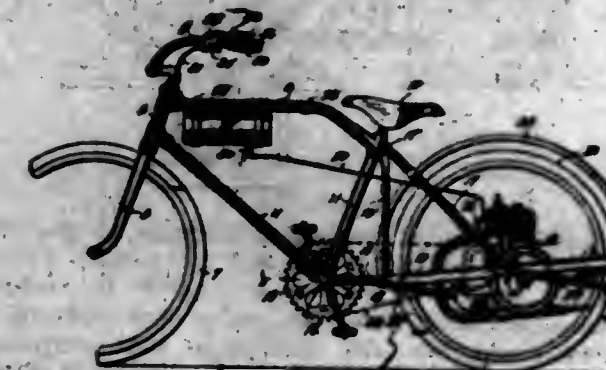
262 O. G.-3

1,302,655. MACHINE FOR PROTECTING CHECKS AND THE LIKE. CHARLES H. HANCOCK, Binghamton, N. Y. Filed Mar. 3, 1917. Serial No. 152,425. 6 Claims. (Cl. 197-64.)



1. A check writer comprising a base, a frame adapted for transverse movement with respect to said base, a printing wheel carried by said frame, a pinion carried by said printing wheel, a movable rack adapted to engage said pinion, a spring for normally maintaining engagement between the pinion and rack, means for moving said pinion transversely out of engagement with said rack, and means for locking said rack when said pinion is moved out of engagement with the same.

1,302,656. MOTOR-CYCLE. JOHN F. HAUSMANN, Milwaukee, Wis., assignor of one-half to Badger Packard Machinery Co., Milwaukee, Wis. Filed Aug. 18, 1917. Serial No. 186,994. 6 Claims. (Cl. 180-33.)



1. The combination with a wheel carrying motor structure having arms projecting therefrom and extending outwardly of the wheel, of a cycle frame, and means carried by the frame for attachment to the arms of the motor structure whereby the wheel thereof supports the rear portion of the frame.

1,302,657. MOTOR-PLOW. CHRISTIAN F. HINES, Point Pleasant, W. Va. Filed Sept. 24, 1917. Serial No. 192,859. 11 Claims. (Cl. 97-66.)



6. In a motor plow, the combination of a pair of triangular sprockets, and a chain having links to engage the same, the sprockets so disposed as to carry five chain links, with spacing elements on said links, for the purpose specified.

1,302,658. SPLASH-GUARD FOR KITCHEN-SINKS AND THE LIKE. BESSIE HENNING, Chicago, Ill. Filed Jan. 24, 1919. Serial No. 272,851. 2 Claims. (Cl. 4-36.)

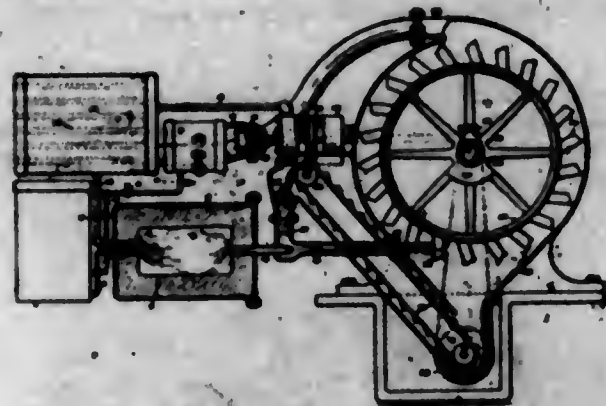
1. A splash guard adapted for use on kitchen sinks and the like, comprising a sheet metallic plate, said plate having formed therein a longitudinal curvature or offset approximately medially of its width and extending the entire length of said plate to afford upper and lower members.

and a multiplicity of catches secured at one end to the back of the upper portion of the guard, said catches being outwardly curved to correspond to the curvature of the rim roll, and then inwardly curved, the terminals of the



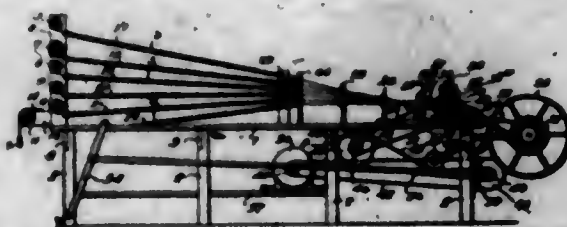
catches being in parallel relationship to the lower portion of the guard and normally contacting therewith, the ends of the catches extending beyond the lower margin of the guard, said catches being resilient.

1,302,659. ROTARY GAS-ENGINE. HUGH HOAX, San Francisco, Calif. Filed Jan. 4, 1919. Serial No. 269,659. 4 Claims. (Cl. 60-40.)



1. In combination, a combustion chamber, means for introducing thereto fluid fuel and compressed air, a tube leading from said combustion chamber to conduct therefrom products of combustion under high pressure, a conduit for conducting solid material in small particles, one portion of said conduit being in approximate alignment with said tube, said tube discharging into said latter portion, and a wheel having a circular series of impact devices successively moved by its rotation into a position in alignment with said portion of said conduit to be impinged upon by said material flowing therethrough.

1,302,660. MACHINE FOR MAKING PNEUMATIC-TIRE FLAPS. EDISON G. HULAK, Akron, Ohio, assignor to Kelly-Springfield Tire Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 18, 1917. Serial No. 197,239. 4 Claims. (Cl. 154-9.)

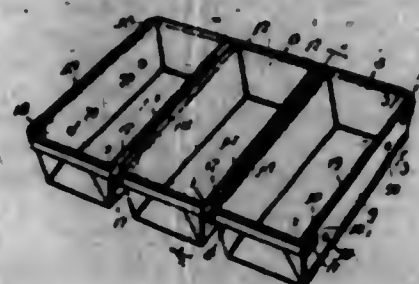


1. In a machine of the character described, supports for a series of fabric rolls, devices associated therewith for causing fabric strips to be drawn therefrom and laid together, supporting table-like guides between said rolls and said devices converging toward said devices, and means for compressing said strips to cause them to adhere together.

1,302,661. BAKING-PAN. JOSEPH GEORGE JACKSON, Chicago, Ill., assignor to Edward Katsinger Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 26, 1918. Serial No. 230,867. 8 Claims. (Cl. 53-6.)

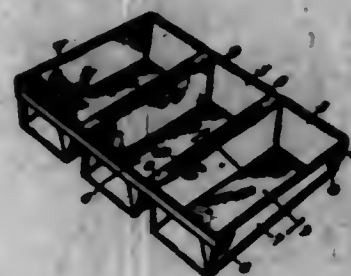
1. A multiple baking pan comprising a plurality of spaced pans each having a wire frame around its rim; bars

extending along the ends of said spaced pans; and members secured to said bars between the pans, each member having a narrow plate portion extending between and rigidly



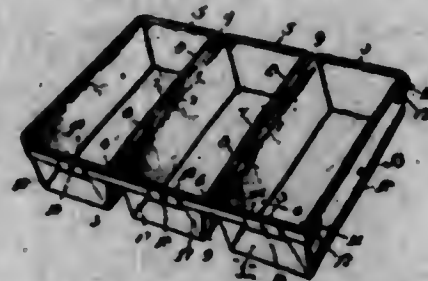
bracing the end portions of two adjacent pan rims apart and portions at the longitudinal edges of said plane portion disposed around the wire frames under the metal of the pans, rigidly securing said members to said pans.

1,302,662. BAKING-PAN. JOSEPH GEORGE JACKSON, Chicago, Ill., assignor to Edward Katsinger Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 26, 1918. Serial No. 230,868. 7 Claims. (Cl. 53-6.)



1. A multiple baking pan comprising a frame; a plurality of pans disposed in said frame with their rims adjacent said frame; and members near the ends of and between said pans having portions extending more than half way around and clamped on the rims of the pans, said members being welded to said frame.

1,302,663. BAKING-PAN. JOSEPH GEORGE JACKSON, Chicago, Ill., assignor to Edward Katsinger Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 26, 1918. Serial No. 230,869. 10 Claims. (Cl. 53-6.)

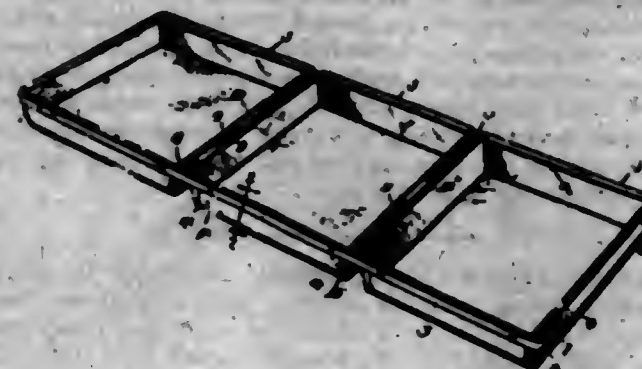


1. A multiple baking pan comprising a plurality of individual pans; bars disposed along the ends of said individual pans; and members having portions disposed between parts of the rims of the ends of said individual pans and portions disposed around both sides and both edges of said bars.

1,302,664. BAKING-PAN. JOSEPH GEORGE JACKSON, Chicago, Ill., assignor to Edward Katsinger Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 26, 1918. Serial No. 230,870. 8 Claims. (Cl. 53-6.)

1. A multiple baking pan comprising a plurality of pans having wires turned in around their rims; a frame extending around all of said pans; and a member at each end of each of said pans, each member having one edge

portion turned in between the wire and wall material of an end of one of said pans, its intermediate portion dis-



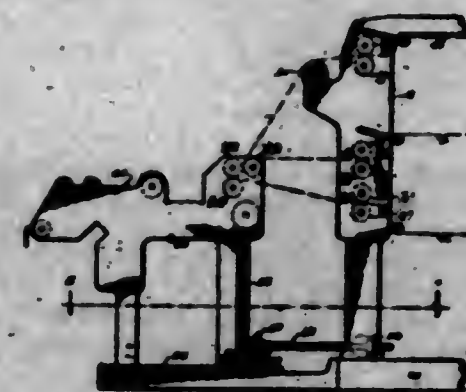
posed between a pan end and said frame and secured to the latter and its other edge portion folded up between said intermediate portion and the adjacent pan end.

1,302,665. PUMP. JOHN H. JANN, Chicago, Ill., assignor to Chicago Automatic Machine Company, a Corporation of Illinois. Filed Jan. 2, 1915. Serial No. 149. 18 Claims. (Cl. 123-185.)



1. In combination, a crank, a pump carried by said crank, a single operating shaft to drive said pump, a motor shaft, and means for transmitting motion from said crank to said motor shaft and from said motor shaft to said pump through said operating shaft.

1,302,666. PRINTING-PRESS MECHANISM. GEORGE C. JOHNSON, Los Angeles, Calif., assignor to Oscar L. Moore, Chicago, Ill. Filed Dec. 27, 1915. Serial No. 68,746. Renewed Oct. 7, 1918. Serial No. 257,272. 2 Claims. (Cl. 270-4.)



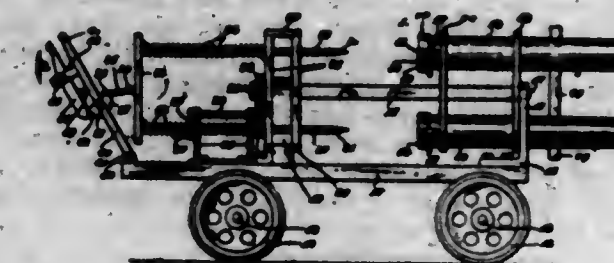
1. The combination with a multi-web printing press, of an associating and delivering mechanism, comprising a single frame mounted to be moved about a pivotal axis whereby the place of delivery of the printed product may be changed, said frame provided with rollers to receive the web direct in one position of the frame or folded in another.

1,302,667. VENTILATED STRUCTURE AND BLOCK THEREFOR. JOHN D. JONES, Highland Park, Ill. Filed Feb. 19, 1918. Serial No. 218,141. 1 Claim. (Cl. 73-41.)



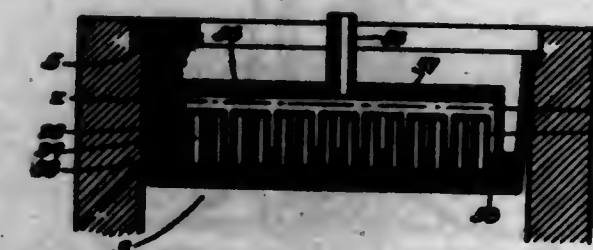
A wall, comprising hollow blocks arranged in courses, the blocks of one course breaking joint with the blocks of the adjacent course and the blocks of the intermediate courses being of like formation, each block being hollow and having a centrally disposed vertical partition, the blocks of the upper and lower courses being similar in structure to the blocks of the intermediate courses and distinguished therefrom by having a longitudinal edge portion of a side wall of each cutaway and the partition cutaway a distance corresponding with the cutaway portion of the side wall, the blocks of the upper course being disposed with their cutaway sides facing outward and the blocks of the lower course being disposed with their cutaway sides facing inward, the vertical channels formed by the blocks being in communication at alternate opposite ends and with the atmosphere, the upper and lower blocks being closed at their upper and lower ends, respectively, in the usual way.

1,302,668. COMBINATION GUN AND WIRE-CUTTER. JOSEPH KARASEVICH, South Amboy, N. J. Filed Aug. 12, 1918. Serial No. 249,384. 1 Claim. (Cl. 89-1.)



In an implement of the class described, the combination with a wheeled platform, brackets arranged on the upper surface thereof, a bar pivotally mounted in said brackets, a pair of guns operatively connected at the sides of said bar, firing pins secured to said bar at the end thereof, means for manually rotating said bar, an elongated slot passing through the muzzles of said guns, projectiles fitted to the bore of said guns, said projectiles having a transverse passage formed therethrough, a cutter-bar engageable in said transverse passages movable in the slots in the muzzles of said guns, means for rotating said guns upon the axis of said bar into different planes, said firing means moving therewith, and means for operating said firing means whereby said projectiles may be simultaneously discharged.

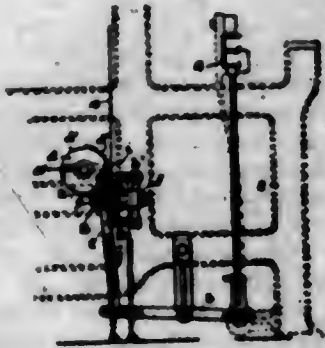
1,302,669. APPARATUS FOR DISTILLING HYDROCARBON OR OTHER LIQUIDS. SIDNEY E. KILGUS, Kansas City, Mo. Filed Sept. 20, 1916. Serial No. 121,316. 11 Claims. (Cl. 196-3.)



11. A super-heater for use in distilling hydro-carbon or other liquids, comprising a vessel having an inlet and an

outlet, a removable inverted elongated duct or channel contained in said vessel and open at its lower portion throughout its entire length to the space in said vessel and a sealing fluid in said vessel immersing the lower portion of the duct or channel.

1,302,670. BOX-OPERATING MECHANISM FOR LOOMS. JOHN T. KENNEDY, West Paterson borough, N. J., assignor of one-half to Fred C. Kennedy, Paterson, N. J. Filed Jan. 12, 1918. Serial No. 211,511. 1 Claim. (Cl. 139-28.)

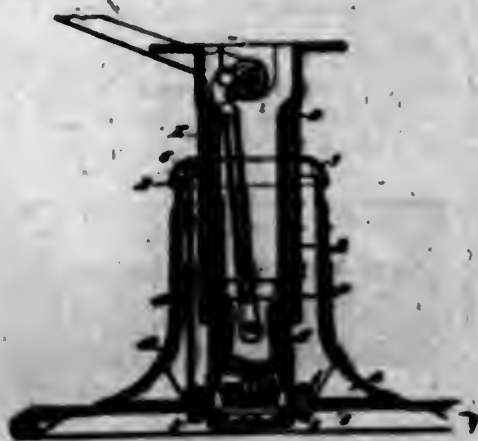


In combination, the loom frame, a shaft journaled therein, a shuttle-box structure to be shifted, a toothed driving gear on said shaft, a bracket secured to said frame and having spaced bearing portions, and means to transmit shifting motion from said gear to said structure including a rotary member journaled parallel with the shaft in and confined by said bearing portions against longitudinal movement, a toothed driven gear splined on said member and shiftable thereon into and out of the plane of the driving gear and adapted to mesh with the latter when in said plane, the shifting movement of the driven gear being limited in one direction by said member and in the other by one of said bearing portions, means to shift said driven gear back and forth, and means to operatively connect said structure with an eccentric point of said member.

1,302,671. PROCESS FOR THE PRODUCTION OF BLUE SULFUR DYES. OSCAR KNECHT, Basel, Switzerland, assignor to Chemical Works, formerly Sandoz, Basel, Switzerland. Filed Dec. 14, 1918. Serial No. 268,834. 4 Claims. (Cl. 8-1.)

1. The herein described process for the production of blue sulfur dyes which consists in treating a mixture of leucoindophenols and of nonhydroxylated paranitroamido compounds of the benzene series with polysulfide.

1,302,672. BARBER-CHAIR. WALTER F. KOKEN and GEORGE G. ANDERSON, St. Louis, Mo., assignors to Koken Barbers' Supply Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 18, 1918. Serial No. 263,066. 2 Claims. (Cl. 155-7.)



1. A barber chair, comprising a base member provided with a horizontally-disposed supporting portion, a socket

member arranged inside of said base member and provided with a part that laps over and rests upon said supporting portion, a vertically-adjustable stem that slides in said socket member, a concentrically arranged sleeve on said stem that projects downwardly into the base member and surrounds said socket member, a cap piece telescoped over the upper end of said base member, and fastening devices passing upwardly through the supporting portion on the base member and screwed into lugs on the underside of said cap piece.

1,302,673. FIRE-EXTINGUISHER. MELAOSS G. KOPF, Dayton, Ohio, assignor to The Ralko Products Company, Dayton, Ohio, a Corporation of Ohio. Filed Apr. 22, 1918. Serial No. 229,991. 28 Claims. (Cl. 169-7.)



1. In a fire extinguisher, a casing having a discharge opening, a piston mounted in said casing and carrying on that side thereof opposite said discharge opening a receptacle for one of two substances which when brought together will produce gas, means to support the other of said substances independently of said piston, and means to release the last mentioned substance from said support and cause it to come into contact with the substance in said receptacle.

1,302,674. CLAMPING DEVICE. HUBERT F. KRANTS, Brooklyn, N. Y., assignor to Krants Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Original application filed Feb. 24, 1918, Serial No. 750,145. Divided and this application filed Nov. 7, 1917. Serial No. 200,674. Renewed July 15, 1918. Serial No. 245,068. 5 Claims. (Cl. 175-282.)

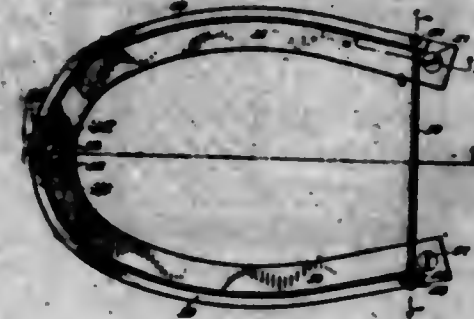


1. A clamping device comprising a supporting member having a tapered opening, a supported member and two clamping members of wedge shape disposed in said opening, said supported member and said clamping members having interlocking means to prevent independent movement, a plate, and means cooperating with said plate, to move the clamping members to their clamping positions and hold them therein.

1,302,675. HORSESHOE. HAWTHIL KRAWCHENYH, Pittsburgh, Pa. Filed Jan. 23, 1919. Serial No. 272,674. 2 Claims. (Cl. 169-19.)

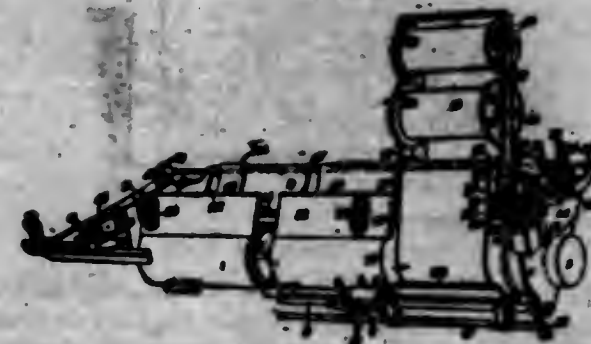
1. A horseshoe comprising arcuate sections having shiftable connecting portions at their adjacent forward ends and with a recess in the under face of the sections at said ends thereof, a toe nail seated within said recess and projecting beneath the shoe having curved sides

adapted for accommodating the relative swinging movements of said sections, an upwardly and inwardly projecting flange carried by the outer margins of each shoe section, a clamping rod extending through the rear portion of one of said flanges having a spherical head upon the rod outwardly of the flange, a shoulder upon the



opposite flange with the shoulder and its carrying flange provided with a socket and a perforation, the other end of said rod being screw-threaded and projecting through said socket and shoulder and the adjacent perforation, and an adjusting nut threaded upon the free end of the rod and journaled in said socket.

1,302,676. TYPE-WRITING MACHINE. ALFRED G. F. KUZOWSKI, Brooklyn, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 14, 1917. Serial No. 184,650. 16 Claims. (Cl. 197-122.)



1. In a typewriter machine, the combination with a travelling carriage having a platen, of a tally strip winding roll therefor, a ratchet wheel operating said winding roll, a pawl for operating said ratchet, a line-space mechanism for said carriage, means for causing said line-space mechanism to be effective or ineffective at will, to drive said ratchet wheel by said pawl, feeding rolls adapted to cooperate with said platen, means for moving said feeding rolls to ineffective position, connections whereby said feed-roll-operating means may be made effective or ineffective at will, to drive said ratchet wheel, a shaft for said ratchet wheel, a frame carrying said winding roll and journaled on said shaft to permit the roll and frame to be swung down to the carriage, and means for holding the frame in its upper position.

1,302,677. OVERSHOE-RETAINER. VICTOR E. LANGHARDT, Hahn, Calif. Filed Dec. 17, 1918. Serial No. 267,178. 4 Claims. (Cl. 26-58.5.)

1. An overshoe retainer including an ankle engaging strap, having a part thereof cut away to produce a weakened portion, a supporting plate depending from the strap at the weakened portion thereof, spaced clamps arranged one on each side of the weakened portion of the strap and each provided with a shank extending the entire height of the supporting plate and interposed between

said supporting plate and strap, a single rivet passing through the shank of each clamp and through the support-



ing plate and strap, and a pad secured to the inner face of the supporting plate and forming a covering for the heads of the rivets.

1,302,678. FIRE-EXTINGUISHER. WILLIAM F. LAUTERBACH, Dayton, Ohio, assignor, by mesne assignments, of one-half to The Ralko Products Company, Dayton, Ohio, a Corporation of Ohio. Filed Nov. 19, 1917. Serial No. 202,710. 14 Claims. (Cl. 169-7.)



1. In a fire extinguisher, a casing to contain a fire extinguishing liquid and having a discharge opening, a piston mounted in said casing to discharge the liquid through said opening, said piston being adapted to support a gas generating substance, and means controlled from the exterior of said casing to cause a second gas generating substance to come in contact with the first mentioned substance.

1,302,679. FIRE-EXTINGUISHER. WILLIAM F. LAUTERBACH, ULRIKH J. RAFFEL, and MELAOSS G. KOPF, Dayton, Ohio, said Raffel and Kopf assignors to The Ralko Products Company, Dayton, Ohio, a Corporation of Ohio. Filed Apr. 22, 1918. Serial No. 229,993. 15 Claims. (Cl. 169-7.)



12. In a fire extinguisher, a casing, a supporting structure mounted within said casing, a bag carried by said

supporting structure, a frangible container arranged within said bag, adapted to contain a liquid, and supported adjacent to a dry substance, and a plunger slidably mounted in the end wall of said casing and having means for breaking said container, and means for preventing said plunger from returning to its normal position after said container has been broken.

1,302,680. BRAKE-BAND. ELMER JAMES LEE and EDWIN HARRISON STRINMETZ, Bangor, Pa. Filed Mar. 2, 1918. Serial No. 220,097. 5 Claims. (Cl. 74-37.)



1. In a brake band construction, a body portion having ends spaced apart, a cam disposed between the ends for expanding the brake band, and means carried by the end portion of each of said bands and movable relatively to one another for causing the end portion to expand symmetrically.

5. In a brake, the combination of a brake band having end portions spaced apart, of a cam arranged to engage said end portion for expanding the brake band, each end portion being provided with a guide member secured thereto and extending into sliding engagement with the opposite end portion, said guide members being of less width than the width of the brake band and being disposed in parallel relation, each of said guide members having a slight bend to permit the free movement of the guide members.

1,302,681. WHEEL-LOCKING DEVICE. EMMON P. LAGOM, Moncton, New Brunswick, Canada. Filed June 25, 1918. Serial No. 241,823. 1 Claim. (Cl. 188-48.)

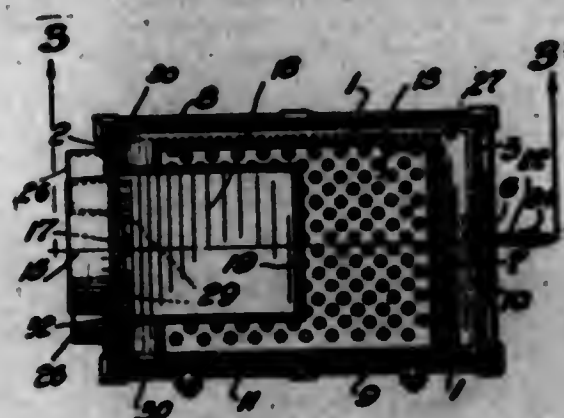


A device of the character described comprising a pair of clamps, each of said clamps comprising a plate having a pair of spaced depending portions, one of said depending portions having a lip extending inwardly at right angles to said last mentioned depending portion and the other depending portion extending outwardly at an angle to said lip forming an opening therebetween adapted to receive the ball of a rail, and means connected to opposite ends of said clamps adapted to pass over the rim of a car wheel.

1,302,682. SMOKE-GENERATOR. ANDREW C. LAGO, Birmingham, Ala., assignor to Legg Meat Curing Company, a Corporation of Alabama. Continuation of application Serial No. 13,063, filed Mar. 8, 1915. This application filed Sept. 20, 1917. Serial No. 193,967. 15 Claims. (Cl. 34-18.)

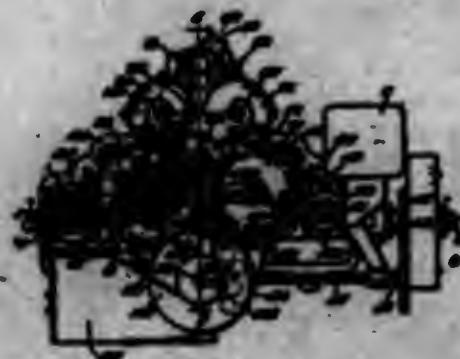
1. A smoke generating furnace for smoke-houses comprising a chamber for generating smoke or hot gases, a

fire box below the said chamber and separated therefrom so that its products of combustion do not gain access to



said generating chamber, means to admit air and fuel to said generating chamber, and pipe means to conduct the generated smoke or gases to the point of use.

1,302,683. BOTTLE CAPPING AND SEALING MACHINE. THOMAS J. LEVY, Baltimore, Md., assignor to International Cap and Sealing Machine Company, a Corporation of Maryland. Original application filed Jan. 30, 1917, Serial No. 145,492. Divided and this application filed July 23, 1917. Serial No. 182,261. 6 Claims. (Cl. 192-1.)



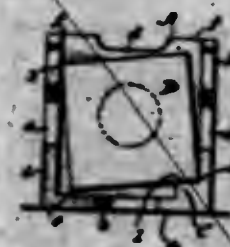
1. In a bottle distributing means for capping machines the combination of a rotatable member adapted to contact with and be moved by a rotating bottle holding rack; a reciprocating means associated with said member adapted to be moved in opposite directions thereby; oscillating means connected to said reciprocating means and operated thereby; and an oscillating bottle distributing member connected with and operated by said oscillating means, substantially as described.

2. In a bottle capping machine the combination of a continuously rotating bottle support; a stationary bottle support; a reciprocating yielding bottle feeding member for moving bottles from said first named support to said second named support; an intermittently moving bottle carrying table; and inclined bottle centering fingers moving with said table adapted to receive bottles from said feeding member while resting on said stationary support, substantially as described.

1,302,684. SAGGAR. HARRY D. LILLIBRIDGE, Zanesville, Ohio, assignor to American Encaustic Tiling Co., Ltd., New York, N. Y., a Corporation of New York. Filed Feb. 21, 1919. Serial No. 278,405. 3 Claims. (Cl. 25-153.)

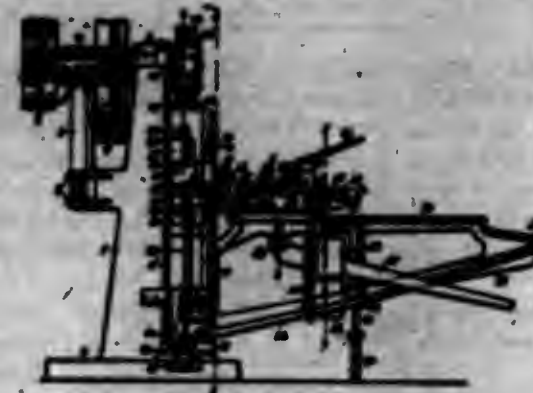
1. A saggar provided with a single tile supporting ledge or shoulder positioned in the angle or corner between the bottom and one side wall, said saggar being adapted to contain one or more tiles the bottom edge of which rests upon said ledge or shoulder and the diagonally opposite corners of which impinge the opposite walls of said saggar, whereby each tile is overbalanced within the saggar

to assume a tilted or canted position therein and to attain at least three points of contact therewith in order



that such points of contact will offer such resistance to the tile as to preclude displacement thereof within the saggar.

1,302,685. MACHINE FOR MAKING DRILLS. EDWARD LUNGGREN, Fayetteville, N. Y. Filed Nov. 30, 1917. Serial No. 204,654. 16 Claims. (Cl. 76-5.)



1. In a machine for making drills, the combination of cooperative dies and means for operating one die in relation to the other die, a work-holder and operating means therefor for advancing the work between the dies, means for rotating the work-holder during said advancing movement and means for gradually lessening the movement of the first-named die as the diameter of the work is reduced.

1,302,686. MEANS FOR CONTROLLING VEHICLE-TRAINS. JOHN H. LOCK, Detroit, Mich. Filed Sept. 20, 1918. Serial No. 254,908. 5 Claims. (Cl. 180-14.)

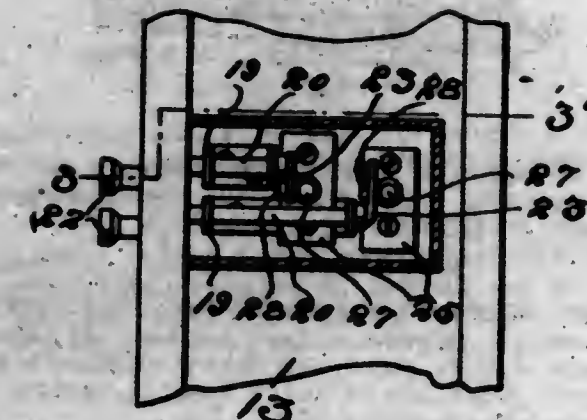


1. The combination of a plurality of internal combustion motor driven vehicles, means for connecting the respective vehicles together to form a train, circuit breaking means for controlling the ignition circuit for the internal combustion motors of the respective vehicles adapted to be operated through the movement of the respective vehicles with reference to each other, and manually operable means connected with the controlling means of the prime movers of the several vehicles, whereby upon the operation of the controlling means of one vehicle the controlling means of the respective vehicles may be simultaneously operated.

1,302,687. WINDOW-FASTENER. CHARLES LOMBARDO, Waterford, N. J. Filed May 15, 1917. Serial No. 168,771. 3 Claims. (Cl. 16-119.)

1. A window fastener for sashes mounted in the usual frame with the upper portion of the lower sash overlapping the lower portion of the upper sash when said sashes are closed; comprising a casing adapted to be fitted in the frame to overlie said overlapped portions, engaging members within the casing for disposition through the frame at the sash edges to simultaneously or independently engage the latter when closed or at any position of

sliding movement of one with respect to the other to hold said sashes in adjusted relation, said engaging means comprising spring pressed bolts, the sashes having spaced sockets along the edges thereof for engagement by said bolts, shafts journaled in the casing and protruding through the frame, the inner ends of the shafts terminating adjacent the respective bolts, rocker arms on the inner ends of the shafts having inclined slots there-through, fixed lateral projections on the bolts movably en-



gaged through the slots whereby rotation of the shafts will serve to move the bolts into positive engagement with the sockets, out of engagement therewith or to immediately withdraw said bolts to permit the same to ratchet in the sockets, and means on the shafts and outwardly of the frame to turn the shafts in either direction to oscillate the rocker arms and cause actuation of the bolts as stated or to hold the same in its particular actuated position.

1,302,688. STABILIZER FOR AIRCRAFT. DENVER MCKINLEY, Columbus, Ohio. Filed Nov. 30, 1917. Serial No. 204,724. 6 Claims. (Cl. 244-25.)

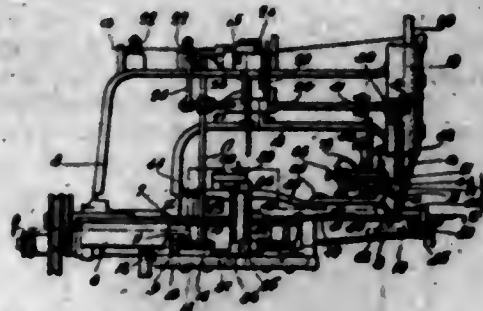


1. In air craft, the combination with a body part, provided with the usual running gear having a transverse landing wheel supporting shaft, of propellers arranged on the opposite sides of the body part, driving means for continuously operating said propellers, said driving means including a speed changing device, a pendulum suspended upon said shaft and adapted for universal movement thereon, and a connection between the pendulum and said speed changing means for shifting the latter upon the lateral swinging of the pendulum to change the relative speeds of rotation of said propellers and admit of the unchanged operation of the same upon the swinging of the pendulum longitudinally of the air craft.

1,302,689. SEWING-MACHINE. JAMES H. MASTRUSON, College Point, N. Y., assignor to Frederick Omann Company, a Corporation of New York. Filed May 21, 1917. Serial No. 160,938. 5 Claims. (Cl. 112-108.)

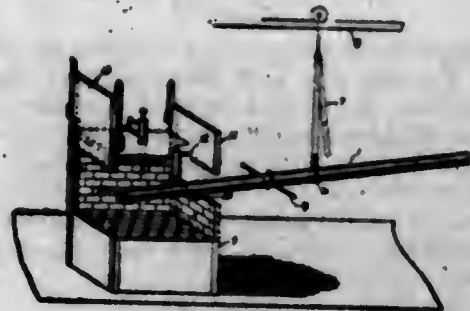
1. A sewing machine comprising a work holder having a cloth plate and a pair of button holding jaws spaced vertically above said cloth plate and movable relative to

each other and to said cloth plate, one of said jaws adapted to bear on cloth on said plate, and a cloth support



carried by said cloth plate, said cloth support and cloth plate cooperating to effect adjustment of cloth relative to the path of the needle and vertically.

1,302,000. METHOD OF REINFORCING DRILL-PIPES. WILLIAM O. MAXWELL, Los Angeles, and HENRY SCHWAB, Fellows, Calif.; said Schwab assignor to said Maxwell. Filed July 22, 1918. Serial No. 246,160. 2 Claims. (Cl. 113-112.)



1. The method of rebuilding tubular drill stems which consists in cutting off the damaged end of the old stem end to form a new end, cleaning out the new end, inserting a reinforcing ring, placing the new end in a furnace with the opposite end elevated, placing flux in through the reinforcing ring to its inner end, placing spelter in through the reinforcing ring to its inner end, and continuing the application of heat and rotating the stem so that the spelter and flux will flow between the reinforcing ring and the stem.

1,302,001. BOLSTER-SUPPORT FOR CYLINDERS OF INTERNAL-COMBUSTION ENGINES. THEODORE C. MANON, Waterloo, Iowa, assignor to Associated Manufacturers Company, Waterloo, Iowa. Filed Jan. 31, 1918. Serial No. 214,725. 2 Claims. (Cl. 121-105.)

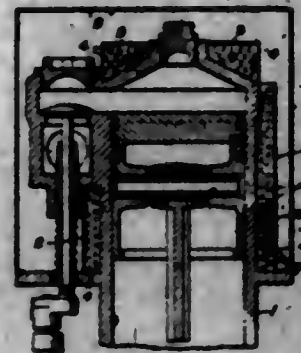


1. The combination with an engine base, of a cylinder detachably connected thereto in an overhanging position, said cylinder having a frustal base, a hollow pedestal having a coned seat at an end of its hollow to receive said base, and means connected to said base operable to draw the base into fitting contact with said coned seat.

1,302,002. ENGINE-CYLINDER. PETER J. MANON, Olean, N. Y. Filed July 20, 1917. Serial No. 181,747. 3 Claims. (Cl. 123-171.)

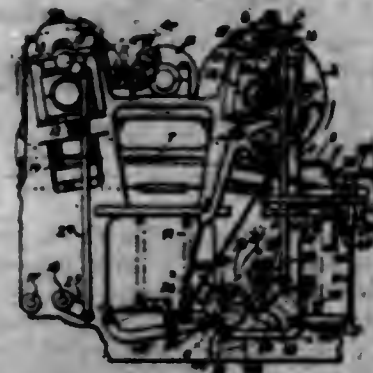
1. An internal combustion engine cylinder having a multiplicity of exterior three sided box-like heat radiating

members, each member composed of a longitudinally elongated trough-like strip of thin sheet metal formed



throughout its area with closely arranged perforations, and having its longitudinal edges cast into the cylinder wall.

1,302,003. TRIP-CONTROL MECHANISM FOR PRINTING-PRESSES. ROBERT MINNLA, Chicago, Ill. Filed Nov. 5, 1917. Serial No. 200,376. 19 Claims. (Cl. 101-102.)



1. A printing press including a tripping mechanism, trip positioning means in operative relation therewith and including resilient means adapted to cause said trip positioning means to assume untripping position, and timed press driven means in operative relation with said trip positioning means and adapted to move the same into untripping position after said positioning means has been moved into tripping position and has effected the positioning of said tripping mechanism to trip.

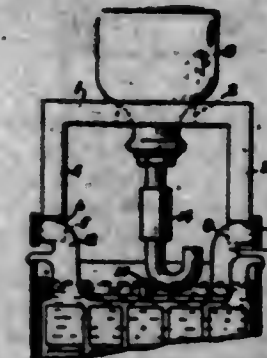
1,302,004. JACKET FOR OIL-CANS AND LIKE CONTAINERS. ROBERT KENNETH MILLS and BRON MOORE, Ottawa, Ontario, Canada. Filed Dec. 21, 1917. Serial No. 206,358. 2 Claims. (Cl. 230-9.)



1. A jacket comprising a body portion having its vertical edges lap-jointed, a perforated externally located bottom having an integral flange frictionally embracing the outer face of the body portion, an independent reinforcing band forced over the flange to provide a double thickness at this point, an independent reinforcing band

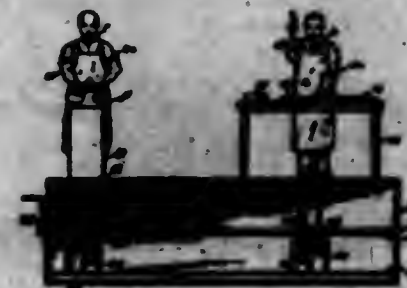
forced over the upper edge of the body portion and a cover having a depending flange fitting inside of the upper edge of the body portion.

1,302,005. STAND FOR STORAGE-BATTERY ACCESSORIES. HOMER B. MONTGOMERY, Philadelphia, Pa. Filed June 28, 1916. Serial No. 106,307. 1 Claim. (Cl. 240-41.)



A stand for storage battery accessories consisting of a frame provided with an accessory-holding-opening and with supporting legs of which one has one lug engaging foot and adjacent beveled supporting faces and of which the other has two lug engaging feet with a countersunk portion between them and two supporting faces outside of the lugs, substantially as described.

1,302,006. MECHANICAL TOY. LEON M. MOGRADIAN, Brighton, Mass. Filed Feb. 1, 1919. Serial No. 274,456. 1 Claim. (Cl. 46-40.)

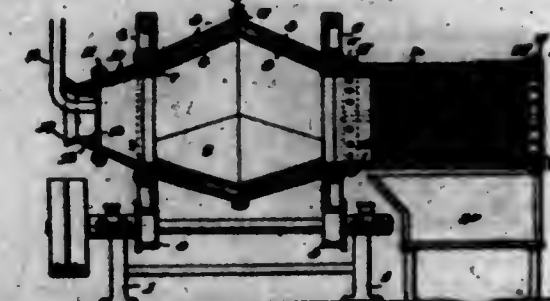


A mechanical toy having a platform supporting four hollow toy figures representing respectively a tradesman at work at a table, at a shoe-stand and at an anvil, each of the figures having oscillatable arm means for actuating each movable member comprising a rod fixed to each member, a weighted crank arm secured to the rod, a rod connected to the crank arm, a member extending transversely of the rod and operating mechanism comprising a shaft extending longitudinally through the casing having arms to engage the laterally extending members and oscillate the arms of the figures upon rotation of the shaft, a shaft with perpendicular arms arranged inside the casing below the revolving shaft secured at both ends to sides of the casing, said perpendicular arms keeping the laterally extending members in place.

1,302,007. SCREEN ATTACHMENT FOR MILLS. OLIVER J. MOURSETTE, Sr., Brooklyn, N. Y. Filed Aug. 21, 1916. Serial No. 116,157. 1 Claim. (Cl. 83-56.)

A screen attachment for wet mills of the revolving type comprising a tubular body of ferrous material open at its ends and having the form of a cylinder and provided along its abutting edges with longitudinal metallic reinforcements and at its opposite ends with circumferential reinforcing bands secured to said longitudinal reinforcements, means extending through the inner circumferential reinforcing band for fastening the intake end of the tubular body to the discharge end of the mill, and a clamping ring bearing against the inner face of the tubular member at the discharge end thereof and secured to the outer circumferential reinforcing band, said clamp-

ing ring being provided with an inwardly projecting retarding flange, the outer surface of which is disposed substantially flush with the adjacent edge of the outer cir-



cumferential reinforcing band, the interior of the body between the retarding flange and intake end thereof being unobstructed.

1,302,008. FRONT-RADIUS-ROD BRACE FOR MOTOR-VEHICLES. CHARLES W. MURPHY and WILLIAM J. BRISTAIN, Holdenville, Okla. Filed June 4, 1918. Serial No. 238,173. 4 Claims. (Cl. 31-182.)



1. A device of the character described including independent truss rods, a connecting fork for the rods having fork arms, a crotch engaging head rigid with the arms, the arms being loosely engaged with said rods, and means for adjusting the fork longitudinally with respect to the rods.

1,302,009. METHOD OF AND TOOL FOR SECURING CONNECTING PARTS OF BATTERY-PLATES. IRVING M. NORLS and WALTER E. GOASLING, Indianapolis, Ind., assignors to the Prest-O-Lite Company, Inc., Indianapolis, Ind., a Corporation of New York. Filed Nov. 26, 1917. Serial No. 204,028. Renewed Sept. 25, 1918. Serial No. 235,703. 3 Claims. (Cl. 29-145.)



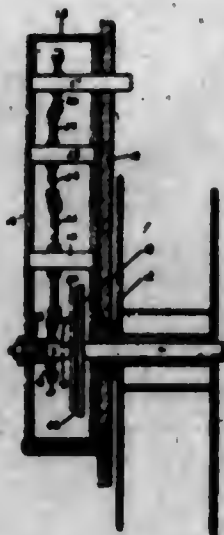
1. The method of securing the connector post of battery plates to the battery cover which consists in inserting said post through an aperture in said cover then heating the part of the post above the cover to slightly fuse the metal and pressing the metal down around the edge of the opening in said cover, substantially as set forth.

1,302,700. FILM-DEVELOPING DEVICE. JOHN E. Oliver, Lisbon, Ohio. Filed July 9, 1918. Serial No. 244,121. 4 Claims. (Cl. 95-90.5.)



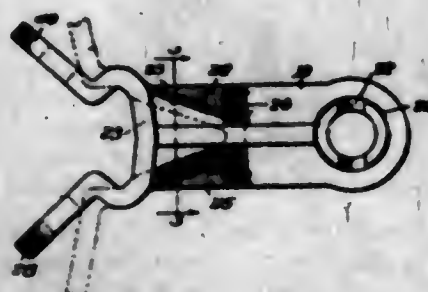
1. In a device for developing films, an annular liquid container open at its top and having its inner wall provided at its top with an impermeable web, a foraminous member for holding a film and adapted to be disposed in the annular container, and a cover for engaging the outer wall of said liquid container for confining the liquid therein.

1,302,701. OIL-ADHESION TRANSMISSION DEVICE. MILTON L. PARRET, Marshalltown, Iowa. Original application filed May 26, 1917, Serial No. 171,318. Divided and this application filed Jan. 19, 1918. Serial No. 212,631. 1 Claim. (Cl. 64-106.)



A transmission device for operating a film drum comprising a shaft having on one end a friction disk, a second aligned shaft having on one end adjacent to said first disk a second friction disk, said shafts being telescopically connected, a supporting member, a sleeve adjustably mounted in said supporting member and receiving one end of said second shaft, whereby when said sleeve is adjusted, the shafts may be adjusted longitudinally with relation to each other for varying the relative positions of said disks.

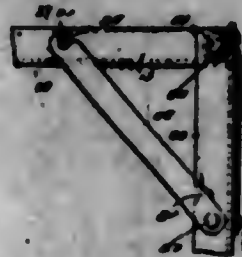
1,302,702. METHOD OF FORMING BRAKE-BEAM FULCRUMS. ARMAND H. PHYCKE, Chicago, Ill., assignor to The American Steel Foundries, Chicago, Ill., a Corporation of New Jersey. Filed Jan. 28, 1918. Serial No. 214,101. 8 Claims. (Cl. 29-164.)



1. The method of forming a brake beam fulcrum, consisting first in providing a blank having a lever receiving

portion, then pressing another portion of the blank into a cross shaped section, and then expanding this cross shaped portion to increase the strength thereof.

1,302,703. FOLDING STAND. ALBERT E. POLHAMUS, Fort Wayne, Ind. Filed July 20, 1916. Serial No. 110,260. 3 Claims. (Cl. 45-116.)



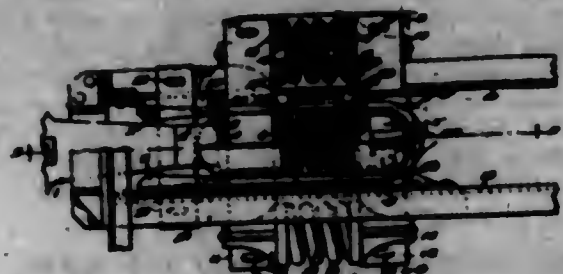
2. In combination, a stand top comprising a plurality of slats; flexible members secured to one side of the stand top with loops in lengths substantially twice the thickness of said slats in the flexible members at one alternate set of cracks between the slats and no loops at the other set of alternate cracks between the slats, said members being adapted to permit folding some of the slats together to form a top of smaller size than when all of said slats are unfolded; frame sides under the ends of said slats; and frame ends secured to said frame sides and having portions engaging the outermost of said slats, said frame sides being adjustable in length for maintaining the frame ends against the outermost slats when the stand top is partly folded and when the latter is entirely unfolded.

1,302,704. DRAFT-GEAR. HERMAN C. PRIES, Blue Island, Ill. Filed Oct. 16, 1916. Serial No. 123,766. 3 Claims. (Cl. 213-42.)



1. A draft-gear including a coupler having a coupler yoke, and a flaring support for the inner end of the coupler yoke from which the yoke is disengageable by outward movement thereof.

1,302,705. DRAFT-GEAR. HERMAN C. PRIES, Blue Island, Ill. Filed Dec. 3, 1917. Serial No. 305,211. 2 Claims. (Cl. 213-42.)



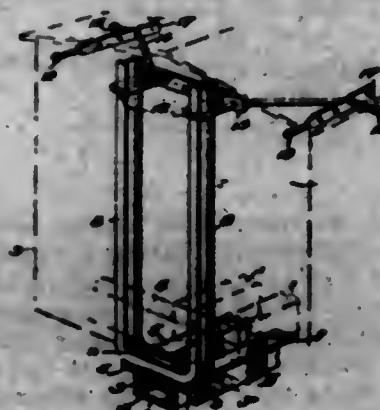
1. Draft gear including a coupler having a coupler yoke formed with two separate side straps of bar iron each of U-shape with the bases of the U-shaped straps outermost and the inner ends of each U-shaped strap extending toward the other strap and forming hooks with short ends, each U-shaped strap having its sides spaced apart for the reception of inner and outer follower elements therebetween; an outer follower having a portion located between the sides of the U-shaped straps at the outer ends of the yoke; and an inner follower having a portion located between the sides of the U-shaped straps and engaged by the inner ends of the straps, said inner follower having pockets that receive said short hook ends.

1,302,706. CAR STRUCTURE. HERMAN C. PRIES, Blue Island, Ill. Filed Feb. 16, 1918. Serial No. 217,589. 6 Claims. (Cl. 105-420.)



1. A car structure including main center sills; angle irons secured to said center sills and having horizontal flanges underlying said center sills and upright flanges projecting downwardly from said center sills; a sub-center sill structure underlying the main center sills and said horizontal angle iron flanges; and additional angle irons secured to the aforesaid upright angle iron flanges and having flanges underlying the sub-center sill structure.

1,302,707. CAR STRUCTURE. HERMAN C. PRIES, Blue Island, Ill. Filed Mar. 13, 1918. Serial No. 222,055. 9 Claims. (Cl. 105-411.)



1. A car structure including a car body; a pair of upright posts upon the exterior of an end wall of the car body; U-bolts embracing said posts near their upper ends; and a strap engaging the sides of each U-bolt to prevent them from spreading.

1,302,708. CAR STRUCTURE. HERMAN C. PRIES, Blue Island, Ill. Filed Oct. 10, 1918. Serial No. 257,590. 7 Claims. (Cl. 105-411.)



1. A car structure including a car body having an end sill; a dead block positioned to transmit force of coupler blows to said end sill; and a cap plate positioned to transmit force of coupler blows to said dead block and having a part along side of the dead block positioned to transmit force of coupler blows to the end sill.

1,302,709. ROTARY ENGINE. CHARLES L. RAGOT, Keyport, N. J., and LOUIS F. RAGOT, Milford, Pa. Filed Sept. 12, 1918. Serial No. 253,856. 7 Claims. (Cl. 121-63.)



1. In combination, a pair of parallel cylinders extending radially from and axially spaced along an axis of rotation, pistons therein, connections between said pistons intermediate of their ends, and a non-circular pathway encircling said axis and engaging with said connections for effecting a reciprocation of said pistons during a relative rotation of said cylinders and said pathway about said axis of rotation.

1,302,710. CONTAINER. ALEXANDER G. RAYMOND, Riverside, Conn. Filed June 20, 1918. Serial No. 240,968. 2 Claims. (Cl. 229-14.)



1. A container comprising a relatively rigid inner lining or casing of nonmetallic material, relatively stiff and light, a continuous and seamless interliner of metal foil laid upon the inner lining and covering the inner lining completely and having all its joints hermetically sealed, and an outer protective casing.

1,302,711. AUTOMATIC PNEUMATIC SEMAPHORE AND TRAIN-STOP MECHANISM. FRED D. ROSS, Dothan, Ala., assignor of one-half to Benjamin R. Pilcher, Dothan, Ala. Filed June 18, 1917. Serial No. 175,474. 22 Claims. (Cl. 246-100.)

1. In a pneumatic block system for railways, a track; a semaphore; a double acting motor connected thereto; a main for air pressure; and connections between the opposite ends of said motor and the main, including a vehicle controlled valve adjacent the track for admitting said pressure to opposite sides of the motor through said connections and sets of automatic control valves interposed in the connections and between which the aforesaid valve is arranged so as to admit fluid to either.

2. In a pneumatic block system for railways; a track; a semaphore; a double acting motor connected thereto; a supply main; and opposite ends of the connections be-

tween said main and motor, including a valve operative by movement of a vehicle in one direction, to permit setting of a semaphore and by reverse movement to take down a semaphore.

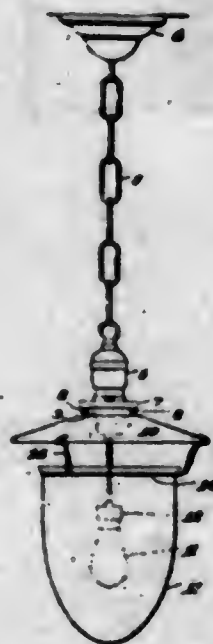


3. In a pneumatic block system for railways; a track; a semaphore; a double acting motor connected thereto; a supply main; and connections between said main and opposite ends of the motor, including a valve operative by movement of a vehicle in one direction, to permit setting of a semaphore and by reverse movement to take down a semaphore.

4. In a pneumatic block system for railways; a track; a line of semaphores; a double acting motor for each semaphore; a supply main; connections between said main and the motors, and vehicle controlled means for setting semaphores in one coordinate relation in pair when operated by a vehicle moving in one direction and for reversing the position of the same pair.

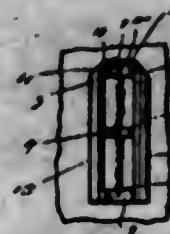
5. In a pneumatic block system for railways; a track; a line of semaphores; a pneumatic motor for each semaphore; a supply main; connections between said main and the motors, and vehicle actuated valves for admitting pressure from the supply means to said connections for setting semaphores in one coordinate relation in pair when operated by a vehicle moving in one direction and for reversing the position of the same pair.

1,302,712. LIGHTING-FIXTURE. DAVID ELMER ROBERTS, Racine, Wis. Filed Sept. 12, 1918. Serial No. 253,787. 2 Claims. (Cl. 240-115.)



1. In a lighting fixture, the combination of a holder with a flat opal reflector, a bowl below said reflector, bowl supporting means comprising a ring formed of a plurality of sections, the ends of said sections being bent upwardly and entwined together, the ends terminating in hooks which engage the periphery of the reflector.

1,302,713. SAFETY-SHIELD FOR PINE. CHARLES A. ROMAN, Oklahoma, Okla. Filed Aug. 29, 1917. Serial No. 188,784. 6 Claims. (Cl. 24-162.)



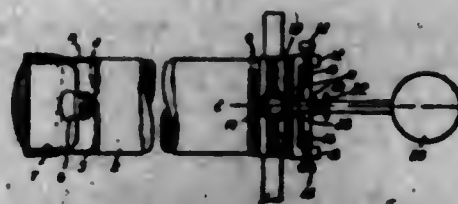
1. A shield for pine comprising a plate arranged to lie flat upon a garment having a pair of garment receiving openings, said plate being depressed intermediate its side edges for the reception of a pin.

1,302,714. FURROW-MARKER. FRED RUDOLPH HUMPHREY, Richfield, Idaho. Filed Nov. 4, 1918. Serial No. 261,035. 4 Claims. (Cl. 97-62.)



1. The herein described land marker comprising an axle mounted on wheels and having a tongue projecting forward from it, a plurality of bars pivoted at their front ends to said axle, a beam rigidly connecting their rear ends, a plurality of standards extending from this beam and carrying shovels, a lever pivoted to and crossing the tongue, a seat rising from the latter adjacent the lever, and connections between the lever above and below its pivot and the beam for raising and lowering the latter.

1,302,715. SIGNALING INSTRUMENT. LLOYD B. SALT, Dedham, Mass. Filed Dec. 24, 1917. Serial No. 208,531. 1 Claim. (Cl. 178-115.)

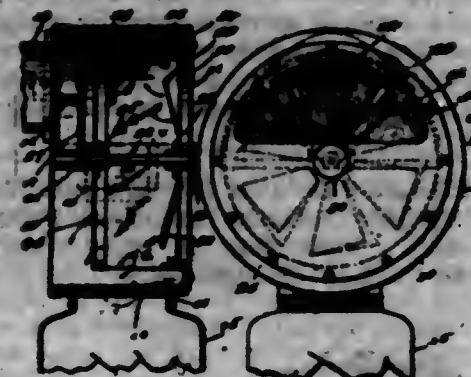


An instrument of the class described having, in combination, a container, a battery arranged in said container, an electro-receptive device disposed at one end of said container, a detachable cap for the other end of said container, a U-shaped bracket secured to said cap, a telegraph key pivotally mounted between the arms of said bracket and extending laterally from said cap, adapted to be operated to close the electric circuit containing said battery and said electro-receptive device, and a spring adapted to return said key to its normal position to break said electric circuit.

1,302,716. DUST-SEPARATOR. CHARLES E. SARGENT, Indianapolis, Ind., assignor to Midwest Engine Company, Indianapolis, Ind., a Corporation of Indiana. Filed July 13, 1918. Serial No. 244,734. 3 Claims. (Cl. 183-28.)

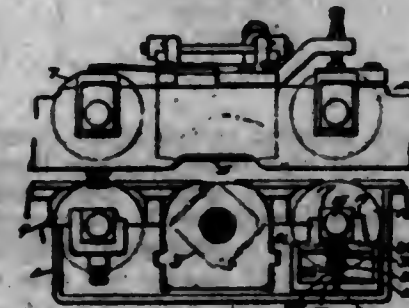
2. An air washer, comprising a liquid container, a hollow screen drum mounted for movement within said con-

tainer so that as it moves the parts of its screen successively dip into and come out of such liquid, and means for



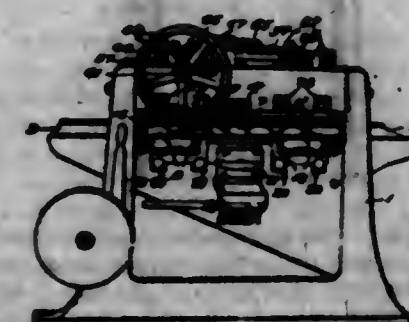
directing a current of air inward at one end of the drum and outward through that part of the screen which is out of the liquid.

1,302,717. WOOD-PLANING MACHINE. WILLARD N. SAWYER, Winchendon, Mass., assignor to William M. Whitney, Winchendon, Mass. Filed Dec. 3, 1917. Serial No. 205,039. 5 Claims. (Cl. 144-247.)



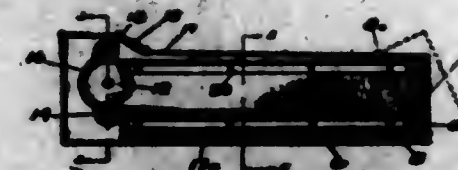
1. In a machine of the character described, the combination with a frame, of a cutter mounted thereon, means for feeding work relatively to the cutter including upper and lower feed rolls, shafts for said rolls, bearing boxes for the shaft for the lower roll, guides on said frame for said boxes, and supporting means for said boxes, each including a spring, means to adjust said support to vary the elevation of the box, and means to vary the tension of said spring without varying the elevation of said box.

1,302,718. WOOD-SCRAPING MACHINE AND THE LIKE. WILLARD N. SAWYER, Winchendon, Mass., assignor to William M. Whitney, Winchendon, Mass. Filed Dec. 3, 1917. Serial No. 205,040. 9 Claims. (Cl. 144-247.)



1. In a machine of the character described, a frame having a guideway thereon, a bearing box movable in said guideway, a feed roll having a shaft journaled in said box, a follower having legs straddling said box and adapted to engage an end of said guideway, and spring means acting on said follower.

1,302,719. RECORD-CABINET. GEORGE M. SCHAFER, Cleveland, Ohio. Filed Oct. 21, 1918. Serial No. 259,027. 3 Claims. (Cl. 281-7.)



2. A record cabinet comprising a casing having a hinged top provided with an opening, a rear end hinged to the rear edge of the top, a shelf extending along the casing and under said top and spaced slightly therefrom and adapted to hold a sheet of paper in position to receive writing through said opening, means to advance the sheet along the shelf, and means to return the sheet and deposit same in flat form in the casing under the shelf, and accessible by opening said rear end.

1,302,720. PROJECTILE. KARL A. SCHULTZ, Chicago, Ill. Filed Apr. 3, 1918. Serial No. 226,901. 7 Claims. (Cl. 102-36.)



1. A projectile comprising relatively movable parts, and means pivoting said parts together on an axis at right angles to the trajectory of the projectile.

1,302,721. DETACHABLE SOLE-GUARD. FREDERICK ERNEST SHALE, Toronto, Ontario, Canada. Filed Aug. 27, 1918. Serial No. 251,611. 5 Claims. (Cl. 96-72.)

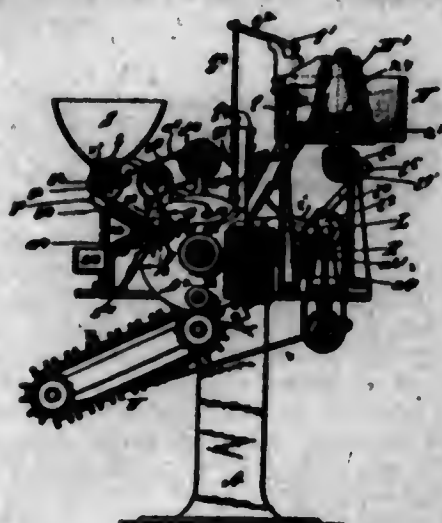


1. A detachable sole-guard comprising a metal sole; a toe-cap at the forward end of said sole; a pair of flexible arms carried one at each side of said sole; a flexible frame supported by said toe-cap and said arms; means whereby the rear end of said frame is coupled to said sole, and coupling means associated with said frame whereby the said device may be snugly held in position for use.

1,302,722. MEANS FOR FORMING BATTERY ELEMENTS, &c. SAMUEL SOLOV and SAMUEL POLINSKY, New York, N. Y., assignors to Conrad Hubert, White Plains, N. Y. Filed July 2, 1917. Serial No. 178,115. 16 Claims. (Cl. 18-5.)

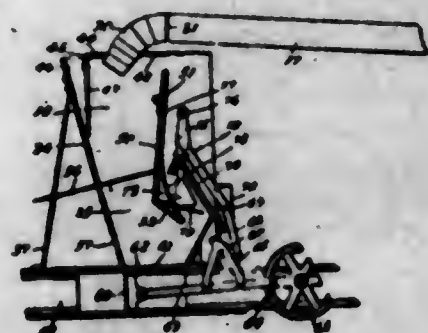
11. In apparatus of the character designated, in combination, an intermittently rotatable carrier and transfer disk formed with a plurality of receivers, a reciprocating cross band carrying a plurality of plungers in alignment with said receivers in said transfer disk when the latter is at rest, a mandrel, means for automatically and laterally compressing and molding a charge of comminuted material around the mandrel to form a tubular charge, means including one of said plungers for automatically introducing such tubular, molded and compressed charge into one of the receivers on said transfer disk, means including another of said plungers for automatically inserting an electrode rod into the tubular

charge, means for automatically feeding electrode rods to said rod-inserting means, said automatic feed being



formed with a discard exit for the escape of defective electrode rods, and means including a third one of said plungers for automatically discharging said rod-containing charge from the transfer disk.

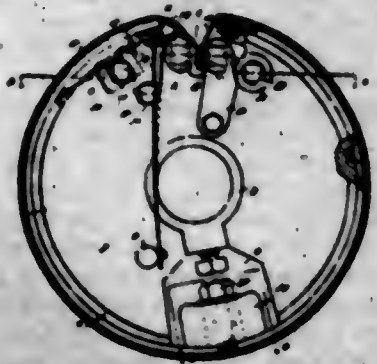
1,302,723. **BALING-PRESS.** JOHN T. SMITH, Hopkins, Minn. Filed Nov. 30, 1917. Serial No. 204,730. 5 Claims. (Cl. 100-25.)



1. In combination with means for feeding straw, a baling press embodying a press chamber, means carried upon the press chamber for receiving the straw from the feeding means, and means for automatically intermittently releasing bodies of straw so received to permit the same to enter the press chamber.

2. In combination with means for feeding straw, a baling press embodying a press chamber, means carried upon the press chamber for receiving the straw from the feeding means, means for automatically intermittently releasing bodies of straw so received to permit the same to enter the press chamber, and means for thereafter forcing such released body into the press chamber.

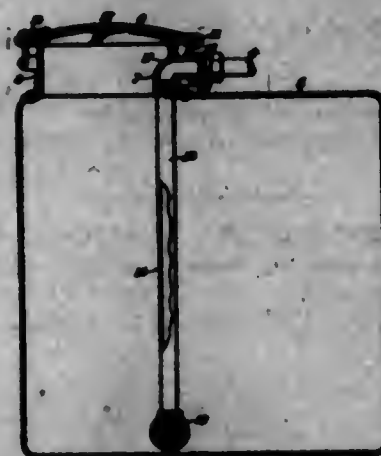
1,302,724. **DRUM FOR SANDER-MACHINES.** PERNA A. SOLEM, Cincinnati, Ohio. Filed Apr. 16, 1917. Serial No. 162,376. 6 Claims. (Cl. 51-1.)



1. A device of the class described comprising a drum having a rim split lengthwise of the drum axis providing

an opening to the interior, clamping devices comprising coacting rollers adapted to engage the opposite ends of a drum face covering web threaded through said rim, opening, for securing and stretching the covering over the rim face, and a series of elastic fingers for engaging said web for imparting a pressure, stretching the web over the drum face and relieving to slack the web, and means for unitarily regulating the tension of said fingers.

1,302,725. **FILLER-CAP AND INTAKE FOR VACUUM FEED SYSTEMS.** CHARLES LAWRENCE SPOKES, Los Angeles, Calif. Filed July 16, 1917. Serial No. 179,621. 10 Claims. (Cl. 158-34.)



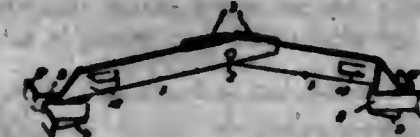
1. In a vacuum pumping system of the class described including a low level tank having a screw threaded filler opening, a closure for said opening comprising a cylindrical member screw-threaded to fit the threads of said opening, an elbow passage extending horizontally through the wall of said cylindrical member and downwardly toward the bottom of said tank, and means for applying a vacuum to said passage.

1,302,726. **REFRIGERATING APPARATUS.** FORSTER A. STRANON, Dallas, Tex., assignor of one-fourth to Martha E. Wilson, Dallas, Tex. Filed Nov. 9, 1917. Serial No. 201,006. 3 Claims. (Cl. 62-90.)



2. In a refrigerating apparatus, the combination of an outer housing having air admitting openings covered with a foraminous material and open at its upper end, a lining within the housing spaced therefrom and having closed and continuous portions opposite the air admitting openings of the housing, evaporating panels disposed in the spaces between the housing and the lining and removable through the open top of the housing, a top member removably mounted on the housing, a water tank mounted on the top member having means for supplying water to the panels, and a door mounted on the housing having an exposed evaporating panel receiving water from the tank.

1,302,727. **WALL-BOND.** AVILA O. THOMAS, Detroit, Mich. Filed Mar. 12, 1917. Serial No. 154,105. 3 Claims. (Cl. 72-101.)



1. A tie member comprising two bars and a pivot member connecting end portions of said bars, said pivot member being axially dimensioned to permit the bars to assume a spaced relation; and projections from the respective connected end portions of the bars engageable between said portions when the bars are in substantial alignment and coacting to maintain a maximum space interval between the bars, each of said bars having an edge engageable by the projection from the other bar upon establishment of an angular relation between the bars such as to shift said projections from between the same, and thereby permit a decrease of the intervening space interval.

1,302,728. **BUILDING-TILE.** AVILA O. THOMAS, Detroit, Mich. Filed Mar. 12, 1917. Serial No. 154,106. 1 Claim. (Cl. 72-30.)



In a wall construction, the combination with tiers of blocks having registering transverse vertical joints and forming a columnar opening at said joints, each of said blocks comprising two tiles having abutting portions forming walls of said opening, two sets of tie members extending diagonally across said opening between tiles of abutting blocks, and a pair of anchorage members engageable by each tie member through a vertical movement of the latter, said anchorage members being partially embedded in the connected tiles and projecting therefrom diagonally of the columnar opening.

1,302,729. **COMBINATION SCREEN AND VENTILATOR.** HARRY L. THOMAS, Cram Lynde, Pa. Filed Mar. 5, 1919. Serial No. 280,840. 3 Claims. (Cl. 98-31.)



3. In a combined screen and ventilator, the combination with a pair of sections, of means for slidably uniting the two sections, said sections having screened openings, the remote ends of the sections having end pieces, said end pieces having flanges vertically disposed, plates having flanges to cooperate in parallelism with the first flanges for clamping the guides for the lower rail of a window, said plates having inclined slots, and means passing through the slots and carried by the end pieces, for slidably supporting said plates.

1,302,730. **ELECTRICAL SWITCH.** EDWARD J. TONLINDEN, Newark, and SAMUEL C. MCKENNA, East Orange, N. J., assignors to Splitdorf Electrical Company, Newark, N. J. Filed May 8, 1918. Serial No. 223,361. 5 Claims. (Cl. 175-387.)

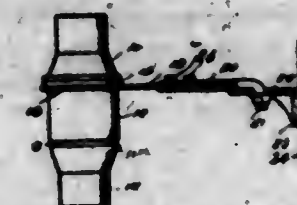
4. In a device of the class described, the combination of a cup-shaped member having a cover plate fastened

thereto, a U-shaped switch member having a hole in each arm of the U, pivoting means passing through one of said holes for rotatably fastening the said switch member to the base of the cup member, the other of said holes having a slot extending along the arm, a handle having a



stud with a projecting ear adapted to pass through said cover plate to an extent such that the stud enters the hole in the upper U arm and the ear engages the said slot whereby movement of the handle moves the U-shaped member into "on" or "off" position.

1,302,731. **WATER-FILTER.** CYNTHIA M. TURNELL, Handlett, Okla. Filed July 22, 1918. Serial No. 246,087. 1 Claim. (Cl. 210-6.)



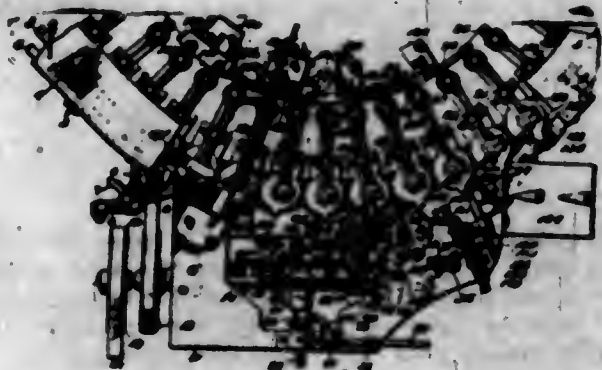
A filter and support including a casing containing filtering materials, the upper portion of the intermediate part of the casing having an external bead, a bracket having an opening formed vertically therethrough, a ring receiving the casing therethrough and supporting the casing by the said bead, an arm carried by and extending outwardly from the ring, a second arm having a downturned portion pivotally engaged in the opening of the bracket, said second arm being hollow and receiving the first arms slidably therein, and clamping means carried by the second arm.

1,302,732. **SUBMARINE MINE.** DMITRY TRIOUBTSCHANINOFF, New York, N. Y. Filed Apr. 15, 1918. Serial No. 228,646. 9 Claims. (Cl. 102-3.)



1. In a sub-marine mine, the combination of a buoyant casing, a container for an explosive charge normally connected with the buoyant casing, an anchor, connections between the anchor and buoyant casing, and means whereby the explosive charge and buoyant casing will be automatically disengaged and said charge detonated if the connection between the casing and anchor is broken.

1,302,733. MACHINE FOR MAKING ICE-CREAM CONES. WEND W. TURNBULL, Asheville, N. C. Filed Jan. 12, 1917. Serial No. 142,000. 28 Claims. (Cl. 107-58.)



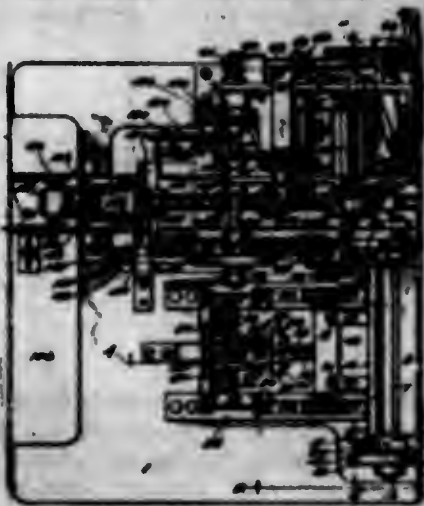
25. A machine for the purpose set forth comprising a mold, means for heating the same, a core, means for causing the core to enter the mold, and means for positively checking the entrance of the core whereby to vent the mold.

1,302,734. TIRE-TOOL. MONTAGUE HART TUTTLE, Atlanta, Ga. Filed May 31, 1918. Serial No. 237,526. 5 Claims. (Cl. 157-6.)



1. A tire tool comprising a plurality of members pivotally connected together and respectively having opposing jaws to receive a tire therebetween, one of said members comprising an operating handle portion and the other member having a portion to cooperate with a wheel as a fulcrum to cause the tool to lift the adjacent portion of the tire over the wheel rim.

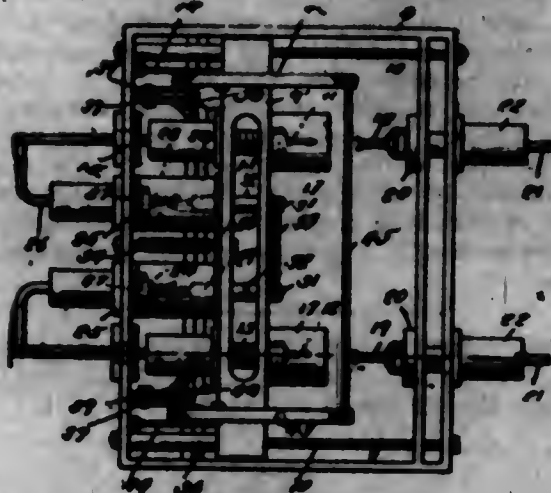
1,302,735. MACHINE FOR AFFIXING STAMPS AND THE LIKE. JAMES N. THIBODEAU, Revere, and RILEY HERBERT PARKER, Winthrop, Mass.; said Parker assignor to said Thibodeau. Filed Feb. 19, 1915. Serial No. 9,232. 32 Claims. (Cl. 216-15.)



2. In a machine of the character described, in combination, mechanism for dividing a sheet of stamps or the like

into a plurality of separate strips; mechanism for dividing each of said strips into a plurality of individual units; and mechanism for affixing each individual unit to two sides of a box in such position that the unit extends around the edge of the box which is between said two sides.

1,302,736. SAFETY-SWITCH. IRA C. VINCENT and BAZILLAI VINCENT, Brilliant, Ohio. Filed Jan. 5, 1916. Serial No. 70,450. 1 Claim. (Cl. 175-233.)



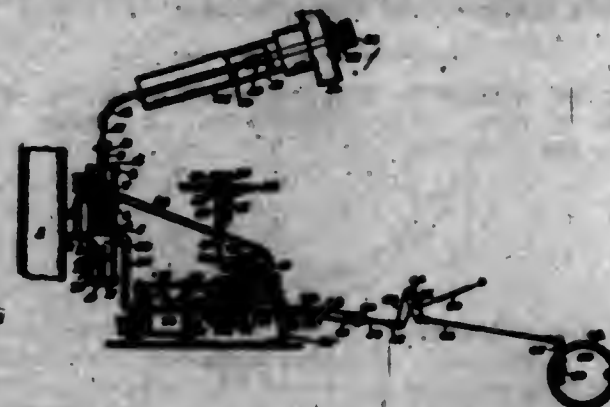
The combination with an electric lamp supported for raising and lowering movement, a frame on the support for the lamp, a slidable bar in the frame and movable crosswise thereof, inner shunt and outer lead contacts carried by and insulated from the bar, a connection between the inner contacts, electric conductors connected with the outer lead contacts, pairs of contacts on opposite sides of the frame in alignment with the shunt and lead contacts and insulated from said bar, electric connection between the conductors and the pair of contacts on the frame in alignment with the shunt contacts, electric connections between the other pair of contacts on the frame and the lamp, sleeves carried by the bar and surrounding the contacts thereof to telescope over and inclose the contacts on the frame when said contacts are engaged with each other, a trip lever supported in the frame and having connection with the bar for moving the same, means for raising and lowering the lamp, and a member engaged by the raising and lowering means and active upon the trip lever to operate the same for closing the circuit when the lamp is raised and for opening the circuit when the lamp is lowered.

1,302,737. TRACTION-SPUR FOR MOTOR-VEHICLE WHEELS. WILLIAM FLAHERTY, Chicago, Ill. Filed Oct. 3, 1917. Serial No. 194,550. 1 Claim. (Cl. 152-14.)



A traction spur for vehicle wheels, comprising a solid block having a concave under side to fit a tire tread, and provided with a top transverse traction rib, said block also having an elongated extension projecting from one side of the spur and another extension projecting from the other side of the spur, said last-mentioned extension carrying means for anchoring the block to the wheel against outward radial displacement.

1,302,738. BRAKE. JOSEPH G. WALLMANN, Oakland, Calif. Filed Jan. 10, 1917. Serial No. 141,675. 5 Claims. (Cl. 160-2.)



4. In brake mechanism in combination with a manifold a piston-cylinder having a pipe connection and having an open valve seat in its lower end and a transverse wall therein having openings, a piston in said cylinder having a transverse aperture therethrough, a resiliently movable rod in one of said openings said rod carrying a head engageable with said valve seat, and a piston-cylinder having a pipe connection with said cylinder.

5. In brake mechanism means for holding the brake in a set position including a casing, an end cylinder and a side cylinder secured to and opening into said casing; a toothed rod in said casing; a piston in said end cylinder connected to said toothed rod; a piston in said side cylinder having a dog extending into said casing and engageable with said toothed rod, and means for creating a partial vacuum in said cylinders for raising said dog and moving said toothed rod to release the brake, and for admitting air into said cylinders for moving said toothed rod in the opposite direction and lowering said dog for setting the brake.

1,302,739. PLASTIC COMPOSITION. LOUWIS E. WEBER, Brighton, Mass. Filed Oct. 1, 1917. Serial No. 194,243. 2 Claims. (Cl. 106-39.)

1. The improved plastic composition comprising a solution of glue containing sulfonated fish oil and formaldehyde.

1,302,740. PLASTIC MATERIAL. LOUWIS E. WEBER, Brighton, Mass. Filed Oct. 1, 1917. Serial No. 194,244. 3 Claims. (Cl. 106-39.)

1. Plastic material composed of glue, sulfonated oil, fibers and formaldehyde, in the proportions approximately as named.

2. The process of making plastic material which consists in providing a solution of glue and water, adding thereto sulfonated fish oil, adding and mixing therein a quantity of fibers, supplying to the product a comparatively weak solution of formaldehyde, and subjecting the product to pressure and heat.

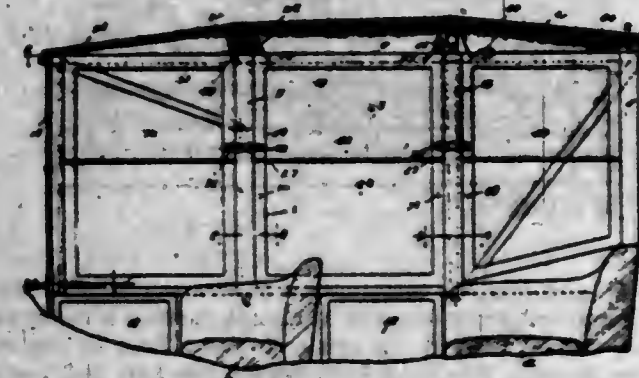
1,302,741. TIRE FOR AUTOMOBILE WHEELS. FRANK M. WAGNER, Brooklyn, N. Y. Filed Dec. 7, 1918. Serial No. 268,771. 6 Claims. (Cl. 152-3.)



1. In combination with a demountable rim, a tire for automobile wheels comprising a sheet, helical springs, ring

casing enclosing the same, said casing being situated between the demountable rim and the shoe of the wheel, means for keeping said springs in position in said casing, an outer spacing belt secured to said casing, an inner spacing belt, yokes connected to said casing, heads on said yokes adapted to engage suitable openings in said inner spacing belt, and means for securing said heads to the demountable rim of the automobile wheel.

1,302,742. FRAME AND WINDOW FOR AUTOMOBILE-TOPS. CHARLES WEISS, Chicago, Ill. Filed Dec. 16, 1916. Serial No. 137,898. 4 Claims. (Cl. 21-62.)



1. In a device of the character set forth, the combination with an automobile having an ordinary cape top with open sides, of a frame adapted to fit in said opening and secured to the side of the automobile, and one or more doors hinged to the upper portion of the frame, and arranged to swing on horizontal axes, said doors being composed of upper and lower sash members which are hinged together upon horizontal axes, and means for guiding the lower edge of the door to cause it to move vertically, the arrangement being such that the two sections of the door will fold together with their connected edges swinging inwardly as they are being folded and swing up into the top when in open position.

1,302,743. BABY WALKER AND SWING. ARTHUR WATLEY, Chicago, Ill. Filed Apr. 22, 1918. Serial No. 230,008. 12 Claims. (Cl. 155-45.)



1. In a baby walker, a base ring, a plurality of legs pivoted at their lower ends to the inner face of the said ring on pivots extending substantially radially of the ring, whereby the legs are adapted to be disposed substantially within the plane of said ring, each of the said legs normally extending upwardly and presenting a substantially horizontal free end; a seat-carrier having portions resting upon the said horizontal free ends of the legs, and means for simultaneously securing the seat-carrier to these ends and holding the latter in rigidly spaced formation.

1,302,744. PIPE CONSTRUCTION. WILSON W. WHITSON, New York, N. Y. Filed Sept. 11, 1917. Serial No. 190,716. 3 Claims. (Cl. 137-75.)



1. A pipe consisting of a sheet of pliable material formed into a cylindrical shape, connecting strips carried

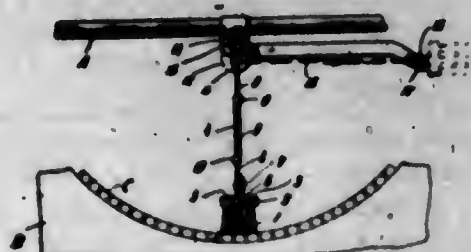
by the sheet along the side edges thereof, means to connect said strips after the pipe is formed, and means to stiffen the circularly formed sheet.

1,902,745. PRESS. GEORGE E. WHITNEY, Bridgeport, Conn., assignor to United States Compressing Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 19, 1916. Serial No. 92,822. 29 Claims. (Cl. 100-19.)



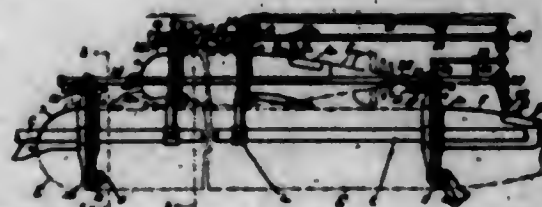
1. In a press, the combination with a material receiving chamber having an exit, a plunger having a compressing movement toward the exit end, and a door in the side of the chamber having a heel toward the exit end underlying a fixed member secured to the chamber.

1,902,746. TYPEWRITER TYPE-CLEANER. JOHN P. WILSON, Rockville Center, N. Y. Filed Feb. 20, 1919. Serial No. 278,260. 11 Claims. (Cl. 197-184.)



1. A typewriter type cleaner having, in combination, a supporting member adapted to be located above the type and to be attached to a front part of the frame of a front stroke typewriter, a cleaning device adapted to be moved back and forth from side to side over the type, and means pivotally connecting the cleaning device with the supporting member above and intermediate the ends of the bank of type.

1,902,747. TORPEDO-LAUNCHING APPARATUS FOR FLYING-MACHINES. FRANK A. WOODS, Schenectady, N. Y. Filed May 3, 1916. Serial No. 95,222. Renewed Nov. 19, 1917. Serial No. 202,872. 6 Claims. (Cl. 244-1.)



3. In a torpedo carrying and ejecting apparatus for aerial machines a plurality of upright frames mounted upon the aerial machine and adapted to support the torpedo at the head and tail, a locking-bar slidably mounted upon said frames parallel to the torpedo and having grooves parallel to the torpedo axis with openings in said grooves at right angles to the longitudinal axis of the torpedo, a plurality of members movably mounted upon

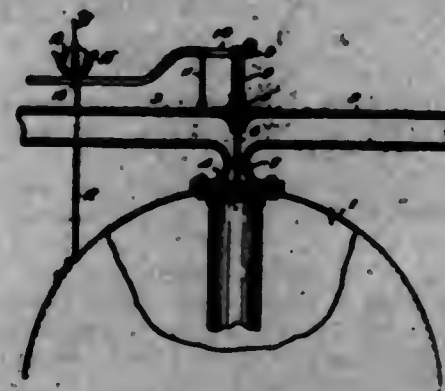
said frames and having each a movable glideshoe pressing against the torpedo in combination with means engaging said members with said locking-bar and means disengaging said members from said locking-bar.

1,902,748. WRENCH. LEO O. WRIGHT, Dante, Va. Filed Feb. 7, 1919. Serial No. 275,561. 2 Claims. (Cl. 81-126.)



1. In a wrench of the character described, the combination of a fixed jaw, having a reduced projection extending rearwardly from its rear end, a shank extending at right angles to said projection adjacent the rear end of said fixed jaw, said projection extending beyond the opposite side edge of said shank, said projection being provided with a longitudinally extending slot extending from a point adjacent its outer end corresponding to said shank to a point adjacent the fixed jaw, a sliding jaw having a vertical opening therein for receiving said shank, said sliding jaw projecting beyond each side of said shank, a handle pivotally mounted upon one end of said sliding jaw, the forward end of said handle having a bearing extending through said slot whereby as said handle is swung in one direction, said jaws will be moved together while when the handle is swung in the opposite direction, the jaws will be moved apart.

1,902,749. AUTOMATIC FOUNTAIN-VALVE FOR LOCOMOTIVES. EUGENE N. YAMANS, Houston, Tex., assignor, by direct and mesne assignments, to The Yamans Company, a Corporation of Texas. Filed Mar. 3, 1917. Serial No. 152,224. Renewed Jan. 24, 1919. Serial No. 272,900. 2 Claims. (Cl. 137-140.)

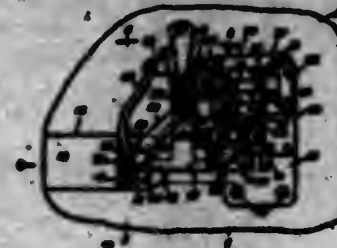


2. In a device of the character described, the combination with a boiler of a T fountain secured thereto whose neck is formed into a seat, a valve adapted to close said seat, a yieldable member connected to the valve stem and tending to hold the valve seated, a trigger, a lever pivoted at one end to said stem and whose other end is normally engaged by the trigger to hold the valve open a cage through which the trigger extends and a displaceable weight resting in said cage on said trigger normally holding said trigger in engagement with said lever.

1,902,750. ATTACHMENT FOR SEWING-MACHINES. MATTI YLLOJA, Brooklyn, N. Y. Filed May 22, 1918. Serial No. 235,903. 3 Claims. (Cl. 112-104.)

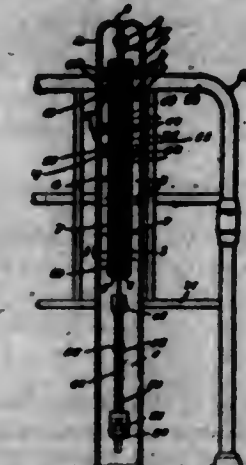
1. In an attachment for sewing machines, a support, a lever pivoted to said support, means adapted to be connected with the feed bar of the machine for giving said lever an intermittent oscillatory movement, two members mounted in said support and adapted to move at right

angles to each other, one of said members being provided with an angular aperture, a cam mounted to operate in said aperture, means in operative connection with said



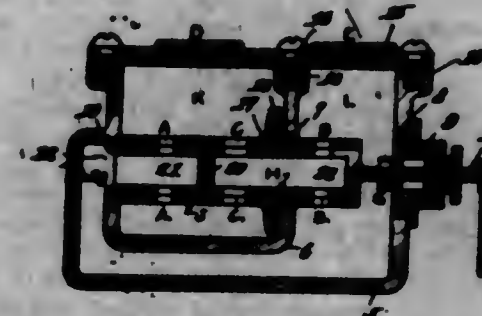
lever for rotating said cam to give said members their movements, and means involving a tensionally operated device connected with one of said members for supporting a workpiece.

1,902,751. SURGICAL APPLIANCE. CHARLES F. ARMSTRONG, West Asheville, N. C. Filed Dec. 4, 1917. Serial No. 205,381. 2 Claims. (Cl. 122-84.)



1. A device for applying tension to an injured limb, comprising a plate-like body having a restricted slot elongated longitudinally of the body; guides secured to the forward face of the body on opposite sides of the slot; a rider mounted to reciprocate in the guides; a sheave journaled on the rider and received in the slot; a flexible element trained across the sheave and extended through the slot; means for applying tension to the flexible element; and a second flexible element connected at one end to the rider, the flexible element being extended across the upper edge of the body; and means on the rear face of the body for engaging the second flexible element detachably.

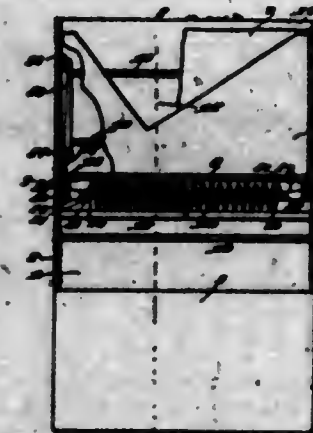
1,902,752. VALVE. ORLANDO P. ADAMS, New Orleans, La. Filed May 2, 1917. Serial No. 166,878. 4 Claims. (Cl. 261-107.)



1. A casing having a partition therein dividing it into a pressure chamber and a discharge chamber, a stationary sleeve extending across the said pressure chamber and through the said partition into the said discharge chamber, the other end of said sleeve being in communication through a suitable passage or conduit with the said discharge chamber, said sleeve having three sets of

openings or ports, two sets of which open into the pressure chamber and one set into the discharge chamber, a hollow valve in said sleeve, said valve being closed at one end and having a partition and three sets of ports to register with those in the sleeve, said partition being placed between the two sets of ports opening into the pressure chamber so that when the ports in the valve are in alignment with the ports in the sleeve communication is established through a set of ports, between the pressure chamber the interior of the valve, through the open end of the valve and the above mentioned passage or conduit with the discharge chamber.

1,902,753. INDIVIDUAL-TOWEL CABINET. HENRY A. AMMANN, Spokane, Wash., assignor to Diamond Individual Towel System Co., Spokane, Wash., a Corporation of Washington. Filed Apr. 29, 1918. Serial No. 231,300. 9 Claims. (Cl. 45-32.)



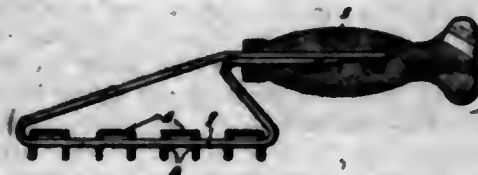
1. In an individual towel cabinet, a compartment for the clean towels including a follower, and a seating spring having its ends operatively connected with said follower to actuate the same.

1,902,754. CHRISTMAS-TREE DECORATION. MARIE N. ARMSTRONG, Spokane, Wash. Filed Apr. 18, 1917. Serial No. 163,078. 1 Claim. (Cl. 240-12.)



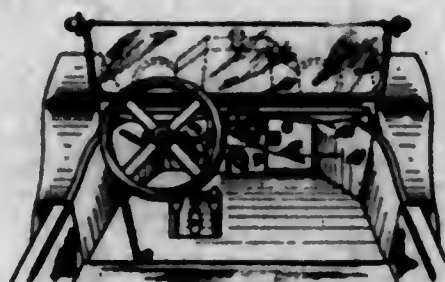
A Christmas tree ornament comprising upper and lower hollow end portions of metal, substantially conical, perforated throughout, and having threaded flanges at their larger ends; supporting means at the apex of the upper portion, a candle holder within the apex of the lower portion and of less depth than this portion so that most of the perforations thereof are above said holder, and a globe constituting the intermediate portion and having threaded flanges at top and bottom to removably engage those on the end portions.

1,302,755. CURRY-COMB. GIBSON TAYLOR AYER, Dade City, Fla. Filed Mar. 2, 1918. Serial No. 280,255. 2 Claims. (Cl. 119—58.)



1. A curry-comb comprising a series of comb bars, and supporting rods on which said bars are slidably mounted.

1,302,756. VEHICLE-SIGNAL. FRANK BAKER, Barberton, Ohio. Filed May 24, 1917. Serial No. 170,624. 1 Claim. (Cl. 116—31.)



In a signaling device, the combination with a hollow cylindrical casing adapted to be secured at the rear of a vehicle, a cover plate therefor, a shaft mounted axially in said casing, a transparent plate fixed in said casing, said plate having an undercut annular recess formed concentrically in its outer face contiguous to its periphery, a normally convex transparent plate, the edges of said convex plate engaging in the mentioned recess in said fixed transparent plate, means for securing said convex plate in position, an index hand carried by said shaft, and means for manually rotating said shaft and index.

1,302,757. PUMP-ROD BEARING. ANDREW BARBER, Detroit, Mich. Filed May 21, 1918. Serial No. 235,882. 2 Claims. (Cl. 74—84.)



1. In a bearing of the character described, a standard comprising a hollow pipe having one end open and disposed in vertical position, a pump rod, a shank received within the open end of the pipe, in combination with means connected to the shank and resting on the top of the pipe to slidably support the pump rod.

1,302,758. TRANSFER-TICKET. WILLIAM R. BIDOLS, Cincinnati, Ohio. Filed May 15, 1918. Serial No. 97,489. 1 Claim. (Cl. 283—27.)

A routing transfer ticket for coordinating urban lines with a loop line, comprising a rectangular strip of paper having a time limit tabulation to be punched on the outer margins, a medial portion of the strip containing tabulations of street car lines with appropriate out and in indications, a rectangular belt line space to be punched bordering the street car tabulation, and containing compass indications charting the general direc-

tions of the loop, said belt line space also containing direction indications to be punched, and the names of



places through which the belt line passes and intersects the urban lines, enabling directions and change stations to be appropriately indicated by punching.

1,302,759. DEVICE FOR NEUTRALIZING SHOCK. CHARLES BRYAN BILLINGHURST, Pierre, S. D. Filed Aug. 20, 1918. Serial No. 280,884. 3 Claims. (Cl. 21—182.)



1. In a motor vehicle, a device for neutralizing shock, comprising a frame adapted for connection with the body, a second frame connected with the running gear, a resilient non-metallic connection between the frames, said connection comprising hangers on one of the frames, each hanger supporting a casing and the other frame having a casing adjacent thereto, each casing carrying a disk of resilient material, and a belt of flexible material engaging each pair of disks and connecting the same, said hangers being adjustable in length, each consisting of a section detachably connected with the frame and another section detachably connected with the casing, and a turn-buckle connecting the adjacent ends of the sections.

1,302,760. FOOT-SUPPORTER. ALEXANDER E. BLOCK, St. Louis, Mo. Filed Jan. 16, 1919. Serial No. 271,418. 7 Claims. (Cl. 86—71.)



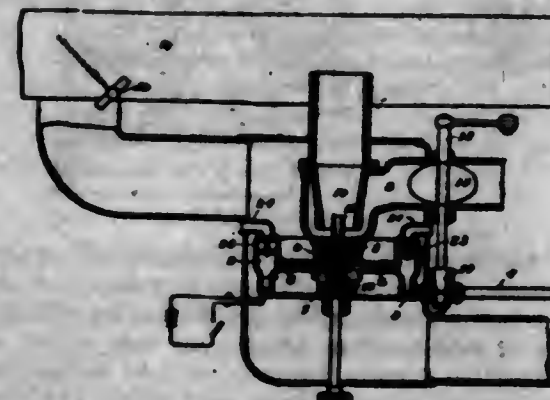
1. In a foot supporter, a flexible insole-member provided with a pocket; and an insert having a bump between its longitudinal center and one of its ends, adapted to be reversibly seated in said pocket.

1,302,761. METHOD OF OPERATING STILLS AND REMOVING COKE THEREFROM. CHARLES E. BURNHAM, Philadelphia, Pa., assignor to The Atlantic Refining Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 7, 1918. Serial No. 215,764. 7 Claims. (Cl. 190—4.)



1. The method of removing from a still the deposit formed therein in running the still to dryness in treatment of oil, which consists in placing within the still a plurality of members which become embedded in the deposit as formed, and removing the deposit in sections by removing said members horizontally in succession from the still.

1,302,762. VAPORIZING-CARBURETER. CLARENCE P. BRANNS, Sewickley, Pa. Original application filed Mar. 6, 1918, Serial No. 752,385. Divided and this application filed Nov. 2, 1917. Serial No. 190,940. 4 Claims. (Cl. 48—107.)

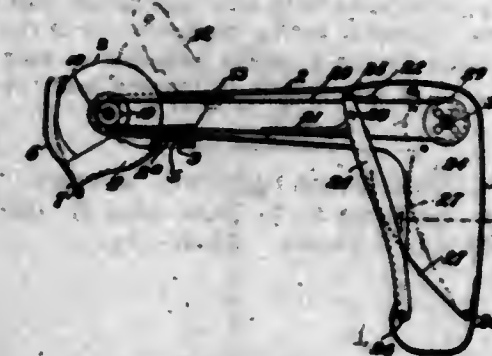


4. A carbureter having an engine exhaust channel with a branch arranged to split the exhaust gases and pass them partly direct and partly through the branch, a carbureter having a heating portion within the branch for finely dividing the liquid hydrocarbon, a jet opening, a Venturi channel into which the jet opening is directed and arranged to receive a relatively large amount of air from the atmosphere, said Venturi channel being subject to the engine suction and acting to suck in air and thereby induce the flow of fuel through the jet and mix it with the air, the mixture being heated within the branch exhaust channel beyond the splitting point for the exhaust gases, and adjustable means arranged to control the proportion of exhaust gases passing through the engine exhaust channel and the branch channel.

1,302,763. OPERATING DEVICE FOR DISK INK-ERASERS. FRANKLIN HALE CALL, Portland, Ore. Filed July 17, 1918. Serial No. 245,848. 6 Claims. (Cl. 120—30.)

1. In a device of the class described, the combination, with a primary casing, a rotary eraser mounted on the

forward end thereof, of a collector provided with a resilient guard, adjustably mounted upon said casing contiguous



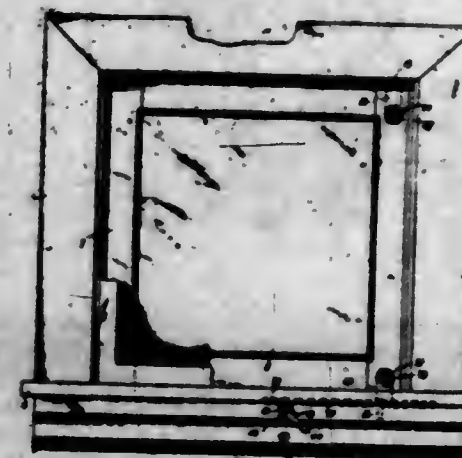
ous to said eraser and manually operated means in said casing and cooperating with said eraser for rotating the same.

1,302,764. TRANSMISSION. JOHN J. CAMPODONICO, Stockton, Calif. Filed Sept. 5, 1916. Serial No. 118,552. 39 Claims. (Cl. 74—59.)



1. In a transmission mechanism, a driving shaft, a driven shaft, a clutch adapted to connect the driving shaft with the driven shaft, manually controlled means for throwing said clutch into and out of engagement, and a foot operated mechanism for throwing the clutch into and out of engagement independent of said first named means.

1,302,765. CASEMENT. ALBERT H. CASEMENT, Asheville, N. C., assignor of one-half to Edwin W. Grove, Asheville, N. C. Filed Aug. 9, 1918. Serial No. 118,921. 5 Claims. (Cl. 20—53.)

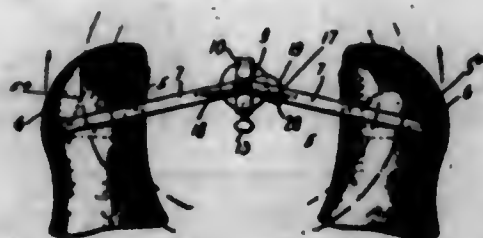


1. A casement comprising a casing, a sash to fit therein, a pair of mountings pivotally supported on the casing and pivotally connected to the top and bottom edges respectively of the sash at points intermediate the width of the sash, each mounting having an arm arranged to engage the outer face of the sash, and devices to cooperate with said arms and the sash to detachably secure them whereby the sash may swing in unison with said mountings and may also swing independently of said mountings.

2. A casement comprising a casing, a sash to fit therein, a pair of mountings pivotally supported in the casing

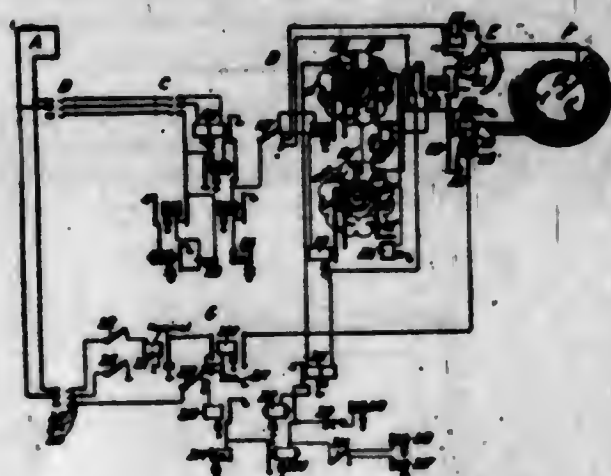
and pivotally connected respectively to the top and bottom edges of the mesh, a gear sector fixed to one of said mountings, a worm shaft journaled in the casing and having a worm thereon cooperative with said gear sector, and an operating handle reversibly fitting the inner end of the worm shaft, the casing having a recess adjacent to said shaft to receive a part of said handle to thereby lock the worm shaft.

1,302,766. AUTOMOBILE DRIVING-MITTEN. ADAM CHAMBERS, New York, N. Y. Filed June 27, 1918. Serial No. 106,112. 7 Claims. (Cl. 2—104.)



2. An attachment for automobile steering wheels and the like, comprising a pair of protective hoods to inclose the operator's hands, a pair of pivoted arms carrying the respective hoods, and a spring tending constantly to maintain the pivoted arms in a normal position with the hoods conveniently disposed at opposite sides of the wheel.

1,302,767. TELEPHONE-EXCHANGE SYSTEM. HENRY P. CLAUSSEN, Mount Vernon, and CHARLES L. GOOSBURN, New York, N. Y., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 17, 1918. Serial No. 267,120. 15 Claims. (Cl. 170—18.)

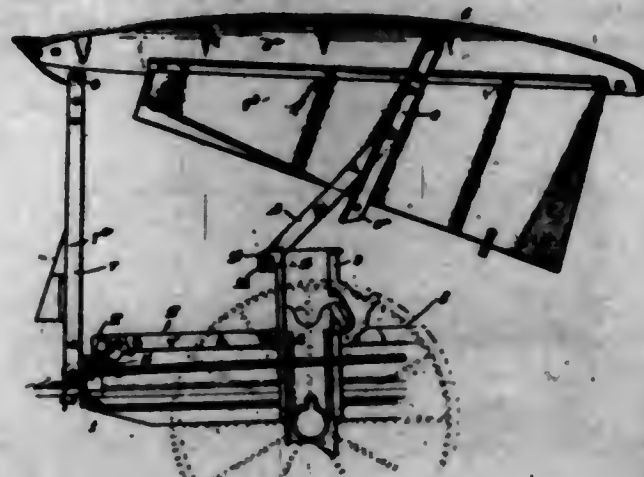


1. In an automatic telephone exchange system, a telephone line, an impulse-sending device, an impulse-storing mechanism, means controlled by said sending device to determine the period of time necessary to expire before said storing mechanism is released, and means actuated by the release of said storing mechanism for connecting a signaling current to said telephone line.

1,302,768. FOLDING DIVIDER FOR HARVESTERS. WILLIAM H. CRANE, Poughkeepsie, N. Y., assignor to Moline Plow Company, a Corporation of Illinois. Filed May 6, 1918. Serial No. 95,779. 9 Claims. (Cl. 50—319.)

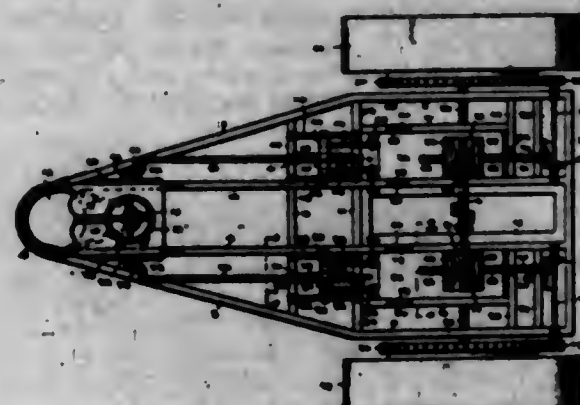
1. In a harvester, the combination of a machine frame including a receiving platform, a divider projecting beyond the platform, a supporting member hinged at its forward end to the divider and at its rear end to the

frame to permit the divider to be folded upwardly and rearwardly, and a bracing member hinged at its forward



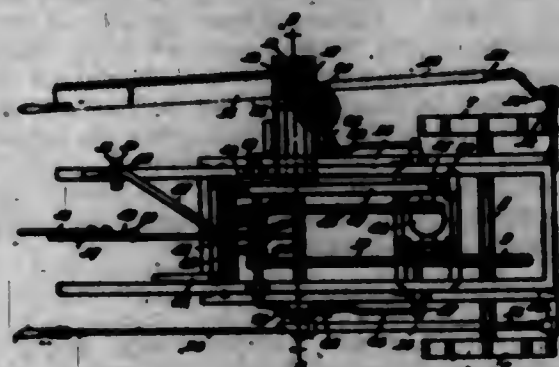
end to the divider and at its rear end to the frame and extending substantially parallel with the supporting member when the divider is in lowered operative position.

1,302,769. TRACTOR TRANSMISSION DEVICE. HOWARD T. CRELLIN, Pender, Nebr. Filed Sept. 15, 1917. Serial No. 191,601. 5 Claims. (Cl. 180—17.)



1. In a device of the character specified, the combination of a frame, traction wheels upon said frame, a motor upon said frame, a transmission mechanism interposed between each of said traction wheels and said motor, supporting plates for driving members of said transmission mechanism slidably mounted upon said frame, and means for actuating said supporting plates and driving members of said transmission mechanism independently of either for driving said traction wheels.

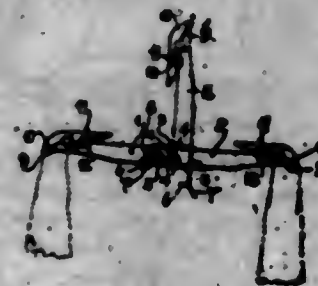
1,302,770. SAWING-MACHINE. RALPH L. CHURCH, GREENE F. SMITH, Winston-Salem, N. C. Filed Jan. 1918. Serial No. 212,271. 1 Claim. (Cl. 143—68.)



In a sawing machine, a truck, a frame, a guide on each side of the frame, a cross head mounted in each of the said guides, a vertically disposed guide carried by one of

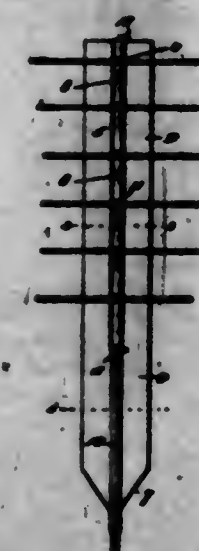
the cross heads and a horizontally disposed guide carried by the opposite cross head, means for reciprocating the cross heads, a guiding rod, means on each side of the frame for supporting the guiding rod, a vertically disposed pivot included in the means for supporting the said rod on one side, and a horizontally disposed pivot included in the means for supporting the rod on the opposite side, a guiding sleeve embracing the rod, a cross head to which the sleeve is connected, said cross head being adapted to operate in conjunction with the vertically disposed or the horizontally disposed guide, and a saw attached to the cross head.

1,302,771. CLOTHES-LINE ATTACHMENT. PERCY J. CUNNINGHAM and ALICE R. HAMMONS, Jarbidge, Nev. Filed Dec. 22, 1917. Serial No. 208,416. 1 Claim. (Cl. 24—137.)



As a new article of manufacture, the herein-described clothes line attachment, comprising complementary members joined together at one end and provided in their adjoining ends with a plurality of transverse grooves of varying sizes, for the purpose specified, a spring latch pivotally secured to one of said members and designed to extend over the other one, the latter being formed with a socket and the latch bar being formed with a laterally projecting lug receivable in said socket to hold said members in longitudinal alignment with each other, said members being formed at their outer ends with jaws, and spring-pressed clamping members carried by the outer ends of the first-named members and formed with jaws designed to co-act with the first-named jaws.

1,302,772. FENCE-POST. BENNETT E. DAUGHERTY, St. Louis, Mo. Filed Aug. 28, 1917. Serial No. 188,619. 3 Claims. (Cl. 180—28.)



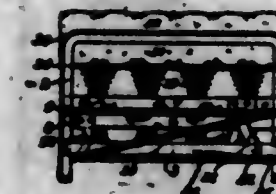
1. A fence post consisting of a single sheet of metal, folded longitudinally, and having the free longitudinal edges of said metal bent in opposite directions and at right angles to said folded portion, said folded portion being pressed inwardly upon itself so that the outer end of said folded portion is arranged inside the inner end of said folded portion to reinforce the post.

1,302,773. SEPARABLE SCARF-PIN. FREDERICK C. DAVIS, St. Joseph, Mo. Filed May 31, 1918. Serial No. 237,540. 4 Claims. (Cl. 24—150.)



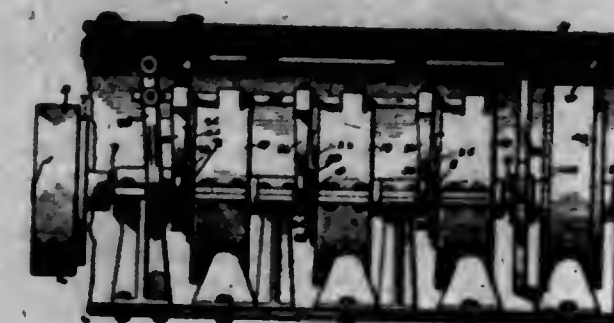
3. The combination with the head portion of a scarf pin, of a pin body bodily removable therefrom and including a shank having one end formed in hook shape with the extremity of the bill of the hook extending laterally from the plane of the hook to provide a stop finger, and a spring strip having one end secured to the head portion and provided on its inner face adjacent its securement to the head portion with a transverse channel adapted to receive the shank of the pin body, the bill portion of the hook being engageable between the other end of the spring strip and the head portion.

1,302,774. COUCH-BED. JOSIAH A. DEWEY, San Francisco, Calif., assignor to Dewey Davenport Company, San Francisco, Calif., a Corporation of California. Filed Jan. 25, 1918. Serial No. 74,118. 1 Claim. (Cl. 5—49.)



A couch bed comprising a couch frame, an invertible lower bed section pivoted to said couch frame, a non-invertible upper bed section provided with rigid extension arms, said arms being pivoted intermediate their ends to said couch frame below the plane of the pivots of said invertible bed section, and springs connecting the free ends of said arms to said couch frame.

1,302,775. VARIABLE-SPEED TRANSMISSION. RAYMOND L. DICKINSON, Richmond, Calif. Filed June 24, 1918. Serial No. 241,705. 8 Claims. (Cl. 74—34.)



1. A variable speed transmission comprising a driving and a driven shaft in alignment; a series of shaft sections aligned with and between the driving and driven shafts; reduction gears operatively connected to adjacent

ends of the shaft sections whereby one section may be driven at a reduced speed from one of the other sections and adapted to directly connect said shaft sections; and means for automatically operating the reduction gears to directly connect said shaft sections when the speed of the driven shaft is increased.

1,302,776. SOUNDING WHEELED TOY. CARROLL E. DODSON, Kansas City, Mo. Filed Sept. 19, 1917. Serial No. 192,218. 6 Claims. (Cl. 46-47.)



1. A mechanical toy comprising a figure made in the likeness of an animal, a frame carrying said figure and provided with supporting wheels, one end of said figure being pivotally connected to said frame, and means actuated by the movement of said wheels into sliding engagement with the other end of said figure and operating to raise and lower the figure to simulate the movements of the animal.

1,302,777. DEVELOPMENT OF EXPOSED SENSITIZED MEDIUMS. EUGENE B. DOWNING, New York, N. Y. Filed Mar. 16, 1918. Serial No. 222,817. 6 Claims. (Cl. 95-88.)



5. In a photographic process, the steps which comprise immersing a sensitized exposed strip having small equal subdivisions in a developer at a predetermined rate, and immediately arresting the development, and thereby obtaining a graduated series of developments corresponding to known periods of time.

1,302,778. EXPANSION JOINT. THOMAS DREWAT, Forest Gate, England, assignor to J. Stone and Company Limited, Deptford, England. Filed July 31, 1918. Serial No. 247,561. 5 Claims. (Cl. 285-162.)



3. Expansion telescopic joint for pipes comprising a tapered inner sleeve portion adapted to be distended by

fluid pressure into contact with the outer sleeve, the inner portion being tapered partly by a straight and partly by a curved taper substantially as set forth.

1,302,779. PONY-CAR. CHARLES H. EASTMAN, Union City, Pa., assignor to Frank Eastman, Union City, Pa. Filed Mar. 26, 1917. Serial No. 187,562. 2 Claims. (Cl. 208-165.)



1. In a child's vehicle the combination of a flat body member, a rear wheel support for the body member, a centrally disposed steering wheel, a vertically disposed steering post having the portion thereon below the body member of relatively larger diameter to provide a support for the body member, handle bars attached to the upper portion of the steering post, and an ornamental flat-sided figure-head rigidly secured to the upper portion of the forward end of the said body member having an opening through which the upper portion of the steering post extends to increase the rigidity of the steering post and to lessen the liability of its becoming broken.

1,302,780. AIR-LIFT PUMP. LEVI T. EDWARDS, Philadelphia, Pa., assignor to Talbot Air Lift Company, a Corporation of Pennsylvania. Filed Jan. 31, 1917. Serial No. 145,593. 2 Claims. (Cl. 103-84.)



1. In an air lift pump, the combination of an education pipe having an unobstructed inlet section diverging with a uniform taper from its connection with said pipe, a source of air supply and a nozzle located entirely below said inlet section and having communication with said air supply.

1,302,781. WINDOW-SHADE BRACKET. PAUL FORD-MACK PATON, Hartford, Conn. Filed June 1, 1917. Serial No. 172,304. 7 Claims. (Cl. 190-24.)

1. In a window shade support for a ribbed metal window frame or sash comprising a metal base member hav-

ing a channel to receive a rib of said frame or sash, means to secure the base member directly to said rib, and



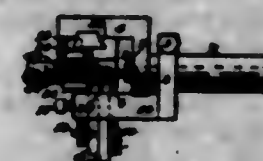
a shade roller supporting bracket rigidly carried by said base member.

1,302,782. REFLECTING SIGNAL OR ADVERTISING MEDIUM. JOHN J. FITZGERALD, Los Angeles, Calif. Filed June 18, 1918. Serial No. 240,574. 5 Claims. (Cl. 82-1.)



1. In means of the character disclosed, a reflector, a transparent plate, and means for modifying light rays received through the plate and to be reflected by the reflector back through the plate, such means comprising a hollow bulb provided with a neck, and means for positioning the same forwardly of the reflector by engagement with said neck.

1,302,783. COMBINATION INSTRUMENT. HAROLD B. FOWLER, Waterloo, Iowa, assignor to Evans Dollar Pen Company, Waterloo, Iowa, a Corporation of Iowa. Filed June 1, 1918. Serial No. 237,604. 3 Claims. (Cl. 82-35.)

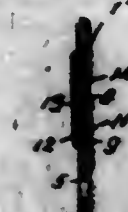


2. In a combination instrument, a stem having holding-means for a boring-tool, a boring-tool removably secured in said holding means, members independently and adjustably mounted on said stem, a turning-tool removably adjustably mounted on one of said members, a slide-rest on the other member, a sliding tool-holder in said slide-rest, and a turning-tool removably and adjustably mounted in said tool-holder, said tools all being adapted to operate simultaneously upon a body to be formed by them.

1,302,784. SPOON-HANDLE. LOUIS E. FERRIS, Baker, Oreg. Filed Oct. 23, 1918. Serial No. 260,008. 3 Claims. (Cl. 66-20.)

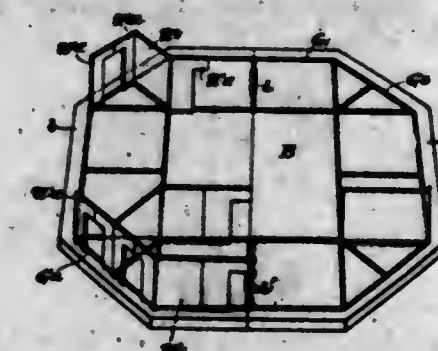
1. An implement including a handle having an opening extending transversely therethrough, a double faced ligament element including a flange adjacent one face

thereof, said element fitting within said opening, and being viewable from both sides of said handle, said flange



bearing upon one surface of said handle for facilitating the positioning of the element within said opening and holding the element from displacement in one direction.

1,302,785. TOY HOUSE. SAMUEL B. GILBERT, South Weymouth, Mass. Filed Jan. 19, 1918. Serial No. 212,552. 14 Claims. (Cl. 46-35.)



2. A toy structure comprising a base having a marginal groove, a plurality of grooves extending in different directions within the space delimited by said marginal groove and a superstructure fitting into the grooves.

1,302,786. MACHINE FOR DRYING LIQUIDS. ALBERT GUNN, Hålsjö, Wästerås, Sweden, assignor, by direct and mesne assignments, to Drying Products Co. Ltd. A/S, Christiania, Norway. Filed Nov. 10, 1917. Serial No. 201,278. 5 Claims. (Cl. 127-9.)



4. A machine for drying liquids comprising a stationary vessel, an annular heated channel rotatable therein, a stationary cover common to said vessel and channel and having a feed and discharge opening at one point, said vessel acting as a heater for air, a hot air connection between said vessel and channel near the discharge side of said opening, and an air discharge from the feed side of said opening, whereby heated air from the vessel will be caused to flow around said annular channel counter to the direction of movement of the material.

1,302,787. SOCKET FOR INCANDESCENT-ELECTRIC LAMP HOLDERS. ALEXANDRE GOURJOU, Lyon, France, assignor to Alfred Lecomte, Lyon, France. Filed Oct. 23, 1918. Serial No. 259,412. 3 Claims. (Cl. 173-355.)

1. A socket for incandescent electric lamp holders comprising in combination a block of insulating material having a central cavity lateral and transverse channels and two cylindrical apertures in its base, contact pins inserted in said cylindrical apertures and held therein by friction, bent members formed of sheet metal and held in said lat-

eral and transverse channels by friction, said members serving to fix the line wires and to establish contact be-



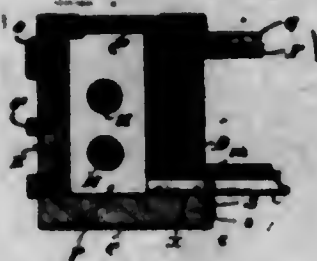
tween said wires and said contact pins, and a laterally movable switch pin coacting with said bent members to make and break contact.

1,302,788. ELECTRIC FURNACE. HENRY ARNOLD GEMMAY and HARRY ETCHELLS, Sheffield, England. Filed Feb. 12, 1919. Serial No. 276,537. 2 Claims. (Cl. 204-64.)



1. In connection with arc electrode furnaces, the improved method of distributing three phase currents so that the supply phases tend to have balanced loads, consisting in the arrangement of three transformer secondary windings grouped in "delta" fashion, the terminal junctions of which are connected respectively to two upper electrodes or groups of electrodes and a third electrode or conductive hearth, and three transformer primary windings grouped in "star" fashion, the ratio of transformation between the various transformer windings being arranged so that the three primary phases of electrical supply are equally loaded for power and power factor when the secondary system comprised by the furnace is symmetrically loaded, that is when the two upper electrodes are each conveying equal power, substantially as herein described.

1,302,789. WEATHERPROOF BUILDING. ARTHUR HOGAN GANFVIRNA, Coffeyville, Kans. Filed Oct. 14, 1918. Serial No. 258,020. 1 Claim. (Cl. 20-11.)



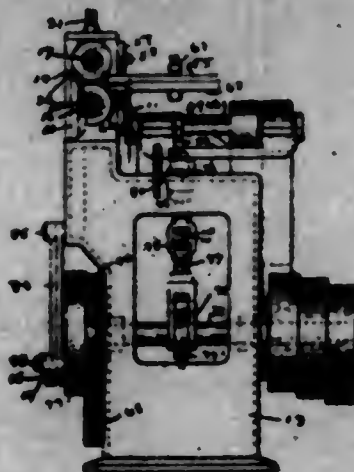
A building having an outer casing for a door or window opening, provided with a drop siding having a thin, vertical, saw kerf close to said outer casing, a thin, straight, flat, metallic weather strip having its outer, vertical edge bent sidewise and bearing against said casing and its inner edge arranged in said kerf, and means applied near the outer edge of said strip for securing the strip to the casing and for holding said bent edge firmly in engagement with the casing.

1,302,790. MACHINE FOR MARKING CIGARS. ARMAND A. GROTH, Montreal, Quebec, Canada. Filed May 16, 1918. Serial No. 234,867. 3 Claims. (Cl. 101-35.)



1. A cigar marking machine comprising a supporting table having a longitudinal groove formed in the upper face thereof, an endless conveyor adapted to travel within said groove, a rotary die carrier mounted upon said table above said endless conveyor, means for operatively connecting said die carrier with said conveyor, projecting plates formed with said conveyor, leaf springs arranged within said groove below said die carrier, said leaf springs adapted to rest against said projecting plates, and an adjustable and flexible supporting member for said leaf springs substantially as and for the purpose specified.

1,302,791. CUTTING-OFF MACHINE. KARL WILLIAM HALLDORF, Waterbury, Conn. Filed Nov. 17, 1917. Serial No. 302,506. 8 Claims. (Cl. 29-69.)



1. A cutting-off machine comprising a frame, feed rollers and a circular saw supported by the said frame, means for intermittently operating the said rollers, means for moving the said saw to and away from the cutting position, mechanism interconnecting the said several means, and a motor for simultaneously operating the said mechanism and rotating the said saw.

2. A cutting-off machine for cutting stock into equal lengths comprising in combination with cutting means other means for feeding the stock to correspond to the length to be cut off and the said other means comprising feed rollers that are maintained in engagement with the stock during the feeding and also during the cutting operation.

3. In combination in a cutting-off machine, a motor having a shaft, a saw mounted for continuous rotation and connected with one end of the said shaft, and intermittently operated devices for feeding stock and shifting the said saw, the said devices being operated from the other end of the said shaft.

1,302,792. DUST-CAP FOR VALVES OF PNEUMATIC TIRES. WILLIAM P. HAMMOND, Passaic, N. J., assignor to A. Schrader's Son, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 12, 1919. Serial No. 876,847. 3 Claims. (Cl. 153-12.)

1. A device of the character described including a tire valve casing having the exterior thereof provided with threads and said threads being mutilated upon one side

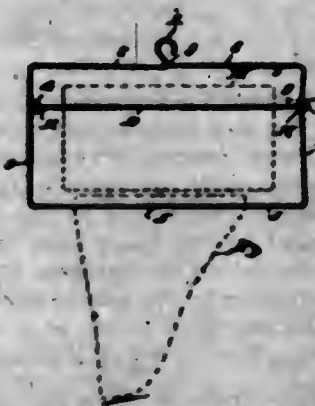
of the valve casing, a dust cap adapted to fit over and house the tire valve casing and having the mouth thereof flared outwardly, said dust cap being provided upon the interior thereof with a threaded portion which is adapted to slide freely over the before mentioned mutilated portion of the threads of the valve casing and to interlock with the threads of the valve casing when the dust cap is rotated, and a compressible washer member arranged within the flared mouth of the dust cap so as to be compressed when the dust cap is seated in position and serve to hold the threads of the dust cap in a positive engagement with the threads of the valve casing.



2. A device of the character described including a tire valve casing having the exterior thereof provided with threads and said threads being mutilated on one side of the valve casing, a dust cap adapted to fit over and house the valve casing and provided upon the interior thereof with a threaded portion adapted to slip freely over the mutilated portion of the threads of the valve casing and to positively engage the threads of the valve casing when rotated, and a slide mounted upon the dust cap for engagement with the mutilated portion of the threads of the valve casing to hold the dust cap against rotation.

3. The combination with a valve casing provided with successive engaging portions, and a dust cap formed to be slipped over the valve casing to approximately the secured position of the dust cap, of resilient means adapted to be interposed between the dust cap and a relatively fixed part adjacent the valve casing, said resilient means being capable of being compressed by the hand of the operator in slipping the dust cap in place to enable engagement of an advanced engaging portion not free for engagement when said means is expanded, and means carried by the dust cap formed to engage said engaging portions, the parts co-operating to hold the cap firmly in place in the advanced position against vibrations under all normal conditions of use.

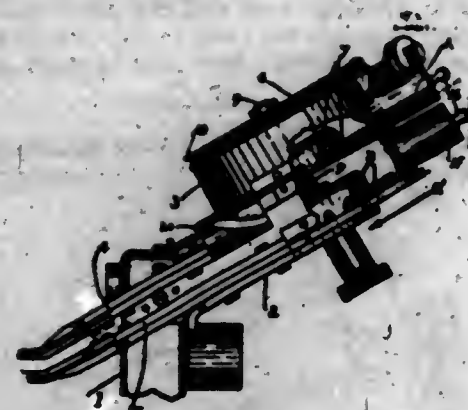
1,302,793. HANGER. CHARLES G. HANSON, Wichita, Kans. Filed Feb. 25, 1918. Serial No. 219,060. 1 Claim. (Cl. 211-12.)



A hanger for fur coats and the like, including a frame formed of a single length of spring wire having an integral support engaging hook, the lower part of the frame constituting means for supporting a neck piece or the like, an eye formed on one side of the frame, a forwardly and laterally extended loop projecting from the other side

of the frame and constituting a keeper, a rod pivotally connected to the eye and constituting a muff support or the like, and an eye at the free end of the rod for engagement with the keeper to hold fixed and under tension that side of the frame from which the keeper extends, the weight of a load upon the bottom of the frame being adapted to increase the frictional engagement between the keeper and the eye engaging the same by tending to straighten said side.

1,302,794. DUPLEX FEEDING MECHANISM FOR EYELETS, AC. FRANK L. HARMON, Beverly, Mass., assignor to Singer Manufacturing Company, Elizabeth, N. J., a Corporation of New Jersey. Filed Sept. 7, 1915. Serial No. 49,333. 11 Claims. (Cl. 218-18.1.)



1. Apparatus for feeding eyelets or the like, comprising a single hopper divided into an upper and a lower portion for holding a supply of eyelets and a race-way leading from each of said portions at an incline for the eyelets to slide by gravity, one of said race-ways being formed and arranged to initiate an eyelet line with the eyelets substantially upright and to deliver the same upright, and another race-way having a receiving portion adapted to initiate an eyelet line substantially upright, with another portion along which the eyelets are adapted to slide by gravity arranged to invert the eyelets, and still another portion adapted to deliver the eyelet line so inverted and facing oppositely to the eyelets in the first named race-way.

2. Apparatus for feeding eyelets or the like, comprising a cylindrical hopper with a flat floor, an inclined race-way arranged in eyelet receiving relation at one side thereof, said floor having a slope both lengthwise and crosswise of said race-way sufficient to cause the eyelets to slide by gravity to such race-way, and a rotating agitator mounted to operate in said hopper to initiate an eyelet line in said race-way.

1,302,795. MANUFACTURE OF CARBONS FOR ELECTRIC-ARC LAMPS. WALTER HENRY, London, and HORACE BENN GUYLLA, Weybridge, England. Filed Mar. 20, 1919. Serial No. 285,372. 8 Claims. (Cl. 176-184.)

1. In the treatment of carbons for electric arc lamps, the employment for the purpose of impregnation of a solution of an albuminoid or carbohydrate colloid of low viscosity containing a suitable proportion of a compound such as an organic salt of calcium.

1,302,796. INSULATOR. THOMAS J. HEARD, Wilson, Kans. Filed May 15, 1918. Serial No. 234,627. 1 Claim. (Cl. 173-816.)

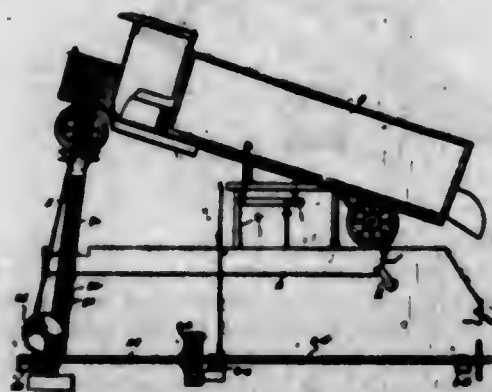
An insulator comprising a frusto-conical body, a triangular-shaped flange integral with and projecting laterally from one side of said body, the end edge of said flange extending from the smaller end of the insulator body and the outer inclined edge of the flange converging toward the larger end of the body, said flange having an inverted U-shaped slot formed therein opening at one of its ends

upon said inclined edge intermediate of the ends thereof, the arms of said slot both extending substantially in par-



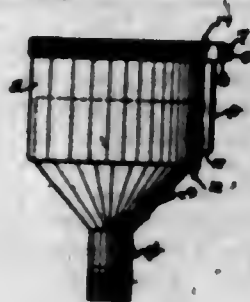
allel relation to the body wall and the other end of said slot terminating adjacent the body wall of the insulator at a point comparatively remote from said inclined edge.

1,302,797. AUTOTRUCK DUMP. PERNA HANSEN, Minn. Filed Feb. 10, 1919. Serial No. 270,188. 6 Claims. (Cl. 187-85.)



1. In combination with a weighing scale, of a cradle at one end of the scale adapted to receive the front wheels of a motor vehicle, said cradle normally resting upon the scale platform, a standard at each end of the cradle, a shoe mounted to slide on each standard and adapted to engage the adjacent end of the cradle when it is moved upward, means for simultaneously moving the shoes in either direction on the standard, a transmission shaft, and a connection between the said shaft and the shoe moving means for controlling the same in opposite directions, and at different speeds.

1,302,798. OIL-CUP. WILLIAM D. HUGHES, Condon, Oreg. Filed Aug. 13, 1917. Serial No. 185,964. 1 Claim. (Cl. 184-48.)



In an oil cup, an exteriorly threaded body, said body being provided with a vertically extending groove in its outer circumferential face, an interior threaded cover screwed on the said body, said cover being provided with an opening adapted to be brought into alignment with said groove, the cover being further provided adjacent its upper end with two spaced outwardly projecting ears, a spring catch formed from a single length of resilient wire bent to provide a locking element adapted to project through the opening of the cover into the groove of said body so as to lock the cover against reverse rotation, the

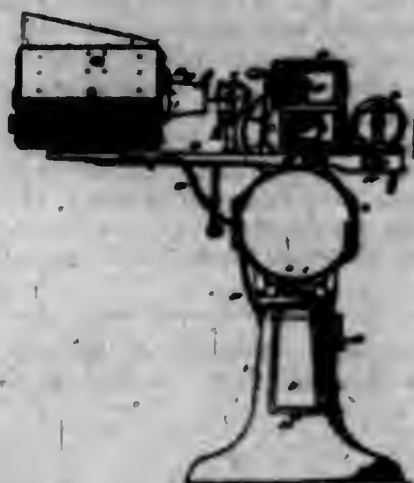
catch being further bent to provide a coil adjacent its upper end and an element projecting beyond said coil, said coil being adapted to receive a securing pin and the upwardly projecting element being adapted to engage the cover adjacent the upper end thereof and a cotter pin inserted through said securing pin.

1,302,799. SCABBARD-HANGER. LOUIS C. JABLONIK, Bergenfield, N. J. Filed Aug. 3, 1918. Serial No. 248,173. 5 Claims. (Cl. 224-3.)



1. A device for adapting a scabbard hanger to a belt, comprising a U-shaped member including a base bar having upright forwardly extended hooks at its ends, the base bar carrying depending arms connected by a loop.

1,302,800. PICTURE-PROJECTING MACHINE. CHARLES FRANCIS JENKINS, Washington, D. C., assignor to The Graphoscope Company, Washington, D. C., a Corporation of Delaware. Filed Oct. 17, 1916. Serial No. 126,061. 4 Claims. (Cl. 88-17.)

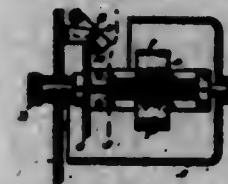


4. The combination with a suitable standard, of a storing and delivering film box hinged to the top of the standard and provided with means for progressively rocking it about its hinge axis and locking it in each position, a narrow suitably slotted table fixed to the top of the box with its axis parallel to the hinge axis and bearing all necessary picture projecting mechanisms arranged to project laterally with respect to the table; whereby the entire apparatus above the standard is set as a unit to project at any desired point above or below its normal plane.

1,302,801. MOTION-PICTURE APPARATUS. CHARLES FRANCIS JENKINS, Washington, D. C., assignor to The Graphoscope Company, Washington, D. C., a Corporation of Delaware. Filed Oct. 17, 1916. Serial No. 126,065. 4 Claims. (Cl. 88-19.4.)

1. In device of the class described, the combination with a shutter and automatic devices for opening and

closing the same as the operating parts of the apparatus pass from and to a state of rest, of means whereby the



shutter is held in either the open or the closed position in which it may be, while said devices are temporarily entirely free therefrom.

1,302,802. SELECTIVE SUPPRESSION OF RADIANT RAYS. CHARLES FRANCIS JENKINS, Washington, D. C. Filed Apr. 30, 1917. Serial No. 163,374. 5 Claims. (Cl. 89-34.)



1. The combination with a source of light and means for directing a beam therefrom through free air to a screen, a series of bodies of high thermal conductivity extending across the beam and forming numerous narrow passages through which parts of the beam may pass freely.

1,302,803. PICTURE-FILM REEL. CHARLES FRANCIS JENKINS, Washington, D. C. Filed June 22, 1918. Serial No. 241,885. 3 Claims. (Cl. 242-75.)



1. The combination with a revolvably mounted film reel, of a brake member pivotally supported in position to be swung against the reel by its own weight, and a film deflecting member mounted on the brake member in position to swing the brake from the reel when itself pulled by outgoing film.

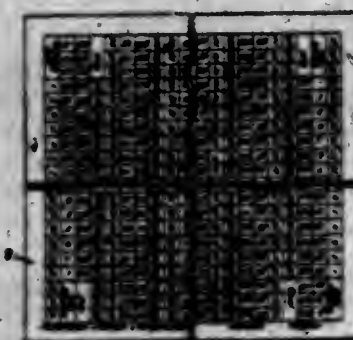
1,302,804. SIGNALING ATTACHMENT TO TRAINS. LAM A. JONES and JOHN W. CLARKE, Winnipeg, Manitoba, Canada. Filed June 22, 1917. Serial No. 176,582. 3 Claims. (Cl. 188-9.)



2. In a signaling appliance for a train of cars having an air brake system, the combination with the air brake sys-

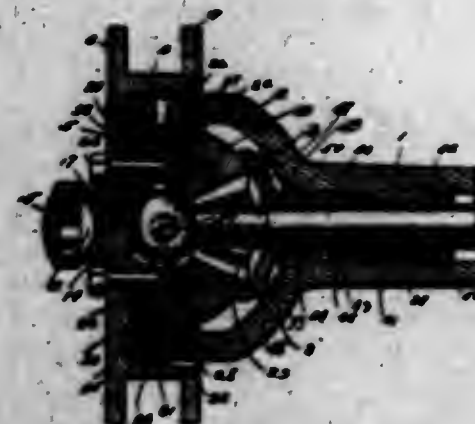
tem including air cylinders, of a signaling cylinder communicating with each of the air cylinders of the air brake system, a piston operatively mounted in each of the signaling cylinders and directly under the influence of the compressed air admitted to the brake cylinders in the setting of the brakes, insulated contact tips associated with each of the signaling cylinders and adapted to be electrically connected by contact with the pistons, and an electric circuit extending throughout the train and comprising an electric lamp on each car and a source of electro-motive force, all of said lamps being arranged in the circuit in a manner such that upon the pistons contacting the lamps will be lighted.

1,302,805. GAME APPARATUS. CARL JENTZ, Three Rivers, Quebec, Canada. Filed May 25, 1918. Serial No. 236,537. 5 Claims. (Cl. 46-88.)



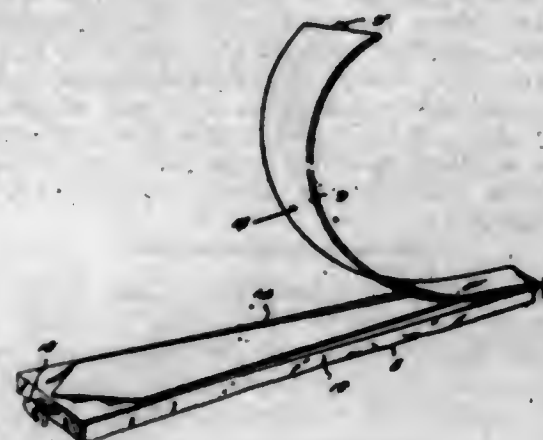
3. Game apparatus comprising the combination of a plurality of series of spaces designated by consecutive numbers and a plurality of dice, one of which has the signs of the operations of addition, subtraction, multiplication and division on four of the faces, has an option side upon a fifth face, and has the sixth face blank.

1,302,806. COUPLING. ANDREW W. JUDY, Centerville, Iowa, assignor of one-third to George M. Barnett, Centerville, Iowa. Filed Aug. 8, 1918. Serial No. 248,609. 1 Claim. (Cl. 160-88.)



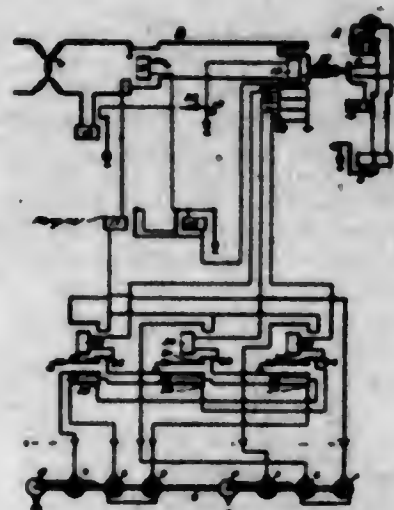
In a device of the class described, a tubular axle provided with arms having recesses in their inner surfaces; a ring pivotally supported in the arms; a hub and a cap comprising parts journaled in the ring and provided with a chamber having grooves, the cap having an opening leading to the chamber; a shaft journaled in the axle and including a head located in the chamber and supplied with projections received in the grooves; and a closure for the opening bearing against the inner face of the cap, the closure having lugs fitting loosely but against rotation in the recesses of the arms.

1,302,807. NECKTIE-PRESSER. HENRY KARSINER, Vya, Nev. Filed Dec. 8, 1917. Serial No. 206,268. 2 Claims. (Cl. 100-37.)



1. A neck tie presser including an arched base, an arched spring hingedly secured to one of the ends of the base and designed to be swung over the base to frictionally contact with the base, and means for adjustably retaining the spring in such contacting position.

1,302,808. TELEPHONE-EXCHANGE SYSTEM. CHARLES W. KECKLER, Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 5, 1917. Serial No. 200,344. 14 Claims. (Cl. 179-78.)

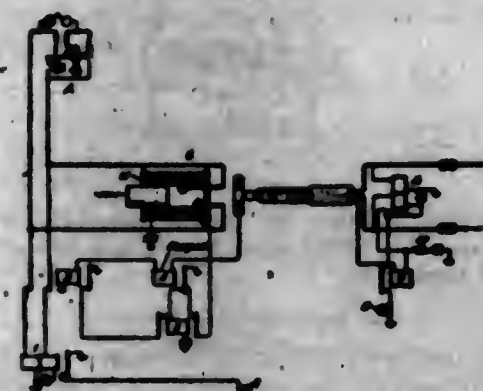


5. In a signaling system for producing signals for predetermined periods at stated intervals, a source of signaling current, means for producing said signals at any time and thereafter to reproduce said signals at said stated intervals, said means comprising a plurality of constantly operating switching means included with said source each adapted to provide periodically interrupted signaling current from said source, and means for automatically selecting one of said switching means capable of immediately providing said current at said time.

1,302,809. TELEPHONE-EXCHANGE SYSTEM. CHARLES W. KECKLER, Newark, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed May 11, 1918. Serial No. 233,920. 8 Claims. (Cl. 179-93.)

6. In a telephone exchange system, a line circuit terminating in a jack, a link circuit terminating in a plug

for connection with the jack, a plug ejecting device controlled by variations in current flow in the sleeve circuit



circuit of the engaged line and link circuits caused by the operation of the switchhook at the associated station.

1,302,810. BITUMINOUS COMPOSITION AND PROCESS OF MAKING SAME. LAUREN KROCHENAU, Evanston, Ill. Filed May 8, 1915. Serial No. 26,813. 5 Claims. (Cl. 100-31.)

1. The process of making a bituminous composition which consists in making an aqueous paste containing finely divided colloidal particles, amalgamating the paste with the bitumen while the latter is still in a fluid condition, combining the above matrix with an inert filler of comminuted fibrous character, and then forming the same into a relatively thin sheet on a suitable support, drying the paste and thus allowing the bitumen to coalesce with the filler.

2. The process of making a bituminous composition which consists in making an aqueous paste containing finely divided mineral matter having a substantial proportion of inorganic colloidal particles, mixing the paste with asphalt while the latter is in fluid condition, combining the above matrix with an inert filler of comminuted fibrous constituency and then applying the same cold on a suitable foundation, and allowing the composition to set, thus permitting the water to evaporate and the bitumen to coalesce with the filler.

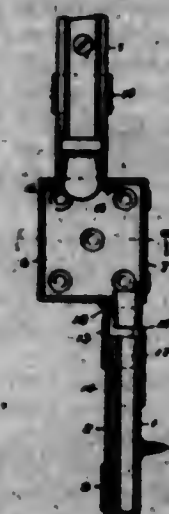
3. The process of making water proof composition which consists in making an aqueous paste with a colloidal material, adding a bituminous binder while the bitumen is in a liquid condition, stirring the bitumen and paste together until they are thoroughly amalgamated with each other, mixing the above composition with a comminuted fibrous material so as to thoroughly incorporate the fibers with the binder, forming the above mixture in a sheet while still contained in the aqueous vehicle, drying out the water, and allowing the bitumen to coalesce and unite with the fiber.

5. A process of making an emulsion consisting in making an aqueous paste of water and material having a substantial percentage of colloidal particles, adding thereto a bitumen while the latter is in a heated fluid condition and effecting an amalgamation of the two and adding water to the mixture and so incorporating the materials with each other as to form the emulsion.

1,302,811. ELECTRICAL-CONDUIT INSTALLATION. HOMER G. KROCHENAU, Edgewater, and CECIL E. HUBBARD, Baden, Pa., assignors to National Metal Molding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 3, 1917. Serial No. 194,606. 3 Claims. (Cl. 247-8.)

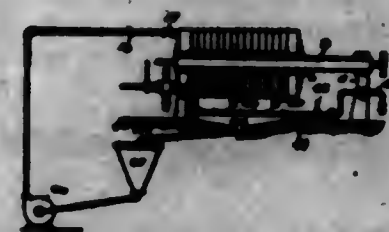
2. In an installation of electrical conductor conduits having open side members, the combination with a pair of conduits extending parallel to each other and having

their open sides lying in planes at right angles to each other, of a connecting fitting comprising a base portion



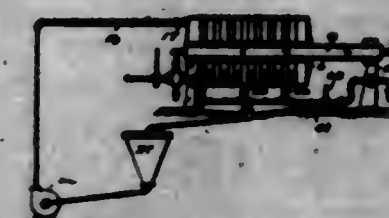
tion provided with openings for said conduits, and a cap for closing said base.

1,302,812. FILTERING APPARATUS. MICHAEL H. KUTYLA, San Francisco, Calif., assignor to Merrill Metallurgical Company, San Francisco, Calif., a Corporation of California. Filed Oct. 30, 1915. Serial No. 58,789. 7 Claims. (Cl. 210-13.)



2. In a filter, a plurality of spaced frames adapted to contain mass filtering material, and means for simultaneously charging the material into said plurality of frames.

1,302,813. PROCESS OF MAINTAINING FILTERS IN FILTERING CONDITION. MICHAEL H. KUTYLA, San Francisco, Calif., assignor to Merrill Metallurgical Company, San Francisco, Calif., a Corporation of California. Filed Oct. 30, 1915. Serial No. 58,790. 6 Claims. (Cl. 210-13.)

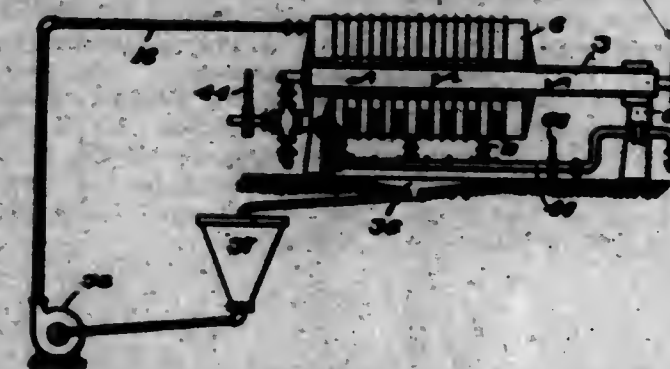


5. The step in the process of maintaining a mass filtering medium in a plurality of containers in a state of filtering efficiency which consists in introducing said medium simultaneously into said plurality of containers.

1,302,814. PROCESS OF TREATING MIXTURES OF LIQUIDS AND SOLIDS. MICHAEL H. KUTYLA, San Francisco, Calif., assignor to Merrill Metallurgical Company, San Francisco, Calif., a Corporation of California. Filed Oct. 30, 1915. Serial No. 58,791. 3 Claims. (Cl. 210-13.)

1. The process of treating materials to remove certain components therefrom by a lixiviant, which consists in

separating material which is slowly soluble in the lixiviant from the remainder of the material and employ-



ing such separated material as a filtering medium for a mixture of more readily soluble material and a lixiviant.

1,302,815. SEPARATOR FOR WELLS. OLIVER A. LAYNE, Los Angeles, Calif. Filed Sept. 17, 1917. Serial No. 191,677. 12 Claims. (Cl. 160-5.)



1. A well pipe separator, embodying a pipe having a plurality of spaced openings through its walls, and a protector apron extending entirely around the pipe and hanging downwardly and outwardly over the openings in downwardly flaring form, said apron being attached to the pipe around its upper edge and being vertically slitted up from its lower edge.

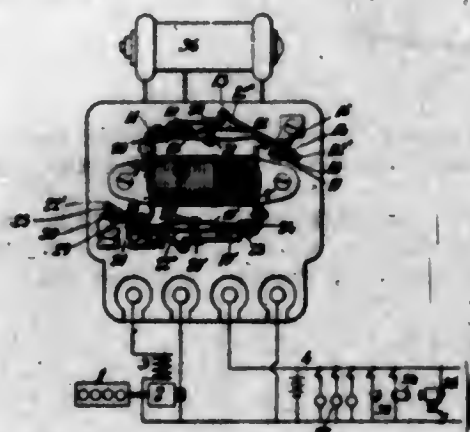
1,302,816. MOLDING APPLIANCE. LOUIS E. LEMMONS, Philadelphia, Pa., assignor to United States Cast Iron Pipe & Foundry Company, Burlington, N. J., a Corporation of New Jersey. Filed Oct. 30, 1917. Serial No. 197,552. 2 Claims. (Cl. 22-18.)



1. A rotatable and longitudinally withdrawable pattern for use in forming a vertical pipe mold comprising in combination a pattern body, longitudinally extending cam ribs carried thereby for forming the body portion of

the mold, and longitudinally extending cam ribs movable longitudinally with the pattern body mounted on said pattern body above the first mentioned ribs and shaped to form an upper portion of the mold of internal diameter larger at its upper end than at its lower end.

1,302,817. **ELECTRIC CONTROLLING MEANS.** HARRY WARD LORAMER, deceased, Bronxville, N. Y., by Carolyn G. Leonard, administratrix, Bronxville, N. Y., assignor to H. Ward Leonard, Incorporated, a Corporation of New York. Filed Oct. 12, 1915. Serial No. 55,405. 6 Claims. (Cl. 175-240.)



1. In an electric regulator, an electromagnet, a pivoted member moved by said magnet, a plurality of contacts yieldably supported on said member, a plurality of corresponding fixed contacts, and means for causing said yieldably mounted contacts first to move slidably across the fixed contacts and then by a hammer blow by said member out of engagement with said stationary contacts in succession.

1,302,818. **EGG-RECORDING NEST.** LEONARD B. LINDER, Mankato, Minn. Filed Nov. 1, 1915. Serial No. 50,000. 9 Claims. (Cl. 119-50.)



1. A laying-nest having an opening for permitting a hen to enter or go out, a marker member carried upon the back of the hen, a mark-receiving device supported in the entrance, and a shield covering said mark-receiving device when the hen enters the nest for preventing the marker member from making a record and adapted to permit the marker member to make a record upon the receiving device when the hen leaves the nest.

1,302,819. **BURNING OF EXPLOSIVE GASEOUS MIXTURES.** CHARLES E. LUCKER, New York, N. Y., assignor to Gas and Oil Combustion Company, New York, N. Y., a Corporation of Delaware. Filed July 10, 1915. Serial No. 39,069. 19 Claims. (Cl. 158-90.)

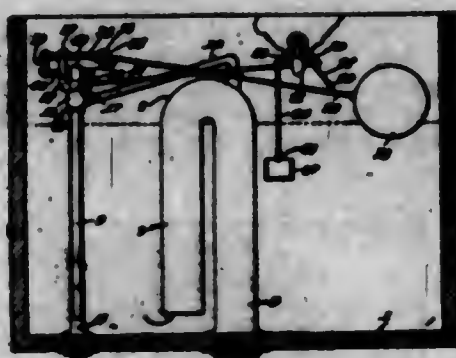
1. The method of burning explosive gaseous mixtures which consists in supplying the mixture with a velocity greater than the rate of propagation of inflammation of the mixture, reducing the flow velocity of the mixture by

baffling the stream of mixture and causing it to spread out and to advance with increasing cross-section and with decreasing velocity in an open space between directing and confining walls, and burning the mixture where the reduced velocity is equal to the rate of propagation of inflammation of the mixture.



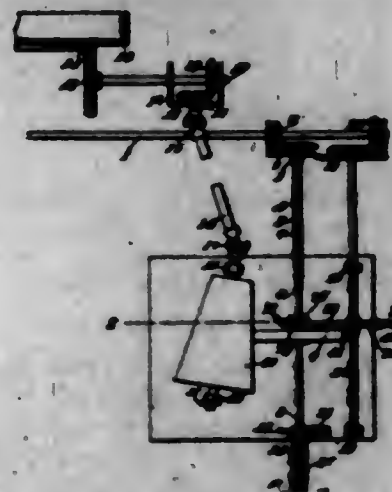
19. A hearth comprising a receptacle; firebrick placed therein; a series of conduits passing through said receptacle and through said firebrick; a mixture supply chamber with which said conduits register; and a perforated plate in said hearth above the openings of said conduits.

1,302,820. **SIPHON FLUSH-VALVE.** PERNA F. McCANNY, Spokane, Wash. Filed Sept. 25, 1917. Serial No. 192,168. 3 Claims. (Cl. 4-3.)



1. In a device of the class described, a flush tank; a siphon communicating with the tank and discharging therefrom; a source of water supply for the tank having an outlet discharging into the tank; a valve controlling said source; a float operatively connected with the valve; a conduit discharging from said source into the siphon adjacent its crown; a single valve controlling the flow of water from the source into the outlet and into the conduit; and means under the control of an operator and assembled with the last specified valve and at times under the control of the float for actuating the said valve to direct the water from the source into the outlet and into the conduit at different times.

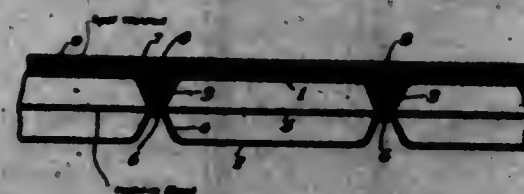
1,302,821. **SPEED-REGULATOR.** WILLIAM FINKNEY MCNEEL, San Antonio, Tex. Filed July 9, 1917. Serial No. 179,538. 2 Claims. (Cl. 74-26.)



1. A mechanism of the character described, embodying a cone, a friction wheel mounted to bear against and

move along said cone, spring means for pressing the wheel against the cone and returning said wheel to starting position, a screw, and a device embodying an arm connected at one end with said wheel and having a handle at its other end and a half-nut between its ends to engage said screw, and a member pivoted between its ends to said arm between said handle and half nut and having a half nut at one end to complement said half nut, the other end of said member having a handle complementing the aforesaid handle.

1,302,822. **TRUSSED-SHEET CONSTRUCTION.** JOHN O. MADISON, Brooklyn, N. Y. Filed July 10, 1918. Serial No. 244,145. 3 Claims. (Cl. 72-116.)



2. In a trussed sheet structure, adapted to withstand heavy loads or stresses, the combination of two sheets constituting the opposite chord members of the truss, each formed with permanent integral depressions of a depth many times the thickness of the sheet, sufficient to produce a strong trussing effect, said depressions being suitably spaced laterally and longitudinally, and a layer of insulating material, said depressions being rigidly secured together at their inner ends with said insulating material interposed between them and secured thereto, said depressions constituting the web members of the truss.

1,302,823. **LIFE-PRESERVER.** FRANK MARCOWSKY, Duquesne, Pa. Filed July 20, 1918. Serial No. 247,361. 4 Claims. (Cl. 9-17.)



1. A life preserver consisting of a tube having an inclosing sheathing, an air supply nipple, means for maintaining the tube in spiral arrangement around the body and for adjustment to the girth thereof, and means for attachment to and support thereon.

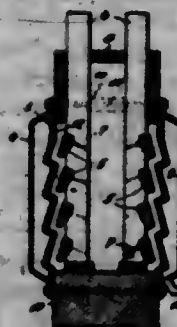
1,302,824. **ELECTROLYTIC CELL.** CLARENCE W. MANSU, Greenwich, Conn. Filed July 14, 1917. Serial No. 180,404. 11 Claims. (Cl. 204-5.)

1. In an electrolytic cell, a vertical anode and cathode disposed in spaced relation, the anode being divided by horizontal passages into a plurality of anode members and the anode members being so shaped and arranged that their lower wall extends toward the cathode beyond the vertical plane of the line from which the bubbles formed at the anode leave the active surface of the anode member immediately below it.

4. In an electrolytic cell, a vertical anode and cathode disposed in spaced relation, the anode being composed of a plurality of horizontal anode members arranged one above the other in a plane somewhat inclined outwardly

202 O. G.-5

to the vertical, whereby the bubbles arising from the active face of one anode member pass to the rear of the member above it, and the cathode being inclined to the vertical and horizontally stepped in conformity with the arrangement of the anode members.



5. In an electrolytic cell, a vertically disposed anode and cathode mounted in spaced relation, said cathode comprising a perforated sheet of material having continuous horizontal corrugations therein.

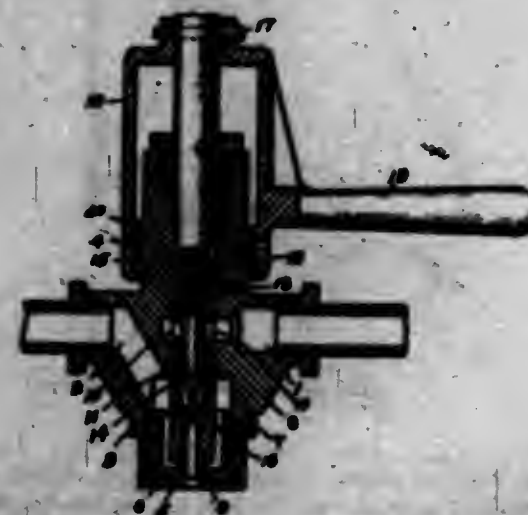
8. In an electrolytic cell, a vertically disposed anode and cathode mounted in spaced relation, said cathode comprising a perforated sheet of material having longitudinal corrugations therein, a flexible diaphragm fitting against said cathode, and means for holding said flexible diaphragm against said cathode.

1,302,825. **ROLLER-BEARING.** HALING MEINER, Christiania, Norway. Filed Apr. 9, 1918. Serial No. 227,531. 1 Claim. (Cl. 64-39.)



In a roller bearing the combination with grooved or shouldered rollers, of bearing members composed of rings, one or more of which projects in front of the bearing surface and fits into the grooves of the rollers, the co-operating edges of rollers and projecting bearing rings being given a convex form, whereby they only touch each other one point.

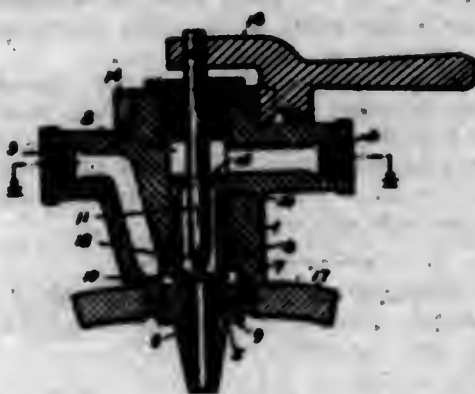
1,302,826. **HYDROCARBON-BURNER.** JOHN M. MILLER, Sewickley, Pa., assignor to Tate Jones & Company, Incorporated, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 6, 1918. Serial No. 252,556. 3 Claims. (Cl. 158-74.)



1. In a hydrocarbon burner, the combination of a casing having a central bore and provided with a pair

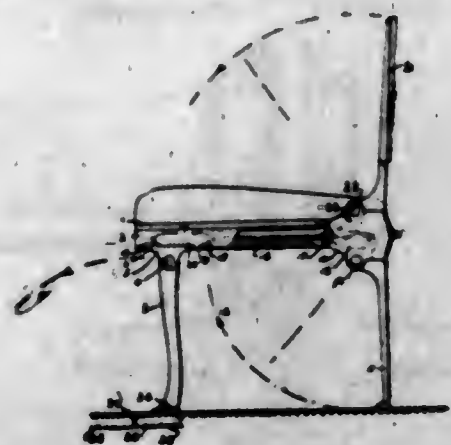
of inlets communicating with and with a valve port at the end of such bore, a sleeve slidable but non-rotatable in said bore and provided with an opening communicating with one of said casing inlets and provided with a valve controlling flow from the other of said casing inlets through said casing port, said sleeve being further provided with a valve port, a stem provided with a valve controlling flow through said sleeve port and having differential screw thread engagement with said sleeve and with said casing, whereby the rotation of said stem causes said stem and sleeve to simultaneously move longitudinally at different rates to control both of said valves, and means to rotate said stem.

1,302,827. HYDROCARBON-BURNER. JOHN M. MILLER, Sewickley, Pa., assignor to Tate Jones & Company, Incorporated, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 6, 1919. Serial No. 275,340. 3 Claims. (Cl. 153-75.)



1. In a hydrocarbon burner, the combination of a casing having a central bore and provided with a pair of inlets communicating therewith and further provided with a valve port within such bore, a sleeve within said bore provided with an opening communicating with one of said casing inlets, and further provided with a valve controlling flow from the other of said casing inlets through said casing port and with a valve port, a stem provided with a valve controlling flow through said sleeve port, said sleeve and stem each having a separate screw thread engagement with said casing but of different relative pitches, means for rotating said stem, and means for connecting said stem to said sleeve whereby the rotation of the stem causes the stem and sleeve to simultaneously rotate and move longitudinally at different rates to control both of said valves.

1,302,828. AUXILIARY SEAT. THOMAS MILLER, Cleveland, Ohio. Filed Aug. 12, 1918. Serial No. 249,550. 5 Claims. (Cl. 153-8.)



1. A folding chair comprising a seat, front and rear legs pivoted to said seat to fold up under the same, and locking devices connected to the rear legs and slidable to locking engagement with the front legs, when the legs are unfolded.

1,302,829. FIRE-EXTINGUISHER. DAVID EDWARD MUIR, New York, N. Y., assignor of twenty-five one-hundredths to Robert Giles, Brooklyn, N. Y., twenty-five one-hundredths to Henry A. Steinbock, and twenty-five one-hundredths to Thomas W. McKnight, New York, N. Y. Filed Dec. 26, 1917. Serial No. 200,579. 34 Claims. (Cl. 100-12.)

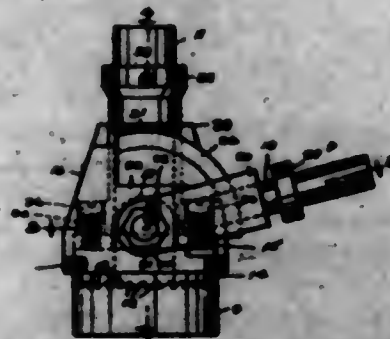


1. In a fire extinguisher, a receptacle, a second receptacle movably mounted within the first receptacle and having two means leading in different directions and communicating at all times with the space between the inner and the outer receptacles, and discharge means for the outer receptacle.

2. In a fire extinguisher, a receptacle, a second receptacle pivoted within the first receptacle and weighted at one side of its axis and free to move relatively to the first receptacle, the second receptacle having means at all times communicating with the space between the inner and outer receptacles, and a discharge means for the outer receptacle.

3. In a fire extinguisher, a receptacle, a second receptacle pivoted within the first receptacle and weighted at one side of its axis and having at its said side, means affording communication between the inner receptacle and the space between the first and the second receptacles, and discharge means for the first receptacle.

1,302,830. NUT-TIGHTENING DEVICE. JACOB E. MYERS, Seattle, Wash. Filed May 27, 1918. Serial No. 236,719. 9 Claims. (Cl. 81-53.)

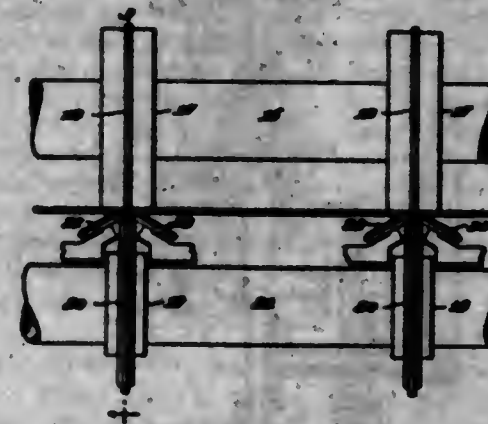


1. A nut tightening device of the class described comprising a socket adapted to fit over a nut, and means for delivering blows eccentrically on said socket and at such an angle that each blow tends to drive downwardly, at the same time exerting a turning force on said socket.

1,302,831. METHOD OF CREASING PAPER-BOARD AND THE LIKE. WALTER E. NAUGLE, Boston, Mass., assignor of one-fourth to Edward F. Allen, Medford, Mass. Filed Dec. 1, 1916. Serial No. 134,822. 7 Claims. (Cl. 92-76.)

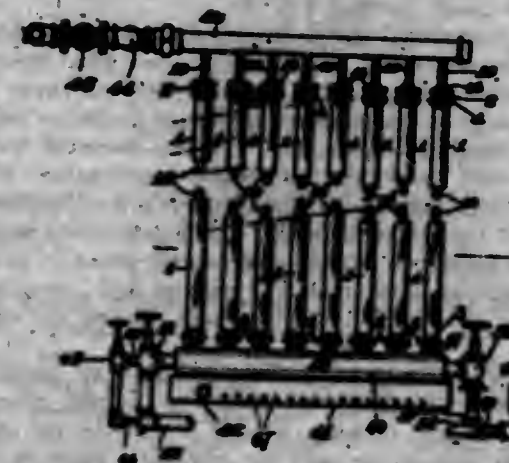
1. The method of creasing paper board consisting in first bending said board without compressing the material

to form a depression therein and then feeding the depressed portion between the oppositely disposed flanges of two rollers and subjecting to roller pressure the por-



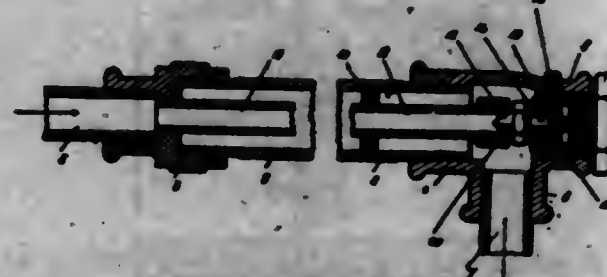
tions of material in said depression on opposite sides of said flanges and thereby forming a substantially rectangular crease.

1,302,832. FILTER APPARATUS. HOWARD M. NICHOLS, Swarthmore, Pa., assignor to The Atlantic Refining Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 25, 1918. Serial No. 218,904. 30 Claims. (Cl. 210-16.)



1. Apparatus of low heat capacity for filtering wax from chilled oil, comprising a closed filter chamber consisting of a filter medium of low heat capacity, means for supporting said medium with its inner and outer surfaces substantially free of contact with other bodies, means for introducing the chilled wax bearing oil into said chamber, means for melting the wax collected upon the inner surface of said chamber, and means for conducting the melted wax from said chamber, whereby wax may be filtered from the oil and removed from the chamber without disassembling the filter apparatus.

1,302,833. STEAM-TRAP. HARRY SAMUEL NICHOLSON and WILLIAM CRAIG BRISWORTH, Wilkes-Barre, Pa., assignors to W. H. Nicholson and Company, Wilkes-Barre, Pa., a Corporation of Pennsylvania. Filed Jan. 6, 1919. Serial No. 269,817. 2 Claims. (Cl. 230-9.)



1. A steam trap, comprising a casing provided with an inlet and an outlet, an expansion tube secured to one end

portion of the casing and provided with a valve seat at its free end, a longitudinally adjustable valve carrier supported in the other end portion of the casing, a valve engaging with the valve seat and having a non-slidable stem which is journaled centrally in the said valve carrier, and a locking screw engaging with the casing and bearing against one side of the said valve carrier.

1,302,834. WRENCH. JOHN P. NIKONOW, Baltimore, Md. Filed July 9, 1918. Serial No. 244,066. 2 Claims. (Cl. 81-105.)



1. In a wrench, the combination with a flat body member composed of two flat pieces, fastened side by side having near its outer end a wide portion provided with a transverse approximately cylindrical screw receiving passage extending across said wide portion, the outer end of said wide portion being cut away to form a fixed jaw, said wide portion also being provided with a transverse shank receiving passage of approximately rectangular cross section and communicating with said screw receiving passage and extending to said fixed jaw; a screw extending from end to end of said screw receiving passage, threads of said screw resting against the inside walls of said screw receiving passage, and a movable member having a movable jaw opposite said fixed jaw, and a shank disposed in said shank receiving passage, the lower edge of said shank being provided with thread-teeth adapted to engage a more or less longer portion of said screw, depending upon the position of said movable member and fulcrum upon the extreme outer end of said screw, the upper edge of said shank engaging and fulcruming upon the upper part of said shank receiving portion, so that when said jaws are subjected to the working pressure, said shank will fulcrum upon said portion and force said thread-teeth into a firm engagement with said outer end of the screw pressing at the same time the threads of said screw against the inside walls of said screw receiving passage directly opposite the point of pressure.

1,302,835. HAIR-CUTTER. EDUARD E. NININ, Philadelphia, Pa. Filed Jan. 14, 1919. Serial No. 271,127. 11 Claims. (Cl. 30-1.)



10. In a hair cutter, the combination with a frame having spaced heads substantially circular in outline, a shaft journaled in said heads below their centers, the heads having slots struck around the axis of said shaft and ribs paralleling said slots, a reel rotatably mounted on said

shaft, and means for driving it; of a blade whose extremities are slidably mounted on said ribs, arms rising from said extremities, outstanding pins on said arms traveling in said slots, a comb movably mounted around the edge of said heads and having upstanding arms at its extremities, outstanding pins on said arms, a pair of links pivoted on said heads and having slots, each engaging a pair of said pins whereby the blade and comb may be adjusted simultaneously, and means for adjusting the position of said arms.

1,302,836. HAIR-CLIPPER. FRANK M. NOONAN, Boston, Mass. Filed Aug. 5, 1918. Serial No. 248,206. 3 Claims. (Cl. 20-1.)



1. A hair clipper comprising a fixed serrated lower cutter provided with a straight row of teeth and with an upwardly projecting stud, a movable serrated upper cutter in sliding contact with the lower cutter and provided with a straight row of teeth, means for guiding the upper cutter in a rectilinear path, a flexible two-armed lever including an inner arm loosely engaged with the upper cutter and having a hub oscillatable on said stud, and a two-part telescopic outer arm, one part of which is hinged to said hub to oscillate on an axis substantially at right angles to the hub axis, the other part being slidable to vary the length of the said outer lever arm, a handle fixed to the lower cutter and provided with a bearing, a driving shaft journaled in said bearing, and universal joint members, one mounted eccentrically on said shaft and the other on the slidable part of the outer lever arm, means being provided for maintaining said members operatively interengaged.

1,302,837. OFFSET FOR PEDALS OF AUTOMOBILES. HOWARD T. NORRIS, Baltimore, Md. Filed Feb. 1, 1919. Serial No. 274,457. 2 Claims. (Cl. 74-81.)

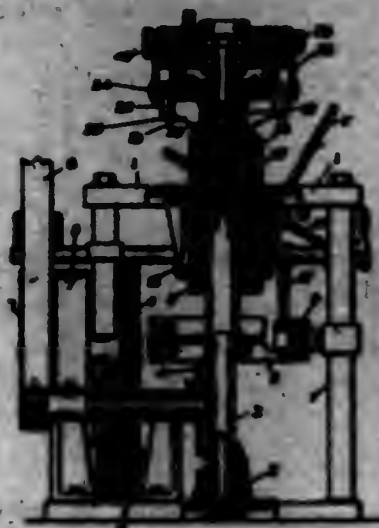


1. In an offset for use with pedals comprising a top and rib, the combination with a plate, of prongs thereon having bent portions to embrace one edge of said top, a clamp having a finger one side of which rests against said rib and the end of which rests against said top, and a screw for pressing said finger against said rib and top.

1,302,838. CENTRIFUGAL DIE-CASTING MACHINE. LAWRENCE OLSEN, Indianapolis, Ind. Filed Mar. 2, 1918. Serial No. 220,070. 14 Claims. (Cl. 22-65.)

1. In a centrifugal die casting machine, a die member, a rotatable shaft on which said die member is fixed for rotation therewith, a cover member, means for fixing the cover member to the die member, a third member on the shaft and vertically movable thereon, means for raising and lowering said last named member, and means intermediate the same and the cover member for raising the latter by the upward movement of said vertically movable

member after the cover member has been released from the die member.



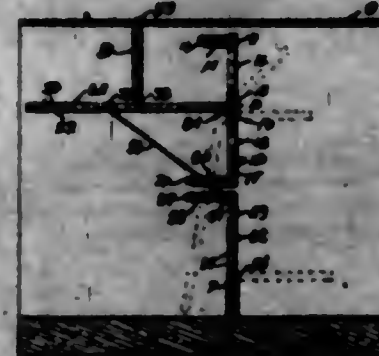
3. In a centrifugal die casting machine, in combination with a rotatable shaft, a die member carried thereby, a cover member, means to fix the cover member to the die member, a carrier member on the shaft below the die member and movable longitudinally of the shaft, mechanical means for shifting said carrier member, lifting members carried by the carrier member and having contact against the cover member.

5. In a centrifugal die casting machine, in combination with a rotatable shaft, a die bed member fixed thereon, a cover member having dies complementary to those of the die bed, means to removably secure said members together, a carrier plate below the die bed, and mounted for rotation with said shaft and movement longitudinal thereof, vertical lifting rods on said carrier plate having free bearing against the cover member, a non-rotatable, vertically adjustable cleave on which said carrier plate is mounted, rack and pinion mechanism for raising and lowering said cleave and means for locking said cleave in adjusted position.

9. In a centrifugal die casting machine, in combination with a rotatable shaft, die members carried thereby, a vertically movable member, means carried by the movable member for separating said die members, ejectors carried by said movable member, and adjustable means adapted for projection into the path of the separating means to effect the operating contact of said means before the action of the ejectors on the castings.

12. In a centrifugal die casting machine, in combination with a rotatable shaft, die members carried by said shaft and having a central distributing chamber and gates leading non-radially and in the general direction of rotation of the machine from said chamber to the die chambers, said gates entering the respective die chambers in the rear portions of their circumferences considered with respect to the line of rotation of the machine.

1,302,839. FISH-STOP. CLAIR D. OLSON, Farmington, N. Mex. Filed June 20, 1918. Serial No. 241,050. 3 Claims. (Cl. 216-16.)



3. In a device of the class described, the combination of a main frame, a guard screen hingedly mounted within

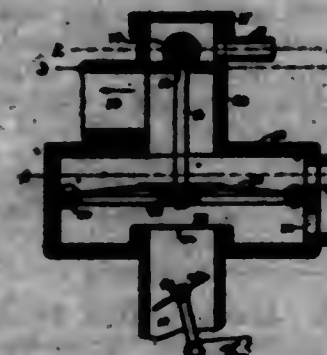
said main frame, means for normally retaining said guard screen in a horizontal position, a vertical screen carried in a plane above the horizontal screen, a vertical screen mounted within said frame in a plane below the guard screen, means for retaining said vertical screens in set positions, the first mentioned vertical screen being adapted to be swung over, although said guard screen will prevent fish from swimming past the first mentioned vertical screen when in an open position, means connecting said guard screen to the last mentioned vertical screen, whereby when said vertical screen is swung to an open position, said guard screen will be swung downwardly toward the position normally assumed by the last mentioned vertical screen, thus preventing the passage of fish through said frame.

1,302,840. SPRING-WHEEL. ARTHUR H. PARENT, Baltic, Conn. Filed May 8, 1918. Serial No. 233,189. 7 Claims. (Cl. 152-29.)



1. A spring wheel including a hub, a rim surrounding the hub, spokes supporting the rim with respect to the hub and each formed of telescopic inner and outer sections, casings slidable upon the spokes, yieldable means housed within said casings and operatively bearing radially between the inner spoke sections and said casing for urging the outer sections of the spokes outwardly with respect to the inner sections thereof, housing plates confronting opposite sides of the spokes at their inner extremities, and a plurality of independent brace blocks supported by said housing plates between the spokes for bracing the spokes with respect to each other, said brace blocks being formed at their ends to fit around and slidably receive the said casings therebetween.

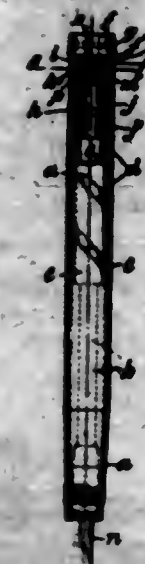
1,302,841. VALVE FOR GAS HEATING SYSTEMS. NICHOLAS W. PARK, Brooklyn, N. Y., assignor to General Fire Extinguisher Company, Providence, R. I., a Corporation of New York. Filed Nov. 24, 1917. Serial No. 208,740. 8 Claims. (Cl. 48-184.)



1. A mixing device for air and gas, comprising in combination a passage for air having an entrance portion with contents normally continuously at a superior pressure, a mixing portion with contents normally at an inferior pressure

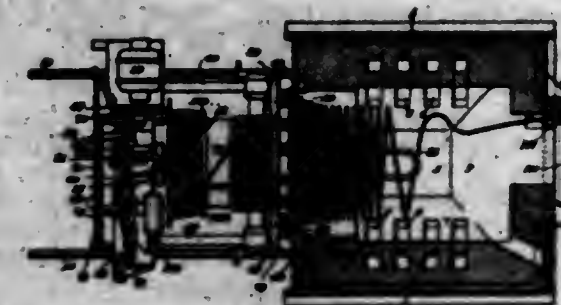
and a restriction between the two portions, normally dividing the two said regions of pressure; a gas inlet to the mixing portion; a vane having one side exposed to the gaseous pressure in the entrance portion of the passage and its other side exposed to gaseous pressure in the same passage beyond the restriction; and means by which movement of the vane controls the gas inlet.

1,302,842. FOUNTAIN AND STYLOGRAPHIC PEN. FLORENCE MADELINE PRATT, Lisacard, England. Filed Aug. 9, 1917. Serial No. 185,232. 2 Claims. (Cl. 120-49.)



1. In a fountain or stylographic pen, of the safety type, a pen body having a groove, a pen nib, a head piece adapted by rotation to adjust said pen nib, said head piece having a portion thereof provided with a spiral groove, and means limiting the rotary movement of said head piece, comprising a saddle piece disposed in the spiral groove of said head piece and projecting into the groove of said pen body.

1,302,843. METAL-HEATING APPARATUS. WILLIAM BRADFORD PRINCE, North Tonawanda, N. Y., assignor to Buffalo Belt Company, Buffalo, N. Y., a Corporation of New York. Filed Oct. 15, 1917. Serial No. 190,625. 11 Claims. (Cl. 262-3.)



1. A furnace for progressively heating material in coils, comprising a furnace having a circular opening, a mandrel in said opening supported independently of the walls of the furnace, a winder adapted to deposit material shaped as an open helix upon said mandrel and means for supporting a supply coil co-axial with said winder and with the helix to be formed therefrom.

1,302,844. VAPORIZING ATTACHMENT FOR INTERNAL-COMBUSTION ENGINES. THOMAS PERLIN, Iowa City, Iowa, assignor to Patrick F. Campbell, Iowa City, Iowa. Filed July 7, 1916. Serial No. 108,018. Renewed Sept. 12, 1918. Serial No. 253,903. 3 Claims. (Cl. 187-32.)

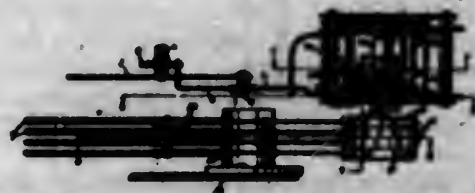
1. In an appliance of the class described, a casing having an air inlet, a valve seat within the casing, and a

valve including a head normally held against the said seat, and a stem slidably fitted through the casing and projecting therefrom, the said stem being hollow and being provided adjacent to the valve head with an inlet



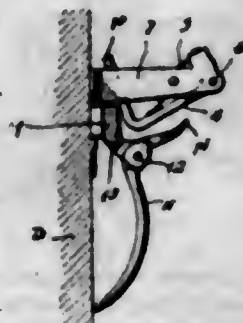
port and at its portion which projects from the casing with an outlet port, the end of the casing from which the stem projects having means for attachment to the part to which the valve delivers.

1,302,845. CHIME-CLOCK. JAMES B. PHILLIPS, Grand Rapids, Mich., assignor of one-third to Charles J. Kindel, trustee, Grand Rapids, Mich. Filed Jan. 10, 1918. Serial No. 211,181. 3 Claims. (Cl. 68-12.)



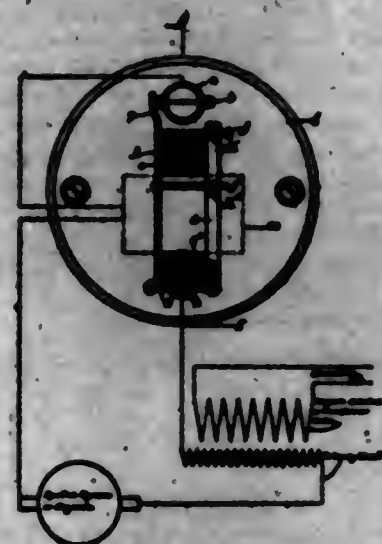
2. In a structure of the class described, the combination of a set of sound members, hammers pivotally supported to coast with said sound members, a hammer actuating drum comprising a plurality of disks disposed side by side and provided with hammer actuating tappets, said disks being adjustable relative to each other to determine the order of actuating the hammers, a drum driving mechanism comprising a stop disk provided with differently spaced notches, a coasting stop dog, and a release means therefor.

1,302,846. REFRIGERATOR-DOOR LATCH. JULIUS FORTNAI, Los Angeles, Calif. Filed June 1, 1918. Serial No. 237,799. 2 Claims. (Cl. 70-49.)



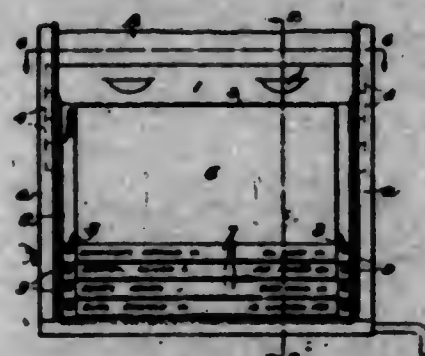
1. A door latch comprising a bar and means for securing it to the door with one end projecting beyond the free edge of the latter, a vertically moving latch to abut the outer side of said bar end and prevent opening of the door, means for mounting said latch on the door frame, and a vertically swinging latch releasing bell crank fulcrumed to said projecting end of said bar on an axis parallel with said bar, said bell crank having one of its arms extending forwardly to strike and raise said latch, the other arm of said bell crank depending from the fulcrum to form a handle, whereby a single forward pull on said handle will first release said latch and then open the door.

1,302,847. ELECTROMAGNETIC CIRCUIT-INTERRUPTER. RUFER, HAROLD O. PUTT, Elkhart, Ind. Filed Dec. 23, 1917. Serial No. 200,295. 6 Claims. (Cl. 123-148.)



1. In an electro-magnetic circuit interrupter, the combination of a non-magnetic plate, an electro-magnet having its poles projecting through the aforesaid plate, a spring secured to one of the pole members, an armature of magnetic material secured to one end of the aforesaid spring, a contact arm secured to the other end of said spring, said contact arm acting as an armature of lighter weight than the first mentioned armature, a contact member with which the contact arm mentioned is arranged to electrically connect, means adjustably connecting the aforesaid contact arm and armature, and an electric circuit electrically connected with the aforesaid apparatus and which is interrupted by the movement of the contact arm, substantially as described.

1,302,848. INDEX. JAMES H. RAND, North Tonawanda, N. Y. Filed Apr. 15, 1918. Serial No. 228,543. 14 Claims. (Cl. 129-16.)



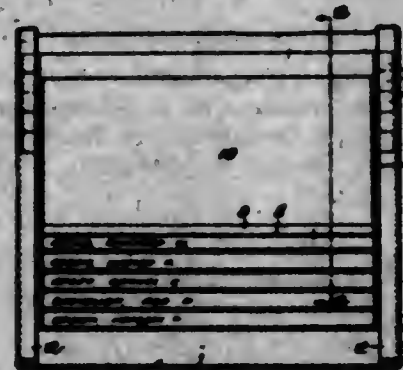
6. An index element comprising a base portion having laterally extending projections adapted to engage the channels of a frame, and a free portion depending from the lower edge of the base portion and divided from the base portion by a crease forming a hinge, all of said parts being integrally formed of sheet material.

12. An index device comprising a body and a strip of sheet material having different coefficients of expansion, and fasteners passing through both of said members and attaching the two members together, adapted to permit relative movement of expansion and contraction between them.

1,302,849. INDEX. JAMES H. RAND, North Tonawanda, N. Y. Filed Apr. 16, 1918. Serial No. 228,551. 5 Claims. (Cl. 129-16.)

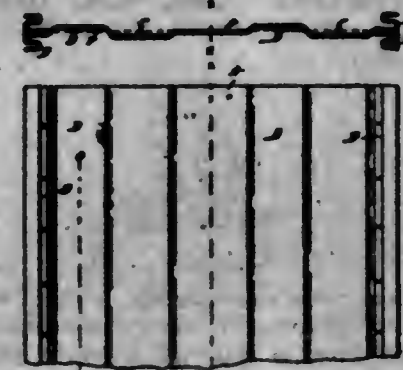
1. An index comprising a frame, a series of supporting members mounted in the frame, and a series of index elements of sheet material attached to the supporting members in overlapped spaced relation with their free

margins projecting one beyond another, the free margin of each element being provided with a lip extending inwardly from the edge of the index element and spaced therefrom to form a sheath or pocket, the margin of the



lip being bent inwardly toward the face of the index element and closing the inner side of the sheath or pocket, and thence being reversely bent and extending flatwise against the face of the index element under the free edge of the next overlapping element.

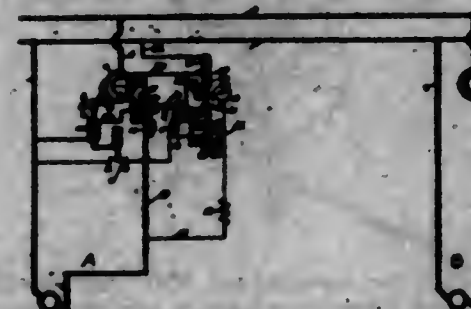
1,302,850. INDEX DEVICE. JAMES H. RAND, North Tonawanda, N. Y. Filed May 17, 1918. Serial No. 235,110. 8 Claims. (Cl. 129-16.)



1. An index frame comprising a body of sheet material having a pair of lengthwise extending channels on each face of the frame, the channels of each pair being disposed at opposite sides of the central longitudinal axis of the frame, and the pairs on the opposite faces of the frame being laterally and similarly offset in opposite directions with relation to said central axis.

8. An index element of sheet material having a pair of supporting and spacing tabs projecting from the body of the element, said tabs being disposed at opposite sides of the central vertical axis of the element, and the pair of tabs being laterally offset with relation to said central axis.

1,302,851. AUTOMATICALLY-RECLOSING CIRCUIT-BREAKER MECHANISM. ESTELLE C. RANBY, Columbus, Ohio, assignor to The Automatic Reclosing Circuit Breaker Company, Columbus, Ohio, a Corporation, of Ohio. Filed Oct. 12, 1915. Serial No. 55,415. 5 Claims. (Cl. 175-284.)



1. A circuit breaker comprising means for opening the circuit breaker on overload, means for reclosing the

circuit breaker, and means operative when there is more than a definite minimum potential in the load circuit to govern operation of said reclosing means by potential of the load circuit and operative when there is less than said minimum potential to govern operation of said reclosing means in accordance with load resistance.

1,302,852. PROCESS OF PRODUCING ALUMINIUM COMPOUNDS. OTTEIN RAVNER and VICTOR MOSITS GOLDSCHMIDT, Christiania, Norway, assignors to Det Norske Aktieselskab for Elektrokemisk Industri, Norsk Industri-Hypotekbank, Christiania, Norway. Filed Mar. 19, 1917. Serial No. 155,883. 4 Claims. (Cl. 23-13.)

1. The process of producing an aluminium compound from minerals rich in plagioclases of the labradorite-anorthosite series, which comprises subjecting the minerals to the combined action of heat and a decomposing agent in the form of a gas, whereby salts are formed and combined aluminium is liberated, and recovering the aluminium compound from the decomposition mass.

1,302,853. PEDAL-PAD. JOHN EDWARD REDFERN, Cambridge, Mass. Filed Nov. 26, 1917. Serial No. 204,027. 3 Claims. (Cl. 154-52.)

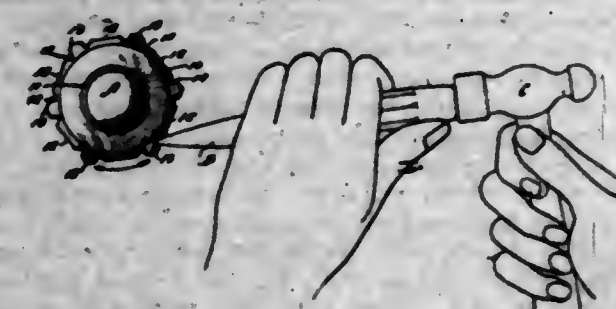


1. A foot-pad comprising a relatively flat tough fabric base formed with an opening between its upper and lower sides and extending from one of its edges to its opposite edge to receive an attaching element, and a body of yielding friction creating material integral with said base.

2. A foot-pad comprising a flat body of yieldable friction creating material, and a base for said body including an upper and a lower ply of fabric, said plies being parallel and being secured together substantially throughout their areas but being separated on a line extending from one edge of the base to the opposite edge thereof, whereby to form an opening for the reception of an attaching element.

3. A foot-pad comprising a flat body of yieldable friction creating material, and a base for said body including an upper and a lower ply of fabric, said plies being disposed in parallel relation, and a substantially flat tube of vulcanized material between a restricted portion of said plies and having its ends located at two opposite edges of the base, said substantially flat tube being vulcanized to said plies and said plies being vulcanized together except where separated by said tube.

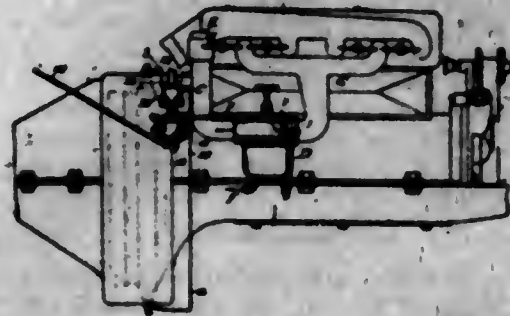
1,302,854. NUT. MARTIN H. J. REDMER, Philadelphia, Pa. Filed May 26, 1917. Serial No. 171,286. 1 Claim. (Cl. 85-32.)



A nut comprising an annular internally threaded body of polygonal exterior contour presenting flat wrench-

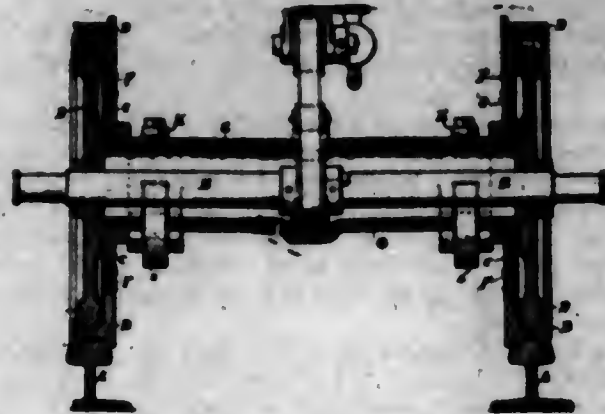
receiving faces, each flat face of said body provided with a relatively narrow notch near each end thereof providing lugs at the projecting angled portions of the body and flat uninterrupted surfaces between the notches for the reception of a wrench, the outer faces of the lugs and the wrench engaging surface between the notches lying in the same plane.

1,302,855. ENGINE-GOVERNOR. WILLIAM ROWINS and HARRY F. BRYAN, Chicago, Ill. Filed Mar. 12, 1917. Serial No. 164,138. 7 Claims. (Cl. 123-102.)



1. In a speed limit governor for engines, a movable controlling element, a lever for actuating it, an electromagnetic winding for moving said lever in a direction to close the controlling element, and manually operated means independent of said lever for moving said lever in a direction to close said controlling element.

1,302,856. AXLE AND WHEEL FOR VEHICLES. ARCHIBALD J. ROBERTSON, deceased, by Alfred C. Rex, administrator, Philadelphia, Pa. Filed Sept. 14, 1910. Serial No. 120,026. 4 Claims. (Cl. 105-100.)

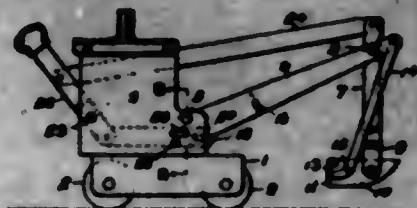


1. A railway car truck having a hollow axle the ends of said hollow axle fastened to the central portion of a car wheel, said central portion and the outer portion thereof supplied with a journal bearing, whereby said outer portion of said wheel may revolve around the central portion thereof, a solid axle in said hollow axle, the periphery thereof resting on the inner periphery of the rim of said outer portion, a wheel journaled on the wall of said hollow axle, the periphery of said wheel in contact with the said solid axle, to hold said axle off from the longitudinal center of said hollow axle, a pulley on said solid axle in belt connection with means to operate an air brake, and means to prevent said hollow axle from revolving, substantially as described.

2. A vehicle wheel supplied with a hollow axle, said hollow axle fastened to the central portion of said wheel, said center portion and the outer portion thereof supplied with a journaled connection whereby said outer portion may revolve around the said central portion, a solid axle in said hollow axle, said solid axle supplied with a smaller portion of said wheel, the periphery of said smaller portion resting on the inner periphery of the rim of said larger portion of said wheel, a wheel

journaled on said hollow axle, the periphery of said wheel in contact with said solid axle to hold said axle off from the center of said hollow axle and means to prevent said hollow axle from revolving, substantially as described.

1,302,857. MECHANICAL TOY. EMBERICH SABINA, Pittsburgh, Pa., assignor to E. Sabina Company, Inc., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 19, 1918. Serial No. 218,008. 8 Claims. (Cl. 214-138.)



7. In a toy above, a movable boom, a bucket pivotally connected with the boom, an operative lever, means connecting the operating lever and boom, and means connecting the operating lever and bucket.

1,302,858. NUT-LOCK. ABEL BACK, Glendive, Mont. Filed July 1, 1918. Serial No. 242,775. 1 Claim. (Cl. 151-30.)



In a nut lock, the combination with a threaded bolt and a nut suited thereto, of circular washers fitted to the shank of said bolt, a pair of opposed prongs having sharply defined edges bent outwardly from the same side of the washers the center parts of said prongs being integral with said washers, and a pair of said washers placed side by side and in alignment, and a second pair of opposed prongs also pressed outwardly from the washers, one pair of said prongs being adapted to engage with the part to be clamped on one side, an annular recess formed in the base of said nut, and ratchet teeth formed in the bottom of said recess engageable with the other pair of prongs formed with said washer.

1,302,859. INDUSTRIAL CHAIR. JOSEPH SALONOV, Chicago, Ill. Filed May 18, 1918. Serial No. 235,222. 9 Claims. (Cl. 155-2.)



1. In a chair; the combination with two adjacent legs thereof, of a back having uprights, a bar extending across said rear legs, and clamping member adjustable on said bar, adapted to cooperate with the ends of said bar to clamp said uprights to said legs.

1,302,860. GOLF-CLUB ATTACHMENT. ALLSTON SANDERST, East Orange, N. J. Filed Feb. 4, 1919. Serial No. 274,861. 6 Claims. (Cl. 46-4.)



1. A golf club attachment comprising, a point, a clamp and an adjustable connecting arm.

1,302,861. MEANS FOR HANDLING SHELLS. JOSEPH FULLMER SCHOTT, Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 2, 1918. Serial No. 260,810. 6 Claims. (Cl. 212-135.)



1. The combination in a machine for handling shells and like objects, of an overhead trolley; rails on which the trolley is mounted; a cross head carried by the trolley; means for raising and lowering the cross head; a frame pivoted at the lower end of the cross head; means for turning the frame on its pivot; jaws for grasping the shell pivotally mounted on the frame; and means for guiding the jaws so that a shell can be grasped, lifted, transferred and turned from a vertical position to a horizontal position.

1,302,862. COMBINATION IRONING-BOARD, STEP-LADDER, AND DRYING-RACK. MATHEW J. SHACKMAN, Flora, Ill. Filed July 15, 1918. Serial No. 244,946. 4 Claims. (Cl. 222-4.)



1. In combination, a ladder, props pivotally connected to the side rails of the ladder at one of their ends, means

on the props to coact with the ladder and prevent the separating movement of the props and ladder when disposed in angular positions with respect to each other, an ironing board pivotally mounted at one of its ends between the ladder rails, and additional means simultaneously coacting with the props, the ladder rails, and the pivoted end of the ironing board to retain said board in an operative angular position with respect to the ladder.

4. In combination, a ladder, props pivotally engaged to the side rails of the ladder, an ironing board pivotally mounted at one of its end portions between the ladder rails, and means constantly urging the ironing board between the rails of the ladder.

1,302,863. LOCK. JOHN H. SHAW, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 31, 1918. Serial No. 214,765. 9 Claims. (Cl. 70-74.)



2. In combination, in a multiple key lock, inside and outside bolts, a ward formed upon the rear portion of said inside bolt, said ward formed to lie substantially in a plane transverse to the axis of the inside bolt and constructed to permit one key of the series of multiple keys to be rotated in the outside key hole but to prevent the other keys of the series from rotating therein when the bolt upon which the ward is formed is protracted.

1,302,864. AEROPLANE. PETER CHARLES SHERNER, Ogden, Utah. Filed Oct. 12, 1917. Serial No. 196,161. 11 Claims. (Cl. 244-12.)

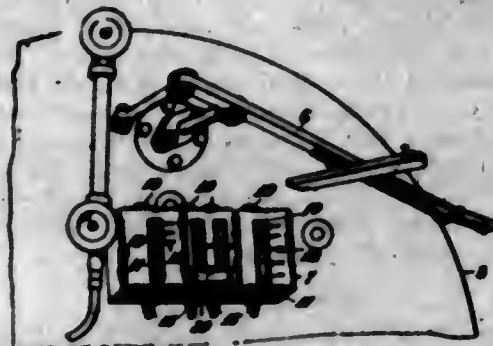


6. An aeroplane having a rearwardly and downwardly curved wing provided with an adjustable vane extending along the rear portion of the upper face of the wing, said vane being located and having adjustable movement with respect to the wing wholly beneath the horizontal level of the crown of said wing whereby to intercept forwardly moving air currents without obstructing rearwardly moving air currents.

1,302,865. OIL-CONTAINER. EDWARD L. SIEMANTZ, Topeka, Kans. Filed Dec. 23, 1918. Serial No. 268,045. 4 Claims. (Cl. 220-20.)

1. A container of the class described, comprising a receptacle having top, side and bottom walls and inner partitions formed so as to provide a plurality of fluid-tight compartments, each compartment being provided in its top with inlets having removable closure means while the bottom of each compartment is provided with a draw-off cock, one side wall of each compartment being provided

with a vertically disposed sight opening having graduations correlated to the internal dimensions or capacities



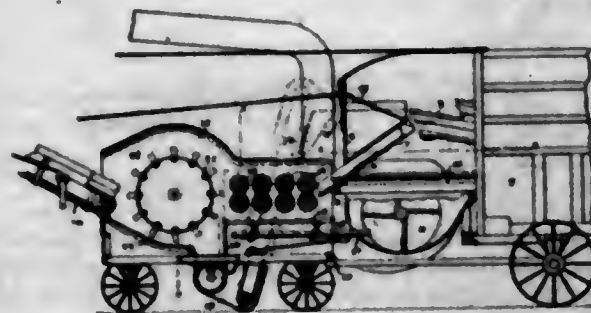
of said compartments, and means secured to the opposite side wall whereby the receptacle may be removably suspended in place.

1,302,866. FLAT-IRON STAND. HARRY H. SMITH, Brooklyn, N. Y. Filed Oct. 6, 1917. Serial No. 195,062. 5 Claims. (Cl. 68-10.)



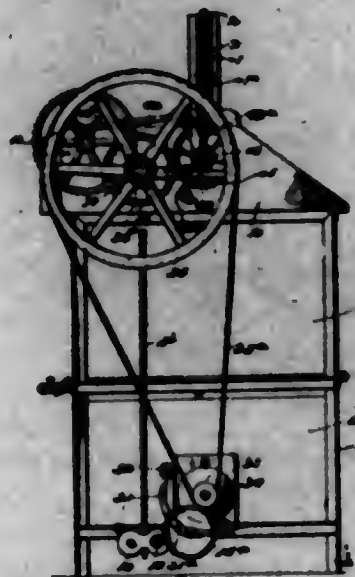
1. The combination of a bracket adapted to be pivoted to the lower face of an ironing board and a flat iron support hinged to said bracket, the said support when swung to one position being located upon the bracket with its upper face on a level with the upper face of the ironing board, and when swung to another position, located below the ironing board.

1,302,867. ATTACHMENT FOR THRESHING-MACHINES. JOHN T. SMITH, Hopkins, Minn. Filed Sept. 26, 1917. Serial No. 193,244. 3 Claims. (Cl. 130-13.)



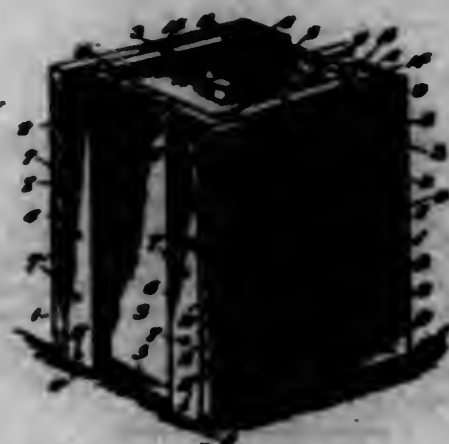
3. In a threshing machine, the combination, with a straw rack, a chaffer horizontally mounted beneath the same, and a blower arranged beneath said chaffer to receive the chaff and fine material therefrom, of a feed plate hinged at the discharge end of said chaffer and overhanging the same in position to receive the clean straw from said rack and divert it from said chaffer, a series of crushing rolls mounted at the discharge end of said chaffer in position to receive the clean straw from said feed plate, said plate being mounted to swing to an upright position and allow the mingled chaff and straw to fall upon said chaffer from said rack and said chaffer being mounted to discharge the material that is too coarse to fall therethrough into said crushing rolls.

1,302,868. LAUNDRY-MACHINE. JAMES F. SMITH, Chicago, Ill. Filed June 4, 1917. Serial No. 172,674. 5 Claims. (Cl. 68-15.)



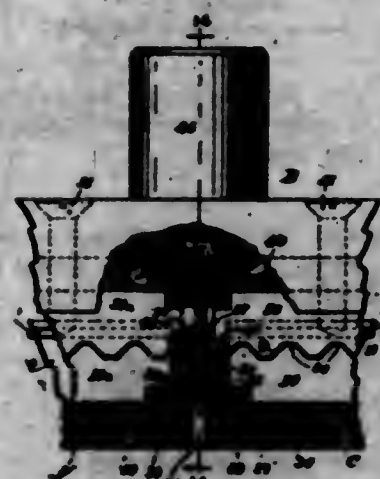
3. In a laundry machine, a receptacle for a washing fluid, a clothes container in the receptacle mounted for rotary movement therein, the walls of said container being perforated, an agitator in the container, means for imparting either an alternating rotary movement or a continuous rotary movement to the agitator, means for coupling the container to the agitator to rotate therewith when it is given the continuous rotary movement, and means for holding the container stationary in the receptacle when it is uncoupled from the agitator.

1,302,869. SAFETY-BOX FOR EXPLOSIVE POWDER. CHARLES I. SNYDER, Pleasantville, N. J., assignor to E. I. du Pont de Nemours & Company, Wilmington, Del., a Corporation. Filed Sept. 12, 1917. Serial No. 191,151. 2 Claims. (Cl. 217-5.)



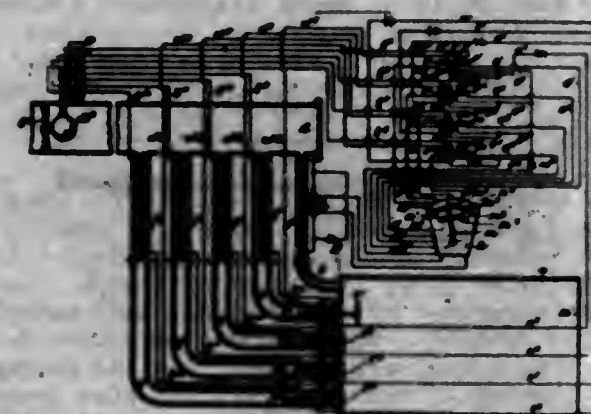
1. A canister-inclosing box formed of side pieces, end pieces, a top piece, a bottom piece, battens on the exterior corners of the box, and cleats on said top piece, said side and end pieces and top piece forming a sunken depression in the top of the box, all of said members being firmly connected, said cleats resting in said depression and having their terminal ends abutting the upper portions of the interior of said end pieces and having their outer sides abutting the upper portions of the interior of said side pieces, said battens having their lower portions extending below said side and end pieces and terminating at the bottom parallel with the underside of said bottom piece and having their upper portion abutting the exterior of the end pieces and being overlapped by the inner faces of the terminal ends of said side pieces.

1,302,870. DIE FOR MAKING CORE-UNIT MEMBERS FOR RADIATORS. CHARLES F. SMITH, Chicago, Ill., assignor to Heeven Radiator Co., Chicago, Ill., a Corporation of Oklahoma. Filed Oct. 18, 1918. Serial No. 258,755. 7 Claims. (Cl. 153-2.)



1. Means for forming the elements of core-units for radiators, comprising a die-bed, a shearing element medially of said die bed, vertically movable resilient forming pads in said die bed at each side of said shearing element, a stop-block at one end of said die bed, a punch proper, including a main body, a shearing member medially of said main body, forming pads at each side of said shearing member and fixed to said main body, there being in one of said forming pads a resilient pinch block normally extending beyond the cutting edge of said shearing blade.

1,302,871. DISPOSITION OF INFLAMMABLE GASES. ALFRED SPICA, Jersey City, N. J. Filed Nov. 10, 1917. Serial No. 201,354. Renewed Oct. 19, 1918. Serial No. 258,911. 5 Claims. (Cl. 204-5.)

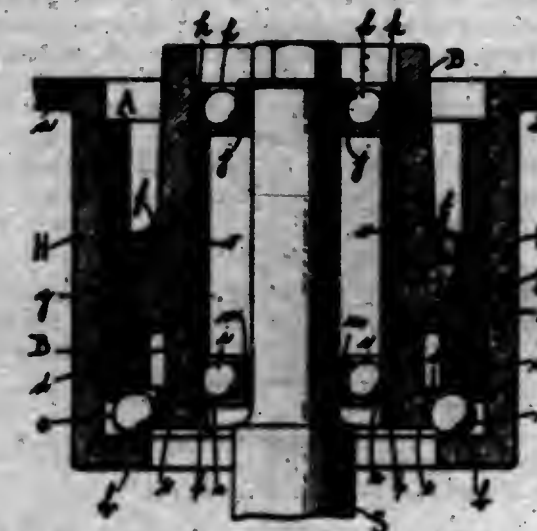


1. The method of disposing of inflammable gases which consists in causing a mixture of the gas and air to pass in contact with an electrically heated resistance wire, and causing the variations in temperature of the resistance wire produced by variations in the quality of the mixture to bring about a corresponding variation in the volume of the mixture.

1,302,872. GYRATORY-SHAFT HANGER. HARRY H. STEPHENS, Paterson, N. J. Filed Jan. 25, 1919. Serial No. 272,047. 7 Claims. (Cl. 64-48.)

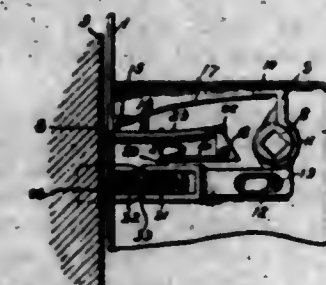
1. The combination with a support, of cooperating members supported thereby and capable of oscillation with re-

spect to each other, a vertical shaft supported by one of said members, and means transmitting to one of said mem-



bers from the other a force tending to raise said one of said members and the cooperating member.

1,302,873. DOOR-LATCH. GILBERT W. STIFF, Ovid, Mich. Filed Nov. 6, 1918. Serial No. 799,598. 1 Claim. (Cl. 70-64.)

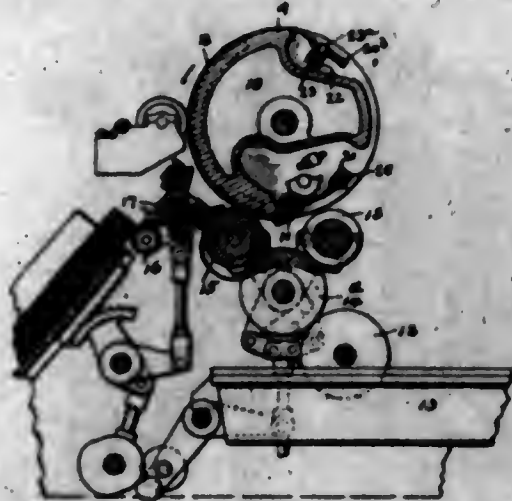


A door latch comprising a casing, a spring pressed bolt having a notch therein and normally projecting from said casing, a sliding trip rod parallel with said bolt, an angle lever pivoted to the casing between the trip lever and the bolt, said angle lever having one arm pivotally connected to the trip lever and the other arm normally extending parallel to said bolt, the free end of said parallel arm being bent downwardly to form a catch for engagement with the notch in the bolt when said bolt is retracted, said parallel arm having an inclined recess therein directly above said catch, a spring having one end positioned in said recess to prevent lateral movement of the spring in relation to the angle lever, the opposite end of said spring being flexed to lie in parallelism with its opposite end and engaged by the under side of said trip lever, and means for retracting the bolt.

1,302,874. MACHINE FOR GUMMING WRAPPER-BLANKS FOR BOXES OR PACKAGES. JOHN STODDILL STOKES, Moorestown, N. J., and EUGENE G. RIDER, Philadelphia, Pa., assignors to Stokes and Smith Company, Sumnerdale, Pa., a Corporation of Pennsylvania. Filed May 14, 1917. Serial No. 168,429. 28 Claims. (Cl. 91-68.)

9. In combination, a rotary platen having blank-gripping mechanism, a blank support detachably mounted on the platen, and means for securing the support in position, said means including a plurality of hook members positioned beyond opposite ends of the support, bars or rods of non-circular cross-section for supporting the hook members to permit adjustment of the latter in the direction of length of the bars or rods, and a plurality of wire strands overlying the blank support and having their opposite ends detachably secured to hook members, predetermined hook

members carrying tension-applying means for tensioning and yieldably supporting the strands.



14. In the art of gumming blanks, the method of preventing the natural curling tendency resulting from application of liquid adhesive to a face thereof, which consists in facially supporting a blank to be moistened and gummed, and concurrently applying moisture and adhesive respectively to opposite faces of the supported blank.

15. In the art of gumming blanks, the method of eliminating the curl which consists in positioning the blank on a blank-advancing support, applying a liquid to the face of the support in advance of blank positioning, applying adhesive to the blank while so supported, and changing the liquid to steam and applying the latter to the blank while the latter is so supported.

20. In mechanism for removing curl from blanks, a rotary platen having a blank-supporting face, and means effective on said face for producing a steam effect on the blank while the latter is so supported, said means including a liquid-applying structure adapted to contact with said face in advance of blank positioning, electrical heating means carried by the platen and operative to cause applied liquid to be changed to steam at such face, and means for connecting said electrical heating means to a source of supply.

21. In combination, a rotary platen, a blank support detachably mounted on the platen and adapted to produce a blank-supporting face raised from the platen, and means overlying said support for removably securing the support in position.

1,302,875. BUTTON-COVERING. HARRY H. STRAUS, New York, N. Y. Filed Jan. 25, 1918. Serial No. 213,651. 3 Claims. (Cl. 24-113.)



1. A button covering part comprising a face portion bearing a representation, said covering further comprising a portion extending laterally of said face portion and means for indicating the position of said representation disposed on said lateral portion.

1,302,876. BOTTOM-DUMP TRIPPING DEVICE. GUSTAF E. STROM, St. Paul, Minn., assignor to American Hoist & Derrick Co., St. Paul, Minn., a Partnership. Filed Oct. 1, 1915. Serial No. 53,558. 3 Claims. (Cl. 74-93.)

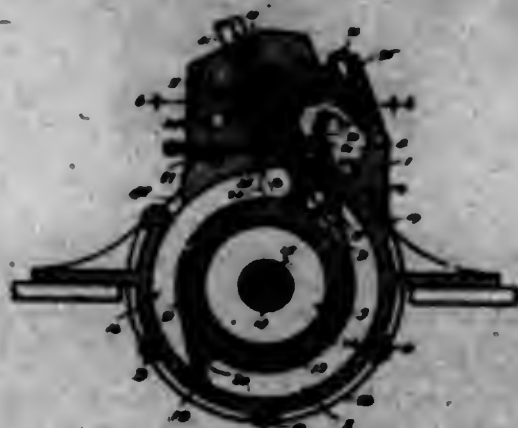
1. A device of the class described comprising a casting having means for attaching it to a dipper arm, a link

pivoted at one end in said casting and having freedom of oscillation therein in a vertical plane, flexible means connecting said link with the latch to be tripped, a trip line



also connected with said link for oscillating it, and a spring mounted to resist the movement of said link through the pull on said trip line.

1,302,877. ROTARY ENGINE. THOMAS SULIK, Darberton, Ohio. Filed June 27, 1917. Serial No. 177,219. 2 Claims. (Cl. 121-84.)



1. In a rotary engine, the combination with a swinging abutment having a pivotal knuckle, of a casing forming a bearing for the knuckle and split at one side thereof, and means to spring the parts together to take up wear.

1,302,878. HAMMER. WILLIAM H. SWIFT, Brooklyn, N. Y.; William H. Swift, administrator of said William H. Swift, deceased, assignor of one-third to Frank R. Swift and two-thirds to William H. Swift, New York, N. Y. Filed Nov. 17, 1913. Serial No. 801,387. Renewed Sept. 21, 1918. Serial No. 255,190. 5 Claims. (Cl. 287-24.)



2. The combination with a tool head, a helve insertible therein and having a socket in one side and a recess in its opposite side, a band encircling said helve and having a portion insertible in said recess and a holding member passing through said head and positioned in said socket.

1,302,879. ATTACHMENT FOR HAMMERS. WILLIAM H. SWIFT, New York, N. Y.; William H. Swift, Brooklyn, N. Y., administrator of said William H. Swift, deceased, assignor of one-third to Frank R. Swift and two-thirds to William H. Swift, New York, N. Y. Filed May 4, 1915. Serial No. 25,672. Renewed Mar. 25, 1919. Serial No. 285,102. 2 Claims. (Cl. 287-36.)

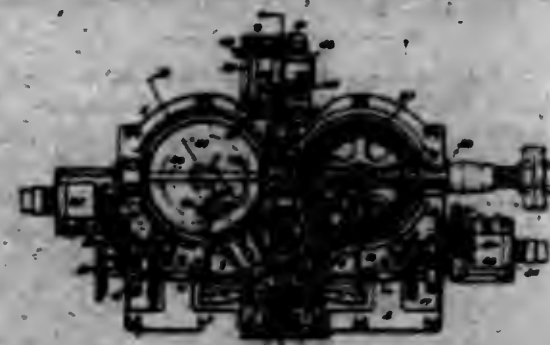
1. In a device of the class described, the combination with a tool head provided with an eye and a threaded socket formed in the head and spaced from said eye, a helve inserted in said eye and completely filling the same, a one-piece bar including two parts offset from each other, one of said parts constituting a threaded boss adapted to be fitted within said threaded socket by revolving the bar, the other part having a helve engaging portion substan-

tially fitting the upper edge of the helve and extending along the same for some material distance, a yoke separable from the bar and helve encircling said bar and helve the portion of the helve covered by said bar pro-



vided with a socket and a pin threaded through the upper part of said yoke and having a smooth portion passing through said bar into said socket in the helve, and adapted to bear on the helve to draw the yoke into engagement with the helve.

1,302,880. APPARATUS FOR FINISHING CAR-WHEELS. CLARENCE L. TAYLOR, Alliance, Ohio, assignor to The Morgan Engineering Company, Alliance, Ohio. Filed May 29, 1917. Serial No. 171,684. 4 Claims. (Cl. 80-16.)



1. In a mill for finishing car wheels, the combination of a main roll to engage the inner face of the rim of the wheel, a shaft for said roll, a movable carrier for the shaft, an idler gear, the axis of the carrier being coincident with the axis of the idler gear, a gear on the roll shaft meshing with the idler gear, gearing meshing with the idler wheel for rotating same, and means engaging the roll shaft carrier intermediate its axis and the roll for forcing the roll against its work.

1,302,881. VALVE MECHANISM FOR STEAM-INTENSIFIERS. CLARENCE L. TAYLOR, Alliance, Ohio, assignor to The Morgan Engineering Company, Alliance, Ohio. Filed July 25, 1918. Serial No. 246,708. 8 Claims. (Cl. 138-17.)



1. The combination of a steam hydraulic intensifier, supply and exhaust steam valves for the intensifier, a

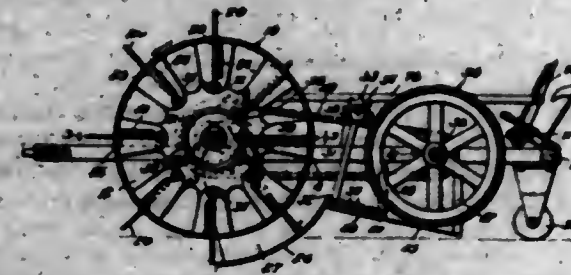
floating lever, a rocking shaft carrying means for opening both of said valves, the said rocking shaft being connected with one end of the floating lever, hand operated means connected with the other end of said lever, means connecting the steam piston and floating lever intermediate the ends of the latter whereby the floating lever will be moved by the said piston and speed reducing means forming a part of said connecting means whereby the speed and extent of movement of the floating lever as compared with the speed and extent of movement of the steam piston is reduced.

1,302,882. METAL SHELVING. ALBERT C. TREVELL, Grand Rapids, Mich. Filed Sept. 14, 1918. Serial No. 254,139. 3 Claims. (Cl. 211-27.)



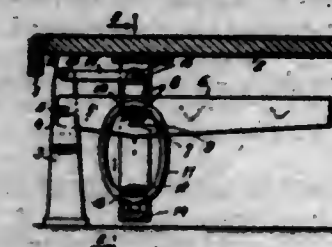
2. In combination with the back, partitions, ends and top of a sheet metal case, an L-shaped cleat placed vertically on each side of the front and back edges of the partitions and ends, loops struck outward from the body of the cleats, lugs formed on the shelves to engage said loops, support offsets from the backs and ends, flanges and lugs formed on the shelves to engage said supports, sheet metal finishing strips formed over the front edges of the partitions and front, and caps surmounting said finishing strips and secured to the top of the case.

1,302,883. GROUND-WORKING IMPLEMENT. CHARLES M. TILBURY, Zion City, Ill. Filed Sept. 13, 1918. Serial No. 253,905. 5 Claims. (Cl. 55-1.)



5. A ground working implement comprising in combination a roller, a plurality of blades slidably mounted therein, means causing each of said blades to project from the surface of the roller in the lower portion of its travel and to be drawn back onto the surface of the roller during the upper portion of its travel for cleaning purposes, an arcuate guide normally standing with its lower portion beneath the roller and clearing the roller by an amount substantially equal to the amount of projection of the blades beyond the roller, and pulverizing means in conjunction with the guide and adapted to receive material delivered therefrom, substantially as described.

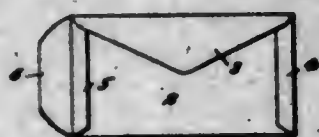
1,302,884. SCALE BEARING DEVICE. MANFORD D. VARNY, New York, N. Y. Filed Dec. 12, 1917. Serial No. 206,885. 9 Claims. (Cl. 265-71.)



1. In platform scales, a scale platform, depending platform supports secured to said scale platform, pivoted load

levers, having double load pivots secured thereto and projecting from both sides of the same, a yoke shaped load bearing cooperating with each of said load pivots and loosely extending over the adjacent portion of the connected load lever, a pair of closed loop link suspension members loosely engaging each of said load bearings on both sides of the load lever, a support stirrup having curved supporting sockets loosely engaging the lower ends of said suspension members and pivotally connected adjacent its central portion to said platform support to allow free lateral movement of said scale platform by the rocking movement of said suspension members with respect to the cooperating parts and a pivoted anchor connection holding each of said load bearings against undesirable movement with respect to its cooperating pivot during such lateral movement of the scale platform.

1,302,885. ENVELOP. MATTHEW VIRENOSL, Brooklyn, N. Y. Filed Dec. 22, 1917. Serial No. 208,490. 1 Claim. (Cl. 229-76.)



An envelop having the body portion composed of front 1 and the back 2, an end flap 4 on one of said members sealed to the other member, reinforcing end flap 5 on the other end of the envelop sealed to the member which carries it, a top flap 3 on the front 1 sealed to the back 2, and an unsealed inspection flap 6 at the same end of the envelop as the flap 5, but unattached to said flap and carried by the member of the envelop body portion which does not carry the end flap 5.

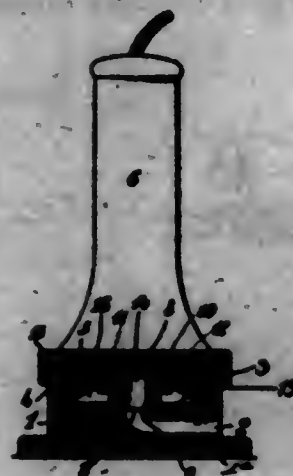
1,302,886. COLLECTING-BAG FOR VACUUM-CLEANERS. FRANK J. WAGNER, Cleveland, Ohio, assignor to James B. Kirby, Cleveland, Ohio. Filed Dec. 31, 1914. Serial No. 879,847. 5 Claims. (Cl. 183-40.)



3. A bag for collecting the discharge from a vacuum cleaner, said bag provided with an inlet opening at one end and with an outlet opening adjacent thereto at the underside of said bag, a closure for said outlet opening, and a flexible member having one of its ends secured in said opening and having its edges secured to one side of the bag throughout the entire length of said member so as to form an extension of said inlet within said bag.

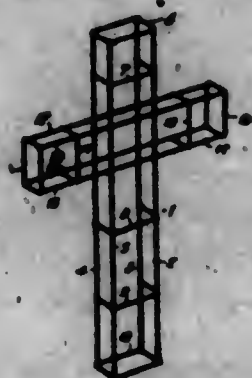
1,302,887. COMMUNICATION-RECEIVING APPARATUS. MAXIMILIAN WEIL, New York, N. Y. Filed Oct. 19, 1916. Serial No. 126,516. 11 Claims. (Cl. 179-182.)
5. A support for telephone receivers comprising a base provided with an acoustic passage, sealing means compris-

ing an inner sealing member having an opening communicating with said acoustic passage, a supplemental sealing



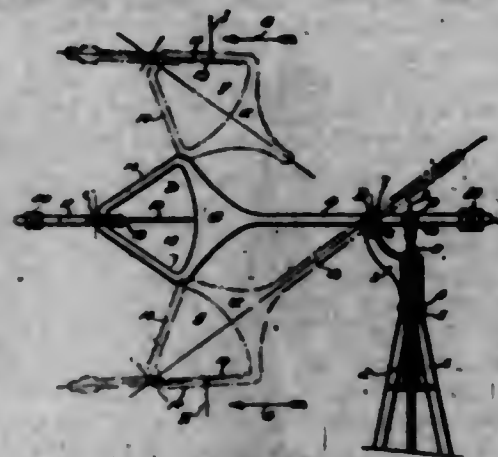
member having friction means disposed on the effective face thereof and laterally of said opening.

1,302,888. WIRE FRAME. JESSE J. WILLIAMS, Utica, N. Y. Filed July 29, 1916. Serial No. 112,079. 1 Claim. (Cl. 41-12.)



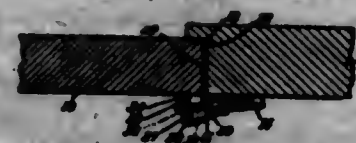
A Sorlet's form comprising a pair of frames rectangular in cross section, each frame comprising outline wires and brace wires, one of said frames being disposed within the other and at right angles thereto, the adjacent portions of the outline wires serving as braces for the respective outline wires of the respective frames.

1,302,889. AIR-MOTOR. JOSE ANTONIO ALBERTO, Saladillo, Argentina. Filed Feb. 1, 1918. Serial No. 214,846. 3 Claims. (Cl. 170-7.)



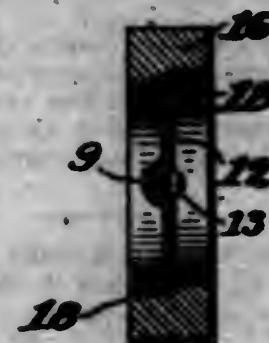
1. An air motor comprising a rocking beam, a vane mounted for rocking movement on the beam, means for limiting the movement of said vane, and means for biasing said vane and beam to a horizontal position.

1,302,890. VEST-POCKET LOCK. LEONOLD BACH and ELIAS KÜBLER, New York, N. Y. Filed Oct. 14, 1918. Serial No. 257,923. 1 Claim. (Cl. 16-8.)



In a lock of the class described the combination with a flat tubular casing having an open recess and a longitudinally extending side slot, a bar slidably engaged in said casing, a screw head on said bar projecting outwardly through the longitudinal slot in said casing for limiting the movement of said bar relative to said casing, a plate hingedly engaged to the end of said casing, said plate having angular teeth formed therewith adapted to engage with the woodwork of a door jamb, a pair of opposed lugs secured to the outer face of said bar, a pivot pin carried by said lugs, a lever pivotally engaged on said pin, a double-headed stud movably mounted in said bar, one of its heads being adapted to be engaged by said lever, and the other, rubber covered one, to make contact with the outer face of a door, said lugs and lever adapted of being slidably received in the open recess of said casing, substantially as described and for the purpose set forth.

1,302,891. VALVE. HARRY G. BALTHASAR, St. Louis, Mo., assignor to Combination Auto-Lock Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 4, 1918. Serial No. 215,250. 2 Claims. (Cl. 251-11.)



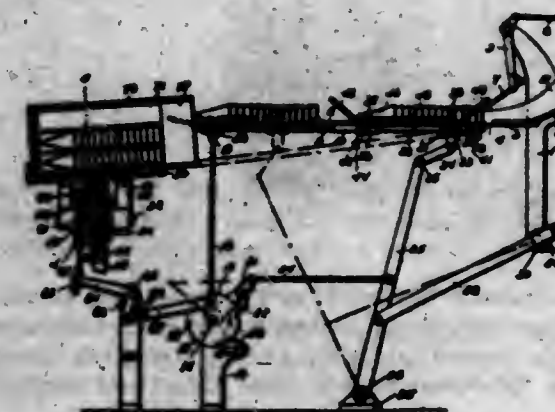
1. A valve plate adapted to be located between the carburetor and the intake manifold of an internal combustion engine, the said plate having a continuous valve seat located within an opening therethrough, said valve seat having certain portions thereof facing in two directions, a valve located within said opening, the edge portions of the valve opposite said seat being bent outwardly therefrom and adapted to impinge against said seat with a spring pressure, substantially as described.

1,302,892. TYPE-WRITER. CHARLES W. BARNABY, New York, N. Y. Filed May 19, 1917. Serial No. 169,677. 14 Claims. (Cl. 197-60.)



1. In a typewriter, the combination with a platen journaled at one end and supported from said journaled end, of a movably mounted journaling support movable into and out of journaling support with the other end of said platen, said journaling support when out of journal supporting position being so arranged as to lie entirely clear of a longitudinal extension of the periphery of said platen.

1,302,893. BOXING MECHANISM FOR ICE-CREAM-CONE MACHINES. FREDERICK A. BRUCKMAN, Portland, Oreg. Filed June 20, 1917. Serial No. 175,857. Renewed Sept. 28, 1918. Serial No. 256,146. 13 Claims. (Cl. 107-45.)



1. The combination with a cone receiving table, means for forming the cones into "sticks" on the table, a transverse box-conveyor, means for advancing the conveyor to align the boxes with the receiving table, and mechanism for advancing the "sticks" along the table and into the boxes.

2. The combination with a cone receiving table, means for advancing cones along the table from the entrant end toward the exit end in open or separated formation, and for subsequently nesting the cones into "sticks," a box conveyor, means for advancing the conveyor to align the boxes with the receiving table, mechanism for moving the "sticks" off the table into the box.

3. The combination with a cone making machine, and of an apparatus for receiving the cones from the machine and boxing the same, said apparatus comprising a receiving table onto which the cones are discharged from the making machine, a conveying device to advance the cones along the table in open or separated formation and then nesting the same into a "stick," a box conveyor passing in juxtaposition to the table, and means for pushing the stick of cones off the table into the box and means for raising and lowering a portion of the table to align the "sticks" with the respective cells or compartments of the boxes.

4. In a mechanism of the class described, a nesting table onto which the cones are delivered from the cone making machine, means for nesting the cones into "sticks" on the table, means for advancing a predetermined "stick" of cones from the entrant toward the exit end of the table, a box table, means for advancing the boxes along the box table to align with the nesting table, means for raising and lowering the nesting table to align with the tiers of cells of the boxes, said cone "stick" advancing means having provision for moving the "sticks" of cones into the boxes, a pawl and ratchet device for operating the box advancing mechanism, a crank and lever device for operating the cone "stick" advancing mechanism, and a pawl and ratchet device for operating the nesting table adjusting mechanism.

5. The combination with a cone receiving table onto which the cones are delivered and nested onto "sticks," a box conveyor, means advancing said conveyor to align the boxes with the table, means for advancing the cones in separated formation along the table to the place where they are nested, and means for moving the "stick" of cones off the table into the boxes.

1,302,894. FOLDER. MARTIN W. BRUSHADEN, Oak Park, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 9, 1917. Serial No. 160,826. 7 Claims. (Cl. 270-77.)

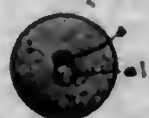
5. In a folder, the combination of a shaft, a cylinder fixedly mounted on said shaft so as to rotate therewith, a folding blade shaft revolvably mounted on said cylinder near its periphery, a folding blade mounted on said second-named shaft, an internal gear fixedly held in position adjacent to said cylinder, a gear fixed on said folding blade

shaft beyond the end of the cylinder and meshing with said internal gear, a stationary ring placed radially outside of the path of said folding blade shaft and secured in



position opposite the end of said cylinder, and an arm revolvably mounted on said second-named shaft and extending outwardly toward said ring, having a shifting bearing on said ring for supporting the outer end of said shaft.

1,302,895. NEGATIVE ELECTRODE FOR SEARCHLIGHTS, PROJECTORS, AND THE LIKE. CARL BUCHWALD, Berlin, PAUL QUISSEM, Friedenau, near Berlin, and HERMANN VINTZEL, Lichtenberg, near Berlin, Germany, assignors to Gebrüder Siemens & Co., Berlin, Germany, a Copartnership of Germany. Filed Apr. 1, 1912, Serial No. 687,745. Renewed Oct. 3, 1918. Serial No. 256,763. 3 Claims. (Cl. 176-121.)



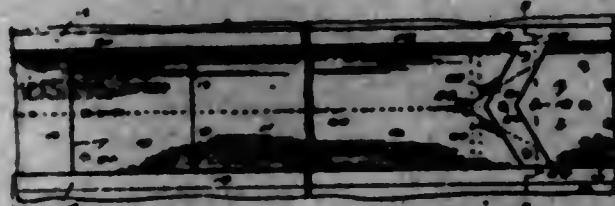
1. A negative electrode for searchlights, comprising an outer electrode body, a hard good conducting core of relatively large cross-sectional area, and a soft core of relatively small cross-sectional area composed of material which increases the conductivity of the arc.

1,302,896. KEYLESS LOCK. MONTIMER B. BUNOSES, Adelphi, Jamaica, British West Indies. Filed Jan. 29, 1918. Serial No. 214,391. 1 Claim. (Cl. 70-53.)



In a keyless lock adapted for application to a door and door post, the combination with a plurality of bolt cases secured to the post back from the edge thereof, spring-projected bolts slidably mounted in said cases and each having an outward extension, and a bar connecting the several extensions, whereby the bolts may be retracted simultaneously; of an equal number of spindles rotatably mounted in the door respectively opposite their bolts, and having indexes and handles at their outer ends, disks on the face of said door under said indexes, and disks adjustably mounted on the inner ends of the spindles and of a size to lap over on the door post when the door is closed and to be engaged by said bolts when projected, each disk having a notch in its periphery of a size to permit the passage of the bolt, for the purpose set forth.

1,302,897. BOWLING-ALLEY. ALBERT F. BOWMAN, Sharon, Pa. Filed Aug. 2, 1918. Serial No. 245,664. 4 Claims. (Cl. 46-64.)



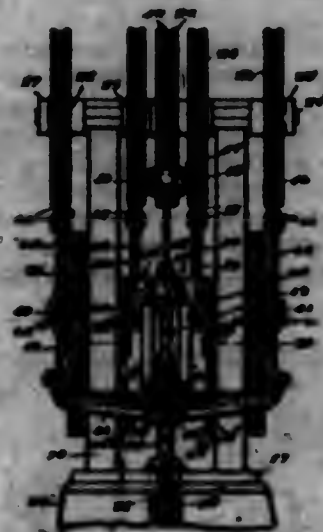
1. A bowling alley having a depressible portion adjacent to the foul line, a deflector adjacent to the pin steps adapted to be elevated, and means to cause elevation of the deflector upon stepping on the depressible portion.

1,302,898. PARACHUTE-LAUNCHING DEVICE. EMMETT AND RICHARD CALDWELL, London, England. Filed Sept. 13, 1917. Serial No. 191,287. 7 Claims. (Cl. 244-21.)



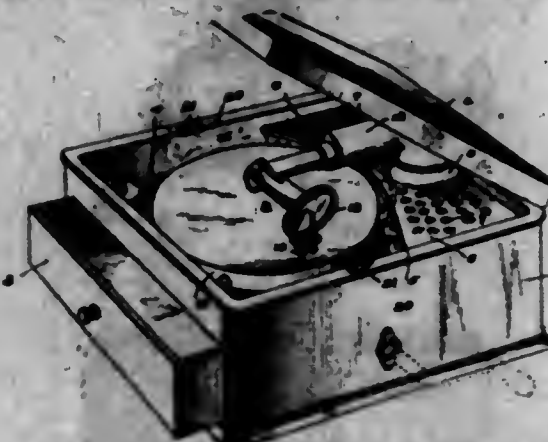
1. In a parachute launching device the combination with a captive rigid launching disk adapted to support the parachute body, of another rigid disk supported by and connected with the launching disk by an intervening spacing member and disposed above and covering the parachute body.

1,302,899. PUMPING MACHINERY. MATTHEW T. CHAPMAN, Aurora, Ill. Filed Mar. 1, 1915. Serial No. 11,205. 9 Claims. (Cl. 108-62.)



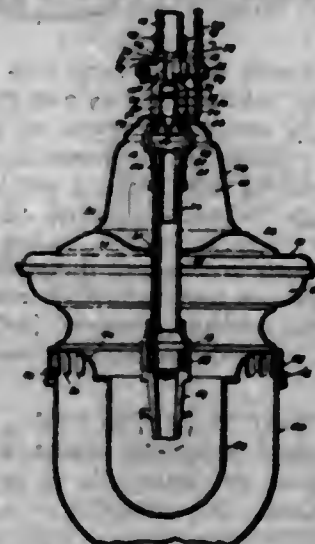
1. In a pump, the combination of a plunger rod, a plunger mounted thereon, a cross-head fixedly secured on the upper end of said plunger rod, a flexible connection threaded loosely through suitable openings in said cross-head, means connected with both end portions of said flexible connection for reciprocating said cross-head thereby, and guiding means engaging said flexible connection adapted to cause said cross-head to move always in the vertical plane passing through said cross-head and said plunger rod.

1,302,900. SOUND-REPRODUCING MACHINE. FRANCISCO CHENET, Philadelphia, Pa. Filed Aug. 27, 1917. Serial No. 188,540. 2 Claims. (Cl. 274-2.)



1. A sound reproducing machine including means providing a platform; a tone arm movably supported by the platform and having its outlet end adapted to direct the reproduced sounds toward the platform so that said sounds impinge upon said platform; a perforated plate spaced above said platform at the position where said sounds impinge thereon; and a wall extending between said perforated plate and the platform, said wall having perforations therein extending at an angle to the perforations of said plate for deflecting a portion of the sound forwardly, substantially as described.

1,302,901. GAS-LAMP. NATHAN COSATSKY, New York, N. Y., assignor to Cluster Appliance Gas Lamp Co., New York, N. Y., a firm composed of Nathan Rosen and Abraham Tannen. Filed Sept. 12, 1916. Serial No. 119,668. 2 Claims. (Cl. 67-94.)



1. In a gas lamp, a flared hood adapted to be suspended from the feeder of the lamp and having an angularly flanged lower end providing an annular horizontal portion with a vertical cylindrical portion depending therefrom, a horizontal plate-like member disposed within said vertical cylindrical portion with its outer margin flatly secured against the under face of said annular horizontal portion, said plate-like member being provided with a relatively large circular central opening surrounded by a horizontal annular globe-supporting flange, and globe supporting means carried by the lower end of said vertical cylindrical portion.

1,302,902. PERCUSSION-FUSE FOR SHELLS OR PROJECTILES. FRANCIS DAVIES, Providence, R. I., assignor to Nathan Manufacturing Company, Flushing, N. Y., a Corporation of New York. Filed Jan. 24, 1918. Serial No. 212,491. 10 Claims. (Cl. 102-80.)

1. In a percussion fuse for shells or projectiles the combination of a case having a chamber therein, an ex-

plosive element, a plunger body adapted to slide in said chamber having locking means, consisting of a retaining shoulder, a firing pin body extending into the plunger



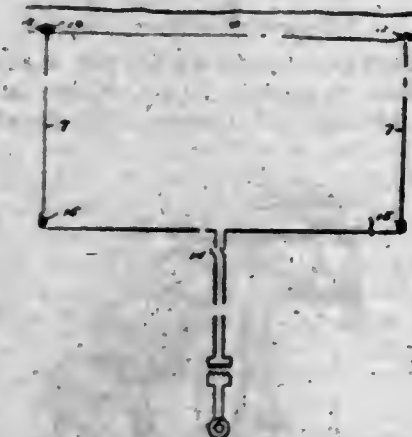
body, a resilient locking pin adapted to engage the retaining shoulder and to positively lock the firing pin to the plunger in an armed position.

1,302,903. CANE-STRIPPING MACHINE. MICHAEL R. DAVIS, Kemp, Okla. Filed June 14, 1918. Serial No. 240,047. 3 Claims. (Cl. 130-31.)



1. A machine for stripping cane including spaced tables, a roll interposed between the tables, for supporting and feeding cane from one table to the other, and flexible leaf whipping devices upon the roll and forming spaces between the paths thereof for the passage of stalks.

1,302,904. SYSTEM OF TRENCH WARFARE. JOHN J. DUFFIN, Berkeley, Calif. Filed May 22, 1917. Serial No. 170,256. 10 Claims. (Cl. 102-1.)



1. A system of trench warfare, comprising means for disseminating electric conducting material in finely divided form in the air in a trench and means for passing an electric current through said air.

1,302,905. COMPOSITION OF MATTER ADAPTED FOR USE AS DISINFECTING SOLUTIONS. CARLTON ELLIS, Montclair, N. J., assignor to Chadeloid Chemical Company, New York, N. Y., a Corporation of West Virginia. Filed Nov. 2, 1917. Serial No. 199,894. Renewed Mar. 21, 1919. Serial No. 284,175. 3 Claims. (Cl. 167-3.)

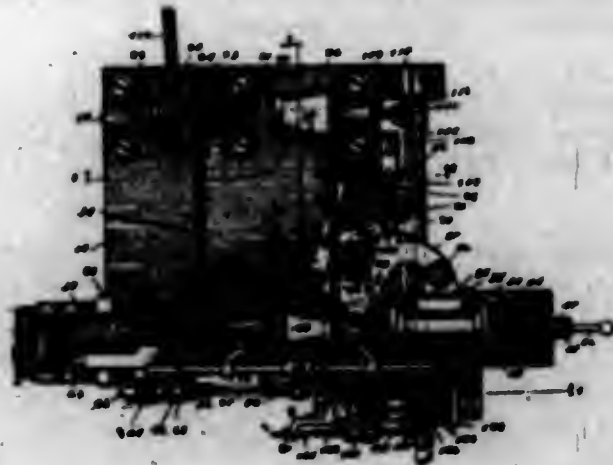
1. A composition of matter which may be used as a disinfecting composition, which comprises carbolic acid incorporated in a vehicle containing a major proportion of a chlorinated liquid hydrocarbon of the benzol series and a minor proportion of carbon tetrachloride.

2. A composition of matter which may be used as a

disinfecting composition which comprises a phenol dissolved in a vehicle consisting largely of chlorobenzol and a substantially lesser proportion of light volatile chlorinated compound of the aliphatic series.

3. A composition comprising approximately monochlor benzol 70 parts by volume, carbon tetrachlorid 10 parts and phenol 15 parts.

1,302,906. YARN-RECLAIMING MACHINE. HARRY E. FISH, Chicago, Ill. Filed Sept. 4, 1917. Serial No. 189,548. 12 Claims. (Cl. 242-1.)



8. In a machine of the class described, the combination with two thread-receiving spools and means for rotating the same simultaneously, of mechanism for stopping the machine, such mechanism comprising duplicate and independently-acting sets of members each set being arranged in operative relation to one of the spools and having an element in contact with the thread being wound upon that spool and also comprising a set of members to which both of the said duplicate and independent sets are connected, whereby the machine will be stopped when either spool is wholly wound.

1,302,907. JEWEL-BLANK-SHAPING MACHINE. ADRIAN GABUS, Springfield, Ill. Filed Dec. 2, 1916. Serial No. 134,633. 41 Claims. (Cl. 51-3.)

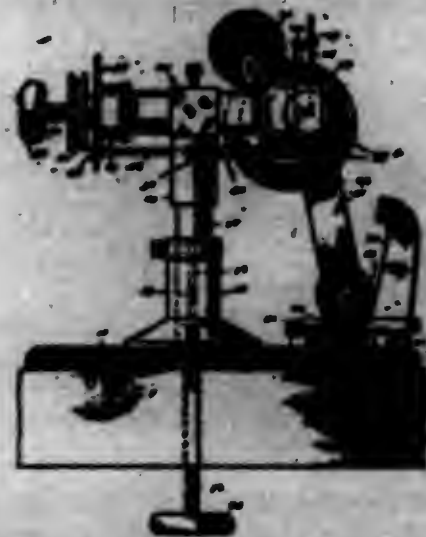


1. A machine of the class described, comprising means for supporting and rotating a slab, a lap, and swinging means movable longitudinally of the axis of the slab for supporting and rotating said lap, the axis of the lap being disposed transversely of the axis of the slab.

1,302,908. JEWEL-MAKING MACHINE. ADRIAN GABUS, Springfield, Ill. Filed Dec. 2, 1916. Serial No. 134,634. 41 Claims. (Cl. 51-3.)

1. A machine of the class described, comprising means for supporting a blank, a lap adapted to operate on said

blank, a rocking support for said lap movable toward and from the blank, and a counterbalance weight for holding



said lap in operative engagement with the blank, said weight being movable into position to hold said support out of operative position.

1,302,909. DOUBLE-BARREL GUN. GEORGE H. GIBBONS, Illon, N. Y. Filed Aug. 24, 1918. Serial No. 251,250. 8 Claims. (Cl. 42-41.)



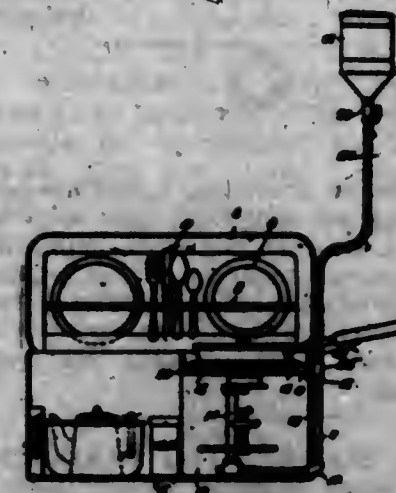
1. In a double barrel gun, locking lugs carried by the barrels, cooperating bolts carried by the frame, a detachable tang carried by the frame, safety mechanism including hinged posts carried by the tang, means carried by the frame for actuating said bolts, a safety push rod engaged by said bolt retracting means and pushing the safety mechanism to safe position, hammers, means for cocking said hammers on opening the gun, and sears engaged by said hammers and rocked on movement of the hammers to cocked position, thereby lowering the rear ends of the sears to clear the safety posts of the safety mechanism.

1,302,910. SINGLE-TRIGGER DEVICE. GEORGE H. GIBBONS, Illon, N. Y. Filed Oct. 4, 1918. Serial No. 250,836. 6 Claims. (Cl. 42-42.)



5. In a double barrel gun having duplicate hammers and sears, of a trigger blade adapted to alternately engage said hammers and sears as long as the gun remains unopened, and a retarding means comprising a forked end portion carried by the blade, an angled escapement block, and conical posts arranged on opposite sides of the block, said fork member passing under the block, and one member of the fork engaging the block as the other member strikes and rides up one of said posts, thereby retarding momentarily lateral movement of the blade from one sear to the other.

1,302,911. BOX COOKING KIT. BATTUS B. GRAMER, Huntington, W. Va., assignor of one-half to William J. Fields, Olive Hill, Ky. Filed Oct. 3, 1918. Serial No. 254,608. 2 Claims. (Cl. 126-28.)



1. A cooking kit comprising a casing adapted to receive a heating device, culinary articles and provisions, a pipe extending through the casing and connected to the heating device, a detachable fuel supplying medium connected to said pipe and adapted to be stored in the casing, an apertured plate, means for supporting the apertured plate above the heating medium, an insulated lining for the casing, a binding embracing the upper edge of the said lining and extending down the sides thereof between the apertured plate and the casing, and means for securing the apertured plate, lining and binding to the casing.

1,302,912. MECHANISM FOR OPERATING FLUSH-VALVES. ALLEN E. GILMONA, St. Louis, Mo. Filed Sept. 3, 1918. Serial No. 252,415. 7 Claims. (Cl. 4-5.)



7. In a flushing valve mechanism, the combination with a tank, and an overflow pipe in said tank, of a spindle rotatably mounted in a wall of the tank, lever tripping means carried by said spindle, a valve operating lever adapted to be engaged by said lever tripping means, and a support for said valve operating lever adjustably secured to said overflow pipe.

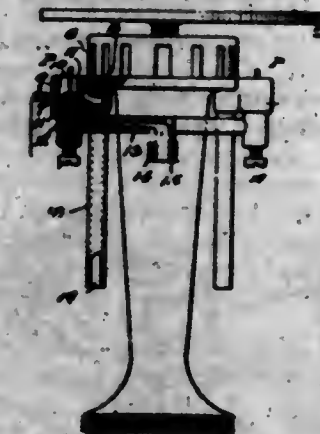
1,302,913. APPARATUS FOR TREATING FLUIDS. GEORGE F. GORMAN, Los Angeles, Calif. Filed Sept. 22, 1917. Serial No. 182,810. 2 Claims. (Cl. 201-118.)



1. An apparatus for treating gases and gaseous bodies to remove therefrom the solids, consisting of a plurality

of chambers having collection zones for solids, means interconnecting said chambers and forming a zone of travel for the gases, means for screening the inlet to and the outlet from said zone of travel by respectively an upwardly and outwardly and a downwardly and outwardly directed liquid spray discharging into said collection zones, said last named spray inducing the purified gases through said zone of travel.

1,302,914. PILOT-LIGHT. NELSON G. GOSNAD, New Orleans, La. Filed July 3, 1917. Serial No. 178,465. 5 Claims. (Cl. 158-115.)



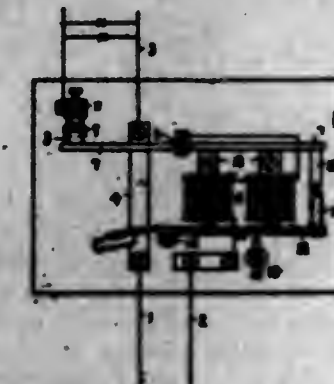
1. The combination with a main gas burner, of a pocket adjacent thereto, a pilot burner tip within the pocket provided with air-injecting openings, and means for supplying fresh air to the pocket.

1,302,915. HOSPITAL-MATRESS. SARAH L. GOSNAD, Chicago, Ill. Filed Dec. 14, 1916. Serial No. 138,861. 2 Claims. (Cl. 5-12.)



1. A mattress provided with a transverse slot of sufficient cross-sectional dimensions to admit a bed pan and extending from beneath the occupant and outwardly to and through the side of the mattress, a portion of the inner end of said slot being open at the top to provide access to the under side of the patient, a depressible means normally filling that portion of the slot beneath the patient and normally supporting said patient, and a thin inextensible flexible member extending across an outer portion of said slot for temporarily supporting said patient in the absence of said collapsible means.

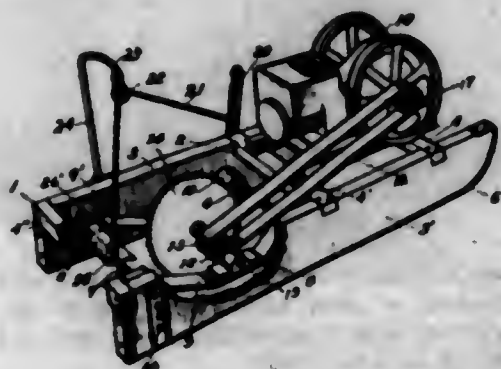
1,302,916. ELECTROMAGNETIC CURRENT-LIMITER. THOREN GUDM, Christiania, Norway. Filed Mar. 27, 1918. Serial No. 225,114. 2 Claims. (Cl. 175-294.)



1. In an electromagnetic current limiter a main current magnet comprising two separated cores, an arma-

ture for said main current magnet, said armature being adapted to be attracted by the magnet at a certain load, a main current contact comprising a pivoted lever forming normally a magnetic connection between the two separated cores of the magnet, said lever being adapted to be swung out of its position by means of said armature when the latter is attracted by its magnet, thereby interrupting the main current contact, said main current contact being so constructed that it is maintained in closed position until said lever has been removed a predetermined distance from the magnet cores, and has interrupted the magnetic connection between the same.

1,302,917. ICE-CUTTING DEVICE. FRANCIS M. HAIRGROVE, Brownville, Nebr., assignor of one-half to Ira J. Hairgrove, Brownville, Nebr. Filed Sept. 18, 1916. Serial No. 120,666. 1 Claim. (Cl. 262-20.)



The combination of a sled having spaced runners and provided with a transverse pivot, of a saw carrying frame mounted at the front end upon the transverse pivot and having spaced sides guided by the runners, said sides being composed of oppositely inclined front portions, the front portions extending downwardly and rearwardly from the said pivot and the rear portions of the sides extending upwardly and rearwardly, a saw mounted upon the frame at the adjacent ends of the front and rear inclined portions of the sides, a motor mounted upon the sled in advance of the said pivot and inclined-belt connecting the motor with the saw and arranged between and in substantial parallelism with the inclined front portion of the sides of the said frame and adjusting means mounted upon the sled and connected with the said frame at the rear end thereof.

1,302,918. FASTENING DEVICE. SAM H. HARRIS, New York, N. Y. Filed June 25, 1918. Serial No. 241,730. 12 Claims. (Cl. 24-224.)



11. In a fastening device, a catch member comprising a shank portion of elongated cross section, and a transverse head portion attached to said shank portion; in combination with a spring member comprising supporting means provided with an elongated slot therein adapted to cooperate with said shank portion and its associated head portion, and a spring located within said slot so as to partially and yieldingly obstruct the same.

1,302,919. PROCESS OF PRODUCING PRINTING-PLATES. JOSEPH ARTHUR HENRY HATT, Brooklyn, N. Y. Filed Apr. 26, 1916. Serial No. 93,663. 7 Claims. (Cl. 95-54.)



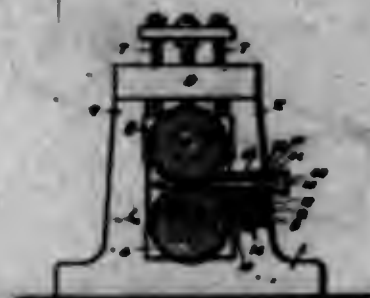
1. The process of producing a multi-design printing plate which comprises applying a light sensitive layer to the surface of a final printing plate, imprinting on said light sensitized surface impressions from original printing means by means of an insoluble, resilient offset surface, exposing the design-impressed, light-sensitive surface to the action of light, and developing and preparing the plate for printing.

1,302,920. MACHINE FOR MAKING PRINTING-PLATES. JOSEPH ARTHUR HENRY HATT, Brooklyn, N. Y. Filed June 16, 1916. Serial No. 103,950. 7 Claims. (Cl. 101-33.)



1. A printing plate making machine including in combination original printing means, a final printing plate, a transfer member, and means for moving said original printing means and said transfer member together to position them relatively to said final printing plate.

1,302,921. ROLLING-MILL. CHARLES W. HAWTHORNE, Hamilton, Ontario, Canada, assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Mar. 16, 1916. Serial No. 84,579. 14 Claims. (Cl. 80-51.)



1. The combination with the rolls and roll pass of a guide support, and an inclining guide for the metal entering the roll pass, said inclining guide having angular movement relatively to the guide support.

1,302,922. PLANTER. EDWARD M. HETLMAN, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Filed Dec. 18, 1918. Serial No. 267,300. 6 Claims. (Cl. 221-137.)



1. In feed mechanism for planters, the combination with a seed can, of a rotatable feed member having an

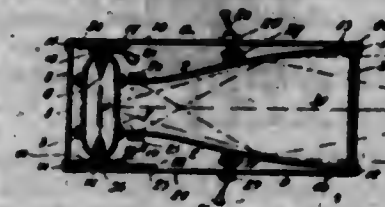
angular series of seed cells, said feed member also having in its upper face grooves which extend inwardly and forwardly from said seed cells, said grooves being made inclined upwardly from said cells toward the upper face of the feed member.

1,302,923. AGITATING-MACHINE. SIDNEY C. HILLS, Torrington, Conn., assignor to The Turner & Seymour Manufacturing Co., Torrington, Conn., a Corporation of Connecticut. Filed Feb. 3, 1917. Serial No. 146,383. 3 Claims. (Cl. 230-33.)



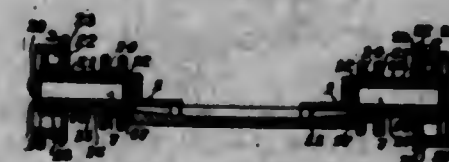
1. A machine of the kind described comprising means for imparting a whirling motion to a material, and substantially rectilinear means, transversely recessed, whereby the whirling motion of said material is diverted lengthwise of the substantially rectilinear means and in a path transversely thereto to change the physical characteristics of said material.

1,302,924. LIGHT PROJECTION. HERBERT P. HOLLMAN, West Newton, and OLIVER E. CONKLIN, Boston, Mass. Filed Nov. 1, 1916. Serial No. 129,001. 15 Claims. (Cl. 240-41.)



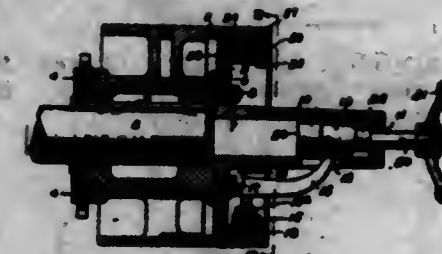
7. Light projection apparatus comprising a substantially cylindrical reflector, a light source having a substantial dimension, the reflector being positioned with its focal line horizontal and the light source being disposed along the focal line of the reflector so that light is reflected horizontally, and flexible reflecting members for determining the lateral spread of the light, the members being rigidly mounted along vertical axes so that they may be flexed about these axes and thereby vary the lateral spread of the beam.

1,302,925. TRUCK. MORRIS P. HOLMES, Claremont, N. H., assignor to Sullivan Machinery Company, a Corporation of Massachusetts. Filed Oct. 17, 1917. Serial No. 197,065. 11 Claims. (Cl. 105-11.)



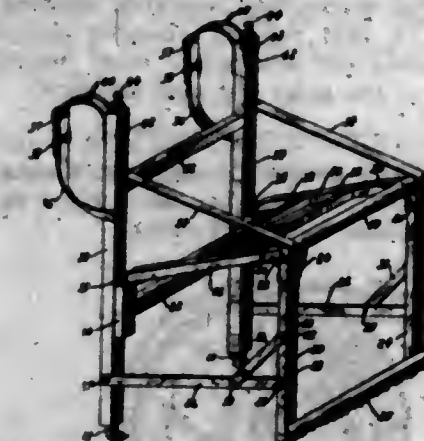
1. In a truck, a truck frame, an axle member thereon, a sleeve rotatably mounted on said axle member, a truck wheel on said sleeve, and means for adjusting said wheel into a plurality of operative positions along said sleeve.

1,302,926. CLUTCH-PULLEY. JOHN W. JACKSON, Bradford, Pa., assignor to Oil-Well Supply Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 11, 1916. Serial No. 130,714. 9 Claims. (Cl. 192-5.)



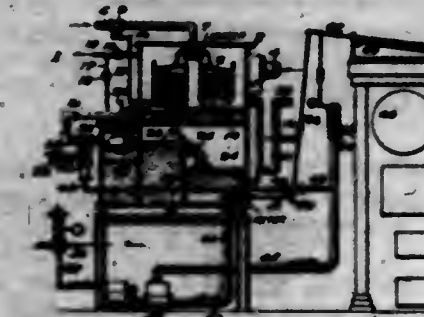
1. In a clutch pulley, the combination with a rotatable shaft, of a clutch body member mounted on and fixedly secured to the shaft, a pulley loosely mounted on said body, a cap including a plate and an elongated hollow member secured to the outer end of the clutch body member, clutch mechanism including pivotally mounted friction members adapted to engage the pulley carried by the cap, and slidable clutch actuating means operative in the elongated member.

1,302,927. FOLDABLE CARRYING-CHAIR. JAKOB JANCZYK, Jackson, Mich.; Peter Tomaski administrator of said Jakob Janczyk, deceased. Filed Oct. 5, 1918. Serial No. 256,962. 1 Claim. (Cl. 224-6.)



In a foldable carrying chair, the combination with a pair of vertical columns, seat side elements hingedly engaged therewith, supports extensible vertically from said seat side elements hingedly engaged therewith, pivoted braces attached to said columns having means engaging with said front supports, straps connecting said front supports and said columns above said seat elements, carrying straps arranged in the rear of said columns, means for adjusting said straps, a semi-circular rail disposed at the joint of seat arms, and front supports, and spring connection whereby said semi-circular rail is held normally in operative position.

1,302,928. SYSTEM OF AUTOMATIC WATER CONTROL. EDWARD G. JAY, Jr., Philadelphia, Pa., assignor to Warren Webster & Company, Camden, N. J., a Corporation of New Jersey. Filed July 19, 1917. Serial No. 181,667. 16 Claims. (Cl. 137-101.)



1. The combination in a boiler, of a heater, a meter, a pipe common thereto, a control valve in said pipe, a pres-

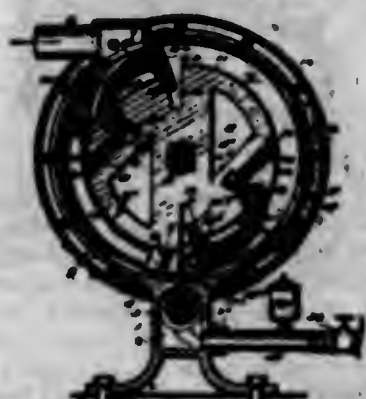
sure line, a discharge line, and an auxiliary valve in communication with said pressure line and discharge line and admitting pressure or discharging pressure to means actuating said control valve in proportion to boiler feed demands.

1,302,929. SUCTION-CLEANER. JAMES B. KIRBY, Cleveland, Ohio. Filed Feb. 18, 1915. Serial No. 9,052. 14 Claims. (Cl. 15-60.)



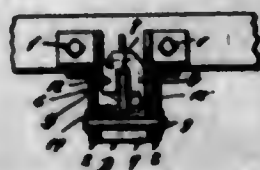
4. A suction cleaner comprising a casing having therein a pump-chamber and a suction chamber adjacent thereto and separated therefrom by an apertured partition, said suction chamber terminating in a collecting nozzle having at one side of such aperture a downwardly opening inlet mouth and at the other side of such aperture an outwardly facing connection receiving opening, and a valve pivoted in said suction chamber between said mouth and opening and adapted to close communication between either of the same and said aperture.

1,302,930. ROTARY ENGINE. SIRIUS E. KOCHENDORFER, Washington, Pa. Filed Apr. 25, 1917. Serial No. 164,436. 4 Claims. (Cl. 121-80.)



1. In a rotary engine, a rotor provided with recesses in its periphery, a plurality of L-shaped oscillatory pistons pivotally carried by said rotor and adapted to be moved into said recesses, each of said pistons being cushioned by steam during such movement into the recess, an extension carried by each of said pistons and disposed in one of said recesses, a spring disposed in another recess and arranged to bear on said extension for normally forcing the piston outwardly, and a removable screw plug arranged to be engaged by the opposite end of the spring.

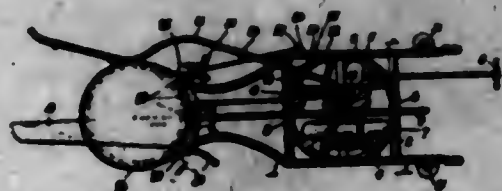
1,302,931. AUTOMATIC COUPLING. FRANK G. KOHLER, St. Louis, Mo. Filed Mar. 27, 1917. Serial No. 157,645. 2 Claims. (Cl. 213-54.)



1. An automatic coupler comprising a head, a knuckle pivoted to said head, and a gravity latch device slidably

fitted to said head, said gravity latch device having a pair of legs adapted to straddle a portion of said knuckle when the latter occupies its closed position and the knuckle being provided with a pair of abutments adapted to engage said legs to lock said knuckle in its closed position.

1,302,932. TREE-FELLING MACHINE. ROBERT LAGUS, Åbo, Finland. Filed Apr. 18, 1918. Serial No. 91,853. 1 Claim. (Cl. 143-68.)



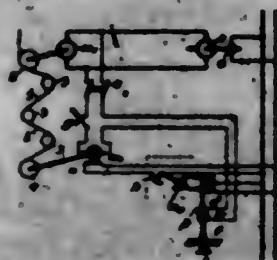
In a tree-felling machine, the combination comprising a support, a rotatable horizontally disposed member on the support, a motor on the rotatable member, a rod slidably disposed on the rotatable member and arranged to be moved by the motor, a saw-blade connected to the rod, a U-shaped rod pivoted to the rotatable member and arranged to engage the back of the saw on the commencement of a cut, and a spring member having one end secured to the rotatable member and its opposite end secured to the rear end of the U-shaped member.

1,302,933. VALVE-LOCK. MORRIS J. LANGTON, Oswego, N. Y. Filed June 6, 1918. Serial No. 238,541. 4 Claims. (Cl. 70-123.)



1. In a device of the class described, the combination of a stem having a protector neck fitting thereover, a lock casing movably mounted upon said neck, a key opening in the side of said lock casing, and a latching means within said casing, whereby a key may be inserted into the casing for actuating the locking means, although the side opening in the casing prevents an accurate view of the latching means.

1,302,934. APPARATUS FOR ROLLING UP PAPER OR THE LIKE. SALOMON LUBENHART, Charlottenburg, Germany. Filed Apr. 14, 1915. Serial No. 21,418. 3 Claims. (Cl. 243-71.)



1. In combination with a paper machine, a winding roll, separate electric driving motors for said machine and for said roll, a current source of adjustable voltage for feeding both motors with energy and a power relay inserted in the circuit of the roll driving motor.

1,302,935. FOUNTAIN-PEN. FRANK LA BOURG, Belleville, N. J. Filed July 17, 1918. Serial No. 245,314. 4 Claims. (Cl. 120-42.)



1. In a fountain pen, the combination with a celluloid tube, of a pen holder, a washer permanently attached to the interior wall of said tube, and means for detachably securing said holder to said washer.

1,302,936. BOBBIN CONTROL. LEWIS LEFKOWITZ, Danville, Va. Filed Feb. 27, 1918. Serial No. 219,478. 1 Claim. (Cl. 242-22.)



A bobbin control, including a spindle, a bobbin adapted to be mounted on the spindle to rotate therewith, a hub pivotally mounted adjacent the spindle, a bobbin releasing blade extending from the hub, a thread distributing member extending from the hub, and means for holding the thread distributing member in contact with the bobbin and throwing the bobbin releasing member to release the bobbin when the thread distributing member has moved a predetermined distance in one direction.

1,302,937. PROCESS OF SEPARATING SODIUM AND POTASSIUM SALTS. CHRISTOPHER G. LEONIS, Rocky Ford, Colo. Filed Sept. 11, 1918. Serial No. 253,571. 5 Claims. (Cl. 23-22.)

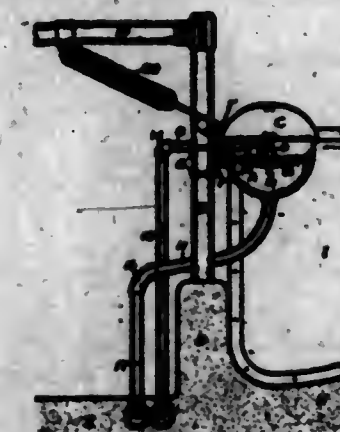
1. The herein described process of separating sodium and potassium hydroxide which consists in treating a mixture of sodium and potassium hydroxide, free from carbonates and sulfates, with a chlorid producing reagent and separating potassium chlorid from the resulting solution.

1,302,938. THERMOSTATIC VALVE. SAMUEL LIPPERT, East Cleveland, Ohio. Filed Aug. 7, 1918. Serial No. 113,449. 7 Claims. (Cl. 236-24.)



2. In a valve of the character described, the combination, with a block or body having a passageway extending therethrough from one side thereof, of a thermosensitive loop having one of its legs pivotally connected to the side of the body opposite that from which the passageway extends, and a rounded valve carried by the opposite leg of the thermostat and adapted to close the opening in the said passageway through the contraction of said loop.

1,302,939. DRINKING-BOWL FOR ANIMALS. WILLIAM LOUDEN, Fairfield, Iowa. Filed Jan. 28, 1916. Serial No. 74,782. 9 Claims. (Cl. 119-75.)



6. In a device of the character described, a water bowl having an opening in its bottom to let the water drain off, a hollow drain plug arranged to alternately hold the water and let it run out, and having an opening in the side of the drain plug near the maximum water level in the bowl to let the water overflow when it reaches that level, a rocker bar pivoted to a side of the bowl adjacent to the drain plug, one end of the rocker bar inserted in the opening in the drain plug, and a water supply valve connected to the other end of the rocker bar, whereby the movement of the drain plug up and down will alternately open and close the valve and hold and let the water drain out of the bowl.

1,302,940. BOILER-CLEANING APPARATUS. HANS JANSEN LUND, Skien, Norway. Filed Nov. 21, 1916. Serial No. 132,001. 1 Claim. (Cl. 63-64.)

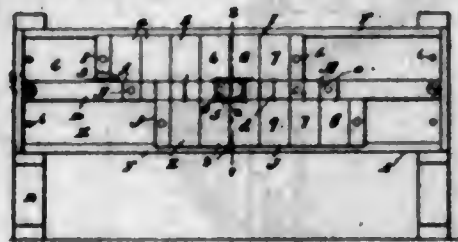


In a boiler cleaning apparatus, including a tubular shaft, a rod mounted therein and a hammer pivotally connected to the front end of said tubular shaft and adapted to be actuated by means of said rod; a guiding device adapted to keep the working end of the apparatus at a predetermined distance from the wall of the boiler, said guiding device comprising a hoop-shaped member mounted on one side of said tubular shaft, and an adjustable spring carried by said tubular shaft so as to be diametrically opposed to said hoop-shaped member.

1,302,941. MECHANICAL CALCULATOR. THOMAS ARTHUR MCCARTHY, Barrie, Ontario, Canada. Filed Oct. 23, 1918. Serial No. 256,446. 6 Claims. (Cl. 24-2.)

1. A device of the class described comprising two blank members intended to have placed thereon, in one case the multiplier and in the other case the multiplicand, and relatively movable so as to bring into alignment the

required figures of the multiplier and the multiplicand as the solution of the problem proceeds; means supporting said members in cooperative relationship, and means for



indicating the columns of the keyboard of the given class of mechanical adding machine to be made use of in mechanically recording the products.

1,302,942. ART OF SETTING FASTENING MEANS IN SHOES. HARRY G. McMURRAY, Manchester, N. H., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed June 6, 1914. Serial No. 843,438. 5 Claims. (Cl. 218-14.)



1. That improvement in the art of shoe making which comprises producing an upper comprising an outer portion and facing stays located permanently in that position which they are to occupy in the finished shoe, punching eyelet holes through both the outer portion and the facing stays and then setting eyelets in the outer portion in register with holes in the facing stays.

1,302,943. PHONOGRAPHIC-DISK-RECORD CABINET. CECILIA D. McVAY, Philadelphia, Pa. Filed Dec. 2, 1916. Serial No. 134,568. 1 Claim. (Cl. 211-16.)



A phonograph disk record cabinet, comprising a casing having one side open and provided with a plurality of horizontal record receiving compartments, a vertical fulcrum rod arranged within one corner of the casing near its back, horizontally swinging ejector levers arranged within the compartments and fulcrumed upon the rod and having their outer ends projecting laterally beyond the casing, a guide plate arranged at a right angle to one side of the casing and attached thereto near its forward side, said guide plate having two sets of vertical openings, push rods mounted to slide within the openings and ex-

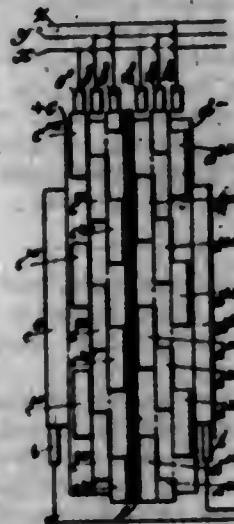
tending toward the forward side of the casing, and links pivotally connected with the push rods and with the outer ends of the ejector levers.

1,302,944. COUPLING FOR PNEUMATIC-DESPATCH TUBES. JAMES G. MACLAREN, Harrison, N. Y. Filed Nov. 14, 1914. Serial No. 872,236. 3 Claims. (Cl. 285-194.)



1. In a pneumatic despatch tube, the combination of a pair of tube sections disposed with aligning ends, a splicing sleeve or union comprising a section of tube slidably fitting the ends of said tube sections, and means for securing the union comprising a clamp having means for tensioning the same about the tube, said clamp being longer than said union and having a portion of its inner surface between its ends inset to receive the same.

1,302,945. ROTARY RECTIFIER OF ALTERNATING CURRENTS. CONSTANTINE D. MACROPOULOS, New York, N. Y. Filed Sept. 23, 1918. Serial No. 255,241. 2 Claims. (Cl. 175-364.)



1. A rotary rectifier for a three-phase, three-wire electrical system, comprising a rotary shaft, three brushes connected respectively to the positive wires, three brushes connected respectively to the negative wires, corresponding contact segments mounted to rotate with the shaft, and a collector ring in electrical connection with each group, positive and negative, of the contact segments, the contact segments and collector ring of each group being insulated from the contact segments and collector ring of the other group and the contact segments of each group for contact with the brushes of that group being arranged to follow one another in the relation of the several phases of the current.

1,302,946. ROASTING APPARATUS. WILLIAM J. MALCOLMSON, Cicero, and HENRY L. WARD, Chicago, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 2, 1917. Serial No. 184,212. 6 Claims. (Cl. 219-36.)

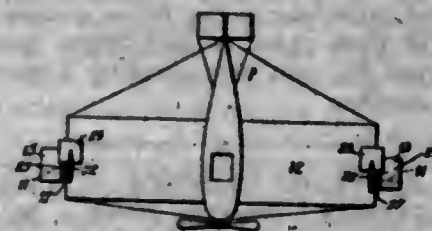
4. An oven for roasting carbon granules, comprising a roasting chamber having a porous wall through which

gases generated in said chamber may escape, an electrical heating element surrounding said chamber, an insulating body of porous material surrounding said chamber and in



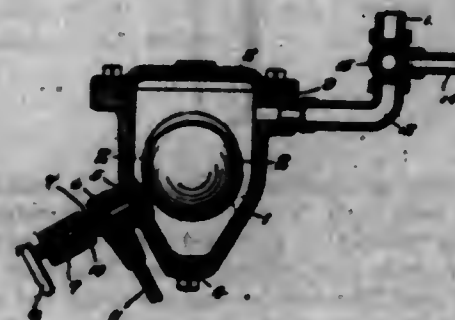
which said heating element is embedded, and means to regulate the flow of carbon granules through said chamber to a continuous uniform movement.

1,302,947. STABILIZING AND NEUTRALIZING DEVICE FOR AIRCRAFT. JAMES V. MARTIN, Detroit, Mich. Filed Dec. 1, 1916. Serial No. 184,464. 22 Claims. (Cl. 244-29.)



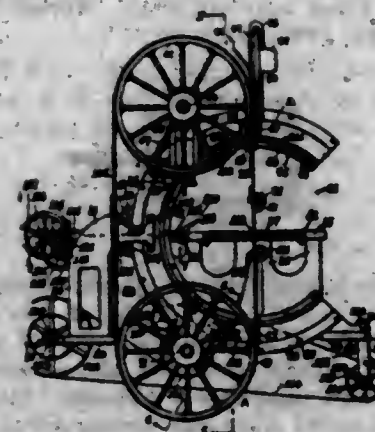
4. In an aeroplane, an aileron, a swinging member operatively connected to said aileron to effect changes in the incidence thereof, and an aerofoil adapted to operate said swinging member to neutralize the incidence of the aileron to the line of flight.

1,302,948. VALVE FOR REFRIGERATING SYSTEMS. CHARLES R. MESTON, St. Louis, Mo. Filed Feb. 21, 1917. Serial No. 150,065. 6 Claims. (Cl. 137-103.)



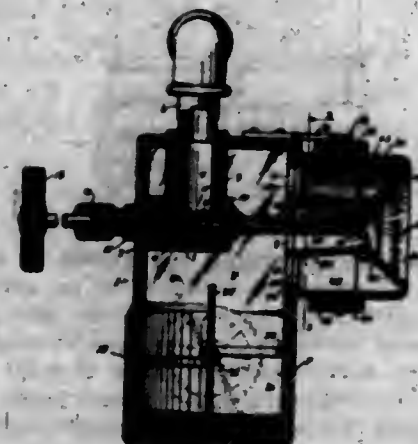
1. A valve of the character described comprising a casing, a valve seat having a duct or passage located above the lowermost portion of the valve and below the horizontal axis thereof, a free floating valve which is designed to be operated by fluids of different specific gravities to entirely close or open the duct through said seat, and spaced supporting members within the housing, which members cooperate with the valve seat to determine the seated position of the valve.

1,302,949. BAND SAWING-MACHINE. JOHN J. MYERS, Cincinnati, Ohio, assignor to J. A. Fay & Egan Company, Cincinnati, Ohio, a Corporation of West Virginia. Filed Oct. 11, 1917. Serial No. 195,950. 14 Claims. (Cl. 143-24.)



1. In a band sawing machine, the combination of a main frame, a supplemental frame, a material-supporting member, an upper band-saw wheel and a lower band-saw wheel on said supplemental frame arranged for receiving a band-saw blade thereabout having a cutting stretch passing downwardly into said material-supporting member, and separated guiding means between said main frame and said supplemental frame, said guiding means comprising arc-guides on the outer opposite sides of said main frame, said supplemental frame comprising separated companion arc-slides coacting with said arc-guides, and connecting means extending crosswise of said main frame connecting said separated companion arc-slides in a rigid supplemental frame structure.

1,302,950. BURNER. THEODORE W. MUCKLE, Denver, Colo. Filed July 30, 1918. Serial No. 347,454. 10 Claims. (Cl. 158-76.)



7. The combination with a burner casing, providing an oil inlet chamber and a pressure air inlet, the front wall of said casing having an atomizing air outlet, circumscribed by a plurality of auxiliary air outlets; of a nozzle leading from said oil inlet chamber into proximity with said atomizing air outlet; means for controlling the flow of oil therethrough; a unitary capping member having an internal central tubular element, encompassing the discharge tip of said nozzle, in open communication with said atomizing air outlet, and providing for an exterior annular expansion chamber; a flange plate carried by the inner end of said tubular element, forming the rear wall of said expansion chamber, and perforated with a series of auxiliary air inlets for the latter; means permitting of the correlative adjustment of said auxiliary air outlets and inlets to bring them into and out of registration; and means for delivering auxiliary air from said expansion chamber, as desired, into entrained

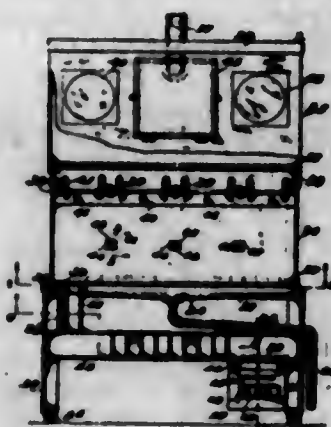
association with the combustible blast charge resulting from the admixture of the fuel oil and its atomizing air, substantially as described.

1,302,951. BOAT-PROPELLING MEANS. ALLEN NASH, Joplin, Mo. Filed July 10, 1917. Serial No. 179,718. 2 Claims. (Cl. 170-142.)



1. A propeller comprising a bladed barrel body composed of wooden staves, and heads of like material at opposite ends thereof, metal disks fastened to the heads of the body and extending beyond the periphery thereof, paddles interposed and held between the peripheral portions of said metal disks and having arcuate inner and outer edges conforming to the blige of the barrel body, one of said disks being formed with radially elongated slots, a propeller shaft extending centrally and longitudinally through said propeller, and a collar having a fixed relation to said shaft and provided with radially elongated ribs which are received in the said slots of the adjacent metal disk of the propeller.

1,302,952. SMOKE-HOUSE. OMAN F. NAPP, Milford, Ind. Filed Nov. 6, 1916, Serial No. 129,672. Renewed Mar. 7, 1919. Serial No. 231,262. 13 Claims. (Cl. 90-2.)

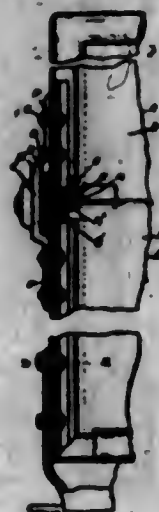


1. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element arranged below said chamber; and an elongated tortuous passage establishing communication between said smoke-producing element and said chamber, the tortuosities in said passage being arranged in a substantially horizontal plane, substantially as described.

2. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element arranged below said chamber; a comparatively wide flat compartment interposed between said smoke-producing element and said chamber; and an elongated tortuous passage formed in and extending through said compartment and establishing communication between said smoke-producing element and said chamber, substantially as described.

3. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element arranged below said chamber; a comparatively wide flat compartment interposed between said smoke-producing element and said chamber; and a plurality of baffle plates arranged in said compartment in spaced staggered relation forming an elongated tortuous passage establishing communication between said smoke-producing element and said chamber, substantially as described.

1,302,953. WIND-SHIELD CONSTRUCTION. HEO NEUMAN, Detroit, Mich., assignor to Motor Products Corporation, Detroit, Mich., a Corporation of New York. Filed Dec. 7, 1918, Serial No. 135,505. Renewed Mar. 15, 1919. Serial No. 232,908. 2 Claims. (Cl. 21-148.)



1. In a windshield, the combination with a hollow frame member, of a reinforcing member fitted within said hollow member, said reinforcing member having a lug struck therefrom, and a glass clip secured to said lug.

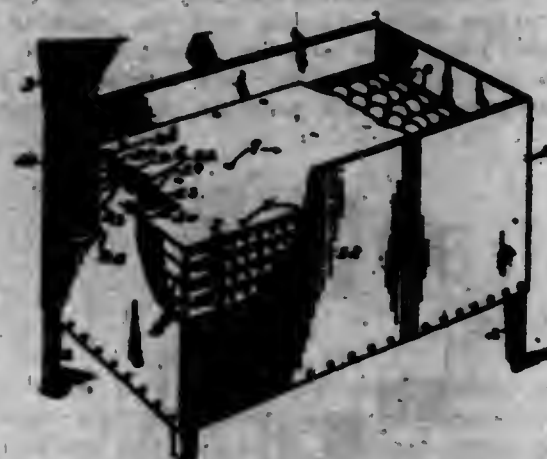
2. In a windshield, the combination with a hollow frame member, of a pivot member secured thereto, a channel shaped reinforcing member positioned within the hollow frame member and having screw-threaded apertures into which the pivot securing members extend, a glass panel extending in the frame member, a clip for securing said glass panel in said frame member, and a securing device for said clip engaging a portion of said reinforcing member.

1,302,954. COMBINED CLOSURE AND ERASER FOR FOUNTAIN-PENS. STANLEY NEWELL, Wapello, Iowa. Filed Mar. 14, 1918, Serial No. 84,154. Renewed Oct. 9, 1918. Serial No. 257,536. 2 Claims. (Cl. 130-36.)



2. A fountain pen closure comprising a tubular member open at both ends, a partition in said member, said member being internally threaded from said partition to the adjacent ends, an erasing brush disposed with its base on said partition and having its outer end extending beyond the end of the tubular member, a compression plug threaded within the threaded portion of said tubular member and provided with a bore tapering toward its outer ends for the passage of said brush, the outer end of said bore being of smaller diameter than the diameter of the base of said brush whereby the outer ends of said brush will be compressed, threading of said plug within said tubular member affecting a relative longitudinal outward movement of said brush to take up wear, and a closure cap threaded upon the extending outer ends of said plug.

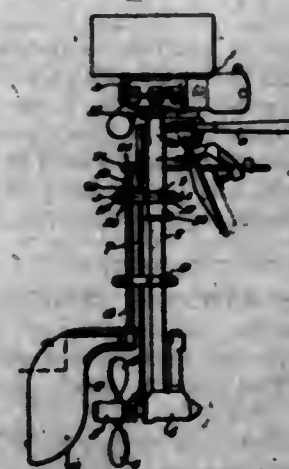
1,302,955. METHOD AND APPARATUS FOR PRESERVING EGGS. ENNIS M. NICHOLS, Washington, D. C., assignor to Egg Preserving and Storage Co., a Corporation of Delaware. Filed Oct. 10, 1918. Serial No. 257,591. 10 Claims. (Cl. 90-98.)



1. An apparatus for treating eggs, including a closed tank containing a liquid preservative, superposed and spaced plates extending transversely across the tank and removably mounted in position therein, egg receiving frames slidably mounted upon the various plates and having open bottoms so that the eggs rest upon the plates, said plates and frames being submerged in the liquid preservative in the tank, and means operable from the exterior of the tank for reciprocating the frames to rotate the eggs.

10. An apparatus for treating eggs, including a closed tank containing a liquid preservative and having a notch in the upper edge thereof, a series of superposed egg receiving frames slidably mounted within the tank and submerged in the liquid preservative, a bearing at the bottom of the tank, a horizontal bracket projecting from one of the side walls of the tank, a removable slide carrying the bracket, guideways receiving the slide and extending to the top of the tank, a short vertical shaft journaled in the bracket, a horizontal shaft journaled in the slide and received within the before mentioned notch in the upper edge of the tank, gearing between the horizontal shaft and the short vertical shaft, a cover for the top of the tank and arranged to engage the slide to lock the same in position when the cover is closed, a long vertical shaft extending through the tank and having the lower end thereof journaled in the bearing at the bottom of the tank while the upper end thereof is detachably engaged by the short vertical shaft of the bracket, and an operative connection between the long vertical shaft and the several egg receiving frames.

1,302,956. RUDDER. RICHARD B. OWEN, Washington, D. C. Filed Oct. 8, 1915. Serial No. 54,842. 12 Claims. (Cl. 115-18.)



5. A rudder to be used with an outboard motor having a steering post extending upwardly therefrom, supporting

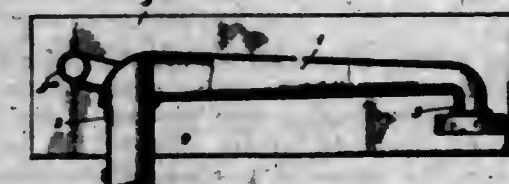
members clamped to the structure of the outboard motor and having the rudder post passed therethrough to be capable of endwise sliding movement, means to operate the rudder to accomplish an independent steering action, and means to secure the rudder to act in conjunction with the swinging structure of the outboard motor.

1,302,957. MARINE PROPULSION MECHANISM. RICHARD B. OWEN, Washington, D. C. Filed Oct. 22, 1915. Serial No. 57,326. 6 Claims. (Cl. 115-18.)



5. The combination with an outboard motor, a reversible propeller, a rocking arm connected to actuate said propeller, said arm provided with a longitudinally extending groove, a detachable handle slidably mounted upon said arm, a spring pressed plunger engaging said groove and holding said handle against rotating movement upon said arm, a segmental rack mounted adjacent said arm, a tooth carried by said handle and adapted to engage said segmental rack, and yieldable means carried by said handle and normally urging said tooth in detachable engagement with said segmental rack.

1,302,958. CASTING PROCESS. CHARLES PACK, Brooklyn, N. Y., assignor to Doehler Die Casting Company, Brooklyn, N. Y., a Corporation of New York. Filed Jan. 12, 1919. Serial No. 270,917. 9 Claims. (Cl. 22-206.)

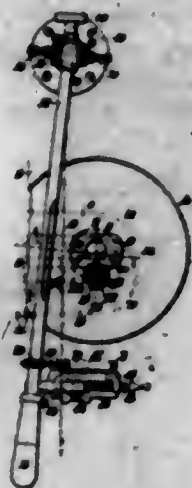


1. A method of casting a tubular object, consisting in first casting such an object complete save at a point at which an opening in the object is left, and then casting a closure for said opening.

1,302,959. PRODUCTION OF ELECTRODES. WILLIAM KINGMAN PAGE, Chicago, Ill., assignor to Chili Exploration Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 10, 1916. Serial No. 71,211. 14 Claims. (Cl. 204-4.)

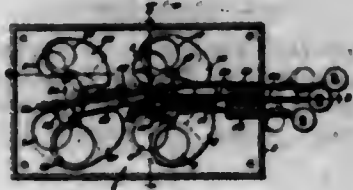
1. An electrode for electrolytic purposes, comprising a core sheet of metal, and an outer body or coating fused thereto of material insoluble in the proposed electrolyte, said core and said body or coating having substantially the same heat co-efficient of expansion; substantially as described.

1,302,900. METHOD OF MAKING BIFOCAL LENSES. ARTHUR E. PAISON, Philadelphia, Pa. Original application filed Mar. 4, 1915, Serial No. 12,028. Divided and this application filed May 27, 1915. Serial No. 30,716. 4 Claims. (Cl. 51-3.)



4. The process of surfacing which consists in rotating the article to be surfaced; contemporaneously rotating an abrading element on an axis obliquely transverse to the axis of rotation of said article, and in operative relation with said article; automatically axially moving said abrading element toward said article as the surfacing operation proceeds; and predetermining the position of the surface when finished, by adjustably limiting the freedom of axial movement of the abrading element toward said article.

1,302,901. CHANGE-MAKING APPARATUS. ELBRIDGE P. PARKER, Birmingham, Ala. Filed May 13, 1918. Serial No. 234,158. 1 Claim. (Cl. 133-4.)

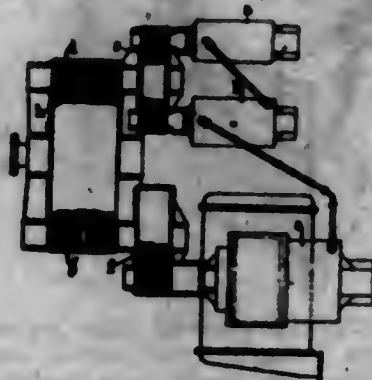


In change making apparatus the combination with separate key levers, an equalizing lever connected to one of the key levers, and another lever pivoted on the equalizing lever and connected at its ends to the other key levers, of a spring connected to the equalizing lever, separate coin holders, separate coin delivering plates movable thereunder and having coin receiving openings, a connection for coupling two of the plates to produce simultaneous movement thereof, a connection between said plates and one of the key levers, connections between the other or unconnected delivering plates and the remaining key levers, all of said plates being arranged in pairs and having arms, one arm of each pair being arranged in front of the other arm of said pair whereby actuation of one of the uncoupled plates, will cause transmission of motion through the arms and coupling connection to all of the remaining plates, one of said unconnected plates being shiftable independently of the remaining plates and also with all but one of said remaining plates.

1,302,902. GEARED TURBINE INSTALLATION FOR SHIP PROPULSION. CHARLES ALGERNON PARSONS, Newcastle-upon-Tyne, England. Filed Oct. 23, 1916. Serial No. 127,304. 1 Claim. (Cl. 60-70.)

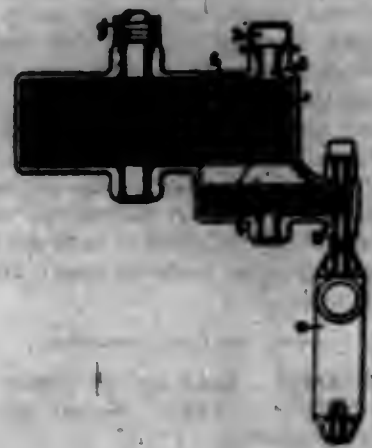
A geared turbine installation for ship propulsion, comprising in combination three turbines including a high pressure turbine, an intermediate pressure turbine and a

low pressure turbine, means for connecting said turbines in series as regards steam flow, pinions on the shaft of each of said turbines, two intermediate shafts, gear wheels on said intermediate shafts, the pinions on the high pressure and intermediate pressure turbine shafts engaging with one of said gear wheels and the pinion on the low pressure turbine shaft engaging with the other of said gear wheels, pinions on said intermediate shafts, gear wheels on the propeller shaft, said intermediate shaft pinions engaging with said propeller shaft gear wheels,



the pinion on said high pressure turbine shaft being of smaller diameter than the pinion on said intermediate turbine shaft and the pinion on said intermediate pressure turbine shaft being smaller than the pinion on said low pressure turbine shaft, said high pressure turbine and said intermediate pressure turbine each developing substantially one quarter of the total power, as set forth.

1,302,903. GEAR-TRAIN. CHARLES ALGERNON PARSONS, STANLEY SMITH COOK, and EDWARD BROOKS CHAPMAN, Newcastle-upon-Tyne, England; said Cook and said Chapman assignors to said Parsons. Filed Oct. 30, 1917. Serial No. 190,341. 3 Claims. (Cl. 74-7.)

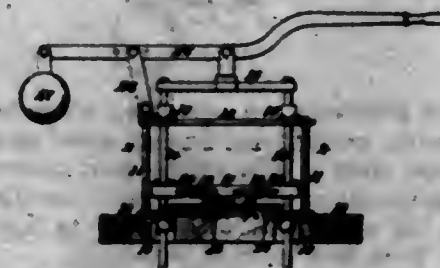


1. In combination in multiple reduction gearing a gear, and a pinion, a shaft on which the pinion is mounted, and a balance weight arranged on the shaft of the pinion in such position that the center of gravity of the shaft taken as a whole substantially coincide with the point at which the resultant of the other vertical forces acting on the shaft crosses the shaft axis, substantially as described.

1,302,904. BRICK-CUTTING MACHINE. GEORGE F. PUMMARON, Lincoln, Calif., assignor to Gladding, McBean & Company, San Francisco, Calif., a Corporation of California. Filed Mar. 21, 1917. Serial No. 156,281. 2 Claims. (Cl. 25-107.)

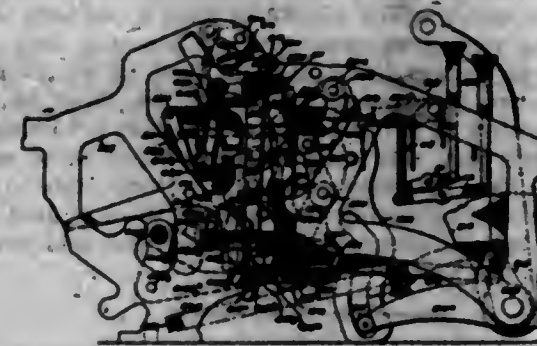
1. A machine for cutting freshly made bricks or plastic blanks into different shapes, comprising a main stationary frame, a stationary support for the blank within said frame, a rectangular-shaped cutting frame vertically movable in the main frame, manually operated means

for imparting movement thereto, longitudinally disposed slots formed in the sides and ends of the cutting frame, blocks slidably and adjustably mounted in each slot, means on each block for securing the same when ad-



justed, wire securing and tightening means carried by the blocks and recesses formed in the lower edge of the side and end sections of the cutting frame, permitting the wires to assume a plane parallel with the lower face of the cutting frame.

1,302,905. ADDING-MACHINE. ARTHUR PENTECOST, East Orange, N. J., assignor to The Adder Machine Company, Wilkes-Barre, Pa., a Corporation of Pennsylvania. Filed Apr. 23, 1915. Serial No. 23,306. 35 Claims. (Cl. 235-133.)



1. In an adding machine, the combination with counters and drive members adapted for engagement and disengagement; transfer devices; means to latch the transfer devices in set position; means controlled by the counters to trip the latching means, and free the transfer devices for effective operation; and means to reset the transfer devices; of means adapted to coast with the resetting means to cause the latter to hold the transfer devices against complete operation only during the time of engagement of the counters and drive members.

1,302,906. FLOTATION OF MINERALS. CLEMENT LINWOOD PERKINS, Pittsburgh, Pa., assignor to Metals Recovery Company, New York, N. Y., a Corporation of Maine. Filed Oct. 12, 1917. Serial No. 190,121. 3 Claims. (Cl. 83-85.)

1. The method of effecting the concentration of minerals by flotation, which comprises adding to the mineral pulp a small amount of quinalin, and subjecting the resulting mixture to a flotation operation; substantially as described.

1,302,907. ROLLER-DRILL. ROWLAND O. PICKIN, Chicago, Ill. Filed Nov. 20, 1913. Serial No. 902,024. 23 Claims. (Cl. 355-71.)

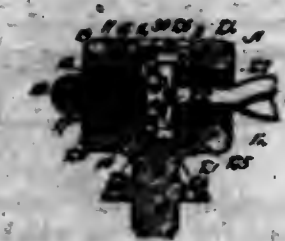
12. A rotary boring drill having a reversible side cutter which is provided with cutting surfaces of the same angle and cutting area which act simultaneously on the

bottom and on the side wall of the hole, both of said cutting surfaces being located the same distance from



the longitudinal axis of the cutter, thereby enabling the cutter to be reversed.

1,302,908. SWITCH FOR ELECTRIC FIRING DEVICES. JOHN N. POWERS, Washington, D. C., assignor to United States Ordnance Company, Washington, D. C., a Corporation of Virginia. Filed June 7, 1916. Serial No. 102,823. 3 Claims. (Cl. 200-27.)



1. An electric switch of the class described comprising a casing, cooperating contacts slidably mounted in the casing, and connections between the contacts operating upon movement of a contact to produce a simultaneous and opposite movement of the other contact.

1,302,909. WIND-SHIELD. ALPHONSO COMSTOCK PRATT, Deep River, Conn., assignor to Whiting & Davis Company, a Corporation of New York. Filed Dec. 28, 1917. Serial No. 200,294. 7 Claims. (Cl. 21-148.)



1. In an automobile or other vehicle a support, a pair of cooperatively related glass plates mounted thereon one above the other and one of them adapted to be turned with relation to the other about a horizontal axis, thereby leaving a space between their adjacent edges, and a perforated metallic sheet mounted to extend over said space; substantially as described.

1,302,970. PUNCTURE-PROOF LINING FOR PNEUMATIC TIRES. WILLIAM H. FRITCHETT, U. S. Marine Corps. Filed Oct. 3, 1918. Serial No. 256,606. 2 Claims. (Cl. 152-18.)

1. In an armored pneumatic tire, the combination with the outer casing, of a removable armored lining for said casing comprising a pair of split stay rings, a series of

overlapping thin strips of resilient metal bent in the form of loops to fit the interior of said casing, said strips



having their opposite ends secured respectively to said split stay rings, and a sheathing of textile fabric inclosing said loops and said rings, substantially as described.

1,302,971. RAIL-JOINT. BEN A. RAYMON, Muskogee, Okla. Filed Mar. 8, 1918. Serial No. 221,247. 1 Claim. (Cl. 238-191.)



A rail joint comprising a chair constructed of two members each including a base on which the rails rest, the base portion of each the members, at the confronting ends thereof, having a depending flange, the confronting faces of the said flanges having their entire surfaces provided with longitudinally arranged substantially V-shaped tongues and substantially V-shaped grooves between the tongues, the said tongues and grooves extending the entire length of the flanges, the tongues on one of the flanges designed to be received in the grooves of the co-acting flange, and transverse binding elements connecting the flanges.

1,302,972. INSECT-DESTROYER. FRANK RBA, San Francisco, Calif. Filed May 6, 1918. Serial No. 232,873. 12 Claims. (Cl. 42-1.)



1. An insect destroyer comprising a housing inclosing an annular chamber and having an intake aperture and a plurality of outlet apertures therein, and means for creating a current of air and killing insects while entrained in said air current arranged in said housing adjacent said intake aperture.

1,302,973. BEET-HARVESTER. WILLIAM M. REYNOLDS, Purcell, Colo. Filed May 22, 1918. Serial No. 235,972. 1 Claim. (Cl. 55-106.)



In a beet harvester, an uprooting plow comprising a pair of blades, projections formed upon and extending from the rear ends of said blades, said projections being curved to guide all of the beet tops in one direction, and a plurality of spaced tines attached to and extending rearwardly from each of said blades.

1,302,974. RESILIENT TIRE. ULTRAM S. ROBINSON, Lagrange, Ga., assignor of one-third to Michael Fordan, Lagrange, Ga. Filed July 27, 1918. Serial No. 247,024. 6 Claims. (Cl. 132-8.)



5. In a resilient tire, a rim, a plurality of flat springs attached to said rim and curved to form a resilient skeleton for the tire, a flexible covering mounted over said springs, said springs being bent at their crown portions to form a tire tread seat, a resilient tire tread in said seat, a plurality of helical springs extending between said seat and said rim, said springs having their bases outermost, cross bars pivotally connected at their ends to said flat springs and extending transversely through said tire, and spiral springs connected to said rim and said bars at the ends of the bars.

1,302,975. FOLDING VALVE-LIFTER. ISADORE ROSENBERG, Port Chester, N. Y. Filed June 3, 1918. Serial No. 237,937. 5 Claims. (Cl. 29-87.1.)



1. A tool of the character described comprising a body, a U-shaped head carried thereby and adapted to engage a valve stem, a slide having a rack, a point carried by the slide and adapted to engage a valve, a pinion carried by the body and engaging the rack, a lever pivoted to the body, a reversible dog socketed in the lever and adapted to actuate the pinion in either direction to move the head and point toward or from each other, and means for preventing movement of the slide except by actuation of the pinion.

1,302,976. LOCK FOR CONTROLLING-LEVERS. AUGUSTUS C. SARTON and HENRY J. MANARD, Chicago, Ill., assignors to W. E. Dawson, trustee, Chicago, Ill. Filed Dec. 27, 1918. Serial No. 68,612. 6 Claims. (Cl. 70-128.)



4. In a device of the class described, a support comprising an upper and lower member, a lever universally mounted therein, a locking member carried by said lever adapted to prevent the movement of said lever or the removal of the upper member of said support.

1,302,977. TRACK CONSTRUCTION. JAMES P. SCARTSARIS, Waterbury, Conn. Filed Nov. 19, 1918. Serial No. 263,104. 1 Claim. (Cl. 246-454.)



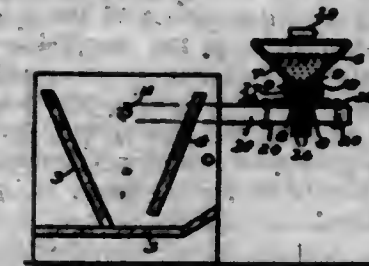
A track construction including in combination with crossing rail sections, members comprising base portions for receiving and supporting the rail sections, and web engaging portions arranged perpendicular to the base portions and at right angles to each other, the upper edges of the web engaging portions being positioned above the upper surfaces of the rail sections and formed with recesses on their inner faces for cooperating with the rail sections and providing grooves on opposite sides of the rail sections.

1,302,978. MAGNETIC DOLLY-BAR. THOMAS J. SHEA, Portland, Oreg. Filed Sept. 11, 1918. Serial No. 253,553. 6 Claims. (Cl. 78-53.5.)



1. Is a rivet holder or dolly, the combination of a lever frame adapted to automatically press against the work and having a rivet set adapted to be held against the rivet, a magnet acting when energized to hold the device to the work, and a spring between the magnet and the frame.

1,302,979. HOG-OILER. HERMAN J. SCHIFFER, Roanoke, Ind. Filed July 24, 1918. Serial No. 246,502. 2 Claims. (Cl. 119-52.)



1. In combination with a feeder, arms at the ends of the feeder, pivotally mounted thereon and projecting from one side thereof, an oiler arranged in front of the feeder and supported on said arms, and means to support said arms and oiler at any desired vertical adjustment thereof.

1,302,980. BODY-PROTECTOR. JEFFERSON C. SHANNON, Greenville, Miss. Filed July 6, 1918. Serial No. 243,593. 2 Claims. (Cl. 27-18.)



1. An undertaker's body protector, comprising a substantially rectangular sheet of material adapted for disposition upon the cooling board beneath a body disposed thereon, an open sided rectangular frame secured at one end of said sheet of material and defining a pocket adapted to project beyond the edge of a cooling board, and a second sheet of material of substantially rectangular formation secured upon said first named sheet at a point spaced from the open side of said frame and disposable over the torso of a body laid upon the first named sheet, said second named sheet being provided adjacent one secured corner with an arm pit engaging portion.

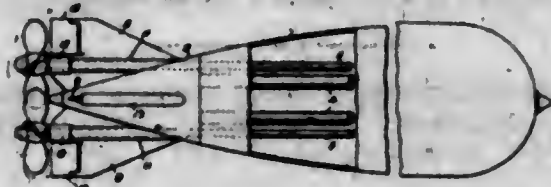
1,302,981. LIGHT-SUPPORT. TILLMAN SHELLEY, Indianapolis, Ind. Filed Jan. 6, 1919. Serial No. 269,847. 2 Claims. (Cl. 240-52.)



2. A light holder comprising a base member and a detachable member, said base member being made up of a

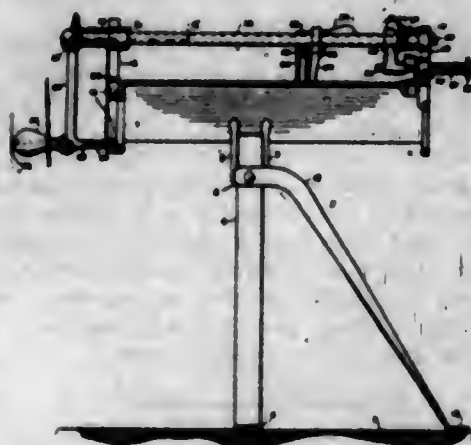
body having a disk-like portion, a stud extending from the back of said portion, a resilient clasp opposed to said portion, laterally reaching arms on the portion, a resilient loop attached to the body, and arms attached to the body and adapted in conjunction with the loop to form a combined base and clasp, and the detachable member including a body bifurcated at one end to straddle the stud and be interposed between the base portion and the clasp, a swiveled clasp on said body, a swinging lamp carrying element adjustably connected to the bifurcated body, and a lamp bracket pivoted in said element.

1,302,982. AUTOMOBILE TORPEDO. HAROLD W. SHONNARD, Upper Montclair, N. J., assignor to Crucible Steel Company of America, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 31, 1917. Serial No. 158,902. Renewed Jan. 27, 1919. Serial No. 273,483. 4 Claims. (Cl. 115-37.)



1. In an automobile torpedo the combination with a hull of a pair of parallel eccentric propeller shafts, a pair of twin propellers secured one to the outer end of each shaft and in such position that the blades of said propellers overlap midway between said shafts, a vertically disposed tail vane attached to said hull substantially midway between said shafts but terminating short of the general plane of rotation of said propellers, and an exhaust conduit extending from said hull to a point above and substantially midway between the axis of rotation of said propellers.

1,302,983. BUTTER-CUTTER. RUFUS A. SIMPSON, Oakland, Calif. Filed Mar. 27, 1917. Serial No. 157,500. 21 Claims. (Cl. 31-65.)



1. In a butter cutter the combination of a trough having a depending integral web recessed in its bottom edge, two oblique legs having upper ends extending upwardly on opposite sides of said web, a third oblique leg extending in a direction to form a tripod with the other legs, and a device clamping together said web and the upper ends of said legs.

3. In a butter cutter the combination of a trough having a depending integral web flanged at its vertical edges, and recessed in its bottom edge, two oblique legs having upper ends extending upwardly on opposite sides of said web and fitting snugly between said flanges, a third oblique leg extending in a direction to form a tripod with the other legs, said legs having holes in their upper ends, and a clamping device extending through said holes.

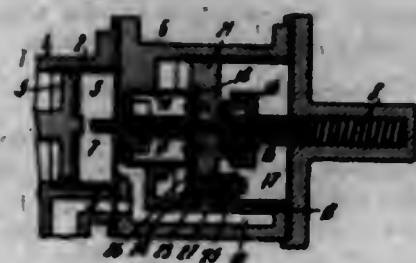
7. The combination of a trough-shaped guide for butter, a shaft supported thereby, a tube around the shaft,

means, operated by the tube, for advancing butter in said guide, a pusher, one portion of which is secured to the rear end of the tube, means for intermittently advancing the pusher, an adjusting rod screwed into another portion of the pusher, a spring for pressing said adjusting rod rearwardly, and means for limiting the rearwardly movement of said rod.

10. The combination of a trough-shaped guide for butter, a shaft parallel with said guide, means carried by said guide having bearings for the ends of the shaft, a tube around the shaft, a pusher secured to the rear end of the tube, a cam secured around said shaft and engaging said pusher to advance the same, an adjusting rod screwed into the pusher, a spring for pressing said adjusting rod rearwardly, and means for limiting the rearward movement of said rod.

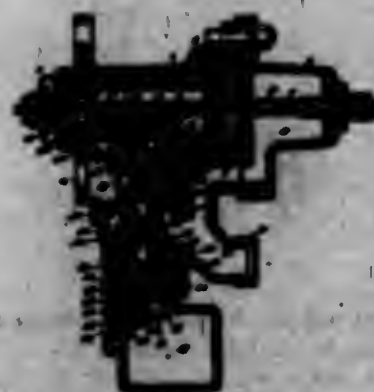
15. In a butter cutter, a butter guide, a follower therein, a shaft, a tube slidable thereon, a biting pawl having a portion surrounding said tube, the outer end of said biting pawl engaging said follower, and means for reciprocating said tube, said follower having a rearwardly extending stud against which the outer end of the biting pawl engages in its operative position.

1,302,984. TRIPLE VALVE. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor to Percy E. Donner, Pittsburgh, Pa. Filed June 10, 1914. Serial No. 844,275. Renewed Feb. 17, 1919. Serial No. 277,651. 8 Claims. (Cl. 188-15.)



1. In a triple or control valve mechanism, the combination of a main movable abutment actuated by variations of train pipe pressure and effecting the usual combinations between the train pipe and auxiliary reservoir, auxiliary reservoir and brake cylinder, and brake cylinder and atmosphere, and a supplementary abutment subject on one side to train pipe pressure, on a portion of its opposite side to an equal trapped pressure and on a portion of said side to a lesser pressure, said supplementary abutment controlling a train pipe vent valve, and a check valve controlling a communication between the two faces of said supplementary abutment and seating toward the train pipe side thereof.

1,302,985. TRIPLE VALVE. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor to Percy E. Donner, Pittsburgh, Pa. Filed Sept. 18, 1915. Serial No. 51,436. Renewed Feb. 17, 1919. Serial No. 277,652. 29 Claims. (Cl. 188-15.)



1. In a triple, control or distributing valve mechanism, the combination of a movable abutment actuated by varia-

tions in train pipe pressure, valve mechanism actuated thereby and arranged upon service reductions in train pipe pressure to control communication between the auxiliary reservoir and brake cylinder, an emergency valve controlling a direct communication between the train pipe and brake cylinder, said emergency valve being subject on one side to train pipe pressure and on the other side to a trapped pressure, and means so located as to allow unobstructed connection between the movable abutment and the train pipe and arranged upon sudden reductions in train pipe pressure to evacuate said trapped pressure, whereby to open said emergency valve.

1,302,986. TRIPLE VALVE FOR AIR-BRAKE SYSTEMS AND ATTACHMENT THEREFOR. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor to Percy E. Donner, Pittsburgh, Pa. Continuation of application Serial No. 847,783, filed June 27, 1914. This application filed Dec. 14, 1916. Serial No. 134,922. Renewed Feb. 17, 1919. Serial No. 277,653. 40 Claims. (Cl. 188-15.)



1. An attachment for standard triple valves which have emergency mechanism for venting the train pipe pressure comprising a mechanism adapted to be applied to the triple valve and to be substituted for the usual emergency mechanism without altering the construction of the triple valve, said substituted mechanism being subject directly to train pipe pressure and operating independently of the main movable abutment and its valve mechanism and arranged to vent the train pipe pressure upon emergency reductions in train pipe pressure but to prevent such venting under other reductions in train pipe pressure.

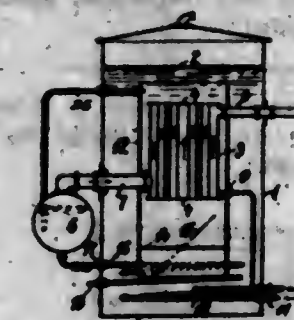
1,302,987. MILLINERY-DISPLAY DEVICE. HUGO STRANDBERG, Freeport, N. Y. Filed Dec. 11, 1918. Serial No. 206,223. 3 Claims. (Cl. 206-44.)



2. The herein described shipping and displaying device for millinery comprising a base having a shallow mar-

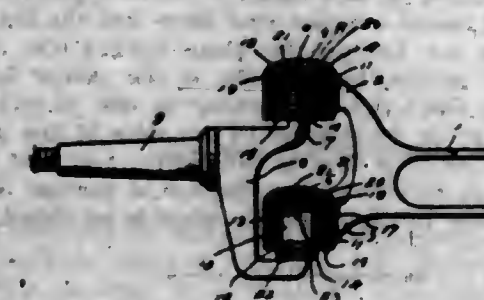
ginal flange, a cover member telescopically connected to said flange and having a depth materially greater than the flange, a cell structure formed of sheet material arranged centrally within the space between the base and the cover, said cell structure including a plurality of concave cell units for receiving and holding a like number of millinery units, means to lock the cell structure to one of the first mentioned parts, said means including a plurality of feet formed integral with the cell structure and fastening devices passing through the feet and the part to which the cell structure is attached, and keeper means fixed to the part to which the cell structure is connected and located radially outward from the several cells thereof to lock the millinery units in their respective cells.

1,302,988. PREHEATER FOR USE IN THE DISTILLATION OF PETROLEUM, TAR, AND THE LIKE. LEO STRINACHNEIDER, Brünn, Austria. Filed Sept. 17, 1918. Serial No. 790,263. 9 Claims. (Cl. 100-5.)



9. A pre-heater comprising a vessel containing the product to be distilled, a vessel inside of said first vessel adapted to receive distillate gases, and a jacket between said first and second vessels, said jacket having openings at its top and bottom and having the opening at its top below the liquid level in the first vessel, and means for controlling the circulation through said jacket.

1,302,989. AUTOMOBILE-KNUCKLE. JULIUS J. STRANDBERG, Woodville, Wis. Filed June 18, 1918. Serial No. 240,581. 4 Claims. (Cl. 21-141.)

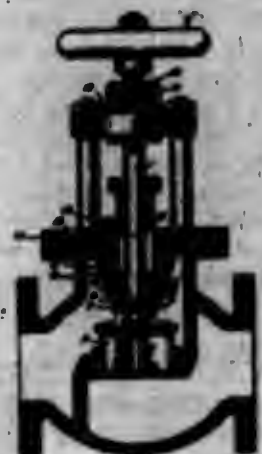


1. A knuckle comprising a bearing member having its lower wall open, an arm disposed in said bearing member, a bearing sleeve secured to said arm, a bushing surrounding said bearing sleeve, and means locking said bearing sleeve, bushing and arm within the bearing member.

1,302,990. STOP-VALVE. ROBERT STUART O'NEIL, London, England. Filed Dec. 28, 1917. Serial No. 206,949. 3 Claims. (Cl. 251-32.)

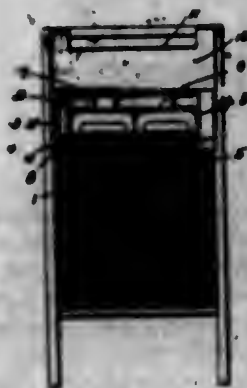
1. A stop valve comprising a valve, a collar adapted to seat itself upon a removable seating ring carried upon the end of the lower or back bush or gland of the stuffing box when the valve is fully open, a duct in the seating ring leading from an annular space surrounding the lower end of the valve rod or spindle to an annular ridge upon

the surface of the seating ring, a duct in the valve cover plate leading from the annular ridge to a tapped opening



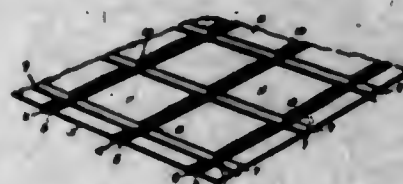
in the valve cover plate, and a screw threaded plug adapted to be screwed into the tapped opening aforesaid substantially as specified.

1,302,991. WASHBOARD. ERWIN L. SURRIN, Waseca, Minn. Filed Sept. 30, 1916. Serial No. 123,102. 2 Claims. (Cl. 68-20.)



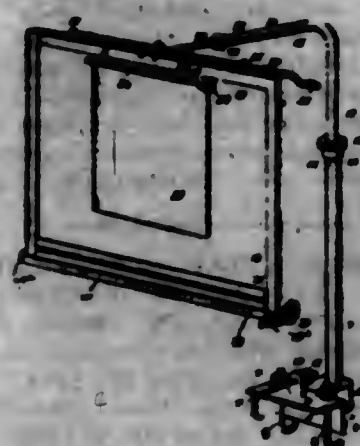
1. In combination with a wash board having the usual soap pocket above the rubbing surface thereof, of a casing having an open face secured in said pocket and spaced from the side walls thereof, a shaft extending through bearing openings in the sides of the casing, a roller in the casing secured to said shaft, a follower plate in the casing, spring means between said plate and the top wall of the casing for forcing the plate toward the roller, means in the pocket, to one side of the casing for restraining the shaft against turning in one direction, a hinged plate let in depressions in the sides of the pocket for covering the open face of the casing, and said plate having a notch receiving therethrough a portion of the periphery of the roller, when the plate is in closed position.

1,302,992. DIVIDING BOARD OR FLAT FOR EGG-CASE FILLERS. GEORGE W. SWIRT, JR., Bordentown, N. J. Filed Nov. 21, 1918. Serial No. 263,617. 4 Claims. (Cl. 217-36.)



1. A dividing board or flat for egg case fillers having formed in each of its opposite faces angularly disposed grooved or recessed seats to engage both intersecting series of walls of filler cell sections and hold them against lateral displacement.

1,302,993. COPY-HOLDER. JAMES TENNANT, Seattle, Wash., assignor of one-third to C. M. Overley, Seattle, Wash. Filed June 1, 1917. Serial No. 172,993. 1 Claim. (Cl. 120-36.)



A copy holder for typewriting machines having a copy supporting frame provided with copy engaging means and a frame support consisting of a standard provided at its lower end with a clamp for engagement with the rear element of a typewriter base frame, said standard having elements mounted respectively for vertical and horizontal adjustment and the latter having said frame connected with its forward end in pendant relation so that the frame may be disposed above and substantially in the vertical plane of the typewriter platen, the said copy engaging means of the supporting frame including cooperating rolls and a related line indicator located at the bottom of the frame for positioning near the current writing line of the said machine.

1,302,994. SHOE AND METHOD OF MAKING SHOES. JACOB K. TRINISKA, Lynn, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 28, 1915. Serial No. 69,013. 10 Claims. (Cl. 12-142.)

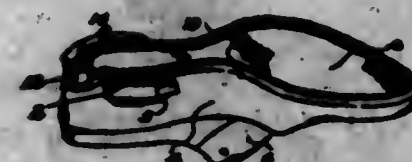


12. That improvement in the art of making turn shoes which consists in attaching the shoe upper, including the lining, inside out to a sole but leaving the lining unattached to the sole around the heel end of the shoe, locating a molded counter having an internal flange on the sole in the position it is to occupy in the completed shoe, attaching the counter to the sole to fix the position of the forward extremities of the counter, said attachment being made by securing the opposite flanges of the counter to a heel seat member and nailing the heel seat member to the sole within the heel seat area of the shoe, turning the shoe right side out and disposing the counter between the upper and the lining, and thereafter performing subsequent operations on the shoe in the usual manner.

1,302,995. MANUFACTURE OF SHOES. JOHN H. CONNOR, Boston, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 30, 1917. Serial No. 264,621. 11 Claims. (Cl. 12-142.)

2. That improvement in the art of making turn shoes which consists in assembling an upper wrong side out and a sole upon a last, sewing the upper to the sole sur-

wardly of a line substantially coincident with the heel breast line of the sole, lusting the heel end of the upper over on to the heel end of the sole prior to turning the



shoe right side out and securing it in lusted position by metallic fastenings passing through the margin of the upper and into the sole, and subsequently incorporating a previously molded counter in the shoe.

1,302,996. PROJECTILE. JOSEPH A. WALSH, Philadelphia, Pa. Filed Mar. 27, 1918. Serial No. 224,928. Renewed Mar. 5, 1919. Serial No. 269,262. 19 Claims. (Cl. 103-37.)



1. In a projectile, a fuse casing comprising a body portion of nonmetallic material, having a recess; metallic caps respectively at the front and rear of said body; a tubular, metal shield encircling said body, between said caps, having an opening adapted to register with said recess, but rotatable on said body to close said recess; time fuse mechanism in said casing including two shafts, parallel with the axis of the projectile, each having means at the front end thereof whereby it may be independently pneumatically rotated; one of said shafts being screw threaded; a nut on said screw shaft; means preventing the rotation of said nut; an element of pyrographic alloy carried by said nut; a rotary striker wheel carried by said other shaft, in position to scratch said alloy when the latter is presented thereto by the traverse of said nut on said screw shaft; whereby sparks are produced by the engagement of said wheel and alloy; a firing train arranged to be ignited by such sparks, including a trough shaped metal holder, extending parallel with said shafts and carrying a strip of combustible material upon its face toward said wheel; a priming charge of explosive at the rear end of said firing train, arranged to explode the projectile; means whereby the position of said wheel may be variably adjusted, including a timing scale frame, mounted in said body, parallel with said shafts, and having a slot, a series of serrations, and means for adjusting said frame longitudinally in said casing, including a screw at one end thereof; a carriage for said wheel mounted to slide axially upon its shaft, having serrations complementary to the serrations on said frame, and a screw threaded shank extending through said slot, and a nut, whereby said carriage may be clamped in different positions of adjustment on said frame, to variably determine the point in the traverse of said nut where it shall be engaged by said wheel; percussion fuse mechanism including a rod, parallel with the axis of the projectile, having one portion smooth and another portion

roughened; a cartridge mounted on the smooth portion of said rod, but adapted to slide upon the rough portion of said rod, including an outer metallic shell enclosing an element of pyrographic alloy, and an explosive element arranged to be ignited by sparks from said alloy; and means in said casing normally detaining said cartridge upon the smooth portion of said rod, including a frangible projection in said casing engaging the shell of said cartridge; and means whereby said cartridge is in communication with said priming charge and adapted to explode it.

1,302,997. MEASURING INSTRUMENT. FRANCIS M. WALTHER, Warrensburg, Mo. Filed May 20, 1918. Serial No. 237,260. 3 Claims. (Cl. 32-3.)



1. A device of the class described, comprising a standard, a sliding member adjustably secured on said standard and having a scale thereon and a pointer pivoted to said member, said pointer being adapted to be moved to a point which will register with the ear of the person and registering with the scale.

1,302,998. PRESSER-FOOT FOR SEWING-MACHINES. IRVING F. WESS, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed July 15, 1915. Serial No. 30,970. 10 Claims. (Cl. 112-13.)



1. A presser-foot comprising a shank portion, a plurality of foot-plates mounted thereon for movement relative thereto, a plurality of fulcrum-pins upon which said foot-plates are respectively mounted, and means carried by one of said foot-plates and acting when said foot-plate rises in passing over a thickened portion of material to raise the work engaging edge of the other foot-plate.

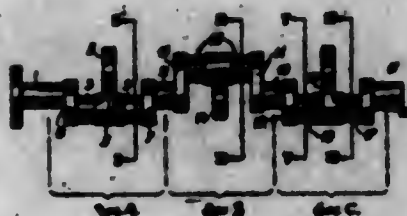
1,302,999. PENCIL. CHARLES E. WHEEN, San Francisco, Calif. Filed Dec. 3, 1918. Serial No. 265,004. 3 Claims. (Cl. 130-18.)



1. A pencil including a shell, a pair of spaced members in the shell one having an aperture and the other a non-circular aperture, an extension on one end of the shell having a lead receiving passage and having its

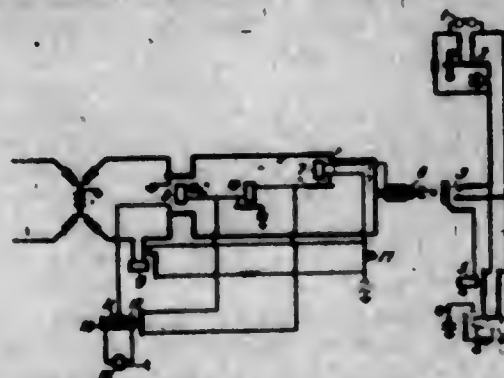
inner end arranged adjacent to and spaced from one of said members, a threaded rod extending through said member having the aperture and having a portion conforming to and slidable through the member with the non-circular aperture, and a nut on the rod mounted between the first named member and the inner end of the extension.

1,908,000. CRANK-SHAFT. ROBERT A. WEINHARDT, Detroit, Mich., assignor to Continental Motors Corporation, Detroit, Mich., a Corporation of Virginia. Original application filed Sept. 20, 1916, Serial No. 121,008. Divided and this application filed June 6, 1918. Serial No. 389,040. 3 Claims. (Cl. 74-5.)



1. A crank shaft having four bearings and six throws, the section between the center bearings having correspondingly disposed crank arm cheeks and a counterbalance formed on the crank pin intermediate said cheeks adapted to balance the centrifugal couple set up thereby, the sections adjacent the end bearings each having a pair of oppositely disposed crank arm cheeks and an intermediate cheek, the ends of the latter being connected to the ends of the former by crank pins and a counterbalance formed on each intermediate crank arm cheek adapted to balance the centrifugal couples set up by the companion crank arms, cheek and pin.

1,908,001. TELEPHONE-EXCHANGE SYSTEM. RAY S. WILSON, Jersey City, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed June 11, 1917. Serial No. 174,025. 5 Claims. (Cl. 173-73.)



1. In a telephone exchange system, a signal responsive to alternating current, a signaling circuit, a source of alternating signaling current, a control relay included in such circuit, and means also included in said signaling circuit for maintaining the flux produced in the core of said relay by said signaling current, constant in direction.

1,908,002. RAILROAD-SPIKE. WINFIELD J. ABRAHAM, Baltimore, Md. Filed May 18, 1918. Serial No. 235,314. 1 Claim. (Cl. 85-21.)

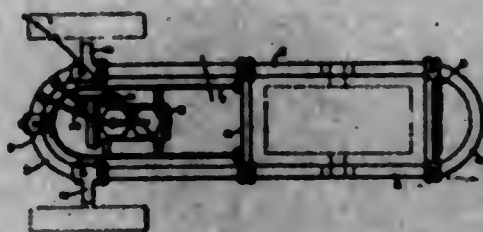
A railroad spike comprising a shank having a tapered end, oppositely disposed screw threads formed upon said shank and adapted to bite into a tie upon turning the shank in the tie after being driven into said tie, flattened portions mounted upon said shank between said screw threads, a head formed upon said shank, a lateral extension

formed upon said head and adapted to overlap the base of a railroad rail, and means formed upon said extension



tension for engagement with the base of the rail prior to turning the shank to cause the threads to bite into the tie.

1,908,003. COOLING SYSTEM FOR GAS-TRACTORS. HARRY W. ADAMS, Minneapolis, Minn. Filed Apr. 30, 1917. Serial No. 165,439. 7 Claims. (Cl. 180-63.)



1. A traction machine comprising a frame composed of sections of pipe joined together and carrying wheels therefor, an auxiliary frame loosely mounted in said machine frame, a motor mounted on said auxiliary frame and having a circulating system, and circulating pipes connecting said system with said machine frame.

1,908,004. TURBINE-BLADE ATTACHMENT. ARTHUR JOHN ALLEN, Walland, England, assignor to Charles Algernon Parsons, Walland, England. Filed Mar. 26, 1918. Serial No. 323,636. 4 Claims. (Cl. 268-77.)

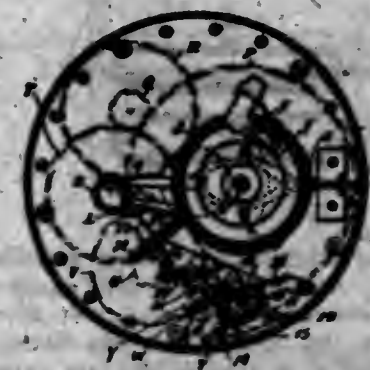


1. In combination a carrier member having a groove defined by fixed flanges, turbine blades having roots of greater width than the width of the groove, said roots and flanges having interlocking portions which are set into engagement by turning the blades to extend across the grooves at an inclination thereto, and a plurality of packing sections between each pair of blades and independent of the packing sections between adjacent pairs of blades, said packing sections being located in the grooves and being divided from each other lengthwise of the grooves, and interlocking with the flanges, substantially as described.

1,908,005. FIRE-ALARM APPARATUS. ARTHUR R. ALLEN, East Orange, N. J., assignor to Automatic Sprinkler Company of America, New York, N. Y., a Corporation of New York. Filed Mar. 4, 1918. Serial No. 32,196. Renewed Oct. 5, 1918. Serial No. 267,064. 9 Claims. (Cl. 110-11.)

1. An automatic fire alarm apparatus comprising a casing, a cover therefor having a central compartment, a sound amplifying alarm diaphragm closing said compartment in said casing, a pin secured to said diaphragm and extending within said casing, a rotary toothed disk, a

lever cooperating with said disk and connected to said pin, motor mechanism for driving said disk, a thermostat provided with a diaphragm, detent devices controlling said



motor mechanism, a spring actuated gear train actuated by said diaphragm and controlling said detent devices and manually operated resetting means for resetting said detent devices and gear train.

1,908,006. ELECTRICAL FIXTURE. WILLARD JOSEPH ALAPHIN, Portland, Oreg. Filed Oct. 18, 1917. Serial No. 198,090. 2 Claims. (Cl. 173-324.)

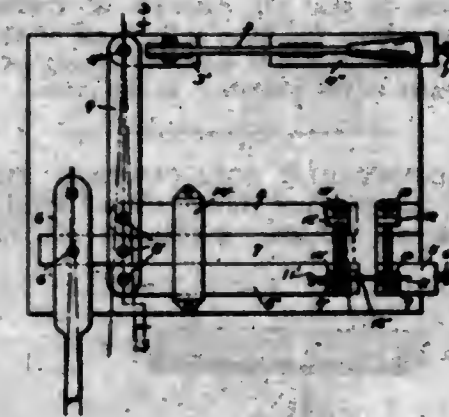


1. An electric wire coupling comprising an insulating body formed with a main cavity which opens through only one side of the body and has its bottom between the opposite side and middle of the body, said bottom having thereon an insulating rib, two opposite sides of said body being formed with wire-receiving apertures which communicate with said main cavity substantially at the respective ends of the insulating rib, another side of said body having a wire-receiving aperture which communicates with said main cavity substantially opposite the middle of said rib, a pair of conducting bars secured to said bottom on opposite sides of said rib, each of said conducting bars having a binding screw at each end and a binding screw at its middle, an insulating block fitted closely and adjustably in said main cavity and normally having its inner end in position to partly close the wire-receiving apertures, and a fastening extending through said insulating block into said rib and being operable to adjust said insulating block in said main cavity to effect the bending and binding of the pairs of wire terminals where they enter said main cavity when they extend through said apertures, whereby said pairs of wire terminals and their binding screws are convenient to one another and can be easily and advantageously connected in an insulated relation to one another.

1,908,007. ELECTRIC BRAKING-SWITCH. PETER FRED ALSMANN, Brooklyn, N. Y. Filed Sept. 24, 1917. Serial No. 193,014. 1 Claim. (Cl. 213-4.)

In a device of the class described, a pair of jaws and a controlling clamping device mounted directly upon slidable bodies movable in the direction of the line of pressure to be applied to the work, the said clamping device comprising relatively fixed and movable jaws and also a screw to force the movable jaw toward and away from the fixed one, a stationary support to hold a similar relatively movable pair of jaws and clamping means, and a manually actuated means to operate the slidable bodies in

order to move the first named pair of jaws differentially toward and away from the other pair to apply a variable



pressure in the same horizontal plane to the work between the two sets of jaws in the line of the pressure applied to the work.

1,908,008. DUST-ARRESTER AND THE LIKE. ALFRED ANDERSON, Quincy, Ill. Filed Dec. 1, 1917. Serial No. 204,844. 3 Claims. (Cl. 183-59.)



1. In an air filter, the combination with a casing constituting a chamber having an inlet opening and a discharge opening, of a dust receptacle in the lower portion thereof, a series of filter units pivotally mounted within the chamber and having vertical filter surfaces adapted to collect dust or other impurities on their outer faces in the passage of air therethrough from the inlet to the discharge opening, horizontal bars joining together said filter units and projecting to the outside of the casing, hammers corresponding to said bars and pivotally mounted in position for impact against the exposed ends of the bars, and cam mechanism for alternately swinging the hammers away from a vertical position and for thereafter releasing them to deliver impacts against the exposed ends of the bars, substantially as described.

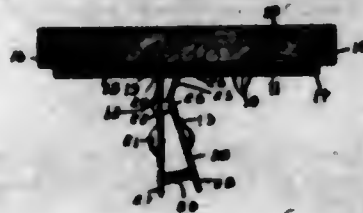
1,908,009. CONDITIONING AND DRYING MACHINE. TOM ANDREW, Manchester, England. Filed Apr. 11, 1917. Serial No. 161,323. 2 Claims. (Cl. 28-7.)



1. In apparatus for conditioning yarn and other materials, in combination, a chamber, air circulating means connected at its delivery side to one part and at its

suction side to the other part of said chamber, means dividing the air both entering and leaving the chamber into a plurality of currents moving in parallel, means adding moisture to said air currents in gradually increasing quantity from the inlet to the exit of the chamber, and means introducing a separate supply of air adjacent to the inlet to the chamber, as set forth.

1,303,010. ADJUSTABLE ROLL-CURTAIN FIXTURE. CHARLES H. ANOUS, East Haven, Conn. Filed June 8, 1918. Serial No. 238,931. 2 Claims. (Cl. 156-24.)



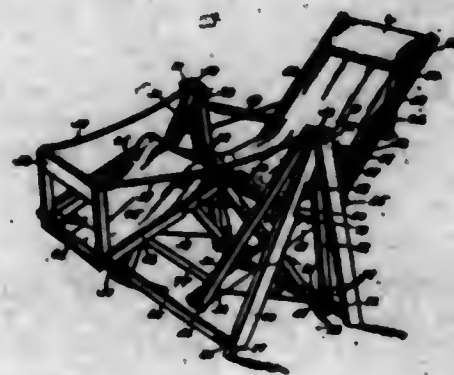
1. A curtain fixture embodying an attaching plate, a bracket removably secured to said plate and capable of longitudinal movement thereon, a locking dog carried by the bracket, said dog including a pivoted engaging plate disposed at an inclination with respect to the attaching plate and a serrated face formed on the attaching plate and engageable with the inclined plate and the locking dog to hold the bracket against movement.

1,303,011. COMMUTATOR-SLOTTING MACHINE. FRANK E. AUBAND, Oak Park, Ill., assignor of one-half to Guy W. Lunn, Riverside, Ill. Filed July 10, 1918. Serial No. 244,228. 20 Claims. (Cl. 90-12.)



1. In a device of the class described, a circular slotting saw, a spindle for the saw and a guide lying in the plane of the saw and pivotally mounted concentrically with the spindle of the saw.

1,303,012. FOLDING SWING-CHAIR. ARTHUR F. BAILY, Trenton, N. J. Filed Feb. 12, 1919. Serial No. 276,752. 6 Claims. (Cl. 155-35.)



1. In a swinging chair, the combination of a main support, a hanger pivoted to swing within the support, a chair frame comprising a plurality of relatively adjustable members arranged in pairs and connected to the hanger for swinging therewith, a flexible body support adjustable for use as a chair or as a cot and having adjustable connection with the chair frame, and means extending between the chair frame and the main support to cause the swinging of the hanger and chair frame by operation of a portion of the occupant's person.

1,303,013. ROLLING-MACHINE FOR PLASTIC MATERIALS. GEORGE K. RAINBOWDEN, Ripon, Calif. Filed Jan. 9, 1919. Serial No. 270,391. 3 Claims. (Cl. 107-9.)



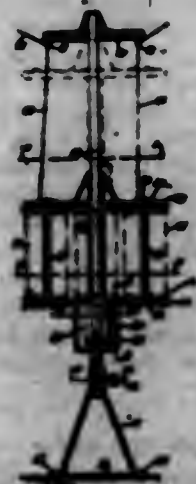
1. In a rolling machine for plastic materials, an endless driven belt, another driven belt above and spaced from the same and adapted for circular movement in a horizontal plane, the first named belt having a longitudinal speed in excess of that of the last named belt, and a plurality of sharp pointed teeth on each belt whereby a piece of plastic material will be firmly gripped between the two belts and held in predetermined spaced relation to the preceding piece during the rolling process.

1,303,014. TYPOGRAPHIC NUMBERING-MACHINE. ALBERT HAROLD BUNHAM, Rochester, N. Y. Filed June 7, 1917. Serial No. 173,421. 2 Claims. (Cl. 101-20.)



1. The combination with a numbering machine and its frame, and an external casing therefor in which said machine frame is loosely and removably fitted; of securing devices for effecting locking support of said frame in said casing including a plurality of spring actuated latches on said frame and cooperating catches on said casing.

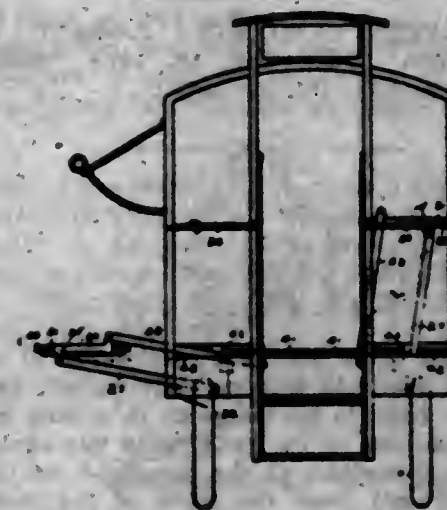
1,303,015. SPOOL-HOLDING APPARATUS FOR FACTORY-MACHINES. SAMUEL BENKOVITZ, New York, N. Y. Filed Mar. 8, 1918. Serial No. 230,408. 3 Claims. (Cl. 242-129.)



1. An apparatus as characterized comprising a supporting plate having a key-operated lock pendant therefrom; a standard permanently secured to said supporting plate and lock; a plurality of spool-holding pins mounted on said supporting plate in perpendicular relation thereto; a cover plate for said pins, said cover plate having a plurality of openings for guiding the thread from the spool on each of said pins; and a tubular support for

said cover plate infolding said standard in sliding relation thereto, said support having a hook-like extension for engagement by said lock when said cover plate is in service relation to said pins and said supporting plate.

1,303,016. AMBULANCE. CHARLES C. BLACKMON, Dayton, Ohio. Filed Aug. 21, 1915. Serial No. 46,780. 10 Claims. (Cl. 21-80.)



4. An ambulance having two stretcher supports, one above the other, each adapted to be projected therefrom and carry a stretcher in or out while the other is occupied by a patient, means for maintaining the supports in horizontal position while they are moving in and out, and means whereby each support is brought to the same level when projected.

1,303,017. DIRIGIBLE HEADLIGHT. CHARLES O. BLAKE, St. Johnsbury, Vt. Filed Oct. 26, 1918. Serial No. 280,821. 4 Claims. (Cl. 240-82.)



1. In a device of the class described, the combination of a frame including a mud guard, a plate bracket having a vertical flange at one end and diagonal curved flange at the opposite end thereof, a rib having a web bearing upon said mud guard, said rib being fixed upon said frame, securing elements passed through the diagonal flange of said bracket and also through the mud guard and said web for fixing said bracket upon said web, a vertical sleeve carried by the remaining flange, lamp supporting means carried by said sleeve and means for adjusting said last mentioned means.

1,303,018. GAGE. EDGAR H. BRISTOL, Foxboro, Mass., assignor to The Foxboro Company, Foxboro, Mass., a Corporation of Massachusetts. Filed Jan. 21, 1918. Serial No. 212,870. 3 Claims. (Cl. 73-110.)

1. An instrument of the class described, including a pair of chambers having a separating wall between them, means to admit pressures to the chambers respectively, a closed expansion member in one chamber, there being a communicating passage between the interior of said mem-

ber and the other chamber, indicating means in said other chamber and motion transmitting means between



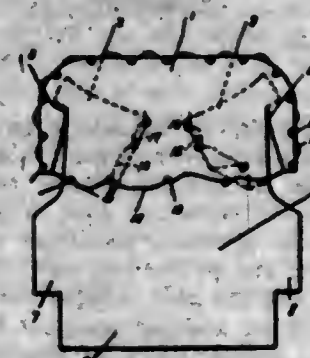
said member and the indicating means extending through said passage.

1,303,019. SEAT-COVER FOR AUTOMOBILES. FREDERICK C. BROCK, Columbus, Ohio, assignor to The J. P. Gordon Company, Columbus, Ohio, a Corporation of Ohio. Filed Aug. 3, 1917. Serial No. 184,247. 3 Claims. (Cl. 21-42.)



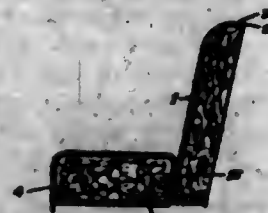
1. A covering for the backs of automobile seats comprising pieces whose adjacent vertical edges have a yieldable overlapping relation to permit a spreading yielding action under applied pressure and return to normal upon removal of such pressure.

1,303,020. COVERING FOR THE BACKS AND SEATS OF AUTOMOBILES. FREDERICK C. BROCK, Columbus, Ohio, assignor to The J. P. Gordon Company, Columbus, Ohio, a Corporation of Ohio. Filed Apr. 11, 1918. Serial No. 227,247. 3 Claims. (Cl. 21-42.)



1. A covering for the backs and seats of automobiles comprising a piece for covering the back and extensions formed integral therewith for extending around onto the arms, said back-piece and extensions being partially separated by a slit with overlapping edges to permit spreading.

1,303,021. SLIP-COVER. FREDERICK C. BROCK, Columbus, Ohio, assignor to The J. P. Gordon Company, Columbus, Ohio, a Corporation of Ohio. Filed Mar. 5, 1918. Serial No. 280,718. 5 Claims. (Cl. 21-42.)



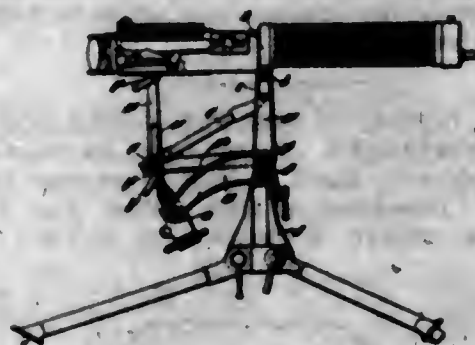
1. A single piece seat cover which covers the back and cushion of a seat, and strap connected to said seat cover for drawing the cover down between the cushion and the seat back, the end of said strap extending to the front of said seat and being there accessible when the seat cushion is in position.

1,303,022. ROOFING-TILE. LEON N. BROWN, Charlotte, N. C. Filed Aug. 5, 1918. Serial No. 244,971. 4 Claims. (Cl. 106-10.)



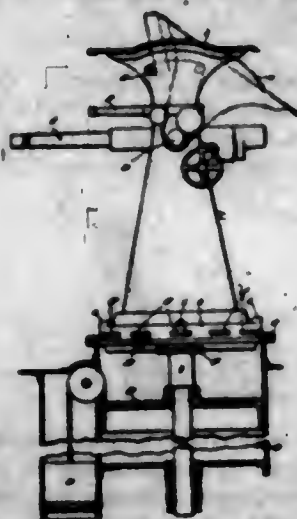
1. A roofing tile comprising a cementitious body, reinforcing elements embedded transversely therein near the ends thereof, and wires embedded in the body and having their middle portions intertwined and disposed longitudinally of the body with their end portions diverging from and free of said transverse reinforcing elements and projecting through and beyond the under face of the body near the corners of the same.

1,303,023. MOUNTING OF AUTOMATIC GUNS. GEORGE THOMAS BUCKNAM, Westminster, London, England, assignor to Vickers Limited, Westminster, England. Filed June 21, 1917. Serial No. 176,116. 2 Claims. (Cl. 89-37.)



1. In a mounting for an automatic gun, the combination of a crosshead, an elevating gear, a support comprising a base member or bracket pivoted to the crosshead and connected to the elevating gear, a pair of parallel-motion arms or links pivotally connected at opposite ends to the base member and to the gun, and connecting means between one arm and the base member for rigidly holding said arms in adjusted angular position with relation to the base member; substantially as described.

1,303,024. GUN-MOUNTING. GEORGE THOMAS BUCKNAM, Westminster, London, England, assignor to Vickers Limited, Westminster, England. Filed July 20, 1917. Serial No. 181,928. 3 Claims. (Cl. 89-38.)



1. In a gun mounting, the combination with the gun carriage and a well in which said carriage and the gun

are adapted to be lowered when the gun has been turned about its transverse into an approximately vertical position, of a cover plate for closing the upper end of the well in a watertight manner when the carriage and gun have been lowered completely into the well, with the muzzle of the gun pointing downward, and means for mounting said cover plate on the carriage so that the cover plate can be displaced to enable the gun to be used for high angle fire.

1,303,025. SAFETY PUSH-PIN. JAMES P. BURKE, Struthers, Ohio. Filed Apr. 16, 1918. Serial No. 228,900. 2 Claims. (Cl. 24-184.)



2. In a safety push pin, the combination of a sheet metal body of relatively thin resilient nature, means at one end of the body to fix the same to a card with the adjacent end portion of the body lying flat against the card, the normal position of the remainder of the body being deflected away from the plane of the card while the portion lying flat against the card constitutes a fulcrum, and a point structure formed adjacent to the opposite end of the body and bent at an angle thereto and normally spanning the space between the adjacent end of the body and the plane of the card, the body being bendable around said fulcrum point in the projection of the point across the plane of the card into a rigid support.

1,303,026. COTTON-CLEANER. MARGARITO CARRERA, San Antonio, Tex. Filed July 7, 1916. Serial No. 106,011. 1 Claim. (Cl. 19-19.)



In a cotton cleaner structure, a rotor comprising a core, a plurality of radiating blades carried by said core constructed of sheet metal bent to form curved core engaging portions and having one longitudinal edge thereof bent outwardly at right angles to form straight radiating blade portions, the opposite longitudinal edge of each curved portion engaging the facing surface of the blades next thereto to prevent relative movement between the blades and to inclose said core.

1,303,027. BELT. GEORGE EDWARD CARR, Boston, Mass. Filed Feb. 15, 1919. Serial No. 277,148. 4 Claims. (Cl. 24-38.)

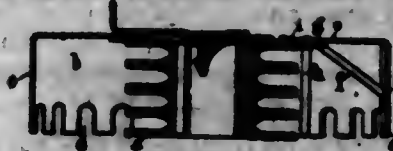


2. A joint for belts comprising an overlapping stepped formation, the steps having a plurality of surfaces in different planes, but all of the planes parallel with the opposite face of the belt, said belt having apertures there-through at the joint, and a rubber connecting member vulcanized in place so as to produce a connecting layer for the stepped formation of the joint, and rivets integral with the rubber connecting member extending through said apertures.

1,303,028. LEWIS-GUN MAGAZINE. GEORGE HENRY WILLIAM CASHMORE, London, England. Filed Feb. 5, 1918. Serial No. 216,596. 3 Claims. (Cl. 89-38.)

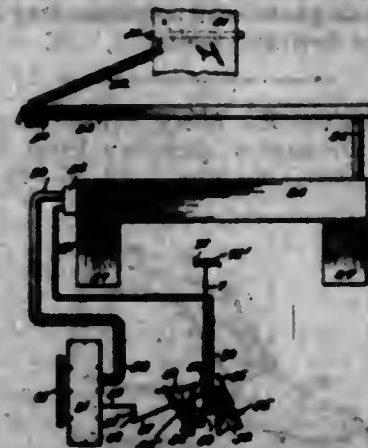
1. A machine gun magazine of the type referred to comprising a drum having a disk portion and a plate

cylindrical side wall formed with a number of open-ended slots in the edge remote from the disk portion adapted to engage the feeding device upon the gun and



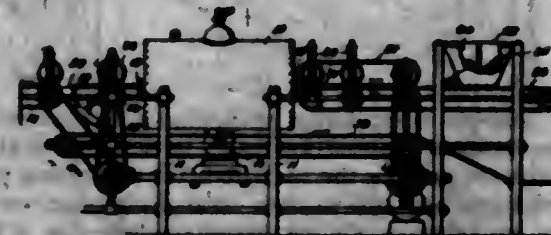
inclined stays secured to the disk portion and cylindrical wall respectively and having end portions arranged at an inclination to suit the inclination of the disk and wall respectively, substantially as described.

1,303,029. PRESSURE-CONTROLLED PUMP FOR MUSICAL INSTRUMENTS. THOMAS F. CHMIEK, Lyndhurst, N. J., assignor to Phil-Har-Chm Piano Player Corporation, New York, N. Y., a Corporation of New York. Filed Sept. 15, 1916. Serial No. 130,304. 9 Claims. (Cl. 230-96.)



1. In an automatic player for musical instruments the combination of a wind chest, a pump connected with said wind chest and provided with a by-pass for allowing a portion of the air set in motion by the pump to circulate within the pump, a valve for closing said by-pass, an automatic pressure controlling device having a chamber connected with said wind chest permanently, another chamber adapted for connection with the surrounding air, a valve controlling the connection of said second-named chamber with the surrounding air, means responsive to a change of pressure in the first-named chamber for operating the second-named valve, a movable wall separating said two chambers, pneumatically-operated means for moving the first-named valve, and a third valve operated by the movement of said wall for either connecting said pneumatically-operated means with the first-named chamber of the pressure controlling device or disconnecting it therefrom.

1,303,030. BATTERY-GRID-PASTING APPARATUS. EVERETT G. CLEMENTS, Washington, D. C., assignor to The Frost-O-Lite Company, Inc., a Corporation of New York. Filed Apr. 19, 1916. Serial No. 92,205. Renewed Feb. 13, 1919. Serial No. 276,861. 21 Claims. (Cl. 100-58.)



1. The method of pasting battery grids which consists in applying the paste to the grid frame by fluid pressure acting on the paste mass, substantially as set forth.

11. In a battery grid pasting apparatus, the combination of a paste receptacle, means for passing the grids through the receptacle, and co-operable fluid pressure and mechanical pressure means for forcing the paste through the cells of the grids during the passage of the grids through the receptacle, substantially as set forth.

17. The method of pasting battery grids which consists in constantly moving the grids through a receptacle containing paste and maintaining said paste under substantially uniform pressure.

20. The method of pasting battery grids which consists in maintaining a uniform quantity of paste within a container, causing the grids to constantly move through said paste, and causing the paste to penetrate the cells, substantially as set forth.

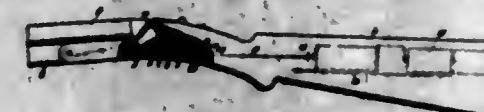
21. The method of pasting grids which consists in maintaining a uniform quantity of paste within a container, constantly moving the grids through said paste in the container, and causing the paste to pass through the cells in the grids, first in one direction and then in the opposite direction, substantially as set forth.

1,303,031. PHONOGRAPH ATTACHMENT. ALFRED J. M. COAKS, Quinnimont, W. Va. Filed May 4, 1918. Serial No. 232,576. 2 Claims. (Cl. 240-2.)



1. A phonograph attachment comprising a tube of angular shape having one end disposed revolvably within a hole in the top of a phonograph, a cup-shaped member carried by the free end of said tube and provided with a threaded bore, a plug of insulating material disposed at the free end of said tube and clamped thereagainst by said cup-shaped member, a contact extending centrally through said plug, and an incandescent bulb threaded into said bore and engaging said contact, said contact in said cup being arranged in circuit with a source of current and a switch whereby said bulb may be energized.

1,303,032. FIREARM. WHEELER D. CORNWELL, Oswatimie, Kans. Filed Jan. 22, 1919. Serial No. 272,493. 3 Claims. (Cl. 42-84.)



2. In a fire arm, the combination of a barrel, a stock, a stock contained battery, an electro-magnet adapted to be energized by said battery, a hammer, a hammer hold-back latch, a latch operating trip lever, an armature adapted to be attracted by said magnet, a connecting rod between said trip lever and armature, a switch adapted to close the magnet and battery circuit and having means for holding and releasing said connecting rod, and yieldable means for retracting said trip lever and connecting rod.

1,303,033. GRAPPLE. CHARLES J. COULTER, Long Beach, Calif., assignor of one-half to Oswald T. Ellis, Long Beach, Calif. Filed Sept. 28, 1918. Serial No. 286,181. 5 Claims. (Cl. 67-128.)

1. A grapple comprising an arm having a groove, a second arm pivoted to the first arm and having a tongue

to engage in the groove, the arms together forming an eye when the tongue is in the groove, a sleeve rotatably mounted on the first arm at the groove and provided



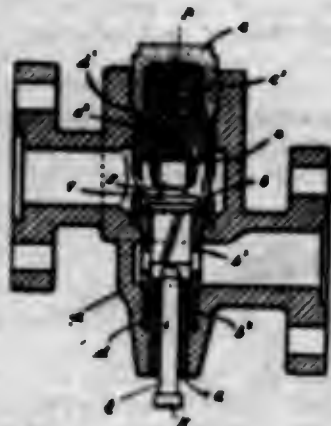
with a slot adapted to be brought into registration with the groove, and means yieldingly holding the sleeve turned with the slot out of registration with the groove.

1,303,034. CULTIVATOR-CLEVIS. JOHN CRAMER, Toronto, Kans. Filed Feb. 16, 1918. Serial No. 217,543. 4 Claims. (Cl. 97-4.)



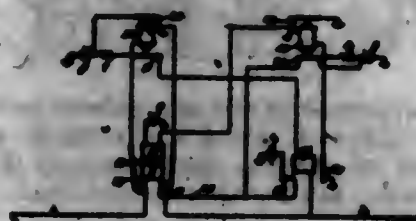
1. In a device of the character described, the combination with a support adapted to pivotally receive a cultivator clevis, of a boxing slidable on said support, and means for locking said support and boxing.

1,303,035. HYDRAULIC VALVE SEATING. HENRY CROWNS, Saltburn, England. Filed June 24, 1918. Serial No. 241,599. 2 Claims. (Cl. 251-107.)



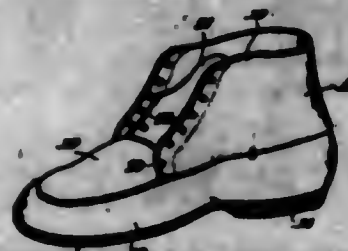
1. In a hydraulic operating valve of the type described, the combination, with a valve seat loosely mounted in the casing of the valve and having an extension which projects into the lower portion of the said casing, of a U packing leather engaged by said extension, a neck bush mounted at the bottom of the casing and forming a rest for the packing leather, a spindle extending through the neck bush, the packing leather and the bottom part of the valve seat, a cage fitted in the upper portion of the valve casing, the said cage having a ring-shaped shoulder and a reduced and recessed centrally disposed portion, a spring-influenced valve spindle guided by the said recessed portion and means to hold the cage, valve seat and packing leathers in position.

1,303,036. TELEGRAPH SYSTEM. GEORGE C. CUMMINGS, East Orange, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Oct. 23, 1918. Serial No. 239,299. 6 Claims. (Cl. 173-70.)



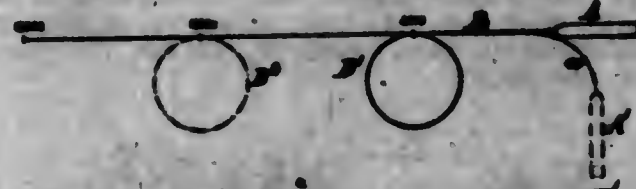
2. In a telegraph repeater, a first line section equipped for operation by the so-called closed circuit method, a compound wound line relay therefor, a second line section equipped to be operated by the so-called open circuit method, and means controlled by said line relay for establishing intervals of current and no-current with said second line section in phase with corresponding conditions established in said first line section.

1,303,037. SHOEPACK. JOHN SAMUEL DONOVAN, Fredericton, New Brunswick, Canada. Filed Dec. 26, 1918. Serial No. 135,961. 1 Claim. (Cl. 36-45.)



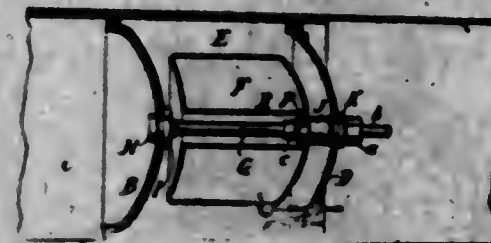
A shoe pack comprising a sole, a lower portion operatively attached to the sole and consisting of a single piece of leather with a seam at the counter portion, an upper formed of a single piece of leather secured by machine sewing to the lower portion, a vamp of substantially U-shape secured to the lower portion and to the front of the upper by machine sewing, a tongue extending across the front of the upper, and a cover strap located adjacent to the inner wall of the lower portion and around the back thereof and having the ends open, the lower edge of said strap lying between the inner and outer soles and its upper edge being stitched to the upper and to the said lower portion thereof, as and for the purpose specified.

1,303,038. AUTOMOBILE TORPEDO. WILLIAM DIERMAN, Brooklyn, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Feb. 24, 1918. Serial No. 219,203. 7 Claims. (Cl. 114-23.)



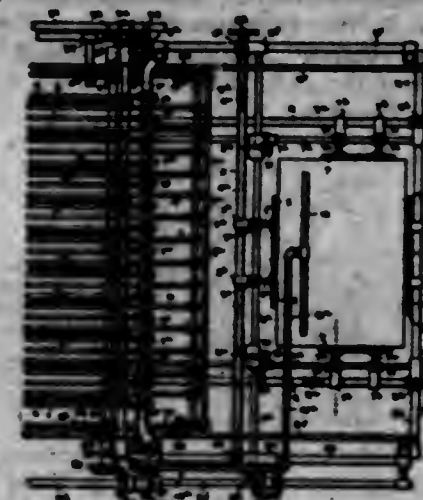
1. In a torpedo comprising propelling and automatic steering mechanism adapted normally to steer a straight course, means for causing the torpedo after traversing part of its normal straight run to then steer a circular course, such means comprising a timing device for bringing it into action at a determined point in the run of the torpedo, and means supplemental to the normal steering control for controlling said steering mechanism to cause it to hold the rudder to one side.

1,303,039. AUTOMOBILE TORPEDO. WILLIAM DIERMAN, Brooklyn, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Aug. 26, 1918. Serial No. 251,398. 9 Claims. (Cl. 114-20.)



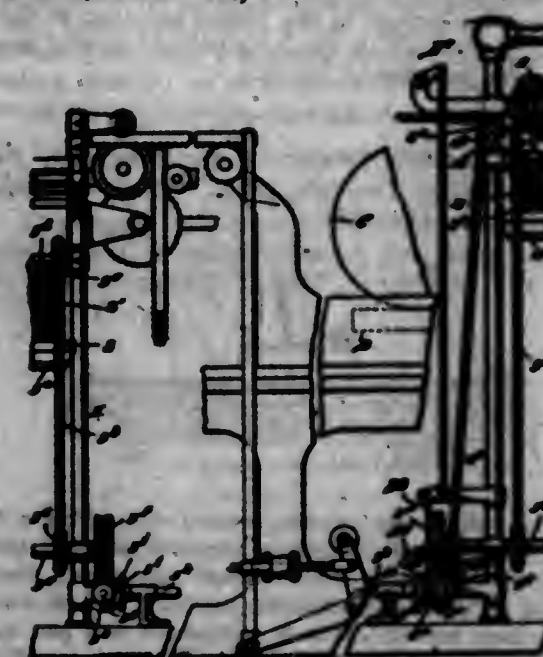
1. The combination with the air tank of a torpedo, with main and supplemental heads and an air pipe passing through said heads, of a yielding connection between said air pipe and one of said heads whereby to allow for movement of the air pipe relatively to such head.

1,303,040. SHEET-DELIVERY MECHANISM. MICHAEL ANGELO DMOIRCOUR, Delphos, Ohio. Filed Mar. 8, 1918. Serial No. 221,186. 22 Claims. (Cl. 271-89.)



1. In sheet delivery mechanism having a receiving table or board, and a set of joggles, and means for actuating same:—means whereby the joggles may be adjusted to or from the board while the machine is in operation without disarranging their operative mechanism.

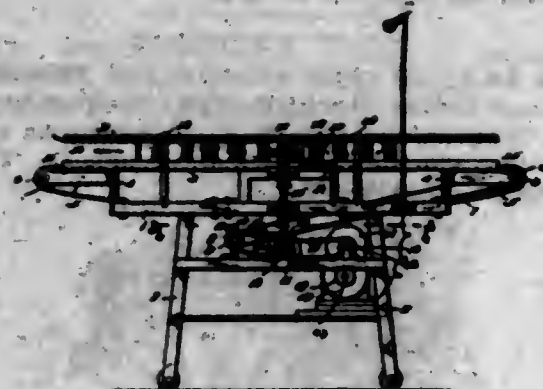
1,303,041. SHEET-DELIVERY MECHANISM. MICHAEL A. DMOIRCOUR, Delphos, Ohio. Original application filed Mar. 8, 1918, Serial No. 221,186. Divided and this application filed June 11, 1918. Serial No. 239,373. 5 Claims. (Cl. 271-88.)



1. In combination a feed table; means for automatically elevating said table as sheets are removed therefrom; a

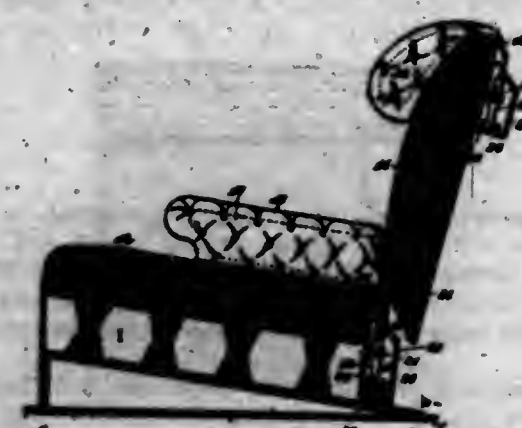
table onto which the sheets are delivered after they have been operated upon; means for automatically lowering the said board as the feed table is elevated; and means controlling the lowering of the receiving table by the elevation of the feed table, said means including a pair of ratchets and a common pawl adapted to simultaneously engage said ratchets.

1,303,042. CAN-STAMPING MACHINE. JOSEPH DOWNSON and TAKESU YAMADA, Honolulu, Hawaii. Filed July 15, 1918. Serial No. 244,961. 2 Claims. (Cl. 101-37.)



1. In a machine of the class described, the combination of an endless can conveying belt, means for operating same, a spring guide spaced above the conveyor belt and extending substantially its entire length in position to engage the tops of all the cans moving along the belt, a padded roller positioned at one side of the can conveying belt to engage one side of the cans, a stamping roller positioned on the other side of the conveyor belt to engage the opposite side of the cans and stamp a character thereon, said rollers being positioned to engage approximately the middle portion of the can to facilitate the operation of the machine, and ink supplying means including an ink roller rotatably engaging the stamping roller, substantially as set forth.

1,303,043. VEHICLE-SEAT ATTACHMENT. WILLIAM A. DE LONG, JR., Plainfield, N. J. Filed Dec. 26, 1918. Serial No. 268,335. 10 Claims. (Cl. 155-25.)



1. A seat attachment for vehicles comprising movable supports for dividing the seating space of a cushion; and means for locking said supports in adjusted positions; said locking means engaging said supports at the rear ends to be concealed at the rear of the seat.

1,303,044. AUTOMOBILE TORPEDO. WILLIAM DIERMAN, Brooklyn, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Feb. 8, 1918. Serial No. 216,102. 18 Claims. (Cl. 114-23.)

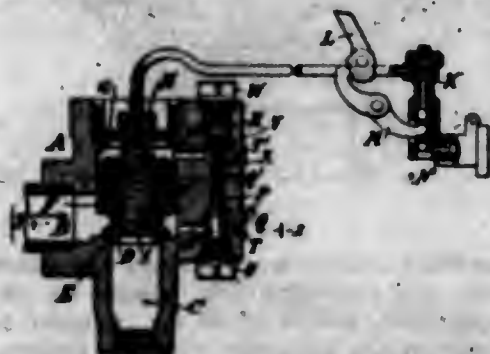
1. In a torpedo comprising propelling and automatic steering mechanism, means for causing the torpedo, after

traversing a predetermined fraction of its normal run, to then steer a curved course, such means comprising a



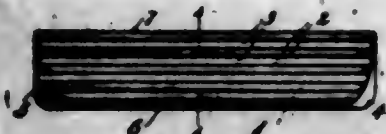
timing device for bringing it into action at a determined point in the run of the torpedo, and a controlling means for holding the rudder to one side.

1,303,045. STARTING-VALVE FOR TORPEDOES. WILLIAM DIETZ, Brooklyn, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Feb. 7, 1918. Serial No. 215,786. 6 Claims. (Cl. 114-20.)



1. In a starting valve of the type comprising a tappet and connected plunger and opened by the release of pressure from the opposite side of the plunger, the combination with the valve shell, tappet, and plunger, of an auxiliary valve adapted to control a duct communicating between opposite sides of the plunger, said valve being normally open and adapted to be closed automatically upon such release of pressure by the flow from the tappet side to the opposite side of the plunger, whereby to prevent waste through such duct.

1,303,046. SEAMLESS METALLIC BOAT CONSTRUCTION. JOSEPH DIMES, Brooklyn, N. Y. Filed May 17, 1918. Serial No. 235,164. 2 Claims. (Cl. 9-1.)



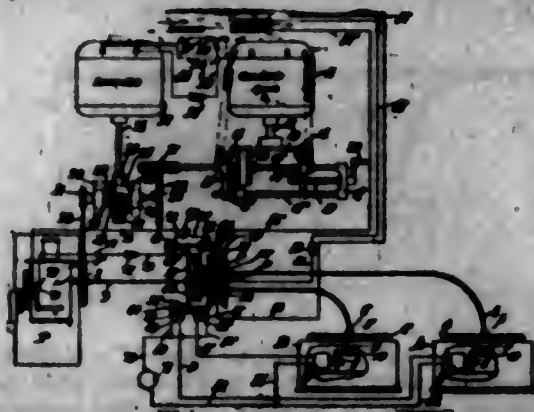
1. A metallic boat comprising a bow-piece, a stern-piece and a hull, all formed in one piece; and a plurality of corrugations formed integrally with the hull and running longitudinally thereof, said corrugations being thicker centrally than at their line of juncture with the hull.

2. A seamless metallic boat comprising a bow-piece, a stern-piece and a hull consisting of a shell having a plurality of corrugations, in spaced-apart relation disposed thereon, and formed integrally and homogeneously therewith, said corrugations being thickest centrally and diminishing in thickness to their line of juncture with the intermediate portions of the hull.

1,303,047. SYNCHRONIZING MEANS FOR MOTION-PICTURE PROJECTORS AND SOUND-REPRODUCING MECHANISMS. CHARLES W. EDELING, New York, N. Y. Filed Sept. 14, 1914. Serial No. 861,697. 3 Claims. (Cl. 172-293.)

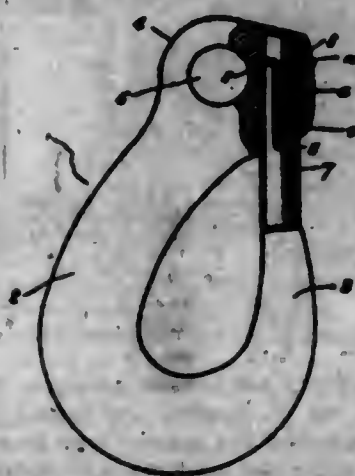
1. In a device of the class described, the combination with two machines, an independent motor for each machine, means controlled by one machine for setting in mo-

tion the motor of the second machine, and a differential speed transmission means interposed between the one machine and its motor, of automatic means controlled by



both machines for controlling the latter means, whereby the speed of one machine is regulated in accordance with the speed of the other machine.

1,303,048. LOGGING-HOOK. PATRICK JOSEPH ELLIOTT, Jackson Bay, British Columbia, Canada, assignor of one-half to Minor Strong, Jackson Bay, British Columbia, Canada. Filed Oct. 15, 1918. Serial No. 258,221. 1 Claim. (Cl. 24-241.)



1. In a hook, a rotatable and vertically movable pin mounted in the hook head having its lower end adapted to extend adjacent the hook bill so as to close the hook entrance, said pin having a groove extending annularly partially around it, one end of said groove being extended longitudinally of the pin, and a projection adapted to engage the annular groove in the lowest position of the pin and into line with which the longitudinal groove may be brought by the rotation of the pin.

1,303,049. LEAK-STOPPER. JOHN EDMONDSON, Brooklyn, N. Y. Filed June 27, 1918. Serial No. 242,301. 6 Claims. (Cl. 114-239.)



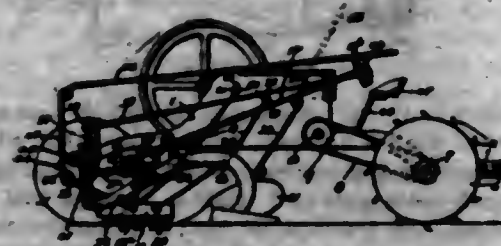
1. A leak stopper for marine vessels comprising a longitudinally sliding pad extending approximately from the keel to the water line of the vessel, means on the pad adapted to slidably engage with the keel, a cable adapted to extend from bow to stern of the vessel, the pad having devices slidable over the cable and means for holding the pad in a relatively fixed position against the keel.

1,303,050. METAL ROOFING-CAP. PHILLIP F. FLAGGER, Milwaukee, Wis. Filed Feb. 12, 1919. Serial No. 276,025. 2 Claims. (Cl. 106-24.)



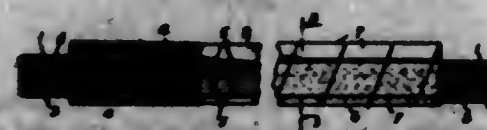
1. A roofing cap comprising a roll portion having a shoulder adjacent one end, a truncated hollow head portion having its edge disposed about said end of the roll portion, and a flange bent from said end of the roll portion and confining the edge of the head portion between said shoulder and flange.

1,303,051. AGRICULTURAL IMPLEMENT. OWEN C. FLOWEN, San Francisco, Calif. Filed Feb. 14, 1918. Serial No. 217,145. 2 Claims. (Cl. 97-61.)



1. The combination with an agricultural machine including a steering gear for manually steering said machine, of a furrow shoe adapted to engage the land side of a furrow formed by a plow carried by said machine, rods depending from the frame of the machine and supporting said shoe so as to be movable vertically so as to be adjusted toward and away from the ground surface, a steering rod carried by said supporting rod and loosely connected to the connecting rod of said steering gear, said steering rod being fulcrumed intermediate its ends for rocking movement about a vertical axis, and connections between the forward end of the steering rod and the connecting rod of the steering gear for shifting said connecting rod in accordance with movement of the steering rod, said connections being adapted to be disengaged from the connecting rod when the shoe is raised into inoperative position so as to permit the steering gear to be operated manually independently of said steering rod.

1,303,052. STAY. EDSON F. GALLAUDER, Providence, R. I., assignor to Gallaudet Aircraft Corporation, Kent county, R. I., a Corporation of New York. Filed Sept. 28, 1917. Serial No. 198,257. 5 Claims. (Cl. 244-81.)

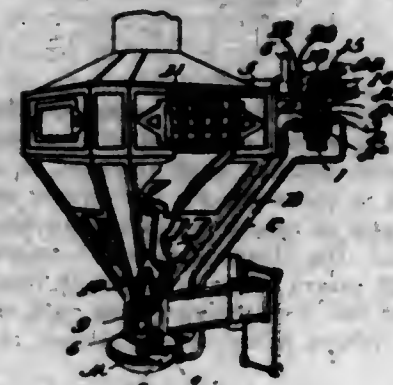


5. A stream line stay which comprises as elements thereof a thin flat ribbon extending the length thereof and a series of straight strands of small wire laid side by side along and secured to the side of the ribbon, the ribbon being of such width that it will extend laterally somewhat beyond the outer strands of wire.

1,303,053. FLEXIBLE TRANSPARENT MATERIAL AND METHOD OF MAKING SAME. WALTER GLASSER, Brooklyn, N. Y. Filed Sept. 19, 1917. Serial No. 192,181. 1 Claim. (Cl. 106-39.1.)

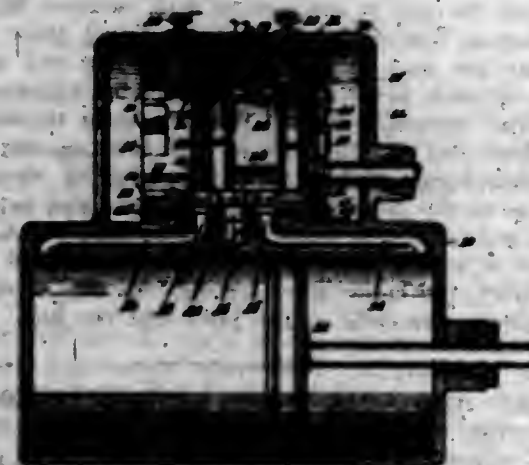
In a method of making a flexible transparent material, the steps which consist in soaking one part of glue in one and one half parts of water, adding another one and one half parts of water and heating the mixture indirectly until a clear solution is formed, stirring into the solution one fourth part or more of glycerin, heating such mixture to a bulk of two and one half parts, cooling the same and adding formaldehyde.

1,303,054. WATER-HEATER. NICHOLAS G. GONNAN, New Orleans, La. Filed Oct. 16, 1914. Serial No. 866,917. 15 Claims. (Cl. 126-361.)



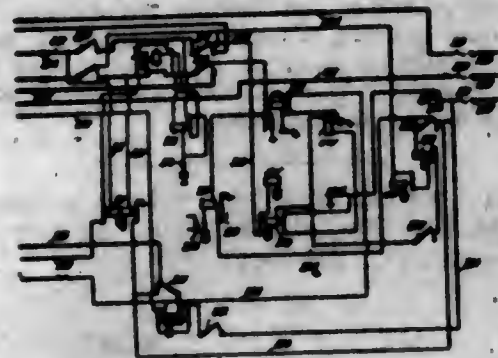
1. In an automatic water heater, the combination with the heating coil, water supply pipe, gas valve, pressure motor for actuating said valve, and thermostat, of a combined water-flow-resistance device and check-valve acting on the incoming water, and means to connect the thermostat operatively with said device, said means including means to permit a limited amount of water to pass said device without resistance, and connections from high and low pressure sides of the resistance device to corresponding sides of the motor.

1,303,055. STEAM-ENGINE VALVE. CHANCIA VERL GRIMM, Decatur, Ill., assignor to Grimm Balance Valve Company, Decatur, Ill., a Corporation of Illinois. Filed May 28, 1917. Serial No. 171,490. 3 Claims. (Cl. 136-5.)



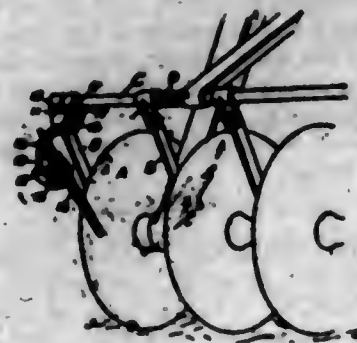
2. The combination of a vertically disposed port face; a controlling valve horizontally slidable upon said port face; means for guiding and supporting said valve, said means comprising an elongated horizontally extending tongue on said port face, said tongue, transversely, being inclined upwardly; and a groove in said valve formed to snugly engage with said tongue, substantially as described.

1,303,056. MACHINE-SWITCHING TELEPHONE SYSTEM. ALFRED E. HAGUB, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Oct. 30, 1917. Serial No. 199,284. 4 Claims. (Cl. 179-18.)



4. In a telephone system, telephone lines, selective switches for interconnecting said lines, calling devices for setting said switches, each arranged to send one more impulse than is necessary for the proper setting of said switches, a pair of relays for preparing and maintaining a circuit for the transmission of impulses to said switches, said relays being arranged to close said circuit at the end of the first impulse from said calling device, one of said relays being also arranged to control said switches.

1,303,057. SHARPENER FOR DISK HARROWS. LOEY HAINES, Colchester, Ill. Filed Aug. 8, 1918. Serial No. 248,952. 3 Claims. (Cl. 97-77.)

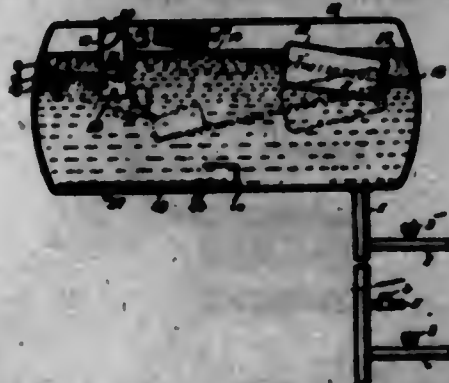


3. A tool for use in sharpening disk harrows including a yoke having ball heads at its ends, clamp jaws having seats near one end thereof to bind against one of said heads at opposite sides thereof, lugs on the opposed faces of the jaws inward from the opposite ends thereof, and inward from the side surfaces of said jaws against which lugs a sharpening medium may be placed, a clamp bolt transverse to the jaws between said seats and said lugs, a second pair of clamp jaws adapted to bind on the opposite head of said yoke, and a clamp bolt for said second pair of jaws, the latter jaws having lugs on the opposite faces between the ends of the jaws and the bolt.

1,303,058. CHEMICAL FIRE-EXTINGUISHING APPARATUS. JOHN R. HAMILTON, Yonkers, N. Y., assignor to Sypho-Chemical Sprinkler Corporation, Croton-on-Hudson, N. Y., a Corporation of New York. Filed June 20, 1914. Serial No. 846,267. 17 Claims. (Cl. 169-84.)

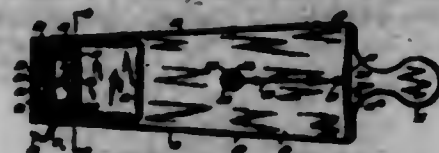
9. In automatic fire extinguishing apparatus, a distributing system comprising automatic distributing device, a connected chemical mixing pressure tank containing a charge of extinguishing liquid, automatic chemical mixing device cooperating with said tank and comprising an acid container, said tank comprising a screened carbonate chamber normally immersed in said extinguish-

ing liquid, a movable carbonate carrier containing supplementary carbonate material normally held in inactive



position out of substantial contact with said extinguishing liquid, and connected means to render active said supplementary carbonate material.

1,303,059. SUCTION CLEANING DEVICE. FRANK C. HELMICK, Philadelphia, Pa. Filed May 11, 1918. Serial No. 234,965. 3 Claims. (Cl. 289-2.)



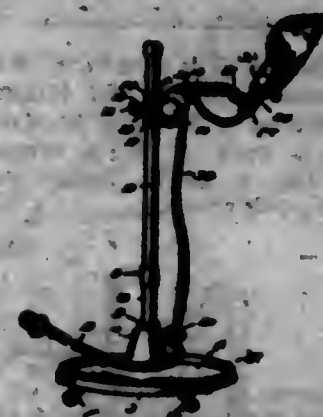
1. A device of the character described, comprising in combination with a bellows, a block provided with a passage and having the bellows connected and hinged thereto, a mouth-piece provided with a passage and attached to the block, the passage of the mouth-piece registering with the passage of the block, a spring-actuated pressure valve normally closing the passage from the block, a spring-actuated exhaust valve normally closing the passage from the bellows, and an operating element movable from a normal inoperative position to engage with and move the first-mentioned valve in an open position against the action of its spring.

1,303,060. RIVING SPLITTER AND JACK. STANLEY HENRY and ROBERT O. KALSTON, Seaside, Ore. Filed May 4, 1918. Serial No. 232,545. 1 Claim. (Cl. 254-126.)



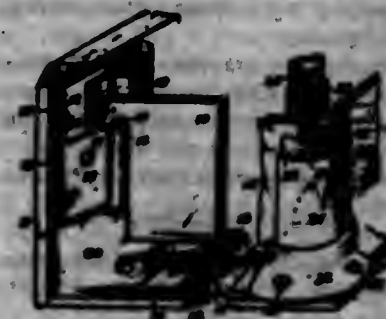
A log splitter of the class described, comprising a pair of arms pivotally connected together at one end and provided at the opposite end with inset portions and with heads for insertion in a crack, in combination with a jack screw arranged between the arms and for operating the same, said jack screw comprising a right and left hand screw, and bearing nuts on the ends of said screw, each bearing nut being closed at the outer end and provided with an interiorly threaded lining, open at the outer end and forming an oil cup or chamber in its interior.

1,303,061. PORTABLE LAMP STAND. WILLIAM D. HENWIS, JR., Chicago, Ill. Filed July 6, 1918. Serial No. 242,652. 6 Claims. (Cl. 246-81.)



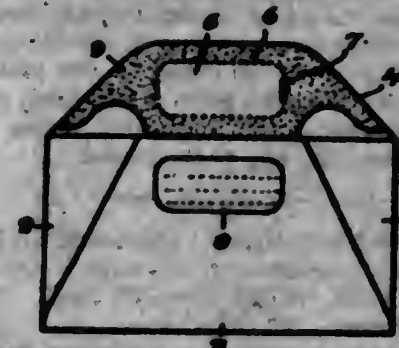
1. A portable lamp stand for the purpose specified, comprising in combination a base member having a central post and a peripheral disk-shaped upwardly facing flange, casters for supporting the flange, a collar slidably mounted upon the post, means for locking the collar to the post at a desired elevation thereon, a bifurcated bracket having its arms slidably mounted on the post and engaging the collar between them, the bifurcations permitting of the complete rotation of the arm around the locking means, a suitable lamp socket, a plate wherein the lamp socket is rotatably mounted, a horizontal pivotal connection between the plate and the outer end of the bracket arm to permit the plate and lamp socket to be swung about a horizontal axis for the purpose specified, and means for locking the plate in a desired adjusted position, substantially as described.

1,303,062. VENTILATED GLASS-SETTING FOR WINDOWS. GEORGE C. HANSEN, Portland, Ore., assignor to Hester Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 9, 1909. Serial No. 488,942. Renewed Dec. 27, 1916. Serial No. 189,185. 5 Claims. (Cl. 29-86.2.)



5. The combination of a channelled sash bar, having openings leading to the channel in the bar, a sheet of glass, and cushioning blocks L-shaped in cross section, to engage the edge and side surface of the glass, spaces existing beyond the cushion blocks, also in communication with the channel in the bar.

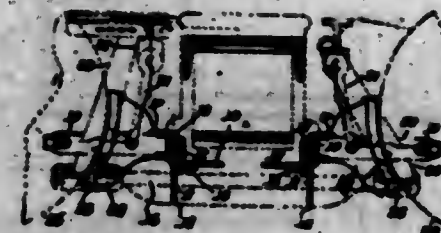
1,303,063. ENVELOP. EMMETT H. HOOCK, St. Louis, Mo. Filed Sept. 12, 1918. Serial No. 263,965. 1 Claim. (Cl. 239-78.)



An envelope having a space on the outer face of the bottom flap for receiving the address of the reader, and

adapted to be covered by the closing flap and a slip on the closing flap covering the said address and formed by lines of perforations.

1,303,064. BRAKE SAFETY MEANS. JOHN HERRIGAN, Joliet, Ill. Filed Mar. 7, 1918. Serial No. 230,961. 4 Claims. (Cl. 188-70.)



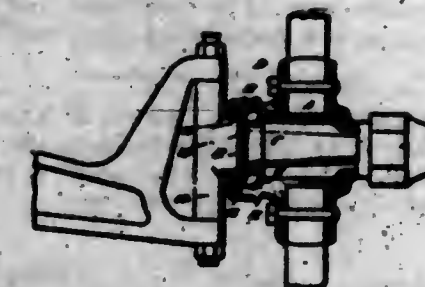
1. In a car truck, the combination of a brake beam, an operating rod operatively connected to said brake beam, and a hanger carried by the truck for preventing the operating rod from falling to the track and for preventing the brake beam from moving into a position wherein the brake shoe normally engages the associated wheel.

1,303,065. METHOD FOR MAKING BOOTS, SHOES, AND THE LIKE. WILLIAM JANSEN, J. HAN, The Hague, Netherlands. Filed Nov. 29, 1916. Serial No. 124,163. 5 Claims. (Cl. 12-142.)



1. A method of making boots and shoes on the natural foot as the last which consists in first measuring and fitting the inner sole and placing the upper leather loosely around the foot, then making the heel seam, then, with the foot in its extended position and the shoe parts still in situ on the foot, fastening the upper leather to the inner sole from the heel to the ball portion, then, with the foot in its flexed position, fastening the upper leather to the inner sole as far as the front portion is concerned, and finally uniting the outer sole.

1,303,066. DUST-CAP FOR HUBS. ROY D. JEFFRIES, Granada, Minn. Filed Dec. 1, 1917. Serial No. 204,984. 1 Claim. (Cl. 64-22.)

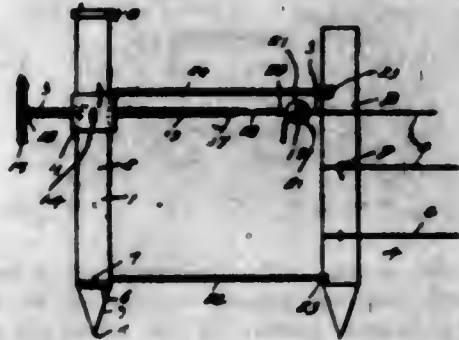


A dust cap for use on a motor vehicle stub axle, said cap having a circumferential flange to engage around the inner end of a wheel hub and also having a conical recessed portion to receive the shoulder of the axle and an inwardly extending annular flange at the smaller end of the depressed circumferential flange being such as to cause an annular chamber to be formed between the wheel hub and the cup for the reception of packing.

1,303,067. WIRE-STRETCHER. ALFRED JOHNSON, Shovel, Minn. Filed May 16, 1917. Serial No. 169,015. 1 Claim. (Cl. 254-67.)

In a wire stretcher, a supporting post comprising spaced parallel side members connected adjacent their lower ends by an integral horizontal web, a band fitting about said

post and adjustable longitudinally thereof, a block slidable between said side members, a screw shaft operable through said block and extending through the band, means for attaching one end of the screw shaft to a wire to be stretched, a brace rod pivotally secured between said side members adjacent said web and so positioned as to engage the web and be supported thereby in horizontal position when in its lowermost position, and a brace rod pivotally secured to said band and corresponding approximately in length to the first mentioned brace rod, the brace rod carried by the band being movable about a horizontal axis so as to be readily lowered into engagement with a fence post with which the first mentioned brace rod is engaged.

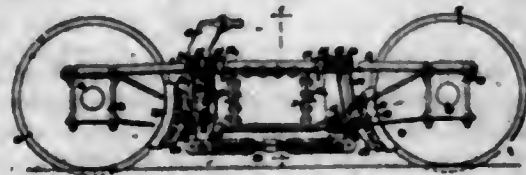


1,303,068. POCKET-LAMP GENERATOR. OSKAR JUNGHANS, Schramberg, Germany. Filed Oct. 10, 1916. Serial No. 124,916. 4 Claims. (Cl. 171-209.)



1. A hand generator consisting of two parts, one of said parts comprising an armature and driving gear therefor, the other part comprising a magnet, the said two parts being constructed to be fitted as a unit one within the other to form a unitary closed structure.

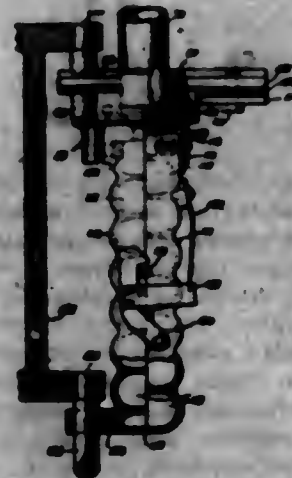
1,303,069. BRAKE-HANGER. LEWIS E. KEIL, St. Louis, Mo., assignor to St. Louis Car Company, St. Louis, Mo., a Corporation of Missouri. Filed May 13, 1917. Serial No. 108,647. 3 Claims. (Cl. 188-70.)



1. A brake hanger, comprising a brake head carrying the brake shoe, a fixed hanger bracket, a pair of spaced transverse pivots on the brake head, a pair of similarly spaced pivots on the said bracket, the said pivots of the brake head having their axes extending in a plane parallel to the plane in which extend the axes of the pivots of the bracket, and parallel links connecting the pivots of the said brake head with the pivots of the said bracket, the said pivots being slidable lengthwise and pressed on

by springs in the direction of their length, the brake head and the hanger bracket having spaced members between which fit the corresponding ends of the links.

1,303,070. MACHINE FOR COATING WIRE. FRANK S. KOCHENDORF, Chicago, and HARRY BLOUNT, Oak Park, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed July 9, 1917. Serial No. 179,479. 29 Claims. (Cl. 91-55.)

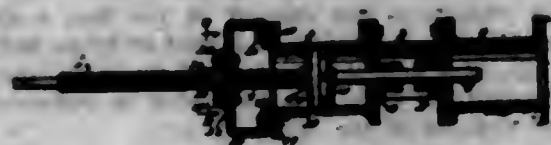


1. In a wire coating machine, in combination, a plurality of heating tubes, means for heating each of said tubes, a wire coating mechanism associated with each of said tubes, means for drawing wire through said coating mechanism and its associated tube, and means to regulate the air currents in each of said tubes.

15. In a wire coating machine, in combination, an inclosing casing, a plurality of heating tubes in each casing, a source of current supply for heating said tubes, and means connecting one end of each of said tubes to one terminal of said source said means also serving to suspend the tubes in said casing.

26. In a wire coating machine, in combination, a heating tube, means for heating said tube, and a muffle for regulating air currents in said tube said muffle comprising means whereby air eddy currents are set up in said muffle which retard the passage of air into said tube.

1,303,071. BORING-TOOL. EMIL KNOTH, Springfield, Mo. Filed July 26, 1918. Serial No. 246,918. 2 Claims. (Cl. 77-53.)

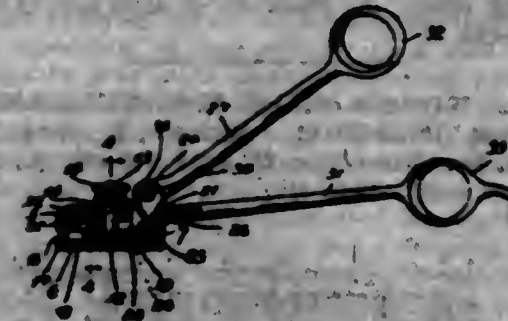


1. In a cylinder boring device, a boring head having radial slots, a recessed ring in the head, radially adjustable blades in the slots and having notches receiving the ring, the width of the notches being in excess of the thickness of the ring, a plate for confining the blades in the slots, means for securing the plate to the head, and an expanding nut threaded in the plate and having a beveled end bearing against the ends of the blades.

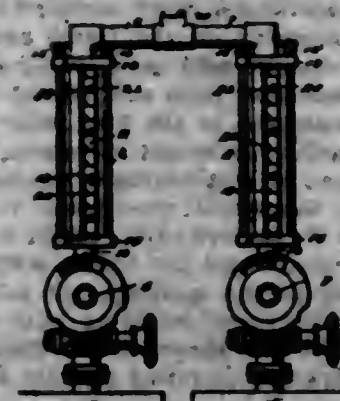
1,303,072. CLIPPER-SHEARS. GEORGE A. LA FORTAINE, La Habra, Calif., assignor of one-half to Otto Steinen, Los Angeles, Calif. Filed June 12, 1917. Serial No. 174,219. 3 Claims. (Cl. 30-1.)

1. In a hair clipper having a stationary head with a handle extended therefrom, a stationary cutter blade spaced therefrom and held thereon, and a removable cutter

blade intermediate of said head and said stationary blade, a stud for holding said blades in operative relation to each other, a handle for operating said movable blade, and means held on said stud for holding said handles normally spaced apart.

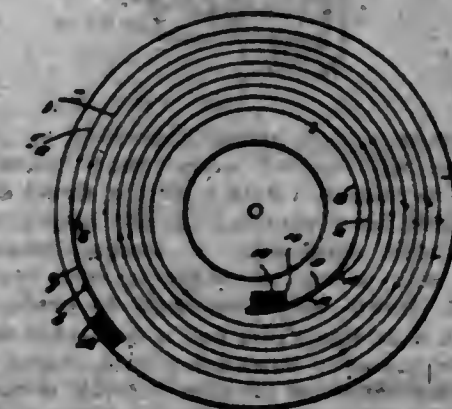


1,303,073. GAS MEASURING AND INDICATING INSTRUMENT. DAVID LAMBERT, Brooklyn, N. Y. Filed Mar. 20, 1918. Serial No. 228,658. 5 Claims. (Cl. 72-197.)



1. An instrument for measuring and indicating the rate of flow of a gas comprising a tubular member adapted to receive the gas to be measured at one end thereof and having a longitudinally extending slot in its wall, an indicator member movable longitudinally in said tubular member under the influence of the gas therein to vary the size of opening provided by said slot in accordance with the rate of flow of the gas, a pointer connected to said indicator member and extending through said slot to the outer side of the tubular member, and a graduated scale adjustably mounted on the outer side of the tubular member to vary the width of the slot of the latter and adapted to cooperate with said pointer.

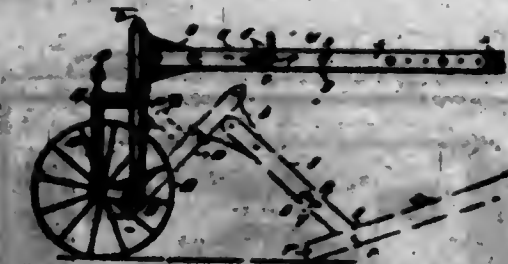
1,303,074. PHONOGRAPH-RECORD. GEORGE LAKE, Mason City, Iowa. Filed July 31, 1918. Serial No. 247,573. 8 Claims. (Cl. 274-42.)



1. A phonograph record provided with oppositely recorded sound grooves which communicate at one end.

262 O. G.—8

1,303,075. TRUCK-SUPPORT FOR IMPLEMENT-TONGUES. JACOB M. LEE and HERALD G. HALVEMSON, Stoughton, Wis. Filed May 3, 1918. Serial No. 232,287. 6 Claims. (Cl. 21-304.)



4. A tongue supporting attachment including a tongue section, a wheel standard pivotally secured to the tongue section, means for adjustably holding the wheel standard against pivotal movement, and a wheel resiliently carried by the standard.

1,303,076. BRACKET-SEAT FOR PASSENGERS ON AERIAL-NAVIGATION APPARATUS. EMIL LEROUD, Sceaux-et-Oise, France. Filed Jan. 19, 1918. Serial No. 212,792. 1 Claim. (Cl. 155-22.)



A folding seat for aerial navigation apparatus, comprising in combination a pair of brackets, a horizontal shaft supported by said brackets, a seat, hinges connecting one side of said seat to said shaft, a catch on the underside of said seat, a forked leg, hinges connecting the upper ends of the forked leg to the underside of said seat opposite to and remote from said shaft, and a spring connected to said seat and bearing against the base of said forked leg.

1,303,077. SAFETY DEVICE FOR DRAWBRIDGES AND THE LIKE. JOHN LINDALL, Boston, Mass. Filed Dec. 5, 1916. Serial No. 125,285. 2 Claims. (Cl. 30-1.)



1. The combination with a gate capable of being extended transversely of a road or way, of a barrier carried by said gate and arranged to be struck by a motor vehicle traveling on said road or way, a flexible device anchored at one end and connected at its other end with said barrier and of a sufficient length to form a loop, and arresting devices spaced apart and located within said loop to be engaged by said loop in succession until the barrier and vehicle come to rest.

1,303,078. DRYING-ROOM. FARMER A. LIPPETT, Chicago, Ill., assignor to Wenborne-Karpen Dryer Co., Chicago, Ill., a Corporation of West Virginia. Filed Apr. 22, 1916. Serial No. 92,868. 4 Claims. (Cl. 34-46.)



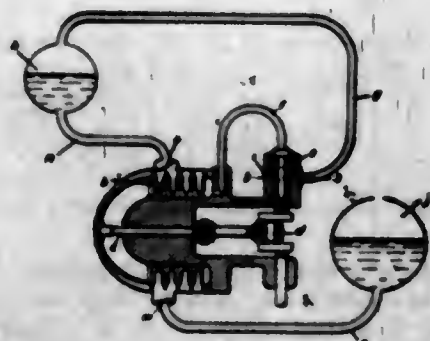
1. In an apparatus of the class described, the combination of an elongated drying chamber, means for conveying articles to be dried lengthwise through said drying chamber, means partly closing the ends of said drying chamber and formed to provide an opening approximating in shape and dimensions the silhouette of the articles to be dried and the conveying means therefor, and means for causing heated air to circulate through said drying room transversely to the length thereof.

1,303,079. MORTAR. WILLIAM HOWARD LIVEN, Hampstead, London, England. Filed Sept. 4, 1918. Serial No. 252,542. 6 Claims. (Cl. 102-26.)



1. In a mortar, the combination with a charge box, of a flanged gas-check attached thereto, and an electric lead within the mortar and running from the muzzle to the charge box.

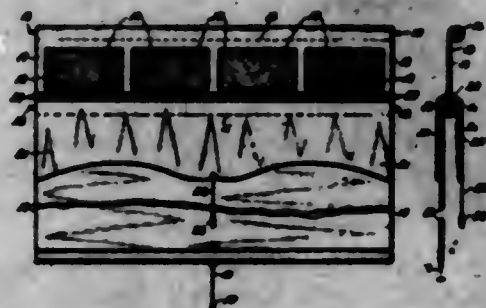
1,303,080. ELASTIC-PISTON PUMP. MARIE JOSEPH J. I. LONAILLE, Paris, France. Filed Dec. 11, 1918. Serial No. 266,270. 1 Claim. (Cl. 100-10.)



An elastic piston pump construction, comprising in combination an elastic piston, means for actuating the same to effect intake and discharge, and a distributor of fluid under pressure, operating in synchronism with the piston for putting in communication the interior of the

elastic piston, alternately with the atmosphere of suction, during the intake stroke and with the atmosphere of discharge during the discharge stroke, so as to equalize at each stroke, the pressures on each side of the wall of the piston.

1,303,081. WINDOW-SHADE STRUCTURE AND VENTILATOR THEREFOR. GILBERT E. LOSE, Philadelphia, Pa. Filed Nov. 13, 1918. Serial No. 262,341. 6 Claims. (Cl. 156-10.)



6. A ventilator curtain for a window frame and the shade thereof comprising a roller mounted on the frame, a second roller mounted on the frame and having the shade connected thereto, said shade being adapted to be wound upon or unwound from said second roller, a ventilator curtain connected to the first roller and adapted to be wound thereon or unwound therefrom, a cross piece connected to an end of said ventilator curtain and border strips depending from said cross piece to overlie said second roller and the portion of the shade wound thereon, said ventilator curtain and the border strips being movable independently of the movement of said shade, said border strips at all times overlying said second roller and the portion of the shade wound thereon, whether the shade be in lowered or raised position relative to the ash.

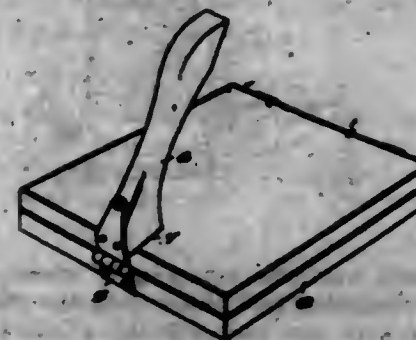
1,303,082. AUTOMATIC FIRE-ALARM APPARATUS. EMERSON A. LOWE, Plainfield, N. J., assignor to Automatic Sprinkler Company of America, New York, N. Y., a Corporation of New York. Filed Mar. 10, 1916. Serial No. 83,242. 18 Claims. (Cl. 116-11.)



1. In automatic fire alarm apparatus, a cast iron casing formed with curved lateral guide runners on its rear portion to cooperate with a wall, a signal diaphragm and cooperating horn mounted in said casing, a contact member on said diaphragm, a toothed vibrator disk mounted in said casing to cooperate with said contact member and vibrate said diaphragm to produce a loud alarm signal, a driving drum and a connected suspending driving cable normally suspending said casing and having a rotating influence on said driving drum, gearing comprising a winding ratchet device between said driving drum and said vibrator disk, said gearing comprising a lost motion impact starting device including a drive arm cooperating with a drive slot in said driving drum

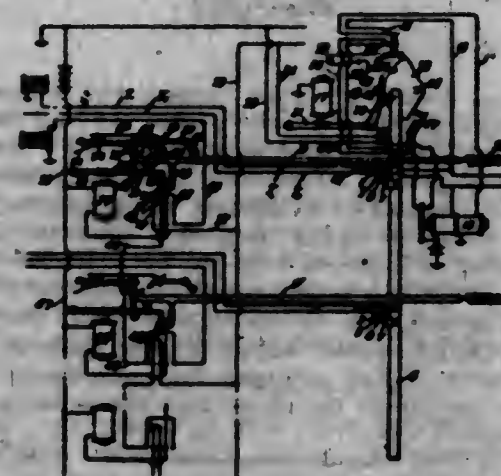
to have lost motion in connection therewith, a cushioning spring cushioning the emergency movement of such parts, a take-up spring normally holding said drive arm in set position, detent mechanism releasably restraining the movement of said driving drum and comprising a detent on said drum and a cooperating pivoted latch, a resetting spring projection on said latch and a releasing spring normally moving said latch into release position, a latch arm connected to said latch, a catch cooperating with said latch arm and having a spring releasing device and a thermostatically controlled trip cooperating with said catch arm, a resetting device cooperating with said detent mechanism and comprising a resetter having a resilient resetting arm cooperating with said resetting spring projection on said latch to reset the same and comprising a resetter rod to subsequently engage and reset said catch and a vented pneumatic thermostat comprising a detector diaphragm to actuate said trip and comprising a connected air chamber mounted on the upper portion of said casing.

1,303,083. CULINARY ARTICLE. EULOGIO LUNA, Chilton, Ariz. Filed Oct. 13, 1917. Serial No. 196,510. 1 Claim. (Cl. 107-47.)



A device of the character described, including complementary hinged connected compressing boards, covering for the adjacent faces of said boards, a lever pivotally connected to the forward marginal edge of one of the boards provided with a beveled lower portion engageable with the adjacent portion of the remaining board for compressing the same.

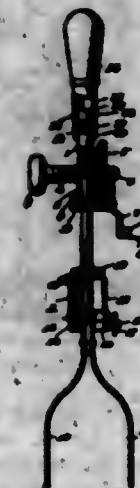
1,303,084. CROSS-BAR LINE-SWITCH. FRANK A. LUNDEQUIST, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 27, 1918. Serial No. 183,612. 9 Claims. (Cl. 178-27.5.)



1. In a switching device, a plurality of fixed contacts, incoming lines multiplied to certain ones of said fixed contacts, outgoing lines multiplied to others of said fixed contacts, resilient projecting portions integral with certain ones of said fixed contacts, a movable bar individual to each incoming line, a movable bar individual to each

outgoing line, and means to establish a connection between an incoming line and an outgoing line as a result of the successive movements of said resilient projecting portions upon operation of an incoming line bar and an outgoing line bar.

1,303,085. BOTTLE-CLEANER. GEORGE LUFTAK, Ruess, Mo. Filed Sept. 14, 1918. Serial No. 264,181. 2 Claims. (Cl. 141-7.)



1. A device of the character described comprising a rotary shaft, a hollow cylindrical shell having one end open and its other end closed and provided with a hole slidably engaging upon said shaft, said shell being longitudinally split whereby it may have expanding and contracting movement, said shell being formed to provide an annular groove, and a clamping ring disposed within said groove and adjustable whereby to contract said shell upon the neck of a bottle.

1,303,086. ELECTRIC-CIRCUIT CLOSER FOR AUTOMOBILES. EDWARD B. LOWE, Washington, D. C. Filed Oct. 9, 1918. Serial No. 257,497. 1 Claim. (Cl. 175-266.)

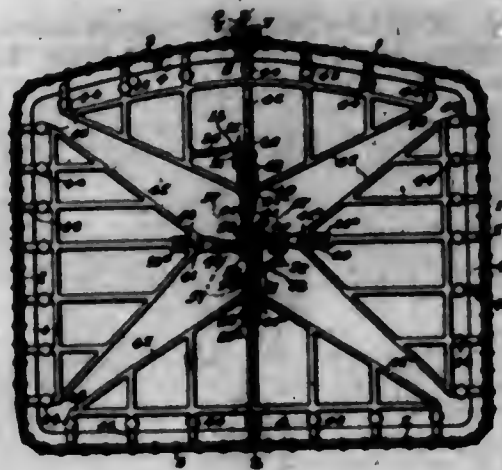


A circuit closer comprising a support having a slot, a treadle movably mounted and passing through the slot, an element movably mounted on the support and having a slot, a bolt passing through the support and slot of the element, a nut mounted on the bolt and located in the slot of the element and adapted to restrain the element against turning movement, a spring located in the slot of the element and interposed between the bolt and the end wall of the slot of the element and adapted to normally hold an end portion of the element at a point between the ends of the slot in the support and an electric circuit having its terminals connected with the treadle and bolt respectively.

1,303,087. CLOSURE FOR BURIAL-VAULTS. THEODORE E. LUTZ, Gallon, Ohio. Filed Apr. 27, 1917. Serial No. 164,961. 11 Claims. (Cl. 27-7.)

1. A closure for the mouth of a vault or other receptacle having a substantially flat abutment web within the mouth opening, comprising a door of elastic sheet metal of relatively light gage, said door being plane throughout and of a size to fit the door opening and confine flat packing material against the abutment, lock bolts movable into and out of engaging relation to the inner face of the abutment, devices on the inner face of the door close to the web and engaged by and supporting the lock bolts, and means carried by the door and engaging the latter

solely at the mid-portion thereof and connected to the lock bolts for moving them into and out of locking position and having means for rocking the lock bolts toward and from the inner face of the door and clamping the latter



against the abutment, said means at the mid-portion of the door engaging the latter to cause it to bulge outwardly, whereby the door is elastically held against the web when the door is in the locked position.

1,303,088. APPARATUS FOR PREHEATING UNCALCINED MATERIAL PRIOR TO ITS ENTRY INTO THE KILN. HARRY McCARTY and WILFRED CURTIS STEVENSON, Cement, Calif. Filed Apr. 23, 1917. Serial No. 104,085. 1 Claim. (Cl. 222-4.)

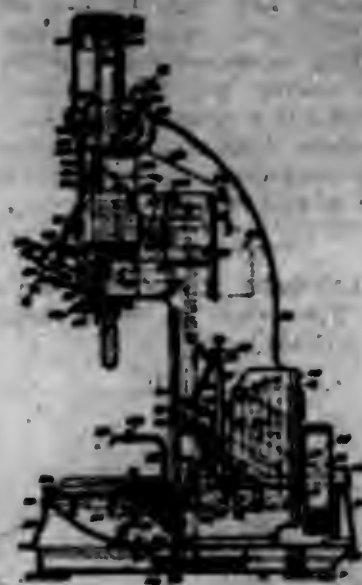


The combination with a calcining kiln, of a stack base into which the gases from the kiln discharge, a stack leading from the base, said stack having an enlarged portion above and adjacent to the base, a bin arranged within the enlarged portion having its top and bottom substantially cone-shaped and spaced from the top and bottom walls of the enlarged portion of the stack, an inlet into the top of the bin, an outlet therefrom at the lower end delivering to the kiln and having a feed gate interposed therein, and vertical flues through the bin communicating with the upper and lower portions of the enlarged portion of the stack, whereby the heated gases from the kiln during their passage up the stack will completely surround the uncalcined material in the bin and thoroughly heat the same prior to its entry into the kiln.

1,303,089. DRILL-PRESS. WILLIAM F. McCARTY, Defiance, Ohio, assignor to Defiance Machine Works, Defiance, Ohio, a Corporation of Ohio. Filed Feb. 15, 1918. Serial No. 217,353. 10 Claims. (Cl. 77-32.)

1. In a drill press, a drill spindle, a main shaft provided with two loose gear wheels of different diameters

and having clutch members on their opposite faces, a double clutch member mounted to turn with and to slide on the said main shaft, shifting means engaging the said double clutch member to connect the latter with either of the said loose gear wheels, two sets of stop gear wheels, stop gear wheel shafts on which the said sets of stop gear wheels are carried, sets of gear wheels connected with one of the said stop gear wheel shafts, and provided with two gear wheels of different diameters, of which the longest one meshes with the smallest gear wheel on the said main shaft, and the smaller of the said two gear



wheels meshes with the larger gear wheel of the main shaft, a transmission gear connecting the other stop gear wheel shaft with the said spindle, a shaft mounted to turn and to slide and provided with a bracket, a connecting gear wheel journaled on the said bracket and adapted to mesh with any one pair of gear wheels of the said stop gear wheels, and a shifting and turning lever connected with the said last-named shaft to turn and to shift the latter.

1,303,090. TOOL. THOMAS MCCRAY, Haylow, Ga. Filed July 24, 1918. Serial No. 246,579. 2 Claims. (Cl. 145-3.)



1. A tool including a stock formed with a square face and having a dovetail groove opening through the square face, a longitudinal groove being provided at the base of the dovetail groove, a removable working element having a flat base adapted to fit against the square face of the stock, a dovetail tongue projecting from the flat base and adapted to interlock with the dovetail groove, a rib projecting from the tongue and adapted to enter the longitudinal groove, said rib having a cut away portion, and a transversely disposed locking plunger slidably mounted within the stock and arranged for engagement with the cut away portion of the rib to lock the working element in position.

1,303,091. WELL-PACKER. PATRICK H. MACK, Bradford, Pa., assignor to Oil Well Supply Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 16, 1916. Serial No. 84,563. 10 Claims. (Cl. 160-12.)

1. In packing structures and in combination, opposing end members, slips and a packing member located between said end members, and a body member threaded to

one of said members and connecting the end members, threading movements of one of said end members acting



to vary the distance therebetween at will, the varying movements in one direction serving to expand the slips and packing member.

1,303,092. LADY'S GARMENT. ALBERT MALBIN, New York, N. Y., assignor to Lane Bryant, Inc., New York, N. Y., a Corporation of New York. Filed Nov. 2, 1914. Serial No. 969,987. 1 Claim. (Cl. 2-42.)



A lady's skirt, bifurcated transversely, whereby are formed a front section and a back section, these being united only near the bottom of the skirt, thereby permitting the wearer of the garment to put it on by stepping into it; the meeting edges of the two sections from the points where they are united near the bottom of the skirt to the waistband, being shaped so as to overlap, under all conditions of wearing, and each section being provided with body-encircling, securing means at the waist line.

1,303,093. APPARATUS FOR AND METHOD OF FILLING CANS. WILLIAM H. MANNA, Waynesboro, Pa., assignor to Frick Company, Waynesboro, Pa., a Corporation. Filed Jan. 24, 1911. Serial No. 604,490. 4 Claims. (Cl. 226-9.)

1. The combination, with a can filler for tea making apparatus provided with means for supporting the same within the open end of the can and having a filling pipe with its discharge nozzle arranged to discharge near the bottom of the can, of an air agitating pipe arranged with

its discharge end separate from but adjacent to the discharge nozzle of said filler pipe and adapted to discharge



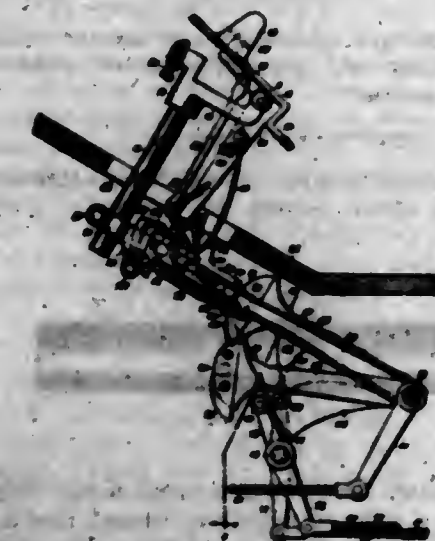
air simultaneously with the discharge of water from said filler pipe, substantially as set forth.

1,303,094. SHELVING RACK. JOHN MARCHELSKI, Wheeling, W. Va. Filed Dec. 2, 1918. Serial No. 264,893. 6 Claims. (Cl. 211-27.)



1. A folding shelving rack comprising upright supports, shelves demountably supported between said supports, upper and lower horizontal brace members having hinged connection at opposite ends with said supports, said members being composed of hinged sections which are foldable upwardly to permit said supports to approach each other, and shelves hinged at their inner ends to said supports, an end wall having hinged connection with the outer ends of said end shelves and supported by the latter, said end shelves and said end wall being foldable upward and inward toward the adjacent support.

1,303,095. SELECTIVE CONTROLLING MECHANISM. CHARLES F. MARSTON, Bar Harbor, Me. Filed May 25, 1918. Serial No. 296,536. 14 Claims. (Cl. 74-58.)



1. Is a selective controlling mechanism, a support mounted to swing, a main pedal mounted to swing and to

slide sidewise on the said support, selective members movable on the support and controlled by the said main pedal, and actuating members adapted to be engaged by corresponding selective members and controlling the device to be actuated.

1,303,006. **ELECTRIC-LIGHT SOCKET.** HELMUTH MELAUN, Indianapolis, Ind. Filed Oct. 30, 1918. Serial No. 260,362. 2 Claims. (Cl. 173-328.)



1. In combination with an electric lamp bulb of the type having its base provided with radially extending pins, a socket comprising a hollow cylindrical metallic body member, an inwardly extending flange formed at one end of said member, the inner periphery of said flange being provided with grooves extending thereacross, the adjacent end of said member being provided with radially extending recesses adjacent the outer ends of said grooves, a yoke secured upon and insulated from said cylindrical member and extending across the flanged end thereof in spaced relation thereto, and a contact member carried by said yoke and disposed in alignment with the axis of the bore of said body member.

1,303,007. **FOUNDRY PATTERN COMPOSITION AND PROCESS AND APPARATUS FOR USING THE SAME.** CHARLES M. MANDESS, Fort Wayne, Ind., assignor to The Menefee Foundry Co., Inc., Fort Wayne, Ind., a Corporation of Indiana. Filed Sept. 25, 1916. Serial No. 121,951. 39 Claims. (Cl. 22-191.)



1. A foundry pattern composition of matter consisting of Portland cement and plaster of Paris mixed with water, set and hardened.

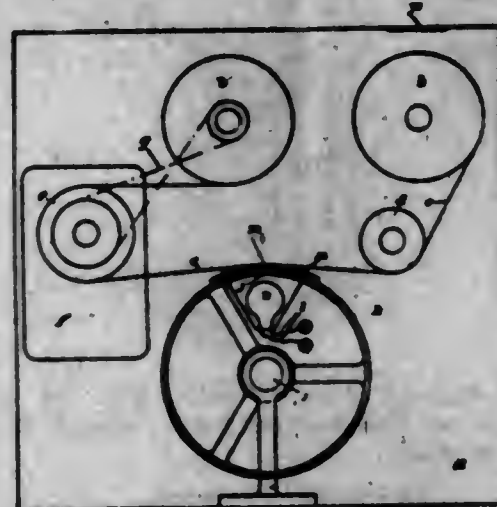
1,303,008. **HOSE-MENDER.** JACOB MANS, Chicago, Ill. Filed Feb. 10, 1917. Serial No. 147,937. 2 Claims. (Cl. 285-77.)



2. A hose mender, comprising, a sheet metal nipple expanded to form a pair of relatively spaced ribs at each end thereof larger than the bore of the hose sections to be joined, the end ribs tapering to the ends of the nipple

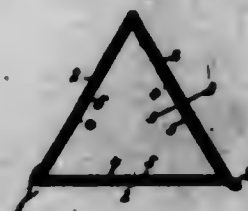
to permit the insertion of the nipple into the ends of the hose sections, said ribs being adapted, when the nipple is inserted into the hose sections, to expand the latter to form a pair of distinct, relatively spaced annular enlargements therein at each end of the nipple.

1,303,009. **PHOTOGRAPHIC MOTION-RECORDING DEVICE.** ANDREW R. MICHAELSON, Portland, Oreg. Filed Nov. 13, 1917. Serial No. 205,479. 1 Claim. (Cl. 234-33.)



An apparatus of the character specified comprising a substantially light-proof case, an annular member, rotatable therein, having a light-passing orifice in its rim and being driven relatively to the body of which the travel is to be recorded, a source of light within the annular member and adapted to project a beam through said orifice, spools in the case winding and unwinding a sensitized tape, and clock works adapted for moving the tape at a certain rate during intervals of time; said tape moving in front of said orifice of said annular member.

1,303,100. **TELEPHONE-DIRECTORY.** CHARLES F. MIDDLEBROOK, Binghamton, N. Y. Filed June 8, 1916. Serial No. 102,510. 3 Claims. (Cl. 40-125.)

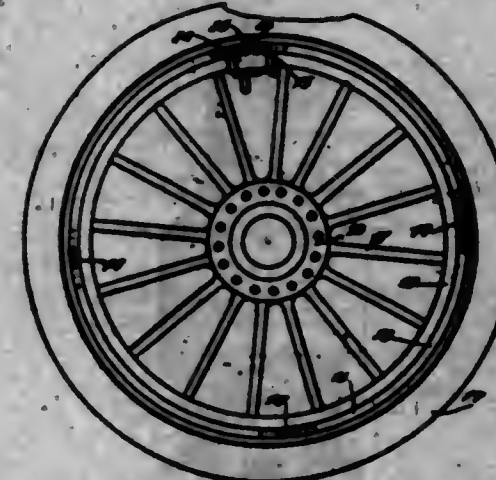


3. A telephone directory comprising a single strip of transparent bendable material bent into triangular form and having its ends secured to each other to form an upright transparent case open from top to bottom, in combination with placards slidable vertically across the inner faces of the transparent sides and guided in the acute angles at the corners.

1,303,101. **WHEEL.** JACOB J. MILLER, Flushing, N. Y., assignor of one-third to Patrick Donovan, Burlington, Vt., and one-third to Ferdinand Boehmer, Colchester, Vt. Filed Mar. 18, 1918. Serial No. 223,158. 3 Claims. (Cl. 163-31.)

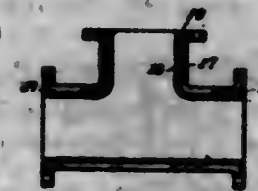
1. A wheel of the character described, comprising an inner rim having T-shaped recesses upon its periphery and a radial longitudinal opening which leads into one recess; a demountable rim having locking lugs to enter the recesses; a tire carried by the demountable rim and having a valve tube adapted to project through the longi-

tudinal opening; a radial locking block to be inserted within the longitudinal opening; a U-shaped casing car-



rying the block and adapted to straddle the inner rim; and means connected with the valve tube to retain the U-shaped casing in place.

1,303,102. **METHOD OF LINING PIPE AND PIPE-FITTINGS.** GUSTAV MONNATH, New York, N. Y., assignor to Chile Exploration Company, New York, N. Y., a Corporation of New Jersey. Original application filed Nov. 7, 1916, Serial No. 129,958. Divided and this application filed Nov. 30, 1917. Serial No. 204,712. 1 Claim. (Cl. 91-70.)



The method of providing pipe fittings and couplings of cast iron or other metal with a lining of hard asphaltum mastic composition which comprises cleaning the metal, heating the same to a temperature approximately that of molten asphalt, casting a relatively thick layer of a hard asphaltum mastic composition whose coefficient of expansion is smaller than that of said metal against the thus cleaned and heated metal, and quickly cooling the mastic composition and permitting the metal to shrink thereon; substantially as described.

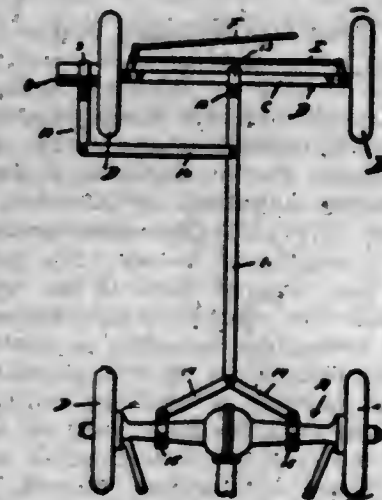
1,303,103. **ILLUMINATING MEANS FOR CHRISTMAS TREES.** ERNEST H. MOSEMAN, Brooklyn, N. Y. Filed June 22, 1917. Serial No. 176,248. 1 Claim. (Cl. 240-10.)



In an illuminator for Christmas trees, the combination with a perpendicular standard, of a base therefor, said standard comprising a plurality of elongated sections

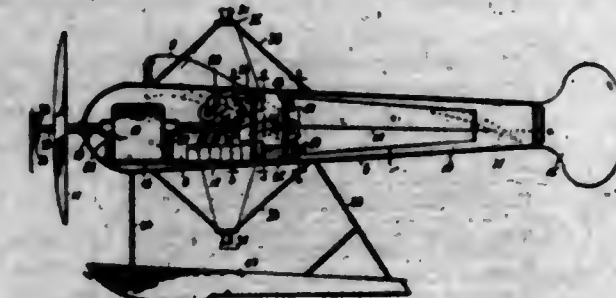
gradually diminishing in diameter from the base to the top of the standard, reducing couplings connecting the adjacent ends of said sections, whereby they are supported axially super-imposed, said couplings having chambers and provided with radially protruding reduced nipples having beaded ends, and flexible tubes connected to the beaded nipples and having their outer ends terminating in burners, and means for connecting said standard to the central stem of the tree.

1,303,104. **TOWING DEVICE.** WINFRED P. MUNCY, Doyle, Calif. Filed Oct. 21, 1918. Serial No. 259,081. 6 Claims. (Cl. 21-137.)



6. A towing device of the character described comprising a coupling bar adapted for pivotal connection with the rear portion and front axle, respectively, of a towed and towing motor vehicle, a clamping member engageable upon one front wheel of the towed vehicle, and locking means connecting said member with said coupling bar.

1,303,105. **AUTOMATICALLY-CONTROLLED TORPEDO.** WILLIAM J. MURDOCK, Clinton, Ind., assignor of one-half to Hulbert M. Ferguson, Clinton, Ind. Filed July 16, 1917. Serial No. 180,791. 8 Claims. (Cl. 244-1.)

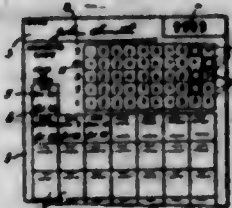


1. In an automatically controlled torpedo the combination of an aeroplane carrying an explosive charge, electrically operated means for steering the aeroplane, means for automatically controlling said electrical means through sound waves, said controlling means being initially inoperative, a winding cord actuated by the aeroplane motor for rendering said controlling means operative after a pre-determined period, and means for igniting the explosive charge through impact, substantially as set forth.

1,303,106. **DUPLEX RECORDING-CARDS.** ROBERT E. NISBET, Jr., Larchmont, N. Y., assignor to Bankers Service Corporation, New York, N. Y., a Corporation of New York. Filed Nov. 13, 1918. Serial No. 262,301. 10 Claims. (Cl. 283-57.)

1. In a card system for recording purposes, two sets of cards, each being made up of a plurality of cards having an equal number of checking indications, the checking

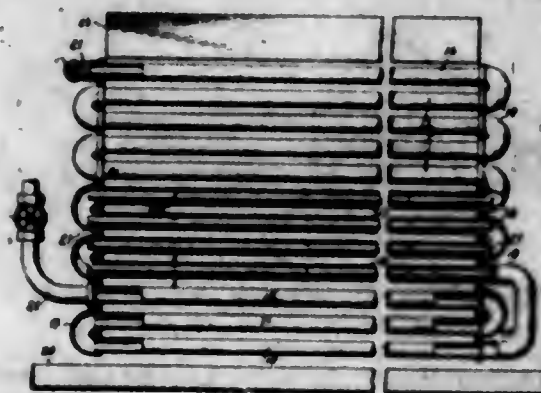
indications of each card in each set all registering with all the checking indications of one card of the other set when superimposed thereon and being different in arrangement from the indications of any other card of its set, those cards of both sets being provided with similar transaction record spaces.



2. In a card system for recording purposes, two sets of cards, each set being made up of a plurality of cards having an equal number of checking indications, the checking indications of each card in one set all registering with all the checking indications of one card of the other set when superimposed thereon and being so disposed that some of the checking indications of the cards of one set register with some of the checking indications on some of the other cards belonging to its set when superimposed thereon and so that some of them do not register with indications of said other cards when superimposed thereon.

10. In a card system for recording purposes, two sets of cards, each set being made up of a plurality of cards having an equal number of checking indications, the checking indications of each card in each set all registering with all of the checking indications in one card of the other set when superimposed thereon, and being different in arrangement from the indications of any other card of its set, those cards having like indications being provided with like distinguishing account numbers, said cards having also similar transaction record spaces, the position of said indications being definitely related to said account numbers.

1,303,107. AMMONIA-CONDENSER FOR ICE-MACHINES. ERICK HERMAN ODERMAN, Waynesboro, Pa., assignor to Frick Company, Waynesboro, Pa., a Corporation of Pennsylvania. Filed Mar. 29, 1917. Serial No. 158,229. 2 Claims. (Cl. 257-35.)

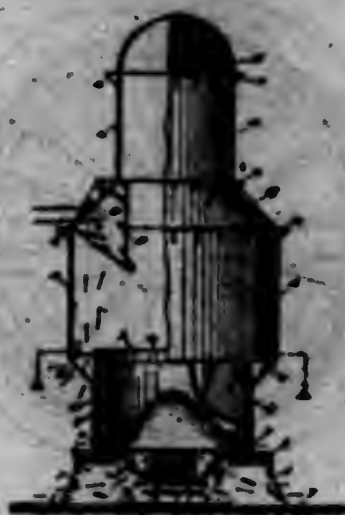


2. An ammonia condenser comprising coils, cores in the horizontal pipes of said coils of a diameter less than the interior diameter of the pipes, means for supporting said cores in said pipes, a cooling section beneath said coils and a connection from said cooling section to the lower pipe of said coils, substantially as set forth.

1,303,108. REFUSE-FURNACE. ERNEST L. OEHMEN, Portland, Oreg. Filed Mar. 20, 1917. Serial No. 156,034. 7 Claims. (Cl. 110-8.)

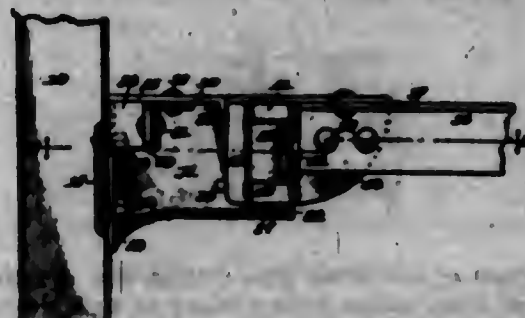
1. A refuse furnace of the character referred to comprising a base structure above the ground having tunnels or passageways therethrough, and a centrally open top giving access to the exterior and interior of a grate, a grate structure therein, adapted to receive matter through said open top, said grate structure comprising a

central horizontal grate and upwardly inclined grates at opposite sides thereof directing material on to said horizontal grate, a furnace wall upon said base structure



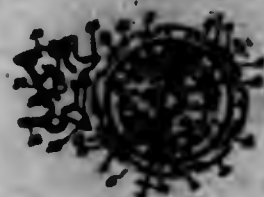
around the open top thereof, and forming a combustion chamber above said grate structure, and a chimney structure of larger diameter and forming an extension above said furnace wall and open at its upper and lower ends.

1,303,109. BED-RAIL FASTENER. MORRIS B. OKUN, Chicago, Ill. Filed Jan. 19, 1917. Serial No. 148,236. 5 Claims. (Cl. 5-55.)



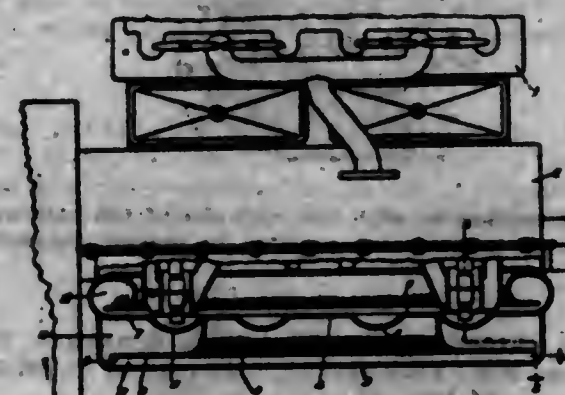
1. A structure of the character described comprising a bed rail fastener having a wide, flat supporting tongue, whose wide face extends in the direction of the length of the side rail, a side rail, and means including a laterally disposed loop carried at the opposite extremities of said side rail to cooperate with said tongue, said tongue cooperating both with the means at one extremity of said side rail to hold said side rail in position, and with the means at the opposite extremity of said rail to hold said side rail in position when said side rail is swung end for end and inverted, to thus hold said side rail in either one of two given positions.

1,303,110. SUPPLEMENTAL HOLDING DEVICE FOR MOTOR VEHICLES. WILLIAM FLEISCHER, Norwalk, Conn. Filed Jan. 19, 1919. Serial No. 270,008. 3 Claims. (Cl. 21-8.)



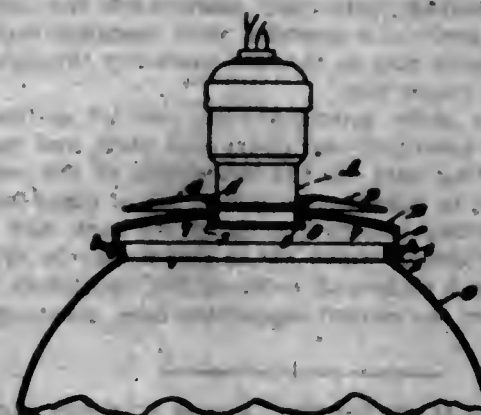
1. A device of the character described comprising a ratchet having angular notches, a pawl having oppositely acting teeth and a boss, a spring engaging the boss to retain the pawl out of engagement with the ratchet, and means for placing either tooth in engagement with the ratchet.

1,303,111. CRANK-CASE OIL-TRAP. LEONARD E. POCHAMER, New York, N. Y. Filed Mar. 5, 1918. Serial No. 230,505. 3 Claims. (Cl. 184-13.)



2. The combination with an engine provided with a crank casing of a division plate of such a structure as to provide for a splashing system, a trap for the splash oil and excess oil, said trap extending entirely around the casing, said trap being formed substantially S-shaped in cross section with a central solid wall, an upper coiled portion and a lower coiled portion for producing upper and lower pockets, both of said pockets having openings adjacent the walls of the casing near the end of the pockets farther from the center of the casing, whereby when the engine leaves the horizontal in any direction the oil will run automatically into said pockets and be retained therein until the engine again assumes a horizontal position.

1,303,112. SHADE-HOLDER FOR ELECTRIC LAMPS. WILLIAM H. PRICKETT and JAMES F. MORTON, Trenton, N. J. Filed Sept. 14, 1918. Serial No. 284,127. 4 Claims. (Cl. 240-114.)



1. The combination of a lamp socket, a shade holder thereon having ventilating apertures, means to secure said holder to the socket, and a device surrounding the socket and having means to support the same on said holder independently of the fastening of the holder to the socket, and serving to position said device over and spaced from the apertures of the shade holder, to prevent dust or rain passing through the apertures while permitting a free circulation of air.

2. The combination of a lamp socket, a shade holder attached thereto and having ventilating apertures, an arched member surrounding the lamp socket and having a central aperture formed with a depending flange engaging the top surface of the holder, whereby the member extends over the apertures of the shade holder, and permits of a free circulation of air through the apertures.

3. A shade holder comprising a member having a central opening and ventilating apertures between the

opening and periphery of the member, means for attaching the holder to a lamp socket depending within the holder, and a screen having an aperture, the edges of which have a forced engagement with the said depending attaching means, whereby the screen is held fixed with respect to the apertures of the said member.

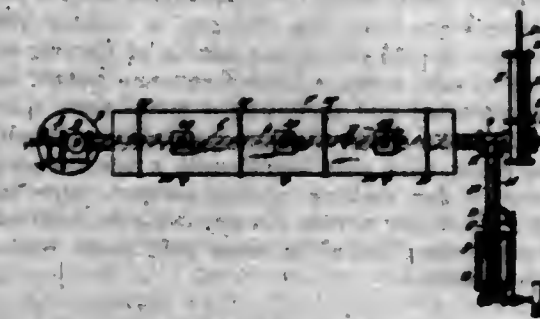
4. The combination of a lamp socket, a shade holder thereon and having ventilating apertures, means fastening said holder to the socket and presenting a neck above said holder and an annular cap-like protecting device loosely disposed around the lamp socket, the device having a central opening to snugly receive said neck and having a depending flange at said opening for supporting said device in raised relation to the shade holder to cover the ventilating apertures thereof while permitting the free circulation of air through the apertures.

1,303,113. METAL WINDOW-BASH. ARTHUR EDOCMER, REXDALE, Philadelphia, Pa., assignor to Keystone Type Foundry, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 5, 1917. Serial No. 173,000. 3 Claims. (Cl. 189-78.)



1. A fast-proof frame structure comprising a plurality of parallel metal members, strips of sheathing covering said members respectively for the length thereof, said sheathed members having perforations, a second plurality of members, non-rustable metal strips on said second members, and said second named members passing through the apertures of the first named sheathed members and secured thereto, said sheathing providing an unbroken surface throughout the frame, substantially as set forth.

1,303,114. CONTINUOUS REDUCTION-FURNACE. WILLIAM D. RICHARDSON, Chicago, Ill., assignor to Swift & Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 22, 1915. Serial No. 57,212. 8 Claims. (Cl. 269-25.)

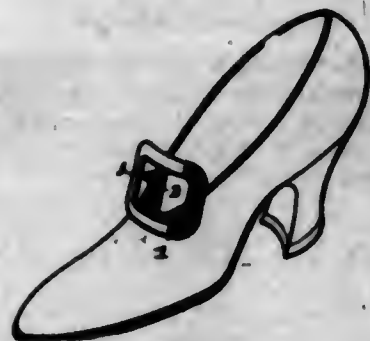


1. A reduction furnace comprising a reduction chamber, a depending discharge spout, a receptacle located to receive the material delivered by said spout and containing a liquid in which the delivery end of said spout is submerged, and means located within said spout for forcing said material below the surface of said sealing liquid.

1,303,115. **EXPLOSIVE.** WILLIAM BRYTOUL and DONALD CAOS, Stevenson, Scotland, assignors to Nobel's Explosives Company Limited, Stevenson, Scotland. Filed Sept. 24, 1917. Serial No. 192,963. 5 Claims. (Cl. 52-3.)

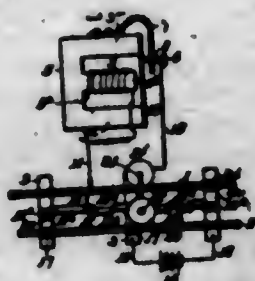
4. A blasting explosive containing nitroglycerin and gelatinized nitrocellulose, in which the ratio of nitroglycerin to nitrocellulose exceeds unity, said explosive containing a small proportion, of the order of 0.1 to 1.0% calculated on the nitroglycerin, of an organic accelerant for the gelatinization.

1,303,116. **ATTACHMENT DEVICE FOR SHOE-BUCKLES.** SAMUEL RIVELIN, Philadelphia, Pa. Filed Aug. 5, 1918. Serial No. 248,240. 2 Claims. (Cl. 24-197.)



2. An attachment device for shoe-buckles, formed of a single piece of metal and comprising a concavo-convex base, pierced by a series of attachment holes, and having curvature corresponding to the arch of the human foot; and an upright curved or dished in cross section, integral centrally with the base, and having a lower end flaring as it merges into the base to form strengthening webs; together with lugs along either side of the upright in alternation with each other.

1,303,117. **BUZZER APPARATUS FOR PRODUCING WHISTLE-SIMULATING SOUNDS.** WILLIAM C. ROE, Wheeling, W. Va. Filed Sept. 28, 1917. Serial No. 199,701. 3 Claims. (Cl. 246-175.)



1. A toy railway device for producing audible whistle-simulating sounds, comprising, in combination with a railway and a locomotive travelling thereon, a contact strip located in the line of said railway, a source of electric current connected to said strip, a high frequency buzzer carried by the locomotive and including a metal core, a coil carried by said core, a diaphragm, and an adjustable point contact cooperating with said diaphragm, a brush carried by the locomotive for making wiping contact with said contact strip, said brush having connection with said coil, and current-conducting means between said point contact and said current source.

1,303,118. **FASTENING DEVICE.** FREDERICK S. SARGANT, Naugatuck, Conn. Filed Jan. 15, 1916. Serial No. 72,275. 2 Claims. (Cl. 16-143.)

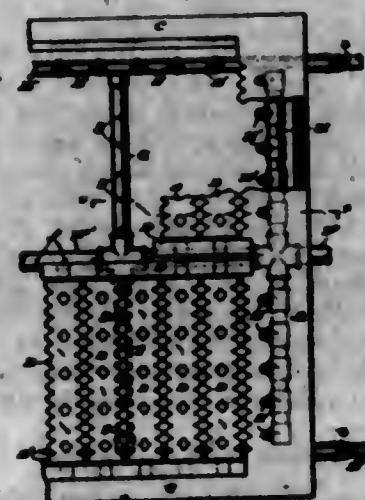
1. A fastening device comprising a casing, a bolt movable therethrough, an operating lever connected with said casing and having one end thereof engaged with the inter-

mediate portion of the bolt to actuate the latter, and a locking member carried by the free end of said operating



lever and engageable with the rear end of the bolt when the latter is in projected position to prevent retraction thereof.

1,303,119. **FURNACE-GRATE.** FRED SCHREMAN, Fort Atkinson, Wis. Filed Dec. 17, 1918. Serial No. 67,573. 4 Claims. (Cl. 110-75.)



1. The combination with a fuel grate provided with a stationary end plate, of a main supply pipe for air or steam, branch pipes leading therefrom and provided with ducts leading through the end plate of the grate, another branch pipe leading rearwardly underneath the central portion of the grate and provided with openings through which air or steam may be injected upwardly through the grate along the center line.

2. A furnace grate provided with sets of oscillatory grate bars, an apertured stationary end plate and spaced central supporting bars for the inner ends of the oscillatory grate bars, in combination with a set of pipes for air or steam extending underneath the grate bars, and having apertures through which air or steam may be ejected through said end plate and between the oscillatory bars and also between the central supporting bars, substantially as described.

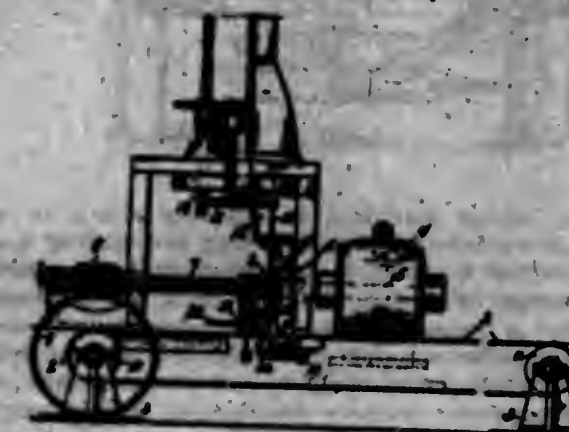
1,303,120. **PEA-HARVESTER.** FRANK V. SCOTT and JOE D. HASKETT, Elizabeth City, N. C.; said Haskett assignor to said Scott. Filed Mar. 8, 1917. Serial No. 153,362. 5 Claims. (Cl. 56-1.)



1. In a pea harvester, the combination of a wheeled vehicle, a shaft journaled on one side of the vehicle, a plurality of beaters successively and progressively varied in length and having up-turned end portions mounted on the shaft, means for guiding the pea vines into the path of the beaters, and a driving connection between the vehicle shaft and the beater shaft, substantially as set forth.

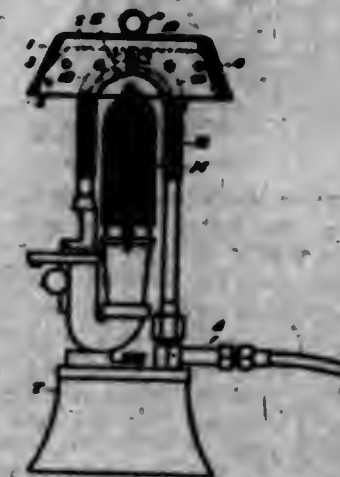
2. In a pea harvester, the combination of a wheeled vehicle, a shaft journaled on one side of the vehicle, a plurality of beater arms mounted on the shaft, a fabric sheet disposed opposite said beaters adapted to receive the peas thrown by the beaters, means for guiding the pea vines into the path of the beater, and a driving connection between the vehicle shaft and the beater shaft, substantially as set forth.

1,303,121. **FILLED-BAG-SEWING APPARATUS.** DUDLEY B. SUMMONS, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 10, 1911. Serial No. 613,863. 9 Claims. (Cl. 112-34.)



1. An apparatus of the character described, a conveyor, an operating means for the conveyor including a clutch, a sewing mechanism, an operating means for the sewing mechanism including a clutch and means for controlling the clutches of the sewing mechanism operating means and the conveyor operating means, said controlling means including devices disposed relative to each other for jointly operating both of the clutches and whereby one of the clutches may be operated independently of the other clutch.

1,303,122. **HEAT-RETAINER.** FREDERICK SHRIVER, Georgetown, S. C. Filed Feb. 11, 1919. Serial No. 276,804. 5 Claims. (Cl. 67-48.)



1. The herein described heat retainer for lamps, torches, and the like whose retort has an upward bend above the burner, the same consisting of a bell composed of spaced metallic walls provided with perforations out of registry with each other, and a clamp within the inner wall for detachable engagement with the bend of said retort.

1,303,123. **FLASH-CHECK FOR GAS-TANKS.** HENRY SIDNEY SMITH and ALBERT FRANK WESTLUND, Indianapolis, Ind., assignors to The Frost-O-Lite Company, Inc., Indianapolis, Ind., a Corporation of New York. Filed Dec. 23, 1916. Serial No. 133,609. 10 Claims. (Cl. 46-192.)

10. The method of arresting the progress of an explosion through a gas conduit which consists in arranging

in thermal relation to a flame in said gas a quantity of material which is fusible at the temperature of said flame, retarding the progress of said flame adjacent said



material, thereby melting the same, and trapping said material when melted and sealing said conduit therewith.

1,303,124. **CHECK-PERFORATOR.** CHARLES P. SPERS, San Francisco, Calif. Filed Mar. 27, 1916. Serial No. 88,977. Renewed Sept. 13, 1917. Serial No. 191,316. 6 Claims. (Cl. 101-20.)



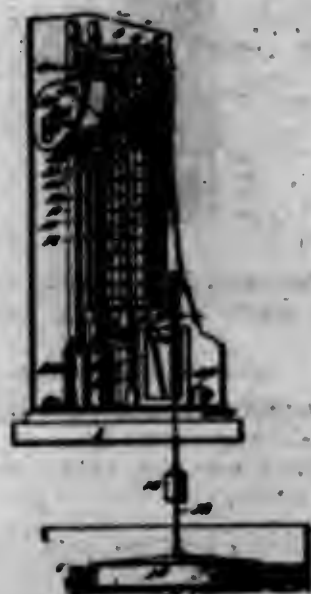
6. A check perforator comprising a base plate, a die plate held in spaced relation thereto, a stripper plate spaced from the punch plate and provided with an up-turned annular rim and radial ribs, a punch plate having radial arms, and a spring plate having means for bucking said arms to impart resilience thereto, whereby they are normally withdrawn from the punch plate.

1,303,125. **STOP MECHANISM FOR TALKING-MACHINES.** LLOYD Y. EQUISS, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Dec. 13, 1912. Serial No. 736,478. Renewed Sept. 17, 1918. Serial No. 254,511. 12 Claims. (Cl. 74-46.)



1. In a talking machine, the combination with a rotary record support, of sound reproducing means arranged to move as a whole in a predetermined direction across said support to reproduce sound from a sound record on said support, a brake mechanism for stopping the rotation of said support, means to move said sound reproducing means in a direction opposite to said predetermined direction, and means actuated by said reproducing means and operative at substantially the moment when said reproducing means start to move in said opposite direction for automatically operating said brake mechanism.

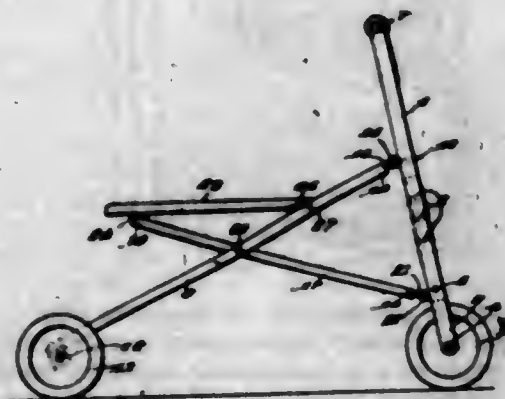
1,303,126. RECORDING WATER-GAGE. JOHN C. STEVENS, Portland, Oreg. Filed Feb. 3, 1917. Serial No. 146,400. 9 Claims. (Cl. 234-10.)



2. A recording water gage including in combination, a supporting base, a drum mounted to rotate about a vertical axis and carrying a recording sheet, devices actuated by the water level for rotating the drum, a carriage movable vertically by gravity adjacent said drum, a pencil supported by the carriage for engaging the recording sheet, a clock mechanism mounted on the carriage for timing the vertical downward movements of the pencil, and a dust-proof inclosing casing for the clock mechanism.

5. A recording water gage including in combination, a supporting base, a drum mounted to rotate about a vertical axis and carrying a record sheet, devices actuated by the water level for rotating the drum, supporting devices, a carriage traveling vertically on said supporting devices, a pencil mounted on said carriage and adapted to engage the record sheet, a casing pivoted to the carriage, a clock mechanism within said casing having a shaft carrying a gear, a vertical rack bar with which said gear is adapted to mesh, and means for holding the casing with the gear in mesh with the rack bar or for permitting the casing to be swung to move the gear out of mesh with the rack bar.

1,303,127. CHILD'S CAR. MAGNUS H. WICKMAN, Spokane, Wash., assignor of one-fourth to Carl H. Crawford, Spokane, Wash. Filed Dec. 9, 1918. Serial No. 203,937. 16 Claims. (Cl. 208-165.)



9. In a child's car, supporting and seat frames pivotally united between their ends and the supporting frame having a bearing wheel, a seat mounted on said supporting and seat frames, a steering post having a bearing wheel, the forward ends of both frames being connected with said post and the connection therewith of

one of said frames being adjustable to relatively shift said frames with respect to each other to raise or lower said seat.

1,303,128. BAKING-MACHINE. DANNOJO TAKAHASHI, Portland, Oreg. Filed Nov. 4, 1918. Serial No. 261,168. 4 Claims. (Cl. 107-58.)



2. In a baking machine, a rotatable ring; an annular track concentric with said ring and having a depressed portion therein; a vertically yieldable member above a portion of that part of said track not depressed; a plurality of pairs of upper and lower baking form members pivotally mounted upon said ring and extending radially therefrom; rollers upon each of said upper and lower baking form members adapted to contact respectively with said yieldable member and with said track; a guide adapted to coast with said rollers upon said upper baking form members to raise the same; means to heat said baking form members during a portion of each rotation thereof; means to deposit dough within the lower of said baking form members; and means to rotate said rotatable ring.

1,303,129. FLOWSHARE. WILLIAM R. THOMAS, Great Falls, Mont. Filed Feb. 16, 1918. Serial No. 217,011. 4 Claims. (Cl. 97-18.)

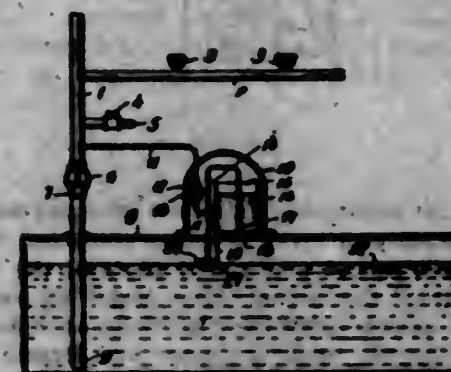


1. A sectional plow share comprising a front section and a rear section, the latter having elongated lugs at its front edge upon which the rear edge of the front section seats when the parts are abutted, a series of lugs on the front section disposed adjacent to the ends of one of the elongated lugs of the rear section, a projection on the rear section, and a spring-bow straddling the last mentioned lug and having eyes to engage the lugs of the front section and which is connected to the said projection to secure the sections *in situ*.

1,303,130. AUTOMATIC FIRE-EXTINGUISHING APPARATUS. EMMETT L. THOMPSON, Jr., Dover, N. J., assignor to Sypho-Chemical Sprinkler Corporation, Croton-on-Hudson, N. Y., a Corporation of New York. Filed Jan. 21, 1914. Serial No. 812,360. 24 Claims. (Cl. 100-24.)

1. In chemical fire extinguishing apparatus, a dry pipe distributing system comprising automatic sprinkler heads and hose connection distributing devices, a chemical pressure liquid supply tank charged with extinguishing liquid containing carbonate material and chemical mixing devices comprising an acid casing communicating with said tank and containing an acid chamber, a siphon communicating with said acid chamber and having its dis-

charge end communicating with said tank, a section connection having an automatic shut-out valve therein connected to said siphon to start the same and connected to said distributing system to be actuated under emer-



gency conditions, and means for preventing the undesirable contact of the acid and carbonate material in the siphon on starting the same comprising a priming distributing cup mounted on the discharge end of said siphon and containing acid into which the discharge end of said siphon enters.

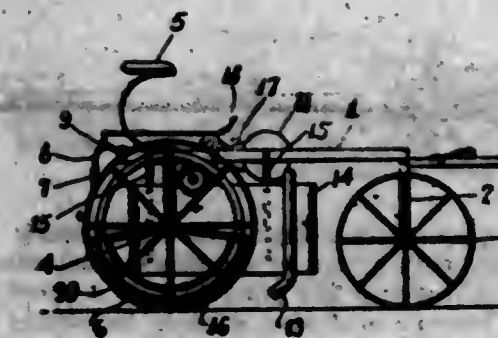
1,303,131. BUTTER-DISPENSING MACHINE. THOMAS TRIPOLARIS, Cleveland, Ohio. Filed Dec. 5, 1918. Serial No. 265,376. 5 Claims. (Cl. 51-65.)



1. In a butter serving machine, a rotary table, a plurality of butter receptacles carried by said table, a chute for the butter chips having its end located under said table to hold the chips while being filled, means for rotating said table to successively position said receptacles over said chute end, means for projecting a predetermined quantity of butter from the properly positioned receptacle, and means for severing such projected portion from the remaining contents of the receptacle; together with means for cutting the butter into a plurality of pieces as it is projected, and means for guiding such pieces into individual chips when severed from the remaining contents of the receptacles.

2. In a butter serving machine, a receptacle for the butter, a plunger in said receptacle for forcing the butter from one end thereof, a toothed operating bar extending from said plunger and means for guiding said bar, a lever having a yoke loosely receiving said bar and having a nose to engage its teeth, a fixed member against which one end of said lever bears to provide a fulcrum therefor, means for operating said lever to actuate said plunger, and for shifting said lever from engagement with said fixed member when said plunger has been moved a predetermined amount, and spring means for thus restoring said lever to its normal position.

1,303,132. MACHINE FOR EXTERMINATING BOLL-WEEVILS. ISAAC TURNER, Piggott, Ark. Filed Jan. 27, 1918. Serial No. 278,227. 8 Claims. (Cl. 42-1.)



1. A straddle-row boll weevil exterminating machine, comprising spaced meshing wheels; and air-blast means for displacing boll weevils from about the stalks of the plants and moving the same into the paths of the wheels.

1,303,133. KEY-FASTENER. PAUL T. ULRICH, Miami, Fla. Filed June 19, 1917. Serial No. 175,017. 1 Claim. (Cl. 70-7.)



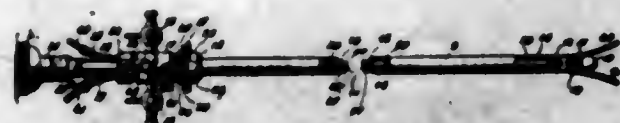
A key retainer including a spring ring adapted for detachable engagement with the shank of a door knob, a key engaging member including a barrel-like body portion the upper part of which is formed with an opening for accommodating the ring to consequently suspend the engaging member from the ring, a hook formed on the opposite terminal of the body portion and adapted to engage the eye of a key, and a spring pressed pawl slidably mounted in the body portion for removably closing the hook.

1,303,134. ROTARY ENGINE. JOHN T. VAWTER, Los Angeles, Calif. Filed Nov. 20, 1917. Serial No. 204,278. 18 Claims. (Cl. 123-16.)



7. A rotor and a stator divided into a plurality of parallel compartments, said rotor having a passageway, means operating in each compartment to deliver a charge compressed thereby successively through said passageway from one compartment to another, and means to ignite the charge.

1,303,135. **SURGICAL INSTRUMENT.** RICHMOND H. WAPPLER, New York, N. Y., assignor to Wappler Electric Company, Inc., a Corporation of New York. Filed Oct. 17, 1917. Serial No. 196,995. 9 Claims. (Cl. 128-7.)



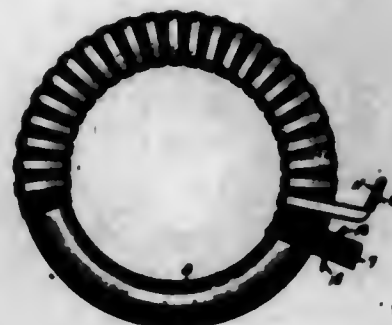
1. The combination, with a sheath carrying a lamp and provided with a bore, of a cystoscope detachably supported by said sheath and provided with a barrel portion extending through said bore, a guide detachably secured to said barrel portion of said cystoscope and provided with a partitioning member, and a plurality of flexible operating members to be thrust through said bore and guided by said partitioning member.

1,303,136. **SEEDER AND FERTILIZER DISTRIBUTER.** WILLIAM ALLEN WARD, Los Angeles, Calif., assignor to Jean Stuart Ward, Los Angeles, Calif. Filed June 22, 1918. Serial No. 241,428. 11 Claims. (Cl. 111-59.)



1. An implement of the character specified comprising a frame, a roller journaled transversely of the frame for supporting the same, series of cultivating units arranged at the front of the frame, series of seeding units arranged at the rear of the frame, each series of units being simultaneously adjustable and being yieldably supported to permit the same to move upward, and means for swinging the rear end of each series laterally, said roller consisting of two similar sections arranged end to end, a series of cultivating units being in front of each section of the roller, and a series of seeding units being behind each section of the roller.

1,303,137. **PACKAGE.** WILLIAM M. WHEILDON, Ashland, Mass., assignor to Edward H. Angier, Framingham, Mass. Filed Aug. 30, 1917. Serial No. 189,013. 9 Claims. (Cl. 206-46.)



1. A package comprising an article and a wrapping inclosing the same in a plurality of helical convolutions overlapping and adhesively secured together and a reinforcing strand interposed between the thicknesses at the joints.

1,303,138. **CARTON.** JOSEPH W. WOODWINE, Memphis, Tenn. Filed Apr. 23, 1918. Serial No. 230,390. 1 Claim. (Cl. 229-17.)



A carton for containing powdered material and adapted both for storage and using purposes composed of a single sheet of material cut and scored to form the sides, bottom and top of the carton when folded to position, the top of said carton comprising sections on opposite sides adapted to lap one upon the other and formed with centrally registering openings, and other sections adapted to fold at right angles over said first sections, one formed with perforations to register with the openings of the first named sections and the outside section with a hinged flap adapted to cover and close said perforations, substantially as set forth.

1,303,139. **ROAD-VEHICLE WHEEL.** ALFRED CECIL WRIGHT and WILLIAM DUKES, Birmingham, England, assignors to The Warland Dual Rim Company, Limited, Aston, Birmingham, England. Filed Nov. 13, 1918. Serial No. 262,306. 3 Claims. (Cl. 183-21.)



1. In road vehicle wheels, the combination comprising a bonding ring, tapered seatings at intervals around both external edges of the said ring, a detachable tire rim, seating pieces at intervals around the inner periphery of said rim, each seating piece being provided with a pair of tapered portions for seating with a pair of tapered seatings on the bonding ring, an inwardly projecting flange on one end of each seating piece, and a fastening bolt engaging said flange, substantially as described.

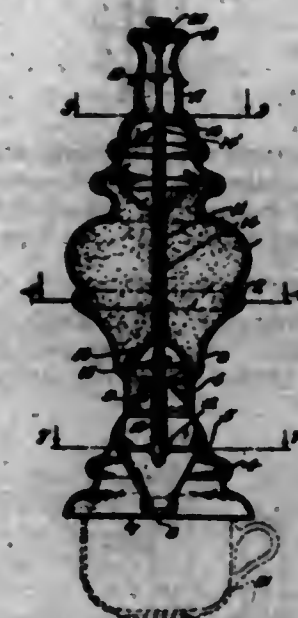
1,303,140. **THERMOSTAT SHOWER-HEAD.** LOON B. YOUNG, Cleveland, Ohio, assignor to Glueker Brass Manufacturing Company, Cleveland, Ohio. Filed Oct. 15, 1917. Serial No. 196,570. 3 Claims. (Cl. 236-6.)



3. A device to regulate the flow of hot water through a water-supply pipe, comprising a chambered casing of substantially bell shape and having a valve seat in its larger lower portion, a thermostat removably supported at its upper end in the top portion of said casing, a valve affixed to the lower end of said thermostat adapted to said valve seat and to shut off the water in greater

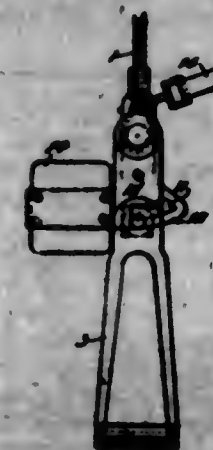
or lesser degree dependent upon the temperature thereof, and said casing having a relatively small permanently open outlet for the water to permit a slight flow of water constantly through the device.

1,303,141. **SANITARY DISPENSING APPARATUS.** FRANK YOUNG, Wallace, Calif., assignor of fifteen one-hundredths to Joe Calcaterra, Wallace, Calif. Filed Dec. 29, 1917. Serial No. 200,463. 8 Claims. (Cl. 221-62.)



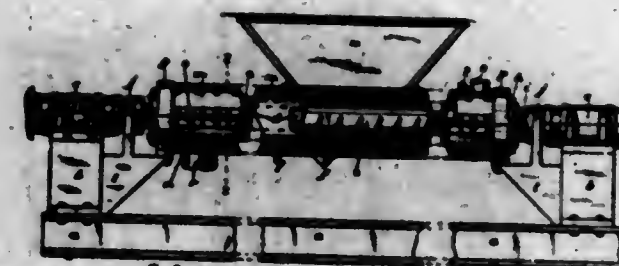
1. In a dispensing apparatus of the class described, the combination with a receptacle having a discharge outlet, of discharge means for delivering the contents of the receptacle in predetermined quantities including spaced valves one movable relatively to the other or both movable simultaneously in effecting discharge action, according to whether a relatively smaller or larger quantity of the contents is to be delivered, and means for operating either of the valves aforesaid.

1,303,142. **STIRRUP.** MARION M. ZILLMAN, Belleville, Ill. Filed June 20, 1918. Serial No. 249,889. 7 Claims. (Cl. 54-49.)



2. In a device of the class described, the combination of a stirrup strap and a stirrup connected thereto including a pivoted section, means for holding the free end of said pivoted section in operative relation with respect to the relatively stationary section comprising a detent pawl, and a latch member engaged by said pawl, and means for releasing said latch member comprising a strap connected thereto at one end and at its other end having fixed connection with the saddle, whereby upon swinging movement of the stirrup beyond a predetermined extent the latch member is released from the pawl aforesaid.

1,303,143. **SCOURING-MACHINE.** HENRY ALBENS, Portland, Oreg. Filed Dec. 7, 1917. Serial No. 206,109. 3 Claims. (Cl. 83-30.)



1. A scouring machine comprising an elongate case, a coaxial cylinder having relative rotation in the case, the interior of the case and the periphery of the cylinder being provided with cooperating series of ribs having extended flat surfaces, the ribs of one series being disposed substantially at right angles to the axis of rotation, the ribs of the other series being arranged diagonally to said axis, and said ribs being so relatively arranged that when the rotatable element is rotated the edges of the ribs thereof will pass the opposed edges of the ribs of the stationary element by a distance equal to the thickness of a kernel of grain.

1,303,144. **LIFE-SAVING SUIT.** ALBERT G. ALFANDREI, New York, N. Y., assignor to C. Kenyon Company, Kings county, N. Y., a Corporation of New York. Filed July 24, 1918. Serial No. 246,442. 7 Claims. (Cl. 9-30.)



1. A life-saving suit having a body portion adapted to inclose the body of the user, the said body portion being enlarged adjacent to the shoulder portion thereof so as to readily admit the body of the wearer, the surplus material caused by said enlargement being formed into wings at the left and at the right-hand sides of the said suit.

1,303,145. **OIL-DISPENSING MACHINE.** DAVID W. ARTHUR, Minneapolis, Minn. Filed Oct. 31, 1916. Serial No. 128,752. 22 Claims. (Cl. 221-103.)

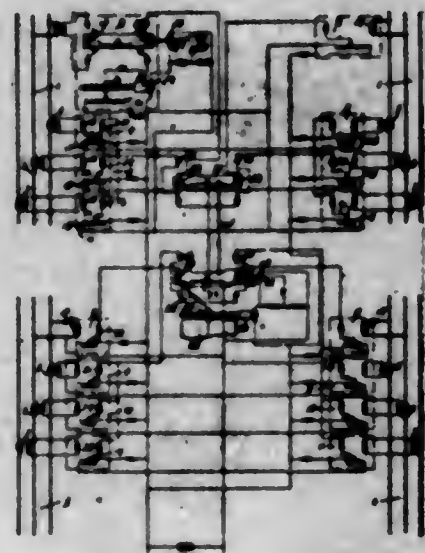
1. The combination, with a liquid supply tank, of a dispensing tank having a discharge opening, an inlet pipe leading from said supply tank to said dispensing tank, a dispensing valve controlling the flow of liquid into said dispensing tank and its discharge therefrom and normally closing the inlet to said tank, a normally open inlet valve in said supply pipe, means for closing said inlet valve when the liquid in said tank rises above a

predetermined level, and mechanism actuated through the movement of said dispensing tank valve in closing said



inlet passage and opening said dispensing tank to its discharge for opening said inlet valve and holding it in its open position.

1,803,146. ELECTRICAL MEASURING INSTRUMENT. HAROLD G. APPLIGANT and HAROLD B. TAYLOR, Wilkesburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 10, 1915. Serial No. 50,082. 14 Claims. (Cl. 175-183.)



1. A volt-ampere meter for a plurality of electric circuits comprising a plurality of Kelvin balances having windings disposed on corresponding ends thereof that are adapted to be traversed by currents proportional to the voltages and the currents of the various circuits, respectively, a source of electromotive force operatively connected to the windings disposed on the other ends thereof, means controlled by the balances for regulating the current traversing the last-mentioned windings, and a main watt-meter supplied with current proportional to the current traversing the said last-mentioned windings.

1,803,147. AUTOMOBILE-SIGNAL. JAMES F. J. ARCHIBALD, New York, N. Y., and GEORGE A. WOODMAN, Chicago, Ill. Filed Apr. 9, 1917. Serial No. 190,658. 5 Claims. (Cl. 240-7.)

2. An identification signal for automobiles comprising a fixed support adapted to be secured to the body of an

automobile, a frame movably mounted thereon and having a plurality of sets of transparent windows, each set being arranged about said frame whereby one or more



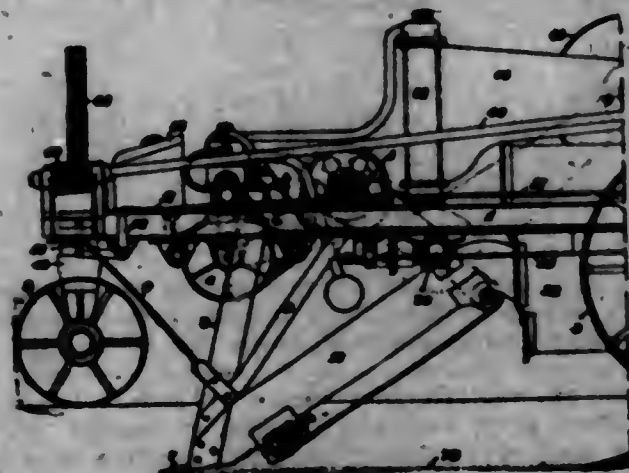
windows is visible from any direction, and the windows of contiguous sets being of different color, illuminating means within said frame, and means for securing said frame in signaling position on said support.

1,803,148. SCAFFOLDING-BRACKET FOR WOODEN-SHIP BUILDING. MAZE ANSON, Portland, Oreg. Filed June 24, 1918. Serial No. 241,704. 2 Claims. (Cl. 20-84.)



1. A scaffold bracket comprising a three-sided rectangular part having an integral piece projecting in the plane of the rectangle, the free end of the latter being made with an inward pointed projection; and a leg pivoted to said projecting piece at a point located some distance from said rectangle, the free end of said leg being pointed.

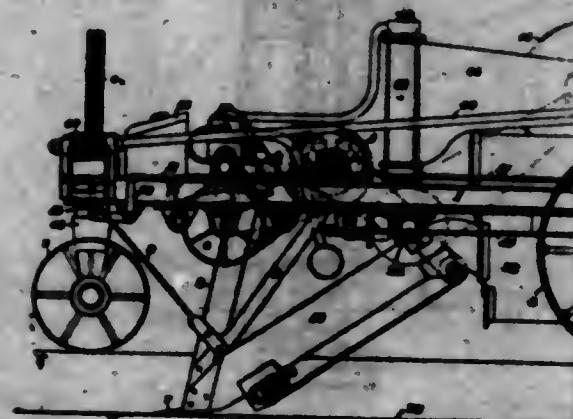
1,803,149. METHOD FOR THE TREATMENT OF SOIL. JOHANNES ROBERT CARL AUGUST, Halifax, England. Filed Nov. 21, 1918. Serial No. 262,510. 4 Claims. (Cl. 97-71.)



2. The method of treating arable soil which consists in finely disintegrating the soil and causing the particles to travel a long circuitous path within a short confined

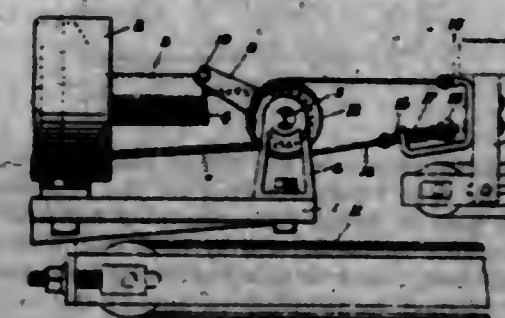
space in countercurrent with a supply of heated glass, and continuing said treatment until injurious organisms are destroyed while preserving desirable organic material.

1,803,150. APPARATUS FOR THE TREATMENT OF SOIL. JOHANNES ROBERT CARL AUGUST, Halifax, England. Original application filed Nov. 21, 1918. Serial No. 262,510. Divided and this application filed Mar. 25, 1919. Serial No. 264,900. 9 Claims. (Cl. 97-71.)



2. An apparatus for treating soil to improve its productivity comprising in combination, a vehicle, a rotary cylinder raised above the surface of the ground through which the soil is projected, means to supply earth to said cylinder, a central shaft passing therethrough and carrying heater arms adapted to rotate at high speed in an opposite direction to the cylinder, and a heater.

1,803,151. CANDY-CUTTING MACHINE. GEORGE K. BAIRDEN, Ripon, Calif. Filed Jan. 9, 1918. Serial No. 270,802. 3 Claims. (Cl. 107-30.)



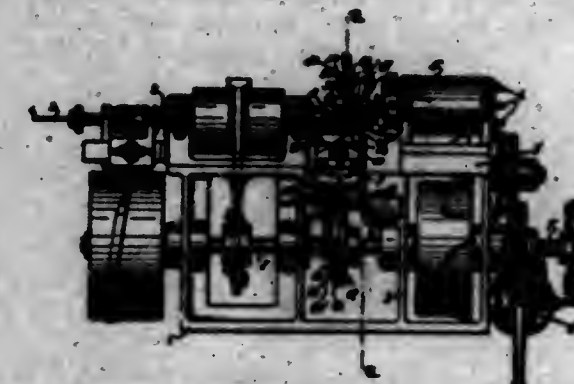
2. In combination with a plastic candy material press having a tubular outlet therefrom, a cutting wire adapted to pass adjacent the outlet to cut the product issuing therefrom, the wire being secured to arms mounted on a shaft having a gear or chain drive, and means whereby the backlash of the driving gears or chain is prevented from coming into play when the pressure on the cutting wire is released, such means including a drum on the shaft, and a brake band passing around the shaft and held thereagainst by spring tension on the outer ends of the band.

1,803,152. SCREW-MACHINE ATTACHMENT. HENRY RAMBOLD, Newark, N. J., assignor to ELLIS B. OLIVER, Newark, N. J. Filed Mar. 9, 1918. Serial No. 221,967. 9 Claims. (Cl. 90-15.)

1. In an automatic screw machine, the combination with a cross slide of means for producing a timed reciprocation of said cross slide, a supporting means on said cross slide, a transverse slide block having bearing means carried by said supporting means, a spindle journaled in said bearing means, a milling tool connected with the lower end of said spindle, transmission means for impart-

263 O. G.-9

ing rotary movement to said spindle, a push-finger operated from the turret of said screw machine to move said



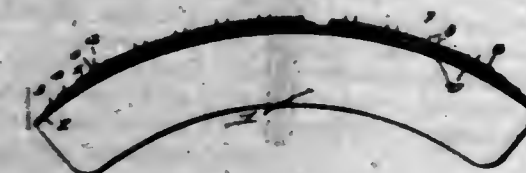
slide-block to feed said milling tool against the work, and means for returning said slide block to normal initial position to withdraw said milling tool from the work.

1,803,153. PROTECTING-RING FOR BARRELS. STEVEN A. BARNETT, Chicago, Ill., assignor to Wilson & Bennett Mfg. Co., Chicago, Ill. Filed Dec. 16, 1918. Serial No. 266,839. 4 Claims. (Cl. 220-72.)



1. The combination with a barrel having an outwardly projecting seam at the end thereof, of a protecting ring having an inner flange fitting within the end of the barrel, and an outer flange encompassing the seam and extending above the same, said outer flange being provided with projections extending inwardly over the projecting portion of the seam and engaging with the sides of the barrel.

1,803,154. REPAIR-BOOT. RICHARD C. BIGHAM, Spokane, Wash. Filed Jan. 11, 1919. Serial No. 270,676. 3 Claims. (Cl. 152-24.)



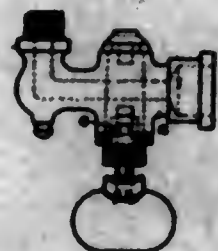
1. A repair boot for insertion between the inner tube and the casing of a pneumatic tire, comprising in combination, a boot body, and a plurality of staples formed of stock of substantially uniform cross section throughout its length and having their pointed ends projecting from said body for insertion into the casing, the open blights of said staples being embedded in said body.

1,803,155. BLAST-FURNACE. CHARLES HENRY BINGHAM, London, England. Filed Aug. 1, 1918. Serial No. 247,835. 2 Claims. (Cl. 206-14.)



2. In a blast furnace plant, a furnace gas outlet channel, an air blast supply channel, a dust extractor through which the said furnace gas passes after cooling in the heat interchanger and a hot stove for the air blast, fed by a portion of the cooled furnace gas.

1,303,156. SAFETY GAS-VALVE. SAMUEL E. BARTON, Paterson, N. J. Filed Oct. 15, 1918. Serial No. 258,203. 1 Claim. (Cl. 251-105.)



In combination, a valve casing having a passage to be controlled, a valve journaled in the casing and having a port movable into and out of registry with the passage, said casing having a notched bearing surface extending around the axis of the valve-proper and said valve being held against movement in the casing longitudinally of its axis, a key movable in the valve and having a laterally projecting part, the valve having a chamber around the key and a longitudinal slot opening into said chamber and through which said part protrudes, and a spring in the chamber interposed between said part and a portion of the valve and holding said part against said surface, said part being enterable into the notch of said surface on turning the valve.

1,303,157. SPLINE-SHAFT SPANNER-WRENCH. CARL P. BROCKWAY, Toledo, Ohio, assignor to The Whilys-Overland Company, Toledo, Ohio, a Corporation of Ohio. Filed Oct. 5, 1917. Serial No. 104,904. 1 Claim. (Cl. 81-60.)



A device of the class described, comprising a handle; a head secured to said handle and provided with a broad semi-circular bearing surface; a bearing surface extending from one end of said semi-circular bearing surface tangentially thereto, and a lug extending at an angle to said tangential portion and crossing the line of the semi-circular bearing surface extended.

1,303,158. ATTACHMENT FOR LIQUID-VENDING MACHINES. GEORGE A. BROWN, Minneapolis, Minn., assignor to Anthony Liquid Vending Machine Company, Minneapolis, Minn., a Corporation. Filed Aug. 8, 1918. Serial No. 248,965. 8 Claims. (Cl. 221-108.)

1. The combination, with a liquid supply tank, of a dispensing tank having a plurality of chambers therein, and discharge openings for said chambers, an inlet pipe leading from said supply tank and having branch pipes communicating respectively with the chambers of said dispensing tank, valves normally closing the passages to said branch pipes, means for admitting air pressure to said supply tank, and opening one of the valves in said branch pipes, and overflow mechanism actuated through the rise of the liquid in said chambers above a predetermined level for closing the air inlet to said supply tank and the valve in

said branch pipe, and a by-pass pipe communicating with said chambers through said branch pipes and leading



around said overflow mechanism to said supply tank for returning the overflow to said supply tank should said overflow mechanism fail to operate.

1,303,159. INK-RIBBON FEED AND SIMILAR REVERSING MECHANISM. WALTER HENRY BOWRING, Wembley, England. Filed Apr. 14, 1917. Serial No. 162,187. 4 Claims. (Cl. 197-161.)

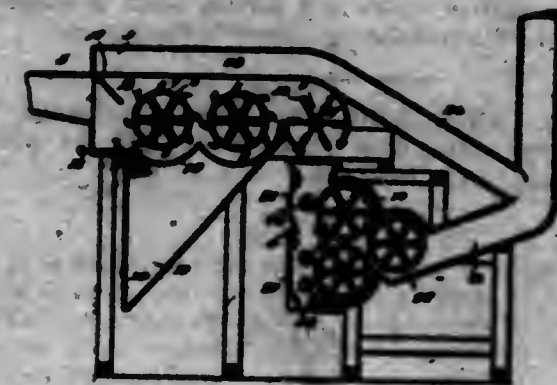


1. In apparatus having ink ribbon and like feed mechanism of the type herein referred to, the combination of a frame, a pair of ribbon reels rotatably mounted on the frame, a ratchet device carried by each reel, a reciprocating driving slide, a pair of pawls pivotally mounted on the slide and adapted respectively to engage the ratchets to turn the reels alternately as the slide reciprocates, reversing mechanism for moving the pawls alternately into and out of engagement with the ratchets, said reversing mechanism consisting of a movable member slidably mounted on the frame, a spring device tending to move the member in one direction, a second movable member slidably mounted on the frame and engaging the first movable member, a second spring device having an inherent power stronger than that of the first spring device and tending to urge the second movable member and the first movable member together in the direction reverse to the first said direction and means governed by the diameters of the said reels for regulating the movements of the said movable members.

1,303,160. COTTON-CLEANING MACHINE. ARTHUR BRUCE and CHARLES H. STONE, Colquhoun, Tex. Filed May 11, 1917. Serial No. 167,960. 1 Claim. (Cl. 18-18.)

A cotton cleaning machine comprising a casing, a plurality of horizontally arranged rotatable busters thereon over which the cotton is adapted to pass, rotatable picker wheels arranged in the casing beyond said busters, disintegrating rolls positioned in proximity to said picker wheels, a secondary housing receiving the picker wheels

and disintegrating rolls, and a pneumatic conveyor having a substantially V-shaped branch extending into the casing



ing, one extremity of the branch communicating with the secondary casing and the other extremity thereof communicating with that portion of the casing of the busters.

1,303,161. ELECTRIC SWITCH. JOHN F. CAVANAGH, Meriden, Conn., assignor to The Connecticut Telephone & Electric Co., Inc., Meriden, Conn., a Corporation of Connecticut. Filed Mar. 30, 1918. Serial No. 226,051. 8 Claims. (Cl. 178-282.)



1. An electric switch comprising, a base of insulating material having a relatively deep substantially parallel-sided recess therein, a pair of normally separated contacts mounted in said recess and confined against lateral movement by the side walls of said recess, one of said contacts having a portion extending substantially transversely across the outer end of the recess, a face plate secured to said base and closing the contact-containing recess and a switch operating lever pivoted in said face plate and engaging at its inner end the transversely extending portion of the contact for forcing said contact into engagement with the other contact.

1,303,162. SPARK-COIL. JOHN F. CAVANAGH, Meriden, Conn., assignor to The Connecticut Telephone & Electric Co., Inc., Meriden, Conn., a Corporation of Connecticut. Filed Aug. 15, 1918. Serial No. 260,017. 9 Claims. (Cl. 178-300.)



1. In a spark coil, the combination of a magnetic core, a secondary on said core, a primary about said secondary, a magnetic element about said primary and a condenser outside said magnetic shell.

1,303,163. HAND-GRENADE AND THE LIKE. FRANCIS WILLIAM CHAMBER and WILLIAM CURTIS, Hyde Park, London, England, assignors to C. P. G. Company, Limited, London, England. Filed Nov. 27, 1916. Serial No. 133,008. 11 Claims. (Cl. 102-29.)



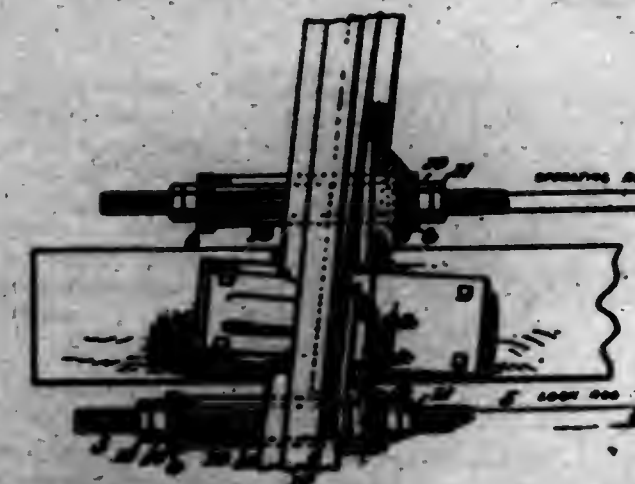
1. A grenade comprising a pair of relatively movable members, means for causing said members to move toward each other, firing mechanism controlled by the relative movement of said members, and a displaceable member supported between said relatively movable members and normally holding them apart, said member being displaced laterally from between said relatively movable members by shock of impact of the grenade.

1,303,164. HAND-GRENADE AND THE LIKE. FRANCIS WILLIAM CHAMBER, Hyde Park, London, England, assignor to C. P. G. Company Limited, London, England. Filed Nov. 27, 1916. Serial No. 133,007. 9 Claims. (Cl. 102-29.)



1. A grenade comprising firing mechanism, an externally arranged spring controlled safety lever forming part of the firing mechanism, a weighted member normally serving to retain the safety lever in its inoperative position, and means for detachably connecting said weighted member to the grenade in such manner that after the grenade has been thrown the said weighted member becomes automatically detached during the flight of the grenade and thereby releases the firing mechanism.

1,303,165. SWITCH-ROD. ALBERT E. CHASE, Easton, Pa., assignor to William Wharton, Jr., & Company, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 7, 1919. Serial No. 275,615. 8 Claims. (Cl. 340-420.)



1. Means for effecting adjustments of the character stated, comprising the combination with a switch rod or

the like, of a tongue-connecting sleeve having radial projections or ribs ranging longitudinally thereof and constituting distinct adjusting elements.

1,303,166. AUTOMATIC CUT-OFF. WILLIAM G. COLBORN, Raven, Va. Filed Jan. 13, 1919. Serial No. 270,953. 11 Claims. (Cl. 161-25.)



1. In a device for controlling time of current flow in combination, a socket plug at one end of the device, a plug receiving socket at the other, circuits between them and in one of said circuits, a clock driven lever, said lever being adapted to wind said clock mechanism in movement in one direction and to be made to reverse its movement by the clock train, the clock train controlling the time of said reverse movement and the period of current flow.

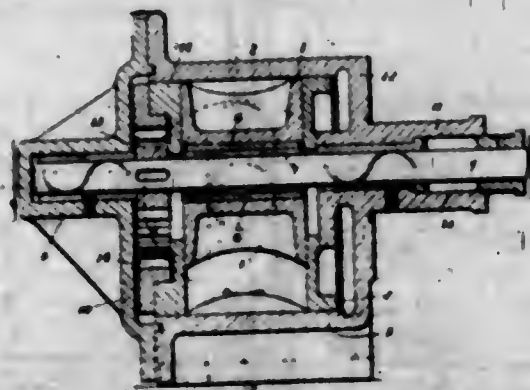
1,303,167. PROCESS FOR THE MANUFACTURE OF AMMONIUM PERCHLORATE. EMIL COLLETT, Christiania, Norway. Filed Nov. 14, 1918. Serial No. 262,622. 5 Claims. (Cl. 23-13.)

1. Process for the manufacture of ammonium perchlorate comprising the step of reacting upon sodium perchlorate with ammonium nitrate in combination with the step of reacting upon the resulting sodium nitrate in the presence of ammonium bicarbonate.

1,303,168. PROCESS FOR THE MANUFACTURE OF ANTHRAQUINONE. COURTNEY CONOVER, Philadelphia, Pa., and HARRY D. GIBBS, San Francisco, Calif. Filed June 7, 1917. Serial No. 173,405. 4 Claims. (Cl. 23-24.) (Filed under the act of Mar. 3, 1883, 22 Stat. L. 625.)

1. A process for the manufacture of anthraquinone, which process consists in subjecting anthracene in the gaseous state and mixed with oxygen-containing gas mixture, to the action of oxides of a metal of the sixth group of the periodic system heated to temperatures ranging from 350° to 550° centigrade.

1,303,169. VALVELESS ROTARY PUMP. EDWIN LAWRENCE CORSEY, Colchester, England, assignor to F. W. Brachett & Company Limited, Colchester, England. Filed June 28, 1917. Serial No. 177,551. 2 Claims. (Cl. 103-44.)



1. In a valveless rotary pump, the combination of a casing, an eccentrically disposed driving shaft, a cylinder located in said casing and adapted to rotate around said driving shaft, a toothed element on said driving shaft, a long bearing for said shaft located on both sides of said

casing, an internally toothed element on the driven cylinder adapted to co-act with the toothed element on the driving shaft, a piston reciprocating in and rotating with said cylinder, and a slot provided in said piston midway between its ends in which said driving shaft is adapted to slide during the rotative movement of the piston.

1,303,170. SWITCH-SIGNAL. JOHN CRAIGMYER, Danville, Ill. Filed Feb. 11, 1919. Serial No. 276,354. 3 Claims. (Cl. 246-476.)



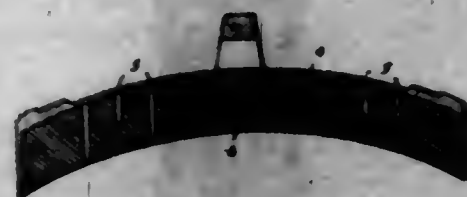
1. A railway signal mounted on a rotary staff and including a flat white or safety panel and a reentrant red or danger panel.

1,303,171. HOLDER FOR PAPER CUPS. DAVID F. CURTIN, Chicago, Ill. Filed Feb. 15, 1918. Serial No. 78,397. 10 Claims. (Cl. 65-61.)



1. A cup holder, comprising an exterior shell having a supporting base, in combination with a removable lining having a part positioned within said shell and adapted to engage a cup to hold the same in position in the shell, and means for maintaining said lining in position in the shell.

1,303,172. BRAKE-SHOE. MURRELL E. DU FRANCO, Bellevue, Pa. Filed Jan. 10, 1918. Serial No. 211,277. 5 Claims. (Cl. 188-37.)



1. In a brake shoe, an enclosing metal case and a filler for said case formed of frictional material containing a binding agent adapted to be hardened by exposure to the air, said material having channels extending therethrough for the purpose of admitting air to the interior of said material.

1,303,173. BRAKE-SHOE. MURRELL E. DU FRANCO, Bellevue, Pa. Filed June 22, 1918. Serial No. 241,415. 5 Claims. (Cl. 188-37.)



1. In a brake shoe, an enclosing metal case having perforated longitudinal side walls and a filling of frictional material containing drying oils having channels extending therethrough from opposite sides and registering with the side wall perforations.

1,303,174. AIRSHIP. JOHN B. DU STEFANO, New York, N. Y. Filed Mar. 20, 1918. Serial No. 223,515. 2 Claims. (Cl. 244-25.)



1. In an airship, the combination with a frame, of a plurality of motor casings mounted in the frame for rocking movement, motors in the casings, propellers located outwardly of the casing and mounted for rocking movement therewith, driving connections between the motors and propellers, a segment connected with one of the casings for movement therewith, said segment being provided with rack teeth, a bearing casting incorporated in the frame, a shaft journaled in the bearing casting, a gear carried by the shaft and meshing with the teeth of the segment for movement of the segment to rock the motor casing with which it is connected, a controlling wheel mounted in the frame, a second shaft connected with the controlling wheel and journaled in the bearing casting, gear connections between the two shafts, and connections between the several casings for simultaneous rocking movement thereof.

1,303,175. SHEET-METAL CONTAINER. CHARLES HANCOCK DRAPER, Cleveland, Ohio, assignor to The Draper Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 19, 1916. Serial No. 79,516. 7 Claims. (Cl. 220-61.)



1. A metal container, comprising a cylindrical sheet-metal body-portion, having a circumferential flange about its mouth or opening, and provided with an annular seat adjacent to said flange, a disk-like closure part, adapted to fit tightly upon said seat, and a split annular member removably positioned beneath the flange in such relation when seated as to be engaged peripherally at widely separated points by the flange and closure respectively and thereby forced to its seat, substantially as set forth.

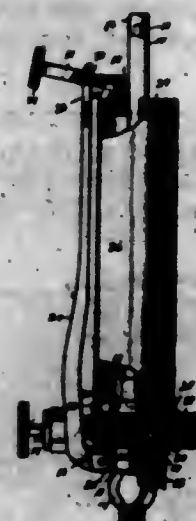
1,303,176. LIGNO TANNING MATERIAL AND PROCESS OF PRODUCING THE SAME FROM WASTE SULFITE LIQUOR. Ac. VICO DAWSON, Brooklyn, N. Y., assignor to West Virginia Pulp & Paper Company, New York, N. Y., a Corporation of Delaware. Filed June 15, 1914. Serial No. 845,143. 10 Claims. (Cl. 149-4.)

8. The ligno-tanning material in the form of a yellowish powder when dried and readily soluble in warm water to form an effective tanning liquor for leather, which may be formed by dissolving the precipitated lignin material from waste cellulose liquor converted by alkali in mono-sulfite of soda and clearing and concentrating the solution and adding sulfuric acid to form and precipitate the ligno-tanning material.

1,303,177. PROCESS OF PRODUCING LIGNO TANNING MATERIAL FROM WASTE SULFITE LIQUORS. Ac. VICO DAWSON, Brooklyn, N. Y., assignor to West Virginia Pulp & Paper Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 30, 1915. Serial No. 18,040. Renewed Nov. 22, 1918. Serial No. 263,779. 10 Claims. (Cl. 149-5.)

10. The process of forming water soluble ligno-tanning material from the waste sulfite liquor from wood pulp manufacture, etc. which comprises cooking the waste liquor with lime, separating and cooking the precipitate with alkali to dissolve the lignous material, separating the dissolved lignous material and adding acid to the solution and separating ligno-tanning material therefrom.

1,303,178. CUTTING-TORCH. MELBOURNE KNITH DUNHAM, Chicago, Ill. Filed Mar. 4, 1919. Serial No. 280,527. 4 Claims. (Cl. 168-27.4.)



1. A cutting torch having a plurality of gas conduits, a tubular handle encircling said conduits, separate members at each end of said tubular member for spacing the latter from said conduits and holding it rigid in respect to them, a valve for controlling the flow through one of said conduits, a valve lever pivoted to one of said members, and a locking or retaining element pivoted to the other of said members and engaging with the free end of said valve lever.

1,303,179. CAP FOR MUCILAGE-BOTTLES. GEORGE WHEAT, BARRETT, Bedford, Pa. Filed July 12, 1918. Serial No. 244,008. 1 Claim. (Cl. 91-67.3.)

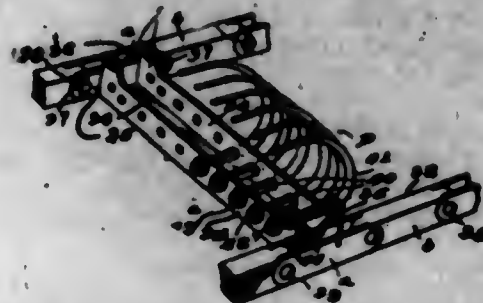
A mucilage bottle cap having an exterior flange to fit around the neck of the bottle and being provided with a central opening for the passage of a brush handle, a

cylindrical member depending from said cap in spaced relation to said flange, and a transverse pin extending



centrally across said member and serving as a scraper element.

1,308,180. POTATO-HARVESTER. GEORGE O. HANN-HARDT, Battleriver, Minn., assignor of one-half to Joseph Jerome, Battleriver, Minn. Filed July 10, 1917. Serial No. 179,738. 5 Claims. (Cl. 55-51.)



1. In a machine of the class described, the combination with an endless conveyor comprising two chains and supporting and guiding means for the same, of a digging element comprising a plate having upturned flanges provided with apertures and fork elements having shanks extending through and securedly connected with the apertured flanges.

1,308,181. DUST-CATCHING RADIATOR-CAP. WALTER A. BROWN, Denver, Colo. Filed July 19, 1918. Serial No. 345,637. 3 Claims. (Cl. 237-79.)



1. A radiator cap adapted to inclose the upper portion of a radiator and extend down around the radiator sufficiently to create a draft, the cap being open at its top and bottom, a filter slidably and removably mounted within the cap, entirely filling it horizontally, and supported directly above the radiator and directly below the top of the cap, whereby heated air will have an unobstructed vertical passage from the radiator to the filter and from the filter to and through the top of the cap.

1,308,182. AUTOMATIC STOP FOR WINDOW-SHADE ROLLERS. OTTO E. EDERSON, San Francisco, Calif. Filed Feb. 26, 1918. Serial No. 219,308. 5 Claims. (Cl. 156-36.)

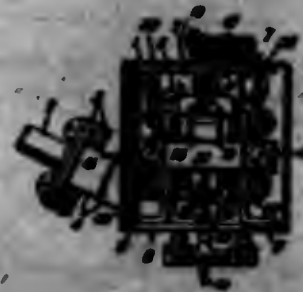
5. The combination with a window shade roller and the shade cloth mounted thereon of a stationary spindle forming a support and bearing member for one end of the

roller, a slidably mounted stop member carried by the spindle, and means on the roller engageable with said



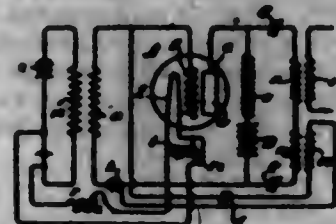
stop to positively limit the number of revolutions of the roller when unwinding and to positively limit and cushion the turning movement of the roller when rewinding.

1,308,183. PHONOGRAPH-TRANSMITTER. HENRY C. BUNSTON, Passaic, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Mar. 18, 1918. Serial No. 83,909. 5 Claims. (Cl. 179-100.1.)



1. In a phonograph transmitter, a stylus, a magnetic circuit, an inductive current circuit for said magnetic circuit, an armature for said magnetic circuit, and a plurality of motion-reducing leverage systems for connecting said stylus with said armature whereby said armature is moved less than said stylus upon movement of the latter.

1,308,184. METHOD OF AND APPARATUS FOR CONTROLLING ELECTRICAL ENERGY. CAMELUS D. EMMET, Philadelphia, Pa. Filed Dec. 29, 1917. Serial No. 269,445. 27 Claims. (Cl. 256-19.)



1. The method of signaling which consists in producing electrical energy in a circuit including a space traversed by electrons, simultaneously varying in accordance with the signal to be sent the temperature of an electron-emitting body and the potential of a body in the path of the electrons to cumulatively vary electrical energy in said path.

1,308,185. STORAGE AND DISPLAY STAND. CHARLES W. BROWLING, Jr., Memphis, Tenn. Filed Aug. 7, 1918. Serial No. 248,734. 1 Claim. (Cl. 211-34.)



A storing and display stand for plants comprising supporting legs, tiers of receptacles mounted thereon and

having adjoining portions of their respective bottom and rear walls open and covered with wire screen, and an inclined sheet of metal carried by said supporting legs beneath said receptacles and providing a watershed, substantially as set forth.

1,308,186. CAN-WASHING APPARATUS. WILLIAM A. BRACKSON, Milaca, Minn. Filed Mar. 25, 1918. Serial No. 294,548. 1 Claim. (Cl. 141-7.)



An apparatus of the character described comprising a tubular standard, a receptacle having a hopper bottom detachably connected to the upper end of the standard, a spout leading from the hopper bottom at one side thereof, a conical-shaped member removably supported upon the bottom below the spout and having a central opening, a pipe disposed vertically in the standard and passed through the center opening in the member for the removal of the latter therefrom, a nozzle detachably connected with the pipe above the member, and a detachable can supporting grid resting upon the member and the hopper bottom.

1,308,187. HYDROVAPORIZER. ROBERT D. FENNEL, Wayzata, Minn. Filed July 12, 1918. Serial No. 108,908. 1 Claim. (Cl. 281-84.)



A hydrovaporizer for explosive engines comprising a casing provided with a discharge port and having axially spaced air and water intake ports delivering the air and water, respectively, inward from opposite directions, valves normally closing said air and water intake ports, said air valve having greater area than said water valve, an axial connection between said two valves whereby, under the action of suction on said air valve, both valves will be positively and simultaneously opened, and a cut-off valve for simultaneously cutting said air and water valves out of action.

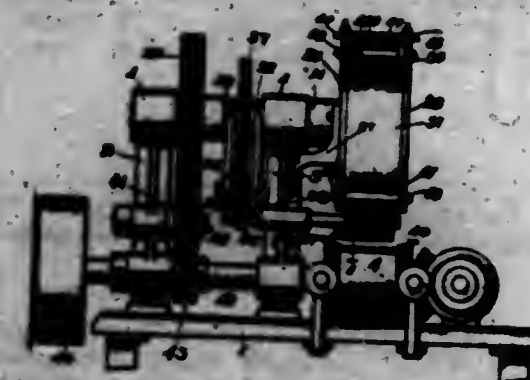
1,308,188. PUSH-BUTTON ATTACHMENT FOR STEERING-POSTS. ROBERT D. FENNEL, Wayzata, Minn. Filed Jan. 23, 1917. Serial No. 142,584. 1 Claim. (Cl. 175-308.)



The combination with a steering post having a steering wheel, of a nut securing the steering wheel to said post, said nut having a socket, a push-button mounted in said socket, an insulating disk seated in the socket below

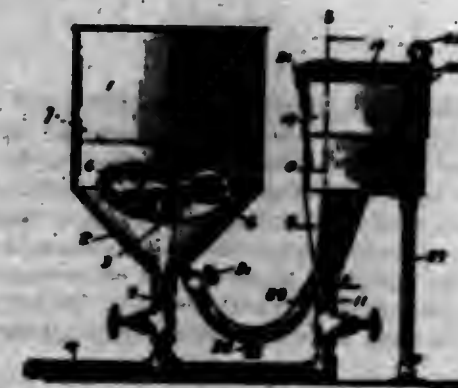
the push-button, a spring contact secured to said disk, normally out of contact with the nut and yieldingly supporting the push-button, and lead wires attached, the one to the nut and the other to the contact, said contact arranged to be moved into engagement with the nut by the depression of the push-button to close the circuit through the lead wires.

1,308,189. FORMING-MACHINE. JOHN W. FITCH, Racine, Wis., assignor to The Racine Engine & Machinery Co., Racine, Wis., a Corporation of Wisconsin. Filed Sept. 1, 1914. Serial No. 859,888. 9 Claims. (Cl. 107-30.)



1. In a cutting machine, a rotatable cylindrical head having a plurality of substantially radial slots formed therein the periphery of said head being formed to co-operate with suitable means to operate as a die to form material, a plurality of blades comprising cutting blades and spacing blades positioned between said cutting blades, each positioned in one of said slots and adapted to move radially of said head, said spacing blades having the outer edge formed to control the longitudinal position and project beyond the periphery of said head at the ends of said blades only and a shoulder at each end of each blade, in combination with means near the periphery of said head adapted to engage said shoulders to limit the outward movements of each blade at all positions of said head, and means for rotating said head.

1,308,190. HAT-RENOVATING MACHINE. LOUIS FLICKER, San Francisco, Calif. Filed Aug. 10, 1918. Serial No. 280,402. 8 Claims. (Cl. 223-31.)

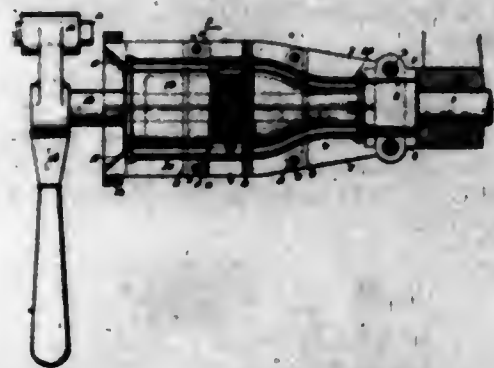


1. A hat renovating machine comprising a crown steaming element; an arcuate brim steaming and forming element; a padded cover hingedly mounted upon the brim steaming element; and means for draining condensed steam from the elements to retain a dry interior to said elements.

1,308,191. APPARATUS FOR MAKING PAPER HOLLOW WARE. WILLIAM H. FULCHER, Oakland, Calif., assignor to Fulcher Pulp Bottle Company, Oakland, Calif., a Corporation of California. Filed Dec. 14, 1914. Serial No. 877,000. 2 Claims. (Cl. 92-58.)

1. An apparatus for making paper hollow ware comprising a sectional flask having numerous perforations there-through to permit the escape of water, means for support-

ing said flask in a position to be rotated about its axis, and a former within the flask rotatable about an axis par-



allel with that of the flask for imparting pressure to the inner surface of the pulp in the interior of said flask.

1,303,192. LOCOMOTIVE EQUIPMENT FOR BLOCK-SIGNAL SYSTEMS. GEORGE W. GERLACH, Cumberland, Iowa. Filed May 26, 1917. Serial No. 171,317. 5 Claims. (Cl. 246—184.)

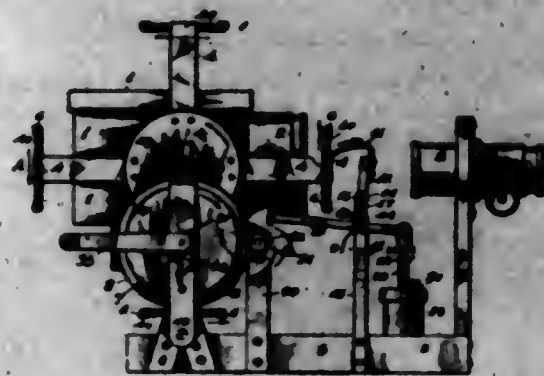


4. In a safety equipment for locomotives, the combination with an engineer's valve and its operating lever, of an electrical device adapted when energized to be held in one position and when moved to another position to move the valve lever to service position, the said device being free with respect to the valve lever, counter-weighted means for moving the electrical device to such other position when it becomes deenergized, a trip operated circuit breaker, and an energized circuit including the electrical device and circuit breaker.

1,303,193. PROJECTOR. EARL L. GILMORE, San Francisco, Calif., assignor to Vitaslide Company, San Francisco, Calif., a firm. Filed Mar. 21, 1917. Serial No. 186,478. 2 Claims. (Cl. 88—27.)

1. A projector comprising a lantern having a suitable condensing lens; an objective lens aligned with the condensing lens; a slide-carrying element arranged to rotate slides around the lantern in a vertical plane and between the lenses; means for normally rotating the slide-carrying element; an arcuate latch arranged to engage the slide-carrying element and to arrest successive slides between the lenses; a spring arranged to normally release the latch; a fluid dash-pot operatively connected to the latch and arranged to retard the release thereof; and means operatively connected to the rotating means to re-set the dash-

pot and move the latch into the path of the slide-carrying element when said element is rotated after being released



whereby successive slides may be temporarily arrested between the lenses.

1,303,194. EYELETING-MACHINE. PERLEY R. GLASS, Brookline, Mass., assignor, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 3, 1917. Serial No. 182,421. 28 Claims. (Cl. 218—15.)



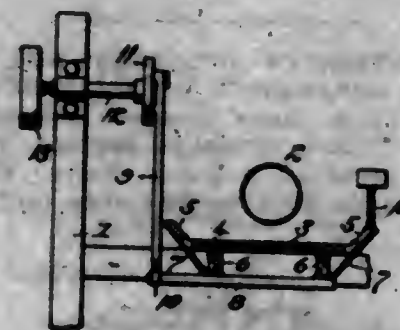
1. A machine for setting fasteners, having, in combination, fastener-setting means, a raceway for conducting fasteners thereto, and mechanism arranged to feed the fasteners one by one to said means, said mechanism being arranged to take complete hold of the second eyelet from the setting means and to maintain such hold continuously until the fastener is taken under control by the setting means.

10. A machine for setting eyelets, having, in combination, a setting device including a sectional setting die, a raceway for supplying eyelets thereto, and a solid spindle for positioning an eyelet in the raceway preliminarily to its presentation by the raceway in position for delivery.

15. A machine for setting fasteners, having, in combination, a setting device, a raceway for supplying fasteners to said device and having a movable retaining latch for positioning the endmost fastener, said latch being so constructed and arranged that movement of another fastener in the raceway disengages the latch from the endmost fastener.

18. A machine for setting fasteners, having, in combination, fastener-setting means, a movable raceway for supplying fasteners to be set by said means, a pivoted link arranged to guide a portion of said raceway, and other guiding means arranged to guide the raceway in a plane transverse to the pivotal axis of said link without affecting the curvilinear movement determined by said axis.

1,303,195. ATTACHMENT FOR PEA AND BEAN VINERS. ERIC HOWARD R. COFF, Auburn, N. Y. Filed Jan. 2, 1917. Serial No. 140,210. 3 Claims. (Cl. 180—30.)



1. An attachment for pea and bean viner, including a shaker frame hinged at its rear end for vertical reciprocation, a resilient supporting means for the intermediate portion of one side of the frame and a member connected with the other side of the frame for vertically reciprocating the frame.

1,303,196. MECHANICAL MOVEMENT. DAVID D. GORDON, Chicago, Ill., assignor to Central West Electric Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 12, 1916. Serial No. 78,018. Renewed Aug. 31, 1918. Serial No. 252,289. 11 Claims. (Cl. 74—14.)



1. Apparatus of the character described having a movable element adapted to move from one alternative position to the other, a second movable element adapted to move from one alternative position to the other, a coiled spring having its free ends associated respectively with the said movable elements, and means for moving one of said elements to thereby shift one free extremity of said spring, thereby to pass the dead center so that the other free extremity of said spring shifts the other movable element.

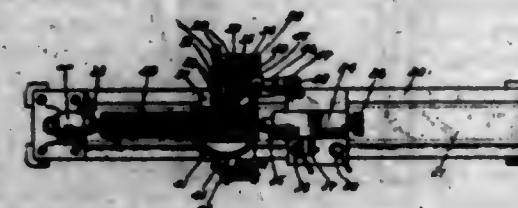
1,303,197. EXPLOSIVE SHELL OR SIMILAR BODY. FREDERICK MARTIN HALL, Bromley, England. Filed Mar. 12, 1919. Serial No. 282,211. 3 Claims. (Cl. 102—2.)



4. In an explosive shell suitable for dropping from an aircraft and similar purposes the combination, with the usual container and explosive charge therein, of a det-

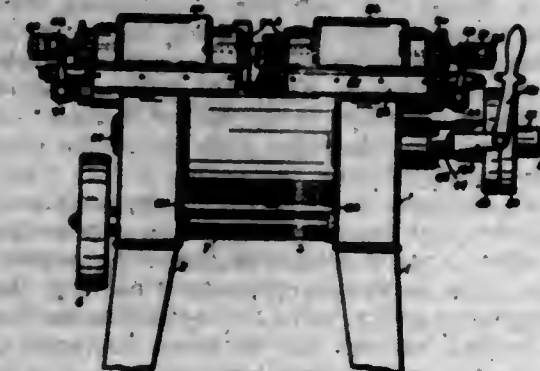
onator movable relative to the charge and provided with engaging means, radially movable locking pins mounted in the container and cooperating with said engaging means, when in their inmost position, shoulders on said pins, seats in the casing toward which said shoulders are forced when the pins move outward to free themselves from the engaging means on the detonator, and means for forcing said pins outward till the detonator is so freed and the pin shoulders seat themselves in the casing, whereby when the detonator is thus released the pin chambers are sealed against the entry of any fluids in which the shell may then be immersed.

1,303,198. ANGLE AND LEAD TESTING MACHINE. HARRY E. HARRIS, Bridgeport, Conn. Filed Dec. 5, 1917. Serial No. 205,632. 8 Claims. (Cl. 33—199.)



1. A machine of the character described, comprising a carriage, a slide movable thereon transversely thereto, a slide block movable on and transversely to the slide, and spaced apart test pieces carried by the slide block.

1,303,199. TURNING-MACHINE. HERBERT HASTINGS, Rochester, N. Y., assignor to Art in Buttons, Incorporated, Rochester, N. Y., a Corporation of New York. Filed July 3, 1918. Serial No. 777,194. 13 Claims. (Cl. 79—7.)



1. In a turning machine, the combination of a frame, a carriage mounted thereon having a gripping chuck therein adapted to grip the periphery of a button, a second carriage movable toward and away from said first carriage and having a chuck cooperating with the chuck of the first carriage, a tool holder on said frame having a tool with a cutting edge therein, said tool holder being movable to carry the cutting edge of the tool into and out of the space between the chucks of the carriages.

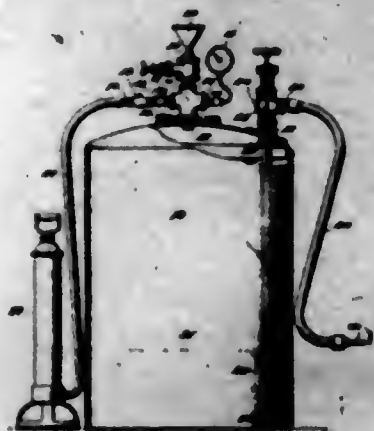
1,303,200. KNIFE-BLADE-HARDENING DEVICE. OTTO L. HEMMING, New Haven, Conn. Filed Aug. 28, 1918. Serial No. 251,748. 4 Claims. (Cl. 81—47.)



1. A device of the character described for hardening a plurality of knife blades comprising a holder, having a

base, a support having slots therein to receive the tangs of the blades, and a plurality of spring actuated fingers pivotally supported on the base and overlying the slots to automatically maintain the blades in said slots.

1,303,201. CLEANING DEVICE. ALBERT E. HOSSE, Chicago, Ill. Filed Oct. 4, 1917. Serial No. 194,821. 1 Claim. (Cl. 137-67.)



An apparatus of the class described including a tank having an opening in the top thereof, a supporting member having its lower surface bearing directly against and secured to the top of the tank and provided with a centrally disposed threaded opening and an upstanding drip flange arranged concentric with said opening, a nipple threaded in the opening in the supporting member and projecting through the opening in the tank, a hollow member engaging the threads on the nipple and bearing against the supporting member, said hollow member being disposed within the lines of the drip flange and including vertically aligned branches and horizontally aligned branches, a funnel for directing a cleansing medium through the vertically aligned branches of the hollow member into the tank, a cut-off valve interposed between the hollow member and funnel, plugs detachably fitting within the horizontal branches of the hollow member, an air conductor operatively connected with one of the plugs, a check valve for controlling the supply of air from the conductor to the tank, a cut-off valve interposed between the check valve and the adjacent plug, a gage connected with the other plug, a conductor depending within the tank, a discharge conductor communicating with the depending conductor, and a valve for controlling the flow of cleansing medium through the discharge conductor.

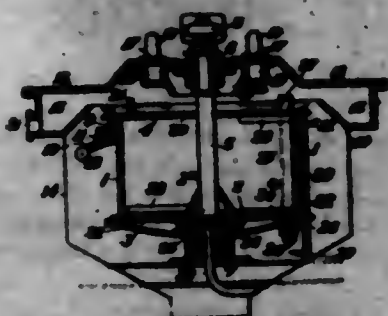
1,303,202. YARN-TENSION DEVICE. LAWIS T. HOUENROX, Worcester, Mass. Continuation in part of application Serial No. 123,621, filed Oct. 14, 1916. This application filed Sept. 24, 1917. Serial No. 192,876. 30 Claims. (Cl. 242-154.)



1. A yarn tension device comprising two cooperating series of tension members, one series being pivoted on an

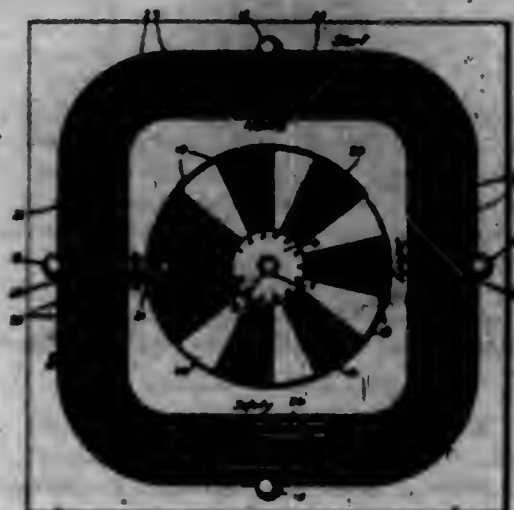
axis transverse to the direction of their length to facilitate threading, and means whereby one series can be adjusted toward or from the other series in parallel lines to vary the normal tension.

1,303,203. METHOD OF AND MEANS FOR THE CENTRIFUGAL SEPARATION OF SOLID SUBSTANCES FROM LIQUIDS. JOHN HUGHES, London, and WILLIAM OWEN TRAVIS, Hampton, England, and ROBERT ALEXANDER STURROCK, Bodruron, Wales. Filed Oct. 9, 1914. Serial No. 343,897. 16 Claims. (Cl. 233-21.)



2. The herein described method of separating solids from liquids, which comprises submitting the solids while under centrifugal pressure, to compression between a piston and a movable end of a cylinder to squeeze the liquid therefrom.

1,303,204. GAME. EMIL ISAACSON, Anaconda, Mont. Filed Nov. 21, 1918. Serial No. 308,606. 3 Claims. (Cl. 46-63.)



1. A game board having a playing surface having inscribed thereon a course divided into a plurality of spaces, a cylindrical projection rising from the center of the playing surface and having its upper surface frusto-conical, said cylindrical projection being provided with a hole, a plunger slidably disposed within said hole, means for moving said plunger upwardly to expel a ball placed within said hole, a flange rising from said playing surface concentrically of said cylindrical projection, and a plurality of radially disposed strips extending between said projection and said flange, and defining a plurality of pockets, the upper surface of said cylindrical projection being provided with numerals adjacent said pockets.

1,303,205. TOOL-HOLDER. PASCHAL BORDEN JOHNSON, Los Angeles, Calif., assignor to Frank J. Myers, Los Angeles, Calif. Filed July 19, 1917. Serial No. 181,532. 2 Claims. (Cl. 83-37.)

2. In a lathe tool holder the combination with a slide rest having an upright post adjustably engaged therewith, of a block and plate having tool holding grooves in their opposed surfaces some of which grooves cross the other

grooves, and are of different cross-sectional configuration to those they cross mounted on said post, said block having a hole therein larger than the diameter of the post; a disk mounted on said post within said block and so



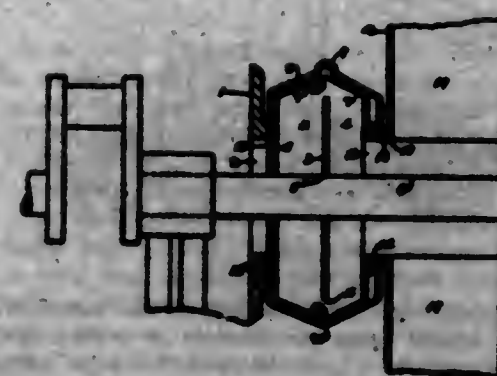
cured to said block, said disk having a hole in which said post is workably received, said hole being eccentric to the center of the disk; a cam block revolvably mounted on said post between said rest and block; and means to clamp said parts.

1,303,206. METHOD OF TESTING AND LOCATING DEFECTIVE MULTIPLE-PART PIN-TYPE INSULATORS. TOMLINSON FOSTER JOHNSON, JR., Atlanta, Ga. Filed Oct. 31, 1918. Serial No. 200,557. 5 Claims. (Cl. 175-183.)



1. The method of testing and locating defective portions of multiple part pin-type insulators on live transmission lines, which consists in drawing arcs in chosen order from the line conductor and from the cement connecting the parts of the insulator, for comparison of the intensity of the arcs to thereby ascertain whether or not the insulator is faulty in part or in whole.

1,303,207. APPARATUS FOR SEPARATING OIL FROM AIR IN AIR-COOLED SYSTEMS FOR MACHINERY. WILLIAM PATRICK KELLY and DUNIS CLARENCE SLATTERY, Wexford, Ireland. Filed May 22, 1918. Serial No. 235,998. 3 Claims. (Cl. 183-77.)



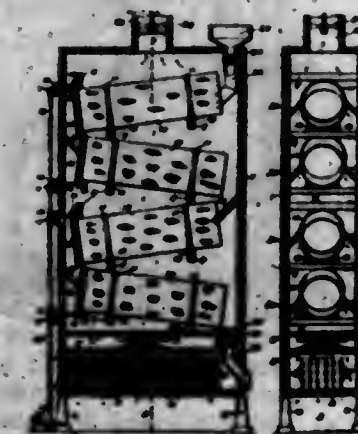
1. In an apparatus of the type described, a shaft, a disk mounted on said shaft, a plurality of vanes associated with the disk, a casing having a tapered periphery with the apex thereof open circumferentially, the said casing having secured thereto the said disk and vanes, a housing surrounding the said casing with its periphery conforming to the periphery of the casing and having an outlet therein, there being an inlet port in the said casing for admitting a mixture of air and oil, and an outlet port for the discharge of the air.

1,303,208. PHONOGRAPH-HORN. ELMER L. KENTON, Chicago, Ill. Filed Feb. 12, 1916. Serial No. 79,022. 6 Claims. (Cl. 181-27.)



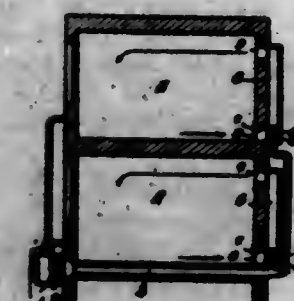
5. A sound intensifying apparatus of the class described, comprising a body portion made up of a plurality of separate sections, each of said sections supported independently for independent vibration, and means for supporting said sections in spaced apart relation with their respective longitudinal central lines falling in a continuous line.

1,303,209. EVAPORATOR. RALPH W. KING and HENRY G. MILLER, The Dalles, Oreg.; said King assignor to said Miller. Filed Apr. 14, 1917. Serial No. 162,164. 4 Claims. (Cl. 34-6.)



1. An evaporator of the character referred to comprising a vertical housing, means for heating and passing air upwardly through said housing, a plurality of oppositely inclined cylindrical screen structures mounted one above the other, with means for passing matter to be dried from one screen to the other, means for revolving said screens, whereby to agitate the matter passing therethrough, means for feeding the matter to be dried into the upper screen, means for receiving and discharging the dried matter from the lower screen, and means at opposite sides of said screens for directing the air passing upwardly through said housing through the revolving screens, substantially as described.

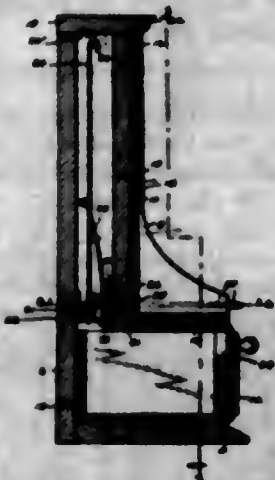
1,303,210. VENTILATING APPARATUS. ALBERT E. KLEIN, Springfield, Mass. Filed Mar. 21, 1917. Serial No. 186,426. 3 Claims. (Cl. 96-27.)



2. Apparatus for supplying air to interiors and for effecting circulation of such air through the zone of occupancy thereof, comprising a conduit embodying a

horizontal inlet branch opening into the interior to be supplied above said zone and a vertical suction branch opening at its lower end into said zone; and a distributing conduit communicating with the inlet branch of the first-named conduit for discharging a current of fresh air therethrough, so as to draw air from said interior into and through the suction branch of said first-named conduit and into the said inlet branch to mix with and temper the fresh air passing through the latter branch, and to discharge the resultant mixture into said interior and cause its circulation through said zone; the said inlet branch having spiraled fins on its interior surface to whirl the air therein.

1,808,211. DEVICE FOR RECEIVING COINS. EMERSON C. KNAISS, Seattle, Wash., assignor to James S. Evans, Seattle, Wash. Filed July 24, 1918. Serial No. 246,590. 1 Claim. (Cl. 46-50.)



A device of the class described, comprising a casing, a vertically arranged pin board disposed therein, pins projecting outwardly from one side of said pin board said pins being spaced apart far enough to permit coins to pass downwardly therebetween, a transparent plate disposed in front of said pin board in close proximity to the outer ends of said pins, a cross-plate hinged to the rear side of said pin board, coin supporting plates secured to the bottom edge of said cross-plate at right angles thereto and adapted to project below the bottom edge of said pin board to form a support for coins that may pass downwardly through said pins, a cleat secured to said cross-plate and having a notch therein, a longitudinally movable push bar embedded in the walls of said casing and projecting from the exterior thereof, a pin on said push bar and adapted to project within the notch in said cleat whereby said coin supporting plates will be moved rearwardly to release said coins when said push bar is moved inwardly, a spring to urge said push bar outwardly, and a lock drawer in the lower portion of said casing, said lock drawer having separate compartments disposed below certain chutes whereby the number of coins that have passed through said chutes may be ascertained.

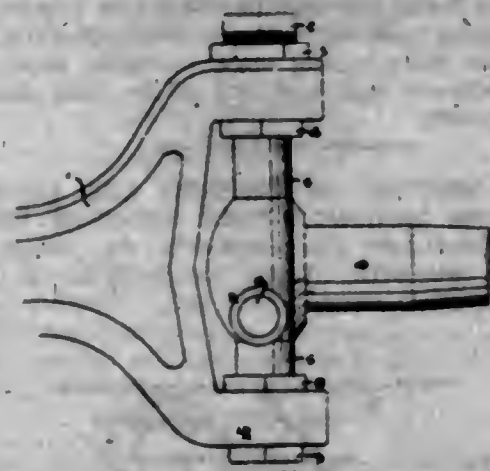
1,808,212. LABEL AND CAPSULE. GEORGE HARVEY KNIGHT, London, and HERBERT GEORGE THACKRAY, Carlisle, England, assignors to Hudson Scott & Sons, Limited, Carlisle, England. Filed Jan. 8, 1918. Serial No. 210,804. 3 Claims. (Cl. 215-24.)



1. A bottle capsule consisting of a neck-engaging portion, a top-engaging portion integrally connected to the

neck-engaging portion, and a series of integral tongues extending radially from the edge of the top-engaging portion and adapted to be bent downwardly against the side of a bottle neck and to be confined by the neck-engaging portion, the top-engaging portion being so related to the neck-engaging portion that the inner longitudinal edge of the latter extends tangentially to a circle passing through the edge of the top-engaging portion and through the base portions of said tongues.

1,808,213. ADJUSTABLE AUTOMOBILE BEARING. NATHANIEL LEA and GEORGE WILLIS LEA, Calgary, Alberta, Canada. Filed Sept. 18, 1917. Serial No. 191,263. 1 Claim. (Cl. 21-141.)



In bearings for automobile axles and in combination two cup-shaped bearings threaded into opposite arms of an automobile axle, a spindle-shaped member having arms with convex ends each fitting into one of said cup-shaped bearings, dust collars on said arms of the spindle-shaped member threaded into said arms of the automobile axle—a jam-nut on the upper of said cup-shaped bearings.

1,808,214. CALCULATING MACHINE. CHARLES WALES, New Haven, Conn., assignor, by means assignments, to The Federal Adding Machine Corporation, East Orange, N. J., a Corporation of New Jersey. Filed June 12, 1917. Serial No. 174,201. 7 Claims. (Cl. 74-46.)

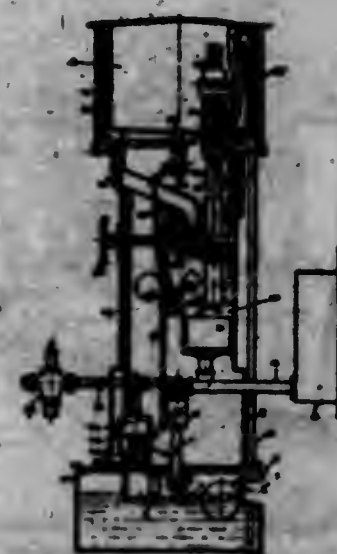


1. In a motor drive for machines, the combination of a motor, a shaft operated thereby, a worm upon said shaft, a gear shaft, a gear thereon for said worm, said worm and gear being relatively movable toward and away from one another, manually controlled means for causing said worm and said gear to engage, and means for automatically disengaging said worm and gear after a predetermined rotation of said gear shaft.

1,808,215. OIL-DISPENSING MACHINE. DAVID W. ARTHUR, Worthington, Minn. Filed Mar. 8, 1916. Serial No. 82,654. 10 Claims. (Cl. 221-112.)

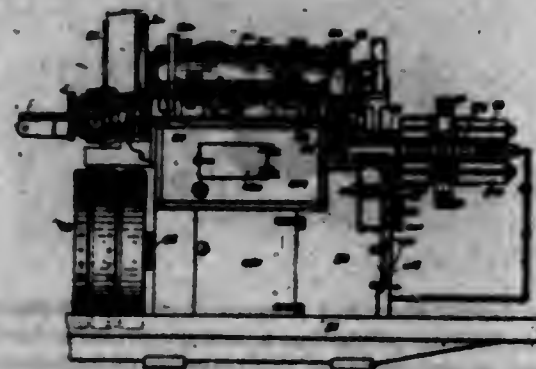
1. A liquid vending machine comprising a dispensing tank having a discharge opening and valve, means for

delivering liquid to said tank and an overflow device provided with means for shutting off such delivery when a



predetermined volume of liquid has been delivered to said tank.

1,808,216. SINGLE-DRIVE METAL-WORKING MACHINE. FRANK L. COHN, Windsor, Vt., assignor, by means assignments, to The National Acme Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 8, 1915. Serial No. 9,879. 26 Claims. (Cl. 20-41.)



10. In a metal-working machine, the combination with a main frame, and a work spindle, and a feed shaft for feeding and withdrawing the tools both journaled on the main frame, of a gear box or casing secured upon the main frame, a constant speed drive shaft and a back gear shaft journaled therein with the back gear shaft operatively but detachably connected to the spindle and the feed shaft, and variable speed power-transmitting mechanism in said box or casing between said drive shaft and said back gear shaft and including a main clutch shaft, two trains of clutch-controlled gearing actuated by the drive shaft, and two trains of clutch-controlled gearing actuated by said clutch shaft, the clutches for said trains being all located on said main clutch shaft.

1,808,217. COMBINATION PHONOGRAPH AND PICTURE-REPRODUCER. MITCHELL DE LA FONTAINE, New York, N. Y. Filed July 9, 1917. Serial No. 179,376. 4 Claims. (Cl. 88-12.2.)

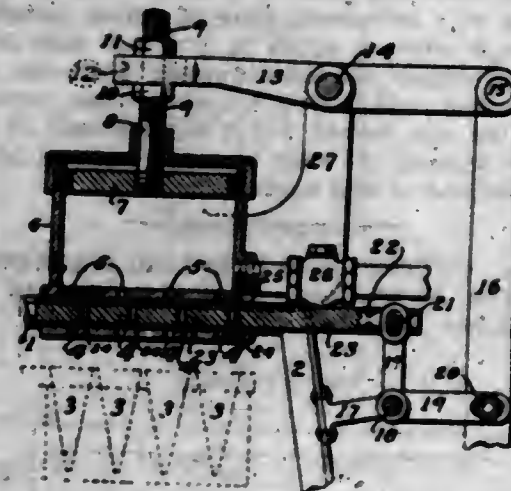
1. In a moving picture machine, the combination with a disk having pictures in spiral formation thereon, means

for intermittently rotating the disk; of a master disk connected to the picture disk, means for moving the



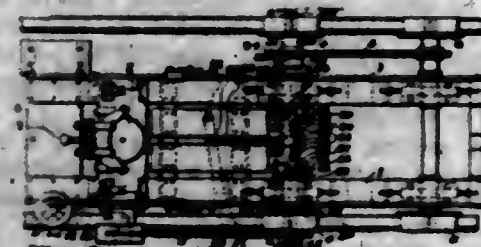
master disk in unison with the picture disk, and a lens actuated by the master disk.

1,808,218. BATTER-FEEDER FOR PASTRY-FORM MACHINES. LOUIS H. BASHLMANN, St. Louis, Mo. Filed Nov. 5, 1918. Serial No. 261,285. 1 Claim. (Cl. 107-30.)



An apparatus of the character described comprising a pump casing having a series of normally spaced pairs of outlets in its bottom, a slide operative between the outlets of such pairs and formed with a series of openings which may be brought into alignment with the outlets of such pairs to form an unbroken communication therebetween, a piston in the casing, a lever supported for pivotal movement and adjustably connected at one end of the piston, a bell crank mounted below the lever and terminally connected to the slide, and a rod adapted for reciprocative movement and connected at one end to the lever and at an intermediate point to the remaining terminal of the bell crank.

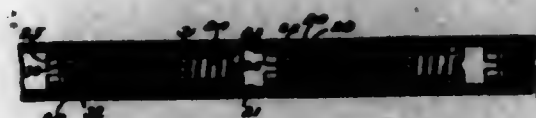
1,808,219. BRAKING MECHANISM. MORRIS P. HOLMES, Claremont, N. H., assignor to Sullivan Machinery Company, a Corporation of Massachusetts. Filed Oct. 17, 1917. Serial No. 197,083. 18 Claims. (Cl. 188-35.)



1. In a truck, a truck frame, an axle member thereon, an adjustable page unit including a wheel element and a

spacing element, a wheel driving element, and braking means adapted to engage certain of said elements for retarding the movement of the wheel element.

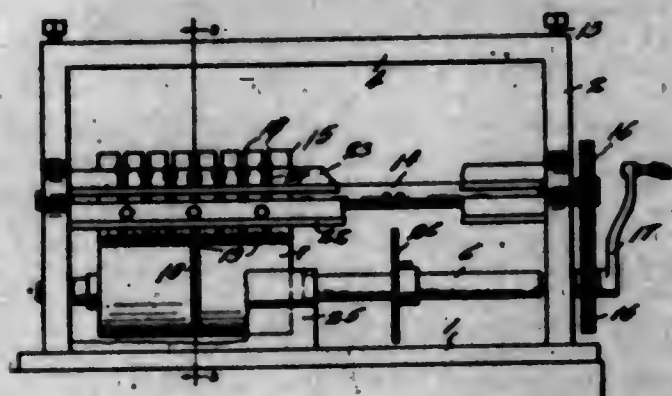
1,303,220. BRACELET. CLIFFORD G. KING, Providence, R. I., assignor to himself and Arthur I. Clark, Cranston, R. I. Filed June 8, 1918. Serial No. 238,821. 6 Claims. (Cl. 59-79.)



1. A bracelet comprising in combination a tube and a shell each having its walls at its juxtaposed ends bent inwardly, and a connecting member in said shell, said member consisting of a bifurcated plate of spring material, the end of each arm of which is provided with a recess adapted to engage the said inwardly bent ends of said tube and shell.

6. A bracelet comprising in combination a tube and a shell each having its walls at its juxtaposed ends bent inwardly, a connecting member in said shell, said member consisting of a bifurcated plate of spring material, the end of each arm of which is provided with a recess adapted to engage the said inwardly bent ends of said tube and shell, and having a central finger terminating short of the end thereof, and a key arranged to fit into the space between the ends of said arms and lying forward of the end of said finger.

1,303,221. CUTTING AND STEPPING MACHINE. LEO R. MOORE, Dallas, Tex. Filed Mar. 15, 1918. Serial No. 232,784. 5 Claims. (Cl. 164-61.)



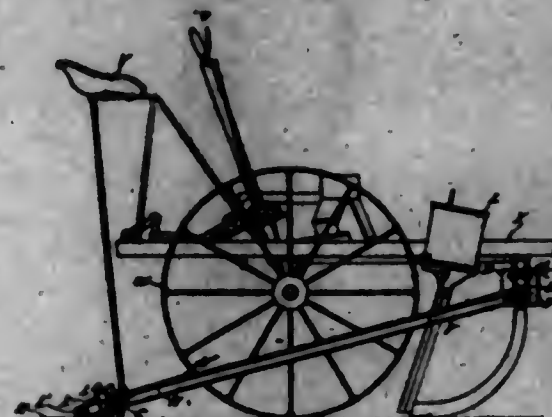
1. In a cutting and stepping machine, a support, an intermediate cutting member mounted on the support and adjusted to sever material subjected thereto, and other non-severing cutting members mounted on each side of the intermediate cutting member adjusted to cut at different depths in stepped order.

2. In a cutting and stepping machine, a support, an intermediate cutting member mounted on the support and adjusted to sever material subjected thereto, other non-severing cutting members mounted on each side of the intermediate cutting member adjusted to cut at different depths in stepped order, and means for covering material to be cut to the cutting members.

7. In a cutting and stepping machine, a support, a shaft mounted in the support, a plurality of cutter disks of stepped diameters mounted on the shaft, and a length gage adjustable on said shaft.

8. In a cutting and stepping machine, a support, a shaft mounted in the support, a plurality of cutter disks of stepped diameters mounted on the shaft, a length gage adjustable on said shaft, and a pressure roller having a circumferential groove receiving one of the cutter disks.

1,303,222. BLIND-FLOWING ATTACHMENT FOR PLANTERS. JOHN E. SEWANA and WILLIAM THACKERAY, JR., Kewanee, Ill. Filed June 7, 1918. Serial No. 238,710. 8 Claims. (Cl. 97-24.)



8. An attachment for planters comprising a suitable frame pivotally carried by the planter and including a transverse rear member, substantially V-shaped brackets on said rear member, soil plates mounted on the arms of said brackets, each consisting of a triangular plate pivoted at one corner to its respective bracket and the edges of said plates farthest from said pivot being provided with apertures whereby adjustments of the plates are secured, and drag chains looped rearwardly of said soil plates.

1,303,223. PROCESS OF MAKING ARTIFICIAL DENTURES AND OCCCLUDING-FORM FOR THE SAME. OSMOND EDGAR WALL, Honolulu, Hawaii. Filed Apr. 24, 1917. Serial No. 164,100. 4 Claims. (Cl. 52-4.)



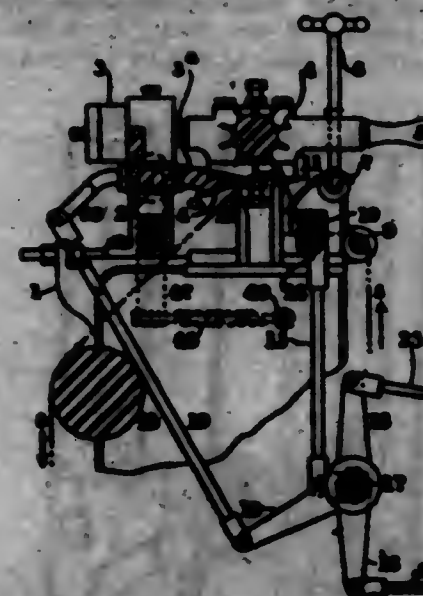
1. The herein described process of making dental plates, which consists in preparing a matrix or form having its upper and lower surfaces respectively provided with recesses or sockets conforming in shape to the incisal and masticating surfaces of a series of upper and a series of lower teeth, said recesses or sockets shaped and positioned to cause the teeth of the upper and lower sets to have substantially perfect occlusion, placing the artificial teeth of the two sets in their respective positions in the recesses or sockets of the matrix or form, securing the teeth together to constitute the respective sets while definitely positioned in the matrix or form, attaching the two sets of teeth thus respectively secured to upper and lower jaw casts respectively, finishing the respective denture plates with the teeth thus held together while they are yet retained in the matrix or form, and finally removing the matrix or form.

REISSUES.

14,642. MACHINE FOR CROPPING OR SHEARING CLOTH. THOMAS CANBY, Huddersfield, England. Filed Mar. 26, 1919. Serial No. 266,187. Original No. 1,277,004, dated Sept. 2, 1918; Serial No. 266,200, filed June 5, 1918. 9 Claims. (Cl. 164-68.)

1. In a cloth cropping machine, cutting mechanism, shifting device for moving the cutting mechanism out of engagement with the cloth, detector mechanism actuated

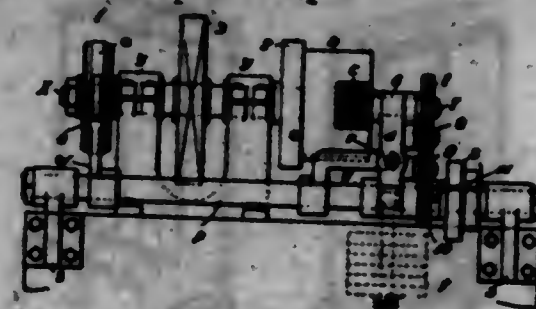
by the thickened portions of the cloth, and catch mechanism interposed between the detector mechanism and the



shifting device and permitting the shifting device to be operated to place the cutting mechanism out of action automatically when the detector mechanism is actuated.

14,643. [WITHDRAWN.]

14,644. MANUFACTURE OF PISTON-PACKINGS. FREDERICK WILLIAM LANCHESTER, London, England, assignor to Piston Ring Company, Montagen Heights, Mich., a Corporation of Michigan. Filed Feb. 4, 1918. Serial No. 215,202. Original No. 1,112,784, dated Nov. 24, 1914. Serial No. 542,268, filed Feb. 7, 1910. 4 Claims. (Cl. 29-156.1.)



2. A blank for a split metal piston ring, which piston ring is normally larger than working size but is round when compressed to the said working size, consisting of a continuous non-circular metal ring comprising a portion having the shape normally assumed by the said split metal piston ring.

DESIGNS.

53,265. LIGHTING-FIXTURE. HARRY C. ADAM, St. Louis, Mo. Filed Nov. 15, 1918. Serial No. 262,723. Term of patent 14 years.



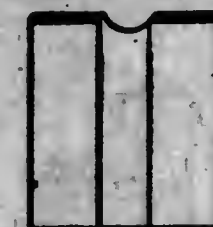
The ornamental design for a lighting fixture, as shown.

53,266. LAMP-SHADE. WILLIAM C. COLEMAN, Wichita, Kans. Filed Feb. 27, 1919. Serial No. 279,008. Term of patent 7 years.



The ornamental design for a lamp shade, as shown.

53,267. CIGARETTE-HOLDER. JOHN E. HILL, Melrose Highlands, Mass., assignor of one-half to Millard F. Cottrell, Brookline, Mass. Filed Feb. 9, 1918. Serial No. 216,353. Term of patent 7 years.



The ornamental design for a cigarette holder, as shown.

53,268. BUTTON, BADGE, PIN, OR ARTICLE OF SIMILAR NATURE. WILLIAM HOLSTEIN, New York, N. Y. Filed Jan. 27, 1919. Serial No. 273,400. Term of patent 3 1/2 years.



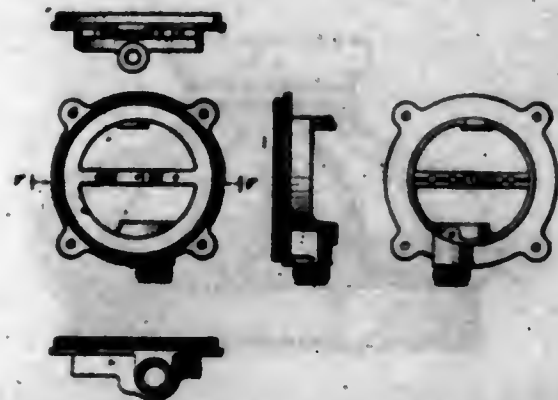
The ornamental design for a button, badge, pin, or article of similar nature, as shown.

53,269. ENGINE-MANIFOLD FOR INTERNAL-COMBUSTION MOTORS. JOHN W. HOOPER, Dallas, Tex. Filed Oct. 22, 1917. Serial No. 197,906. Term of patent 7 years.



The shape and design for an engine manifold for internal combustion motors, as disclosed.

53,270. TACHOMETER-CASING. JOSEPH W. JONES, New York, N. Y. Filed Apr. 24, 1918. Serial No. 230,590. Term of patent 14 years.



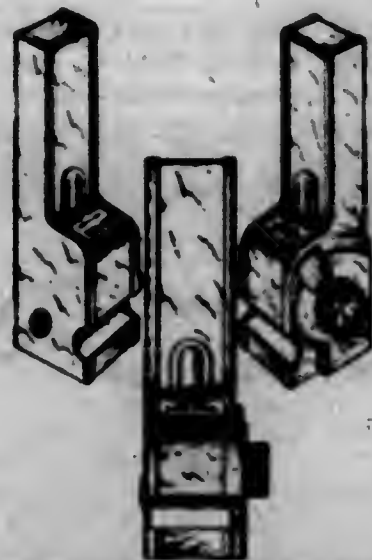
The ornamental design for a tachometer casing, as shown.

53,271. CORNER AND TWIST BOX FOR ELECTRICAL-CONDUCTOR CONDUITS. HOMER G. KNOX, Edgeworth, and CARL E. HUBBARD, Baden, Pa., assignors to National Metal Molding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 4, 1918. Serial No. 232,651. Term of patent 14 years.



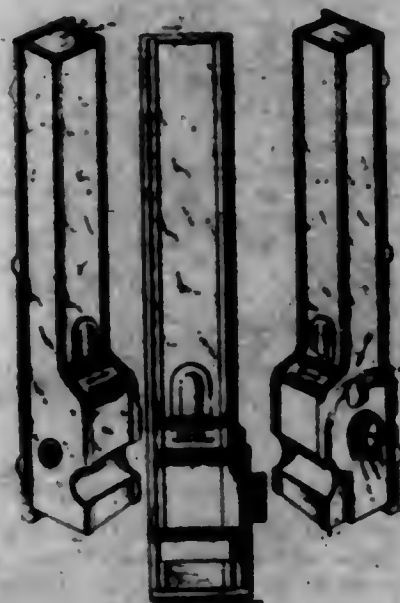
The ornamental design for a corner and twist box for electrical conductor conduits as shown.

53,272. VENDING-MACHINE. GEORGE E. MESSINGER, Birmingham, Ala., assignor, by mesne assignments, to Messenger Automatic Sales Corporation, New York, N. Y., a Corporation of New York. Filed Dec. 1, 1916. Serial No. 134,534. Term of patent 14 years.



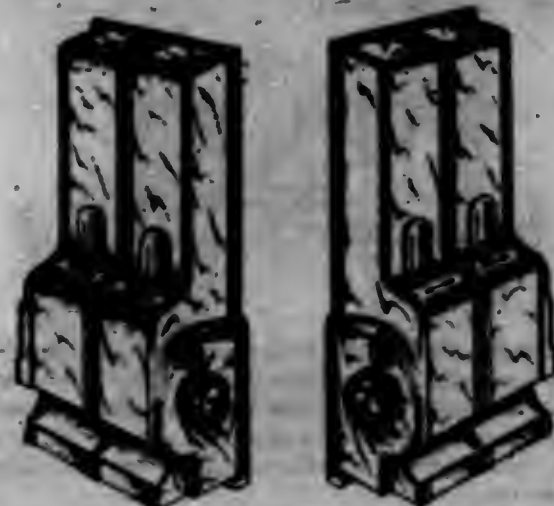
The design for a vending machine, as shown.

53,273. VENDING-MACHINE. GEORGE E. MESSINGER, Birmingham, Ala., assignor, by mesne assignments, to Messenger Automatic Sales Corporation, New York, N. Y., a Corporation of New York. Filed Dec. 1, 1916. Serial No. 134,535. Term of patent 14 years.



The design for a vending machine, as shown.

53,274. VENDING-MACHINE. GEORGE E. MESSINGER, Birmingham, Ala., assignor, by mesne assignments, to Messenger Automatic Sales Corporation, New York, N. Y., a Corporation of New York. Filed Dec. 1, 1916. Serial No. 134,536. Term of patent 14 years.



The design for a vending machine, as shown.

53,275. HAND-BAG FRAME. GIUSEPPE MONTAONI, Hoboken, N. J., assignor to The Art Hand-Bag Frame Co., New York, N. Y., a Copartnership. Filed Feb. 11, 1919. Serial No. 276,445. Term of patent 34 years.



The ornamental design for a hand-bag frame substantially as shown.

53,276. CONDUIT-CLAMP OR SIMILAR ARTICLE. HENRY W. FLEISTER, Westfield, N. J., assignor to Henry B. Newhall, Jr., executor of Henry B. Newhall, deceased. Filed Dec. 31, 1918. Serial No. 200,159. Term of patent 14 years.



The ornamental design for a conduit clamp or similar article as shown.

53,277. SPOON, FORK, OR SIMILAR ARTICLE. FREDERICK SCHWINK, Attleboro, Mass. Filed Feb. 7, 1919. Serial No. 275,671. Term of patent 34 years.



The ornamental design for a spoon, fork, or similar article, as shown.

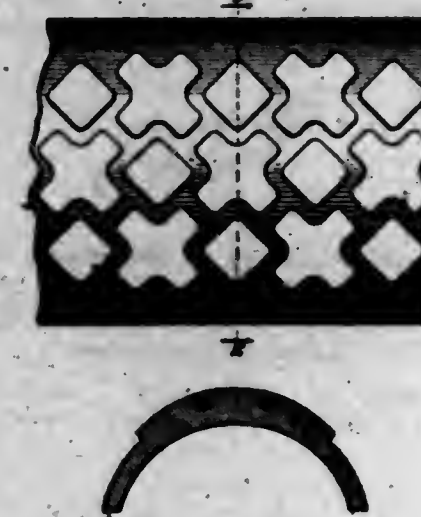
262 O. G.—10

53,278. TIRE. JOSEPH STUNGO, Pittsburgh, Pa., assignor to Stungo-Radium Rubber Company, a Corporation of Delaware. Filed Feb. 2, 1917. Serial No. 148,296. Term of patent 7 years.



The ornamental design for a tire as shown.

53,279. PNEUMATIC TIRE. MARTIN L. WIENER, Akron, Ohio, assignor to The Firestone Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Feb. 14, 1919. Serial No. 277,112. Term of patent 14 years.



The ornamental design for a pneumatic tire as shown.

TRADE-MARKS

OFFICIAL GAZETTE, MAY 6, 1919.

[PUBLISHED MAY 14, 1919.]

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 95,104. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE HAYDEN-GRIVIN Co., Toledo, Ohio. Filed May 12, 1916.



No claim is made to the exclusive use of the phrase "The Only Black That Stays Black" apart from the mark as shown.

Particular description of goods.—Stove-Blackings.
Claims use since early in the fall of 1909.

Ser. No. 94,226. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE DURABLE PHONOGRAPH COMPANY, Inc., New York, N. Y. Filed June 29, 1916.



Particular description of goods.—Phonographs.
Claims use since Apr. 6, 1916.

Ser. No. 94,694. (CLASS 32. FURNITURE AND UPHOLSTERY.) LEWIS E. MYERS, Valparaiso, Ind. Filed July 20, 1916.



Particular description of goods.—Combination Portable Desk, Constituting an Educational Device, Comprising a Blackboard Attached Thereto, a Roller-Scroll, and Various Compartments.

Claims use since Mar. 16, 1916.

Ser. No. 101,269. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) EASTMAN KODAK Co., Rochester, N. Y. Filed Feb. 10, 1917.

MASKIT

Particular description of goods.—Photographic-Printing Frames.

Claims use since Dec. 21, 1914.

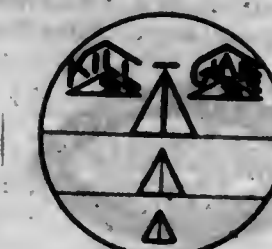
Ser. No. 104,820. (CLASS 29. CLOTHING.) SILVERSTEIN Bros., New York, N. Y. Filed July 3, 1917.



Particular description of goods.—Skirts, Underskirts, and Dresses.

Claims use since the 15th day of May, 1917.

Ser. No. 107,011. (CLASS 33. GLASSWARE.) W. HENRY SHERRILL, Seattle, Wash. Filed Oct. 24, 1917.



No claim being made to the words "Kill Glare" apart from the mark shown in the drawing.

Particular description of goods.—Automobile-Headlight Lenses.

Claims use since August the 21st, 1917.

Ser. No. 107,685. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WILLIAM A. PRATT, New York, N. Y. Filed Nov. 30, 1917.

CLEAN-O-SHINE

Particular description of goods.—Furniture and Automobile Polish.

Claims use since May 1, 1917.

Ser. No. 107,740. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARBUCKLE BROTHERS, New York, N. Y., and Chicago, Ill. Filed Dec. 4, 1917.



Particular description of goods.—Coffee, Tea, Spices, and Food-Flavoring Extracts.
Claims use in our business on coffee, tea since Jan. 1, 1907; on spices since Oct. 1, 1907, and on extracts since Oct. 1, 1907.

Ser. No. 107,975. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) LUKE B. BABIN, White Castle, La. Filed Dec. 15, 1917.



Particular description of goods.—Moss for Upholstering Purposes.
Claims use since September, 1917.

Ser. No. 108,100. (CLASS 48. MALT BEVERAGES, EXTRACTS, AND LIQUORS.) IACQUES BANWINE COMPANY, Buffalo, N. Y. Filed Dec. 22, 1917.

IRO

Particular description of goods.—A Non-Alcoholic Cereal Beverage Containing Malt, but Less Than One-Half of One Per Cent. of Alcohol, and Sold as a Soft Drink.
Claims use since July 18, 1917.

Ser. No. 108,930. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) VINCE F. DECKERT, Minneapolis, Minn. Filed Feb. 11, 1918.



The words "Tractor" and "She's a Bird To Pull" are disclaimed apart from the mark shown in the drawing.
Particular description of goods.—Tractors.
Claims use since Oct. 1, 1917.

Ser. No. 108,980. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE N. K. FAIRBANK COMPANY, Union township, near Guttenberg, N. J., and Chicago, Ill. Filed Feb. 14, 1918.

FAIRCO

Particular description of goods.—A Shortening Compound Containing Cotton-Seed Oil and Oleo-Stearia.
Claims use since Feb. 1, 1918.

Ser. No. 109,022. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA VEGETABLE UNION, Los Angeles, Calif. Filed Feb. 16, 1918.

DESERT

Particular description of goods.—Dry Bermuda Onions.
Claims use since Apr. 26, 1917.

Ser. No. 109,142. (CLASS 12. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) H. MUELLER MANUFACTURING CO., Decatur, Ill. Filed Feb. 15, 1918.

FITSEMAIL

Particular description of goods.—Fluid-Supply Pipes.
Claims use since the 1st day of May, 1906.

Ser. No. 109,712. (CLASS 20. CLOTHING.) ELSON MANUFACTURING CO., St. Louis, Mo. Filed Mar. 22, 1918.



Particular description of goods.—Night-Shirts, Pajamas, Bath-Robes, Rain-Coats, Mackinaws, Gloves, Sweaters, Sweater-Coats, Jerseys, Neck and Head Scarfs, Toggles, Infants' Knitted Wear and Underwear, Children's Underwaists, and Ladies' and Misses' Underwear—Namely, Corset-Covers, Vests, Pants, and Union-Suits, Both of Knitted and Textile Material.
Claims use since Jan. 2, 1918.

Ser. No. 109,861. (CLASS 15. OILS AND GREASES.) LOUISA CLEMENT, New York, N. Y., assignor to John A. Percival, New York, N. Y. Filed Mar. 30, 1918.

NUOLINE

Particular description of goods.—Constructed Liquid Fuel for Combustion-Engines and the Like.
Claims use since Mar. 1, 1918.

Ser. No. 110,290. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE JAWET CHOCOLATE COMPANY, Cincinnati, Ohio. Filed Apr. 16, 1918.



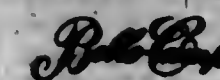
The picture forming a part of the mark is that of Janet B. Pfeiffer, taken when she was a baby.
Particular description of goods.—Chocolate and Cocoa.
Claims use since Apr. 1, 1918.

Ser. No. 110,297. (CLASS 2. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) GUSTAV KLUM, Chicago, Ill. Filed Apr. 12, 1918.



Comprising the word "Abe" and the portrait of Abraham Lincoln.
Particular description of goods.—Trunks, Hand-Bags, Suitcases, and Pocket-Books.
Claims use since March, 1918.

Ser. No. 110,325. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STANDARD CANDY COMPANY, Nashville, Tenn. Filed May 10, 1918.



Particular description of goods.—Candy.
Claims use since Mar. 1, 1908.

Ser. No. 110,331. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARY E. LUNGER, Newark, N. J. Filed May 16, 1918.



Particular description of goods.—A Therapeutic Salve or Ointment for Felons, Infected Fingers, Bells, Carbuncles, Abscesses, Chapped Hands, Caked Breasts, Fever-Sores, Tonsillitis, Powder and Shot Wounds, Flesh-Wounds, Chubblains, Frosted Feet, Ivy-Poisoning, Ringworm, Sunburn, Insect Bites and Stings, Bronchitis, Abscesses in Ears, Scalds, Ulcers, Animal-Bites, Piles, Sties, Sprains, Scald-Head, Burns, and Similar Afflictions.
Claims use since April, 1918.

Ser. No. 111,004. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. GAL, SOCIEDAD EN COMANDITA, Madrid, Spain. Filed June 19, 1918.



No claim is made to the words "Polvos Flores de Talavera Gal Madrid" apart from the trade-mark shown in the drawing, the design being printed in various shades of blue.

Particular description of goods.—Toilet Powders.
Claims use since Mar. 27, 1917.

Ser. No. 111,005. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. GAL, SOCIEDAD EN COMANDITA, Madrid, Spain. Filed June 19, 1918.



No claim is made to the words "Locion Flores de Talavera Gal Madrid" apart from the trade-mark shown in the drawing, the design being printed in various shades of blue.

Particular description of goods.—Toilet Lotions.
Claims use since Mar. 27, 1917.

Ser. No. 111,006. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. GAL, SOCIEDAD EN COMANDITA, Madrid, Spain. Filed June 19, 1918.



No claim is made to the words "Extracto Flores de Talavera Gal Madrid Extracto Flores de Talavera" apart from the trade-mark shown in the drawing, the design being printed in various shades of blue.

Particular description of goods.—Toilet Extracts.
Claims use since Mar. 27, 1917.

Ser. No. 112,004. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) VIEL, BLACKWELL & BUCK, New York, N. Y. Filed July 12, 1918.



Particular description of goods.—Iron and Steel Bars, Steel Blooms, Steel and Iron Hoops, Steel Ingots, Pig-Iron, Steel Plates, Tin Plates, Steel Rails, Fish-Plates, Steel-Wire Rods, Iron-Wire Rods, Black Sheets, Galvanized Sheets, Galvanized Corrugated Sheets, Blue Annealed Sheets, Steel Slabs, Spring-Steel, Railroad-Plates, Iron and Steel Wire, Brass Sheets, Rods, and Wire; Copper Sheets, Rods, and Wire; Tool-Steel.
Claims use since May 28, 1917.

Ser. No. 112,315. (CLASS 40. FOODS AND INGREDIENTS OF FOODS.) DUNCAN COFFEE CO., Houston, Tex. Filed July 25, 1918.

Thrift

Particular description of goods.—Coffee in Cans.
Claims use since June 28, 1918.

Ser. No. 112,330. (CLASS 39. CLOTHING.) THE ANCHOR GRIP HEEL CO., Elyria, Ohio. Filed July 30, 1918.



Particular description of goods.—Rubber Heels and Composition Shoe-Soles.
Claims use since June 15, 1918.

Ser. No. 112,502. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) CHARLES H. EUTING & COMPANY, Chicago, Ill. Filed Aug. 6, 1918.

Phonoleon

Particular description of goods.—Phonographs.
Claims use since about Feb. 1, 1918.

Ser. No. 112,821. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UNION MEAT COMPANY, Portland and North Portland, Oreg. Filed Aug. 21, 1918.

UMICO

Particular description of goods.—Nut-Margarin and Oleomargarin.
Claims use since July 1, 1918.

Ser. No. 112,834. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) NATIONAL VANNER PRODUCTS COMPANY, Mishawaka, Ind. Filed Aug. 22, 1918.



"Indestructo" in an oval, the letters constituting such word being formed with oppositely-curved lower and upper edges, so that the letters at the beginning and end are longer than those at the center.
Particular description of goods.—Trunks.
Claims use since 1906.

Ser. No. 112,857. (CLASS 9. EXPLOSIVES, FIRE-ARMS, EQUIPMENTS, AND PROJECTILES.) ANTIKOLAGET FÖRHANDS SVENSKA TÄNDSTICKSFABRIKEN, Stockholm, Sweden. Filed Aug. 24, 1918.



Particular description of goods.—Matches.
Claims use since on or about the 18th day of August, 1885.

Ser. No. 112,104. (CLASS 12. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ONIDA COMMUNITY, LIMITED, Onida, N. Y. Filed Sept. 12, 1918.

Economy Tea-ettes

Consisting of the words "Economy Tea-ettes." No claim is made for the word "Tea-ettes" apart from the mark shown in the drawing.
Particular description of goods.—Tea-ette-Spoons.
Claims use since on or before May 17, 1918.

Ser. No. 112,572. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WORUMBO MANUFACTURING COMPANY, Lisbon Falls, Me. Filed Oct. 2, 1918.

BLIZZARD

Particular description of goods.—Woolen Overcoating Goods in the Piece.
Claims use since Nov. 16, 1916.

Ser. No. 112,781. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BENJAMIN ROY, New York, N. Y. Filed Oct. 17, 1918.

ACE

Consisting of the word "Ace."
Particular description of goods.—Wood Polish in the Nature of a Furniture-Polish.
Claims use since Oct. 16, 1918.

Ser. No. 112,902. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOLOMON F. LINDER, Fort Wayne, Ind. Filed Oct. 23, 1918.



No claim being made to the representation of two legs and a rock apart from the mark shown on the drawing.
Particular description of goods.—A Medicine for Hog and Chicken Cholera.
Claims use since Oct. 7, 1918.

[Vol. 262. No. 1.]

Ser. No. 114,111. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) DANIEL RODNEY GOODING, Brooklyn, N. Y. Filed Nov. 9, 1918.

XIT

Lettering being in red.
Particular description of goods.—Hand-Operated Portable Fire-Extinguishers, Fire-Extinguishing Pumps, and Fire-Extinguishing Syringes.
Claims use since Sept. 1, 1918.

Ser. No. 114,118. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KNUTE O. NYMAN, Cincinnati and Springfield, Ohio. Filed Nov. 9, 1918.

Marylily

Particular description of goods.—Candles.
Claims use since Feb. 7, 1914.

Ser. No. 114,140. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDWIN OIL CO., INCORPORATED, Louisville, Ky. Filed Nov. 12, 1918.

NEEDO

Particular description of goods.—A Vegetable Shortening.
Claims use since Nov. 8, 1918.

Ser. No. 114,146. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WILSON ROBERTS RUBBER CO., Newark, N. J. Filed Nov. 12, 1918.



Particular description of goods.—Metal Polishing or Cleaning Erasers of Rubber or a Substitute Thereof Containing a Gritty Substance.
Claims use since July, 1918.

Ser. No. 114,153. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DIXIE CORN PRODUCTS COMPANY, Spokane, Wash. Filed Nov. 13, 1918.



No claim being made to the exclusive use of the picture of the crowned ears of corn apart from the mark as shown in the drawing.
Particular description of goods.—Cornmeal.
Claims use since July 5, 1918.

[Vol. 262. No. 1.]

Ser. No. 114,167. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE K-W LENTON COMPANY, Cleveland, Ohio. Filed Nov. 14, 1918.

SPARKITE

Particular description of goods.—Contact-Points for Circuit Making and Breaking Devices of Electrical Ignition Systems.
Claims use since about the 1st of November, 1918.

Ser. No. 114,229. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE J. S. BROWN MERCANTILE CO., Denver, Colo. Filed Nov. 26, 1918.

JONQUIL



Particular description of goods.—Canned Blackberries, Canned Pineapples, Canned Cherries, Canned Red Raspberries, Canned Loganberries, Canned Strawberries, Canned Blueberries, Canned Green Gage-Plums, Canned Egg-Plums, Canned Peaches, Canned Pears, Canned Grapes, and Canned Apricots; Fruit Jellies, Fruit Jams, Fruit Preserves, Peanut-Butter, Prepared Mustard, Chow-Chow, Tomato Catsup, Ripe Olives, Distilled Vinegar, Stuffed Olives, Queen Olives, Sweet Pickles, Sour Pickles, Mixed Pickles, and Sweet and Sour Relishes.
Claims use since Sept. 1, 1916.

Ser. No. 114,294. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) ESSEX MOTORS, Detroit, Mich. Filed Nov. 27, 1918.

ESSEX

Particular description of goods.—Automobiles.
Claims use since Sept. 21, 1917.

Ser. No. 114,297. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HUGHES TOOL COMPANY, Houston, Tex. Filed Nov. 27, 1918.



Particular description of goods.—Rotary Earth-Boring Drills, Drill-Collars, Milling-Tools, and Taps for Use in Well-Drilling.
Claims use since the 1st day of January, 1918.

Ser. No. 114,403. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NORTHERN CHEMICAL WORKS, Chicago, Ill. Filed Nov. 27, 1918.

UNIVERSAL

Particular description of goods.—A Powder for Dissolving Soot from Walls of Furnaces, Boilers, and the Like.
Claims use since July 1, 1918.

Ser. No. 114,429. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) M. P. Kuczo & Co., Inc., New York, N. Y. Filed Nov. 30, 1918.

KORONA

Particular description of goods.—Whole, Ground, and Mixed Spices.
Claims use since Oct. 1, 1918.

Ser. No. 114,542. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) SADAKICHI MATSUNAMI, Kishiwada, Japan. Filed Dec. 7, 1918.



Particular description of goods.—Lenses for Spectacles, Binoculars, Telescopes, Microscopes, Photographic Apparatus, Magic Lanterns, and Cinematographic Apparatus.
Claims use since May 12, 1913.

Ser. No. 114,512. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NEW HAMPTON MILLS, New York, N. Y. Filed Dec. 24, 1918.



No claim being made herein to the word "Cloth" apart from the mark shown in the drawing.

Particular description of goods.—An All-Cotton Box-Loom Crape Used Chiefly for Women's Outside Apparel.
Claims use since November, 1918.

Ser. No. 114,908. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ERNEST KIRSTEN, Oakland, Calif. Filed Dec. 31, 1918.

GFC

Particular description of goods.—Canned Sardines in Tomato Sauce.
Claims use since Aug. 26, 1918.

Ser. No. 114,937. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UNITED CANNERS COMPANY OF CALIFORNIA, Oakland, Calif. Filed Dec. 31, 1918.

SKILINE

Particular description of goods.—Canned Peaches.
Claims use since Oct. 15, 1918.

Ser. No. 114,941. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) AMERICAN LA FRANCE FIRE ENGINE CO., INC., Elmira, N. Y. Filed Jan. 2, 1919.



Particular description of goods.—Steam Fire-Engines, Chemical Fire-Engines, Water-Towers, Motor-Driven Fire Apparatus of the Gas-Engine Type, Chemical Fire Apparatus, Hand Fire-Extinguishers.
Claims use since Jan. 1, 1893.

Ser. No. 114,966. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WESTCOTT CHUCK COMPANY, Oneida, N. Y. Filed Jan. 4, 1919.

LITTLE GIANT

Consisting of the words "Little Giant."
Particular description of goods.—Chucks for Drills and Lathes.
Claims use since Jan. 1, 1875.

Ser. No. 114,997. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WESTCOTT CHUCK COMPANY, Oneida, N. Y. Filed Jan. 4, 1919. Under ten-year proviso.

ONEIDA

Consisting of the word "Oneida."
Particular description of goods.—Lathe-Chucks.
Claims use since Mar. 1, 1873.

Ser. No. 114,998. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WESTCOTT CHUCK COMPANY, Oneida, N. Y. Filed Jan. 4, 1919.

I. X. L.

Consisting of the letters "I. X. L."
Particular description of goods.—Lathe and Drill Chucks.
Claims use since Mar. 1, 1893.

Ser. No. 114,999. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WESTCOTT CHUCK COMPANY, Oneida, N. Y. Filed Jan. 4, 1919. Under ten-year proviso.

DOUBLE GRIP

Consisting of the words "Double Grip."
Particular description of goods.—Chucks for Drills and Lathes.
Claims use since July 2, 1890.

[Vol. 262. No. 1.]

Ser. No. 115,000. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WESTCOTT CHUCK COMPANY, Oneida, N. Y. Filed Jan. 4, 1919. Under ten-year proviso.

WESTCOTT

Consisting of the word "Westcott."
Particular description of goods.—Lathe-Chucks.
Claims use since Mar. 1, 1873.

Ser. No. 115,070. (CLASS 9. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FARMACIA E. SMITH, New York, N. Y. Filed Jan. 9, 1919.

La Victoire

Particular description of goods.—Perfumes.
Claims use since June 1, 1917.

Ser. No. 115,119. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HALLIDAY CANDY COMPANY, Davenport, Iowa. Filed Jan. 11, 1919.



Particular description of goods.—Candy.
Claims use since Jan. 1, 1913.

Ser. No. 115,154. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE PATENT CEREALS CO., Geneva and New York, N. Y. Filed Jan. 14, 1919.



Particular description of goods.—Powdered Shortening, Vanilla Extract for Flavoring Foods, Dried Peas, Tomato Catsup, Nut-Butter, Macaroni, Olives, Dried Prunes, and Canned Goods—Namely, Blackberry Jam, Condensed Milk, Corn-Syrup, Tomato Soup, Lobster, Sardines, Corn-Oil, Peaches, Olive-Oil, Mustard, Salmon, and Corn.
Claims use since Sept. 3, 1913.

[Vol. 262. No. 1.]

Ser. No. 115,965. (CLASS 15. OILS AND GREASES.) THE SCHORRELL OIL CO., INC., New York, N. Y. Filed Jan. 17, 1919.

MONITOR

Particular description of goods.—Lubricating-Oils.
Claims use since Jan. 15, 1919.

Ser. No. 115,320. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) S. S. KRESSON COMPANY, Detroit, Mich. Filed Jan. 20, 1919.

SUN'SUP

Particular description of goods.—Laundry Soap.
Claims use since Dec. 1, 1918.

Ser. No. 115,350. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) THE KERATOL COMPANY, Newark, N. J. Filed Jan. 21, 1919.



Particular description of goods.—Artificial Leather.
Claims use since June, 1918.

Ser. No. 115,357. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PROVIDENCE CHURNING COMPANY, Providence, R. I. Filed Jan. 21, 1919.

MAYFIELD

Consisting of the word "Mayfield."
Particular description of goods.—Oleomargarin.
Claims use since April, 1906.

Ser. No. 115,364. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. J. BRACH & SONS, Chicago, Ill. Filed Jan. 22, 1919.

FRUIT-AIDS

Particular description of goods.—Hard Candles.
Claims use since Dec. 1, 1918.

Ser. No. 115,370. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE CLEVELAND TRACTOR COMPANY, Euclid, Ohio. Filed Jan. 22, 1919.

Cletrac

Particular description of goods.—Tractors and Parts Thereof.
Claims use since about Dec. 31, 1918.

Ser. No. 115,387. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM GATES, Norfolk, Va. Filed Jan. 23, 1919.

GATES
O-MENTH-O

No claim being made to the word "Original" apart from the mark shown in the drawing. The picture shown on the drawing inclosed in the letter "G" is the portrait of the applicant.

Particular description of goods.—Candy Cough-Drops.
Claims use since October, 1917.

Ser. No. 115,404. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE G. H. HAMMOND COMPANY, Chicago, Ill. Filed Jan. 24, 1919.

RAMROD

Particular description of goods.—Canned Peaches, Canned Plums, Canned Apricots, and Canned Pineapples.
Claims use since Sept. 15, 1917.

Ser. No. 115,432. (CLASS 39. CLOTHING.) PROGRESSIVE KNITTING MILLS, Royersford, Pa. Filed Jan. 25, 1919.

LUXCELLO

Particular description of goods.—Knitted Underwear.
Claims use since Jan. 3, 1919.

[Vol. 288. No. 1.]

Ser. No. 115,481. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) IMMER GOLDMAN, Brooklyn, N. Y. Filed Jan. 28, 1919.



Particular description of goods.—Flash-Light Batteries.
Claims use since about the 1st day of January, 1919.

Ser. No. 115,484. (CLASS 32. FURNITURE AND UPHOLSTERY.) S. KARPEN & BROS., Chicago, Ill. Filed Jan. 28, 1919. Under ten-year proviso.

Karpen

Particular description of goods.—Furniture, Either All-Wood Furniture, All-Upholstery Furniture, Combination Wood and Cane Furniture, Combination Wood and Upholstery Furniture, Combination Cane and Upholstery Furniture, or Combination Wood, Upholstery, and Cane Furniture—Namely, Dining-Room Chairs, Bedroom-Chairs, Office-Chairs of Swivel Type, as Well as Regular Leg Bases, Restaurant-Chairs, Chairs for Billiard-Rooms, Benches for Use in Bedrooms or Living-Rooms, Type-Writer Chairs, Bookkeeping-Chairs, Shoe-Fitting Chairs, Store-Chairs, Jury-Chairs, Revolving Counter-Chairs, Revolving Stools, Costumers, Tablet Restaurant-Chairs, Settees, Sofas and Davenport; also Office-Desks, Office and Library and Bedroom Tables, Writing-Desks, End Tables, Davenport-Tables, Fernery, Chaise-Longues, Lounges, Couches of Either Cane and Wood or All Upholstered or in Combination of Cane, Wood, and Upholstery; also Fiber Rush and Reed Furniture, Consisting of Settees, Sofas, Davenports, Armchairs, Rockers, Tables, Desks, Tea-Wagons, Ferneries, Buffets, Chairs, and Bedsteads.
Claims use since 1884.

Ser. No. 115,508. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) EDWARD FORT, Baltimore, Md. Filed Jan. 29, 1919. Under ten-year proviso.

Russell's

Particular description of goods.—Maltless Carbonated Non-Alcoholic Beverages Not of a Cereal Nature, to be Sold as Soft Drinks.
Claims use since Jan. 1, 1884.

Ser. No. 115,510. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) RICHARDS-WILCOX MANUFACTURING COMPANY, Aurora, Ill. Filed Jan. 29, 1919.



The diagonal lines that appear on the letters "O," "V," "E," "A," and "Y" in the trade-mark are not intended to express any color, but are intended only to express shading.

Particular description of goods.—Tracks for Overhead Load Supporting and Conveying Mechanism.
Claims use since Nov. 20, 1918.

Ser. No. 115,536. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) NATIONAL BUNDLE TYRE COMPANY, Elyria, Mich. Filed Jan. 30, 1919.

SAXMAYER

Particular description of goods.—Bundle and Package Tying Machines.
Claims use since June 10, 1918.

Ser. No. 115,580. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ALEXANDER GINSBURG, New York, N. Y. Filed Feb. 3, 1919.

PER-SHIN

Particular description of goods.—A Non-Alcoholic Maltless Beverage Not of a Cereal Nature and Sold as a Soft Drink.
Claims use since Nov. 18, 1918.

Ser. No. 115,622. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LASHER, WHITMAN & CO., Inc., New York, N. Y. Filed Feb. 4, 1919.



Particular description of goods.—Face Goods—viz., a Fabric Made with a Cotton Warp and a Filling of Mohair or Wool or Alpaca, Singly or Combined.
Claims use since Dec. 30, 1918.

[Vol. 288. No. 1.]

Ser. No. 115,640. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HAYS MANUFACTURING CO., Rogers, Ark. Filed Feb. 5, 1919.



Particular description of goods.—Hair-Tonic.
Claims use since Sept. 10, 1915.

Ser. No. 115,648. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JULIA A. SIMS, Canton, Miss. Filed Feb. 5, 1919.

"HOFO"

Particular description of goods.—Hair-Grower, Temple-Hair Grower, and Pressing-Oil.
Claims use since Oct. 5, 1918.

Ser. No. 115,661. (CLASS 17. TOBACCO PRODUCTS.) THE HILLS BROTHERS COMPANY, New York, N. Y. Filed Feb. 6, 1919.

DROMEDARY

Particular description of goods.—Cigarettes.
Claims use since May, 1918.

Ser. No. 115,692. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE LOUDONVILLE MILL & GRAIN CO., Loudonville, Ohio. Filed Feb. 8, 1919.



Particular description of goods.—Wheat-Flour.
Claims use since Oct. 1, 1912.

[Vol. 288. No. 1.]

Ser. No. 115,702. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPHINE WATSON TOOMAS, Boston, Mass. Filed Feb. 8, 1919.

WAHACA

The trade-mark consists of the word "Wahaca."
Particular description of goods.—Antiseptic Ointments for Burns, Infected Sores, and Chapped Flesh.
Claims use since Jan. 1, 1919.

Ser. No. 115,705. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) DATTENBAUM & FRIEDMAN, New York, N. Y. Filed Feb. 8, 1919.

D&F

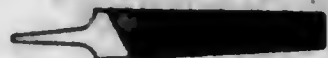
Comprising the letters "D & F."
Particular description of goods.—Gold Finger-Rings.
Claims use since about Jan. 1, 1874.

Ser. No. 115,799. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BOOTH MILLS, Lowell, Mass. Filed Feb. 12, 1919.



Particular description of goods.—Cotton Piece Goods.
Claims use since 1853.

Ser. No. 115,811. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBERT J. FIDEL, Detroit, Mich. Filed Feb. 12, 1919.



Particular description of goods.—Dyspepsia-Tablets.
Claims use since Feb. 4, 1919.

Ser. No. 115,820. (CLASS 38. CLOTHING.) VETERAN SHOE COMPANY, San Diego, Calif. Filed Feb. 12, 1919.

Veteran

Particular description of goods.—Leather Shoes for Men.
Claims use since Jan. 20, 1919.

Ser. No. 115,888. (CLASS 10. PAINTS AND PAINTERS' MATERIALS.) INSULATING MATERIALS COMPANY, Detroit, Mich. Filed Feb. 14, 1919.



Particular description of goods.—Dry Water-Color Wall-Paint and Calcimine, Dry Colors, and Colors in Oil.
Claims use since Dec. 10, 1914.

Ser. No. 115,908. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AUGUSTIN F. SCHAMBER, Manchester, N. H. Filed Feb. 14, 1919.



Particular description of goods.—A Cough-Syrup.
Claims use since December, 1916.

Ser. No. 115,873. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE DRUM MEDICINE COMPANY, Salisbury, N. C. Filed Feb. 15, 1919.

PEPLAX

Particular description of goods.—A Medicinal Preparation for the Treatment of Stomach, Nerves, and Liver.
Claims use since Oct. 18, 1918.

Ser. No. 115,884. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE OHIO CONFECTION COMPANY, Cleveland, Ohio. Filed Feb. 15, 1919.

ARMISTICE

Particular description of goods.—Candies.
Claims use since Nov. 12, 1918.

Ser. No. 115,889. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE STAMPING COMPANY, St. Paul, Minn. Filed Feb. 15, 1919.

SWEETME

Particular description of goods.—Candy.
Claims use since Jan. 2, 1919.

[Vol. 302, No. 1.]

Ser. No. 115,892. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. HARLEY WOOD, INC., New York, N. Y. Filed Feb. 15, 1919.



Particular description of goods.—Acetic, Arsenic, Benzoic, Boric, Carbolic, Citric, Lactic, Muratic, Nitric, Oxalic, Salicylic, Sulfuric, and Tartaric Acids, Alum, Bichromate Potash, Bichromate Soda, Bleaching-Powder, Camphor, Castor-Oil, Degras, Epsom Salts, Glauber Salts, Calcined Magnesium, Naphthalene Balls, Permanganate of Potash, Caustic Soda, Soda-Ash, Benzoate of Soda, Logwood Extract; Logwood, Solid; Sumac Extract, Fustic Extract; Fustic, Solid; Copper Sulfate; Quercitron, Solid; Hyperic Extract, Sulfur Black, Nigrosin, Sal-Ammoniac, Borax, Camphor, Glycerin, Chlorate Soda, Chlorate Potash, Nitrite Soda, Egg-Yolk; Anilin-Oil, Anilin Salt, Chrome-Alum, Alumina Sulfate, Prussiate of Potash, Chrysophanic, Benzo-Purpurin, Auramine, Tartrazin, Azo Phloxin, Direct Sky-Blue, Chrysoidin, Malachite-Green, Bismarck Brown R, Bismarck Brown Y, Chrome-Yellow, Methyl-Violet, Methylene-Blue, Naphthol-Yellow, Direct Khaki, and Azo Eosin.
Claims use since Dec. 20, 1918.

Ser. No. 115,901. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CONSUMERS BISCUIT COMPANY, New Orleans, La. Filed Feb. 17, 1919.

PALMA REAL

Particular description of goods.—Biscuit.
Claims use since Sept. 1, 1917.

Ser. No. 115,904. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CURRAN & JOYCE CO. INC., Lawrence, Mass. Filed Feb. 17, 1919.

HARVARD CLUB

Particular description of goods.—Non-Alcoholic, Non-Intoxicating Maltigen Beverages—Namely, Ginger-Ale, Cream-Soda, Orange-Phosphate, Lemon-Soda, Sarsaparilla-Soda, Root-Beer—and Sold as Soft Drinks.
Claims use since Dec. 24, 1918.

Ser. No. 115,953. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EMPIRE SILK COMPANY, Wilmington, Del., and New York, N. Y. Filed Feb. 18, 1919.

Guildcrepe

The word "Crepe" is disclaimed when used apart from the mark shown in the drawing.
Particular description of goods.—Silk Piece Goods.
Claims use since the 21st day of January, 1919.

[Vol. 302, No. 1.]

Ser. No. 115,974. (CLASS 32. GLASSWARE.) THE DWELER-KAISER CO., Buffalo, N. Y. Filed Feb. 19, 1919.

LIBERTY

Particular description of goods.—Sheet or Window Glass.
Claims use since Feb. 5, 1919.

Ser. No. 115,975. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARCEL F. ELDER, St. Louis, Mo. Filed Feb. 19, 1919.



Consisting of the word "Transformation." The said mark is written within a panel-shaped figure, as indicated upon the drawing.
Particular description of goods.—Face-Creams.
Claims use since Jan. 1, 1919.

Ser. No. 116,004. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MILLS & GISS CORPORATION, New York, N. Y. Filed Feb. 19, 1919.



Particular description of goods.—Handkerchiefs.
Claims use since November, 1917.

Ser. No. 116,070. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) AMERICAN STOVE COMPANY, St. Louis, Mo. Filed Feb. 24, 1919.



No claim is made to the representation of a plate and the word "No" apart from the mark shown in the drawing.

Particular description of goods.—Cooking-Stoves, Blow-Torches, Torches Used for Light, Plumbers' Furnaces for Heating Pots of Metal, Painters' Furnaces for Burning Off Paint, Tailors' Furnaces for Heating Irons, All of Which Stoves, Torches, and Furnaces Use Gasoline or Oil for Fuel.
Claims use since Nov. 1, 1917.

[Vol. 302, No. 1.]

Ser. No. 116,075. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) MAURICE R. BLACKMAN, Philadelphia, Pa. Filed Feb. 24, 1919.

Graponch

Particular description of goods.—A Non-Alcoholic Un-fermented Carbonated Grape-Juice.
Claims use since Dec. 15, 1918.

Ser. No. 116,106. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PACIFIC COAST BORAX COMPANY, New York, N. Y.; Chicago, Ill. and Oakland, Calif. Filed Feb. 24, 1919. Under ten-year proviso.

**BO
RAXO**

Particular description of goods.—Toilet and Bath Powder.
Claims use since about July 1, 1894.

Ser. No. 116,119. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE WOODCRAFT COMPANY, Atlanta, Ga. Filed Feb. 24, 1919.

**T
O
D
D
L
E
R**

Particular description of goods.—Coaster Toys.
Claims use since about May, 1918.

Ser. No. 116,189. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PENINSULAR CHEMICAL Co., Detroit, Mich. Filed Feb. 27, 1919.

AZALEA GLOW

Particular description of goods.—Face-Powder and Talcum Powder.
Claims use since Feb. 5, 1919.

Ser. No. 116,202. (CLASS 12. HARDWARE AND PLUMBING AND STREAM-FITTING SUPPLIES.) BRASS FOUNDRY, Newark, N. J. Filed Feb. 28, 1919.

711

Particular description of goods.—Pipe-Fittings—Namely, Traps, Elbows, Nipples, and Flanges.
Claims use since Jan. 1, 1918.

Ser. No. 116,222. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNITED DRUG COMPANY, Boston, Mass. Filed Feb. 28, 1919.

CARA NOME

Particular description of goods.—Perfumery.
Claims use since Oct. 1, 1918.

Ser. No. 116,247. (CLASS 17. TOBACCO PRODUCTS.) THE AMERICAN TOBACCO Co., New York, N. Y. Filed Mar. 3, 1919.

Hard Salesburg

Particular description of goods.—Cigarettes.
Claims use since Mar. 1, 1905.

Ser. No. 116,277. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHEPHERD FARMS Co., Inc., New York, N. Y. Filed Mar. 3, 1919. Under ten-year proviso.

SHEPHERD

Particular description of goods.—Milk, Cream, Evaporated Milk, and Condensed Milk.
Claims use since about 1875.

Ser. No. 116,278. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHEPHERD FARMS Co., Inc., New York, N. Y. Filed Mar. 3, 1919.

**SHEPHERD
Seallect**

Particular description of goods.—Evaporated Milk and Condensed Milk.
Claims use since about May, 1918, the word "Shepherd" having been used continuously since about 1875 and the word "Seallect" having been used continuously since October, 1913.

[Vol. 302. No. 1.]

Ser. No. 116,302. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES M. JACOBS, Springfield, Mass. Filed Mar. 6, 1919.

SOTBIAL

Particular description of goods.—A Medicinal Preparation for the Alleviation of Systemic Blood Disorders.
Claims use since Apr. 1, 1918.

Ser. No. 116,340. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KANSAS CITY MACARONI Co., Kansas City, Mo. Filed Mar. 6, 1919.

**SARLI
CLUB**

Particular description of goods.—Macaroni and Spaghetti.
Claims use since about Jan. 14, 1919.

Ser. No. 116,348. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE OHIO LEATHER COMPANY, Girard, Ohio. Filed Mar. 6, 1919.



Particular description of goods.—Tanned and Finished Calf and Side Leather.
Claims use since September, 1917.

Ser. No. 116,362. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ULACHI MANCINI Co., New York, N. Y. Filed Mar. 6, 1919.



The personal name shown on the drawing being a facsimile signature of C. J. Ulachi, founder of the business.
Particular description of goods.—Cerebral Tonic and Pulmonary Medicine and Tonic.
Claims use since 1904.

[Vol. 302. No. 1.]

Ser. No. 116,356. (CLASS 37. PAPER AND STATIONERY.) ALBANY PREPARED WRAPPING PAPER COMPANY, Albany, N. Y. Filed Mar. 7, 1919.

ONLIWON

Particular description of goods.—Paper Towels.
Claims use since Feb. 6, 1914.

Ser. No. 116,358. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BURNS, FRECHT, BICKNELL Co., Boston, Mass. Filed Mar. 7, 1919.



The word "Kid" being disclaimed.
Particular description of goods.—Finished Kid.
Claims use since Feb. 5, 1919.

Ser. No. 116,367. (CLASS 37. PAPER AND STATIONERY.) EASTERN MANUFACTURING COMPANY, Bangor, Me. Filed Mar. 7, 1919.

ATLANTIC

Particular description of goods.—Writing, Printing, and Wrapping Paper and Cardboard.
Claims use since January, 1907.

Ser. No. 116,375. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES GORZELSKI, Johnstown, Pa. Filed Mar. 7, 1919.



The trade-mark consists of my photograph.
Particular description of goods.—A Salve Used on Scalds and Burns.
Claims use since Dec. 1, 1918.

Ser. No. 116,398. (CLASS 25. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE MANHATTAN RUBBER MFG. Co., New York, N. Y. Filed Mar. 7, 1919.

BROWNDL

Particular description of goods.—A Rubber-impregnated Belting.
Claims use since November, 1918.

[Vol. 302. No. 1.]

Ser. No. 116,401. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAGGIE L. AUSTIN, Nebo, N. C. Filed Mar. 8, 1919.

A.W.P.

Particular description of goods.—A Preparation for the Treatment of All Lung Troubles, Tuberculosis, Asthma, Bronchitis, Whooping-Cough, Croup, and Hoarseness. Claims use since Dec. 1, 1918.

Ser. No. 116,414. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY JEFFERSON GRAY, Huntington, W. Va. Filed Mar. 8, 1919.

Grayhol

Particular description of goods.—Cough-Syrup, a Medicinal Preparation for Coughs, Colds, and Diseases of the Throat and Nose. Claims use since Nov. 1, 1916.

Ser. No. 116,421. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES J. MEAKIN, Cincinnati, Ohio. Filed Mar. 8, 1919. Under ten-year proviso.

Meakins

Particular description of goods.—Candy. Claims use since 1883.

Ser. No. 116,461. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GOODYEAR TIRE & RUBBER COMPANY, Akron, Ohio. Filed Mar. 11, 1919.

GLIDE

Particular description of goods.—Rubber Belting. Claims use since Apr. 6, 1916.

Ser. No. 116,462. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GOODYEAR TIRE & RUBBER COMPANY, Akron, Ohio. Filed Mar. 11, 1919.

GOODYEARITE

Particular description of goods.—Asbestos Packing. Claims use since Mar. 26, 1915.

Ser. No. 116,407. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAKITOL COMPANY, Rochester, N. Y. Filed Mar. 12, 1919.

MAKITOL

Particular description of goods.—Antiseptics. Claims use since about Feb. 1, 1919.

Ser. No. 116,408. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGIOS MAVROSTANNHOPOULO, New York, N. Y. Filed Mar. 12, 1919.

GENTRICHOS

Consisting of the word "Gentrichos." Particular description of goods.—Hair-Tonic. Claims use since Feb. 2, 1919.

Ser. No. 116,500. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) G. AMSINCK & Co., Inc., San Francisco, Calif. Filed Mar. 12, 1919.

Provincia

Particular description of goods.—Coffee. Claims use since Dec. 25, 1916.

Ser. No. 116,512. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) G. AMSINCK & Co., Inc., San Francisco, Calif. Filed Mar. 12, 1919.

Andres

Particular description of goods.—Coffee. Claims use since Dec. 25, 1916.

Ser. No. 116,513. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) G. AMSINCK & Co., Inc., San Francisco, Calif. Filed Mar. 12, 1919.

Tombs

Particular description of goods.—Coffee. Claims use since Dec. 25, 1916.

[Vol. 292. No. 1.]

Ser. No. 116,518. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOOTH FISHERIES Co., Chicago, Ill. Filed Mar. 12, 1919.

EXPLORER

Particular description of goods.—Canned Sardines. Claims use since Feb. 1, 1919.

Ser. No. 116,519. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOOTH FISHERIES Co., Chicago, Ill. Filed Mar. 12, 1919.

DECORATION

Particular description of goods.—Canned Sardines. Claims use since Feb. 1, 1919.

Ser. No. 116,520. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOOTH FISHERIES Co., Chicago, Ill. Filed Mar. 12, 1919.

PEAR

Particular description of goods.—Canned Sardines. Claims use since Feb. 1, 1919.

Ser. No. 116,521. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOOTH FISHERIES Co., Chicago, Ill. Filed Mar. 12, 1919.

Elmdale

Particular description of goods.—Canned Sardines. Claims use since Feb. 1, 1919.

Ser. No. 116,538. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) T. FAIRBANKS & Co., Chicago, Ill. Filed Mar. 12, 1919.

RAZZ

Particular description of goods.—A Non-Alcoholic Concentrated Raspberry Beverage Made from Non-Alcoholic Raspberry-Nectar and Plain or Carbonated Water Sold as a Soft Drink, and the Raspberry-Nectar Used in Making the Same.

Claims use since June 8, 1918.

292 O. G.—11

[Vol. 292. No. 1.]

Ser. No. 116,541. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) JOSEPH KRINO-PINK Co., Inc., Jersey City, N. J. Filed Mar. 12, 1919.

Champlanc

Particular description of goods.—A Non-Intoxicating, Non-Alcoholic Maltless Beverage Containing No Cereals, Sold as a Soft Drink. Claims use since Jan. 1, 1919.

Ser. No. 116,548. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MARSHALL CANNING COMPANY, Marshalltown, Iowa. Filed Mar. 12, 1919.

Brown Beauty

Particular description of goods.—Canned Beans. Claims use since Nov. 27, 1916.

Ser. No. 116,554. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) AUGUST RUDOLPH ROUSCH, Philadelphia, Pa. Filed Mar. 12, 1919.

RELIANCE

Particular description of goods.—Bottle-Stoppers. Claims use since Jan. 15, 1919.

Ser. No. 116,560. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VALLEY VIEW RANCH, Ontario, Calif. Filed Mar. 12, 1919.

OPTIMA

Particular description of goods.—Fresh Citrus Fruits—Namely, Oranges, Lemons, Tangerines, and Grape-Fruit. Claims use since Jan. 18, 1919.

Ser. No. 116,616. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Mar. 15, 1919.

Rolo

Particular description of goods.—Lawn-Mowers. Claims use since Aug. 1, 1908.

Ser. No. 116,682. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS TURAN, Brooklyn, N. Y. Filed Mar. 15, 1919.

TICK TOCKS

Particular description of goods.—A Preparation for Use in Treating Stomach and Liver Troubles. Claims use since Mar. 1, 1919.

Ser. No. 116,660. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MICHAEL L. LEVITT, Philadelphia, Pa. Filed Mar. 17, 1919.

LEVITONE

Particular description of goods.—Eye-Lotions. Claims use since 1915.

Ser. No. 116,670. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SIBERRA CHEMICAL COMPANY, Los Angeles, Calif. Filed Mar. 17, 1919.



Particular description of goods.—A Water-Softening Compound. Claims use since Oct. 1, 1914.

Ser. No. 116,696. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBANY CHEMICAL CO., Albany, N. Y. Filed Mar. 19, 1919.

KEMPURE

Particular description of goods.—An Egg-Preservative. Claims use since about Feb. 15, 1919.

Ser. No. 116,699. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ARTHUR W. DUCK, St. Louis, Mo. Filed Mar. 19, 1919.

X-OGRAPH

Particular description of goods.—Packets of Sensitized Films for Dental X-Ray Work. Claims use since May 15, 1918.

Ser. No. 116,701. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CALINIA HAIR RESTORATIVE COMPANY, Albany, N. Y. Filed Mar. 19, 1919.

CALINIA

Particular description of goods.—Hair-Tonic Preparation. Claims use since Aug. 1, 1917.

Ser. No. 116,714. (CLASS 12. HARDWARE AND PLUMBING AND STREAM-FITTING SUPPLIES.) INTERNATIONAL SILVER COMPANY, Jersey City, N. J., and Meriden, Conn. Filed Mar. 19, 1919.

SILCO

Particular description of goods.—Unplated Base-Alloy Tableware—to wit, Flat-Ware Consisting of Spoons and Forks. Claims use since Feb. 7, 1919.

Ser. No. 116,775. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KARP HÖLOVCHUK, New York, N. Y. Filed Mar. 21, 1919.

KARPHOLIN

Particular description of goods.—A Remedy for the Treatment of Gonorrhea and Blood Diseases. Claims use since about Mar. 15, 1919.

Ser. No. 116,779. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JOSEPH HENRY KARP, New York, N. Y. Filed Mar. 21, 1919.

PRAKLENE

Particular description of goods.—Soaps. Claims use since Mar. 1, 1919.

Ser. No. 116,822. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) SAMUEL STEIN, Pittsburgh, Pa. Filed Mar. 22, 1919.

Cresta

Particular description of goods.—Non-Alcoholic Non-Cereal Maltless Beverages Sold As Soft Drinks. Claims use since Jan. 15, 1914.

[Vol. 292. No. 1.]

Ser. No. 116,888. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SUNSHAM CHEMICAL COMPANY, Chicago, Ill. Filed Mar. 24, 1919.



Particular description of goods.—Ammonium Ichtho Sulfonate. Claims use since on or about Jan. 1, 1919.

Ser. No. 116,867. (CLASS 12. HARDWARE AND PLUMBING AND STREAM-FITTING SUPPLIES.) YARNALL-WARING COMPANY, Philadelphia, Pa. Filed Mar. 24, 1919.

YARWAY

Particular description of goods.—Blow-Off Valves, Pipe-Joint Clamps, Hydraulic Valves, Unloading-Valves for Air-Compressors, Spray-Nozzles for Cooling Water and Quenching Metals, and Boiler-Stimmers. Claims use for blow-off valves since on or about Apr. 20, 1918; for pipe-joint clamps since on or about Apr. 25, 1918; for hydraulic-pressure valves since on or about May 10, 1918; for unloading-valves for air-compressors since on or about June 15, 1918; for spray-nozzles for cooling water and quenching metals since on or about Aug. 1, 1918, and for stimmers since on or about Dec. 5, 1918.

Ser. No. 116,898. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PALMOLIVE COMPANY, Milwaukee, Wis. Filed Mar. 25, 1919.

Violet of the Nile

Particular description of goods.—Toilet Powders. Claims use since Feb. 15, 1919.

Ser. No. 116,894. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PALMOLIVE COMPANY, Milwaukee, Wis. Filed Mar. 25, 1919.

CLEOPATRA DIVINE

Particular description of goods.—Face-Powder. Claims use since Feb. 15, 1919.

[Vol. 292. No. 1.]

Ser. No. 116,895. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PALMOLIVE COMPANY, Milwaukee, Wis. Filed Mar. 25, 1919.

Rose Egyptian

Particular description of goods.—Toilet Powders. Claims use since Feb. 15, 1919.

Ser. No. 116,898. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PALMOLIVE COMPANY, Milwaukee, Wis. Filed Mar. 25, 1919.

Lilac Antique

Particular description of goods.—Toilet Powders. Claims use since Feb. 15, 1919.

Ser. No. 116,916. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BUNNETT MFG. CO., Burns, Oreg. Filed Mar. 26, 1919.



Particular description of goods.—A Medicinal Preparation for Use in the Treatment of Asthma, Bronchial Troubles, and other Colds and Coughs. Claims use since the 20th day of September, 1917.

Ser. No. 116,904. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) PELTON STEEL COMPANY, Milwaukee, Wis. Filed Mar. 28, 1919.



Particular description of goods.—Steel Castings. Claims use since Aug. 17, 1918.

[Vol. 292. No. 1.]

Reg. No. 117,044. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.)
EMMANUEL REMEDY CO., Fillmore, Calif. Filed Mar. 31, 1919.

Cascafras

No claim being made to the word "Tablets" apart from the mark as shown.
Particular description of goods.—A Laxative and Blood-Purifier in Tablet Form.
Claims use since Feb. 26, 1919.

Reg. No. 117,052. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.)
MARY A. KUPFER, New York, N. Y. Filed Mar. 31, 1919.

HAIRINE

Particular description of goods.—Hair-Tonic.
Claims use since Mar. 15, 1919.

[Vol. 262. No. 1.]

TRADE-MARK REGISTRATIONS GRANTED

MAY 6, 1919.

- 125,283. LEATHER BOOTS AND SHOES FOR MEN AND WOMEN. WILLIS & ATWOOD, Chicago, Ill. Filed September 3, 1918. Serial No. 112,002. PUBLISHED JANUARY 21, 1919.
- 125,284. TRADE JOURNAL PUBLISHED WEEKLY. ATLAS PUBLISHING CO., INC., New York, N. Y. Filed November 12, 1918. Serial No. 114,134. PUBLISHED JANUARY 21, 1919.
- 125,285. HOSIERY FOR MEN, WOMEN, AND CHILDREN. BURMAN BROTHERS, Chicago, Ill. Filed November 25, 1918. Serial No. 114,331. PUBLISHED JANUARY 21, 1919.
- 125,286. GRAPE-JUICE. CONCORD GRAPE JUICE COMPANY, Providence, R. I. Filed November 14, 1918. Serial No. 114,188. PUBLISHED JANUARY 28, 1919.
- 125,287. FRESH, SALTED, SMOKED, PICKLED, AND CANNED FISH. DAVIS BROS. FISHERIES, INC., Gloucester, Mass. Filed September 28, 1918. Serial No. 112,465. PUBLISHED JANUARY 28, 1919.
- 125,288. SECTION OR DEPARTMENT IN NEWSPAPERS AND OTHER PUBLICATIONS. W. W. FURCH, JR., San Francisco, Calif. Filed June 22, 1918. Serial No. 111,752. PUBLISHED JANUARY 21, 1919.
- 125,289. OINTMENT FOR THE TREATMENT OF PIMPLES, ERUPTIONS, AND ABRASIONS OF THE SKIN. GEORGE E. GRATTON, Dobbs Ferry, N. Y. Filed November 25, 1918. Serial No. 114,340. PUBLISHED JANUARY 28, 1919.
- 125,290. PERFUME. JOHN LIPSCOMB GROSSMITH, London, England. Filed March 29, 1918. Serial No. 109,863. PUBLISHED JANUARY 28, 1919.
- 125,291. MEN'S OUTER SUITS. JOSEPH T. HOLLERBACH, New York, N. Y. Filed November 14, 1917. Serial No. 107,368. PUBLISHED JANUARY 21, 1919.
- 125,292. RUBBER BOOTS AND SHOES, RUBBER OVERSHOES, AND RUBBER-SOLED CANVAS SHOES. HOOE RUBBER COMPANY, Watertown, Mass. Filed July 6, 1918. Serial No. 111,964. PUBLISHED JANUARY 7, 1919.
- 125,293. BOOTS AND SHOES OF LEATHER, SKINS, HIDES, OR PARTLY OF LEATHER, SKINS AND HIDES, AND CLOTH. HUNTINGTON SHOE AND LEATHER CO., Huntington, Ind. Filed April 29, 1918. Serial No. 110,532. PUBLISHED JANUARY 21, 1919.
- 125,294. LINIMENTS FOR EXTERNAL USE IN THE RELIEF OF PAIN FROM RHEUMATISM, NEURALGIA, SPRAINS, BRUISES, AND MUSCULAR INFLAMMATION. DR. JOHNSTON MEDICINE CO., St. Paul, Minn. Filed June 14, 1918. Serial No. 111,567. PUBLISHED JANUARY 28, 1919.
- 125,295. MEN'S, WOMEN'S, AND CHILDREN'S HOSIERY. KEAT & BOUTWELL DRY GOODS CO., Springfield, Mo. Filed June 17, 1918. Serial No. 111,618. PUBLISHED DECEMBER 31, 1918.
- 125,296. NECKWEAR COMPRISING COLLARS, SCARFS, AND NECKTIES. KEAT & BOUTWELL DRY GOODS CO., Springfield, Mo. Filed August 3, 1918. Serial No. 112,494. PUBLISHED JANUARY 21, 1919.
- 125,297. SOAP. LAUTZ BROS. & CO., Buffalo, N. Y. Filed July 18, 1918. Serial No. 112,304. PUBLISHED JANUARY 14, 1919.
- 125,298. LEATHER BOOTS AND SHOES. THE CHARLES E. LYNN SHOE MFG. CO., INC., Poughkeepsie and New York, N. Y. Filed November 9, 1918. Serial No. 99,194. PUBLISHED DECEMBER 31, 1918.
- 125,299. WOMEN'S COATS, SUITS, DRESSES, AND SKIRTS. MARQUETTE CLOAK & SUIT CO., St. Louis, Mo. Filed May 27, 1918. Serial No. 111,219. PUBLISHED JANUARY 14, 1919.
- 125,300. OINTMENT FOR USE IN TREATMENT OF CERTAIN NAMED AILMENTS. GEORGE MORTIMER & COMPANY, INCORPORATED, Boston, Mass. Filed October 25, 1918. Serial No. 113,887. PUBLISHED JANUARY 28, 1919.
- 125,301. BODY-PROTECTOR OF COAT OR VEST SHAPE MADE OF WIND AND WATER PROOF MATERIAL. ALBERT NATHAN, Glen Cove, N. Y. Filed November 9, 1917. Serial No. 107,268. PUBLISHED JANUARY 21, 1919.
- 125,302. LADIES' TRIMMED HATS. ODETTE HAT COMPANY, New York, N. Y. Filed October 10, 1918. Serial No. 113,660. PUBLISHED JANUARY 21, 1919.
- 125,303. CERTAIN MEDICINAL TONIC AND BLOOD-PURIFIER. THE PARAMOUNT DRUG CO., Washington, D. C. Filed August 13, 1918. Serial No. 112,698. PUBLISHED JANUARY 28, 1919.
- 125,304. LEATHER BOOTS AND SHOES. JAMES ALEXANDER PATTERSON, Glasgow, Scotland. Filed June 24, 1918. Serial No. 111,787. PUBLISHED JANUARY 7, 1919.
- 125,305. CERTAIN NAMED CHEMICALS OR MIXTURES THEREOF USED IN TREATING LIQUIDS. THE PERMUTIT COMPANY, New York, N. Y. Filed November 6, 1917. Serial No. 107,201. PUBLISHED JANUARY 28, 1919.
- 125,306. PERIODICAL PUBLICATIONS PUBLISHED QUARTERLY. CHARLES H. POON, Denver, Colo. Filed December 5, 1918. Serial No. 114,500. PUBLISHED JANUARY 14, 1919.
- 125,307. CANDY. QUIMBY & CHENEY, INC., Boston, Mass. Filed December 13, 1918. Serial No. 114,628. PUBLISHED JANUARY 28, 1919.
- 125,308. SILK WAISTS, SILK SKIRTS, SILK DRESSES, COTTON-VOILE WAISTS, COTTON-VOILE DRESSES. E. A. ROBERTSON CO., Saginaw, Mich. Filed June 4, 1918. Serial No. 111,368. PUBLISHED JANUARY 21, 1919.
- 125,309. LADIES' AND CHILDREN'S DRESSES, HATS, SKIRTS, AND COATS. MARY E. SANDORN, New York, N. Y. Filed August 5, 1918. Serial No. 112,542. PUBLISHED JANUARY 14, 1919.

125,310. UNION-SUITS MADE OF COTTON. CHARLES E. SHEDDEN & SONS, Philadelphia, Pa.
Filed September 7, 1918. Serial No. 113,068. PUBLISHED JANUARY 21, 1919.

125,311. KNIT SKIRTS, KNIT SWEATERS, KNIT SLIPPERS FOR MEN, WOMEN, AND CHILDREN, AND KNIT SPENCERS. D. W. SMYTH & CO., New York, N. Y.
Filed November 5, 1918. Serial No. 114,068. PUBLISHED JANUARY 21, 1919.

125,312. TALKING-MACHINES, PHONOGRAPHS, GRAMOPHONES, GRAPHOPHONES, AND MUSIC-BOXES. SONORA PHONOGRAPH CORPORATION, New York, N. Y.
Filed November 20, 1918. Serial No. 114,258. PUBLISHED JANUARY 14, 1919.

125,313. MONTHLY NEWSPAPER. THE STANDARD PARTS COMPANY, Cleveland, Ohio.
Filed November 22, 1918. Serial No. 114,334. PUBLISHED JANUARY 23, 1919.

125,314. MONTHLY MAGAZINE. THE STANDARD PARTS COMPANY, Cleveland, Ohio.
Filed November 23, 1918. Serial No. 114,333. PUBLISHED JANUARY 23, 1919.

125,315. DEPILATORY PREPARATIONS. WM. E. STRAIN, Fairfax, Wash.
Filed January 31, 1918. Serial No. 108,729. PUBLISHED JANUARY 23, 1919.

125,316. DEXTEROUS PRODUCT USED AS A SUBSTITUTE, IN PART, FOR WHEAT OR SIMILAR FLOURS. STRAIN, HALL & CO., Chicago, Ill.
Filed March 15, 1918. Serial No. 109,590. PUBLISHED JANUARY 23, 1919.

125,317. CERTAIN NAMED CLOTHING. TROO COMPANY, INC., New York, N. Y.
Filed June 1, 1918. Serial No. 111,321. PUBLISHED NOVEMBER 19, 1918.

125,318. RUBBER HEELS FOR SHOES. CARL W. WINKLER, Chicago, Ill.
Filed October 25, 1918. Serial No. 113,902. PUBLISHED JANUARY 21, 1919.

125,319. HOSIERY. G. & A. WISS, New York, N. Y.
Filed June 26, 1918. Serial No. 111,340. PUBLISHED JANUARY 21, 1919.

125,320. CERTAIN NAMED APPLIANCES FOR CORRECTING FOOT DEFORMITIES. WILKINS FOOT APPLIANCE COMPANY, St. Louis, Mo.
Filed December 17, 1917. Serial No. 108,029. PUBLISHED JANUARY 14, 1919.

DECISIONS

OF THE COMMISSIONER OF PATENTS AND OF UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS

Court of Appeals of the District of Columbia.

Decisions per Curiam March 31, 1919.

IN RE HILLARD.

(No. 1,177.)

This appeal is from the decision of the Commissioner of Patents rejecting certain claims for an invention relating to escapement mechanism for type-writing machines, covering broadly the beveling of the faces of the pawls or dogs engaging the rack to regulate the movement of the carriage.

The case has been pending in the courts and the Patent Office in one form or another for about twenty-three years. The record is very voluminous. The decisions of the three tribunals of the Patent Office are unanimous in holding that the claims are anticipated by an invention of one Dias incorporated into a Remington machine as early as 1880, and, therefore, are not patentable to appellant.

The contention of appellant that the Dias invention is only an abandoned experiment is without merit. That what Dias did amounted to a valuable contribution to public use was held in *Hillard v. Remington Typewriter Co.* (163 Fed., 281.) Granting, however, that but one Dias machine was built and used prior to the date appellant entered the field, this would constitute a sufficient anticipation. (*Twentieth Century Machine Co. v. Lowe Mfg. Co.*, 243 Fed., 378; *Coffin v. Ogden*, 85 U. S., 120; *Brush v. Condit*, 182 U. S., 39; 40 O. G., 1211.)

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

IN RE THE BARRETT COMPANY, FORMERLY BARRETT MANUFACTURING COMPANY.

(No. 1,211.)

Appellant appeals from the refusal of the Commissioner of Patents to grant registration of a trade-mark for roofing material consisting of a design formed by horizontal and vertical lines embossed or indented into the material in such manner as to leave the entire surface of the roofing corrugated in squares.

The surface of the goods in this instance does not denote origin or anything which would indicate a trade-mark use. The corrugated surface is a mere structural feature of the goods, and, as such,

(Vol. 382.

the design is not registrable as a trade-mark. (*Herz v. Lowenstein*, 40 App. D. C., 277; 192 O. G., 993.)

The Assistant Commissioner briefly disposes of appellant's contention as follows:

The applicant suggests that if its mark had been one or two squares stamped in the corner of the sheet of roofing, there would have been no objection to its registrability if new, and asks what reason there is for refusing registration merely because the applicant has applied the mark all over the surface of the goods. The answer to this is that by applying the mark all over the surface, the mark ceases to be a mark on the surface and becomes the surface itself. The mark, if there was one, is entirely lost by the mere fact of uniform repetition over the whole surface. It is no longer capable of appealing to the beholder as a mark of origin but would inevitably create the impression that it was something else.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

IN RE KAWNEER MANUFACTURING COMPANY.

(No. 1,213.)

This appeal is from the decision of the Commissioner of Patents refusing appellant registration of the word "Easyset" as a trade-mark for window-sash.

The rejection is based upon the descriptive character of the word. It appears from the record that the term "set" is common among builders as descriptive of the placing of structural elements in position. The thing upon which the mark is used is metal-frame window-sash, used for plate-glass storefronts. In *Detroit Showcases Co. v. Kawneer Mfg. Co.* (250 Fed., 234) the court described the product of appellant company as follows:

The basis of this charge, broadly speaking, is that plaintiff and its predecessor were the first to make an all-metal store front construction, the nearest approach in the prior art being metal covered wood; that the all-metal construction is lighter, more artistic, and more easily set.

Considering the impression which the mark would make on those familiar with the use to which the product of appellant is put, we think the mind would at once be directed to the superior qualities of adjustment possessed by appellant's product. As was said by the Commissioner:

When it is said that this construction is an "Easyset" metal sash, it will probably convey to the mind of those familiar with such goods, that the parts are easily set in place, that the fitting is easy, and perhaps that the glass is itself set in the sash in a manner where it rides easily without danger of breakage.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

No. 1.]

FIELD v. RUGH.
(No. 1,214.)

This is an interference proceeding in which appellant Field appeals from the decision of the Commissioner of Patents awarding priority of invention to appellee Rugh.

Field filed his application June 24, 1911. Rugh filed September 14, 1911, and was granted a patent August 11, 1914.

The invention in issue relates to a substation signal-receiving device for use in railway telephone service. It consists of a step-by-step mechanism which may be placed in operative position, held and released at the will of the operator. By means of this device, the operator may call any one of a series of stations on the line without signaling the others.

The case turns largely upon a single issue of fact. Rugh claims to have reduced the invention to practice by successfully operating what is known as the improved 9-B type of signal on the Randolph street station of the Illinois Central Railroad on October 1, 1910, and also on the Tyrone division of the Pennsylvania Railroad on November 28, 1910. The 9-B type was held by all the tribunals below to fully meet the claims of the issue. Field claims a reduction to practice on September 26, 1910, but all the tribunals of the Patent Office, in elaborate opinions carefully analyzing the testimony, have rejected Field's claim and sustained Rugh. While the dates of essential activity in each instance are brought within the compass of a few days, which makes the case an exceedingly close one, we find no reason, especially in view of the presumption attending uniform decisions by the tribunals below on questions of fact, to disturb the award.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

IN RE SEISS.
(No. 1,215.)

This appeal is from the decision of the Commissioner of Patents holding appellant's application abandoned under section 4804, Revised Statutes. The appeal is dismissed on the authority of *in re Carvalho*, (47 App. D. C., 584; 250 O. G., 514.)

Dismissed.

IN RE HUNT.
(No. 1,217.)

This appeal is from the decision of the Commissioner of Patents rejecting certain claims of appellant for a process relating to a composition alleged to possess tanning properties and the method of making it.

The rejection in each of the tribunals below was for non-invention in view of the state of the art. Five references were cited as anticipating appellant's invention. The process involved is highly technical, and we find nothing to indicate error in the conclusion reached by the experts of the Patent Office.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

IN RE ECKROAD.
(No. 1,220.)

Appeal from a decision of the Patent Office rejecting twenty claims relating to a so-called shock-absorber in an automobile-wheel.

Each of the tribunals of the Patent Office has very carefully considered and, in our view, fully answered the contentions of the applicant. We therefore affirm the decision without further discussion.

Affirmed.

FISCHER v. CHAS. R. LONG, JR., Co.
(No. 1,221.)

This case is here on appeal from the decision of the Commissioner of Patents sustaining the opposition of appellee to the registration to appellant of the word "StaBrite" as a trade-mark for a varnish and paint-preserver.

Appellee has extensively used the mark "StaBrite" for the coating of the front ends and stacks of locomotives to preserve the metal over which it is applied. The marks are the same. Opposer used the mark long prior to any date claimed by appellant. The sole question is: Are the goods to which they are applied of the same descriptive properties? The product of each party is used to polish painted surfaces, and they can be interchangeably used for the same purpose. The Commissioner properly adjudged the case to be ruled by *Phoenix P. & V. Co. v. J. T. Lewis & Bros.* (32 App. D. C., 285; 189 O. G., 990) and *Fleischbeck Soap Co. v. Kleeno Mfg. Co.*, (44 App. D. C., 6; 216 O. G., 603.)

The decision of the Commissioner is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Applications Made to the Federal Trade Commission for Licenses Under Enemy-Controlled Patents and Trade-Marks Pursuant to the "Trading with the Enemy Act."

Patent No. 1,261,746, dated April 2, 1918, to Hugo Grob, of Zurich, Switzerland, assignor to Julius Pintsch Aktiengesellschaft, of Berlin, Germany, for "Drive mechanism." License applied for by U. S. Light & Heat Corporation, Highland avenue, Niagara Falls, N. Y.

Patent No. 1,107,795, dated August 18, 1914, to Emil Jagenberg, Dusseldorf, Germany, for "Paper-feeding apparatus." License applied for by New Jersey Machine Corporation, Fourteenth and Clinton streets, Hoboken, N. J.

Patent No. 1,016,269, dated February 6, 1912, to Emil Jagenberg, Dusseldorf, Germany, for "Machine for making pasteboard boxes." License applied for by New Jersey Machine Corporation, Fourteenth and Clinton streets, Hoboken, N. J.

Patent No. 860,148, dated July 16, 1907, to Karl Otting, Ludwigsburg, Germany, assignor to The Firm of Ferd. Emil Jagenberg, Dusseldorf, Germany, for "Labeling-machine." License applied for by New Jersey Machine Corporation, Fourteenth and Clinton streets, Hoboken, N. J.

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 202—No. 2.

TUESDAY, MAY 13, 1919.

(PUBLISHED MAY 17, 1919.)

Price—\$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each. Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page.
ISSUE OF MAY 13, 1919.....	169
INTERFERENCE NOTICES.....	169
ATTORNEYS—DISBARMENT.....	169
ACCESS TO PENDING APPLICATIONS.....	169
AMENDMENTS.....	169
APPLICATIONS UNDER EXAMINATION.....	170
PATENTS GRANTED.....	171
REVENUES.....	203
DESIGNS.....	203
TRADE-MARKS—REGISTRATION APPLIED FOR.....	203
TRADE-MARK REGISTRATIONS GRANTED.....	203
LABELS.....	311
DECISIONS OF THE U. S. COURTS.....	312
Hutchinson-Tobacco Co. v. Mathews Gravity Car- rier Co.....	312

Issues of May 13, 1919.

Patents.....	618—No. 1,303,224 to No. 1,303,842, inclusive.
Designs.....	62—No. 28,280 to No. 28,287, inclusive.
Trade-Marks.....	57—No. 125,221 to No. 125,277, inclusive.
Labels.....	10—No. 21,226 to No. 21,234, inclusive.
Revenues.....	2—No. 14,645 to No. 14,647, inclusive.
Total.....	787

You agree with the man on the W. S. S.
whenever you buy one. He said:

*"Save and have. Gain may be temporary
and uncertain but expense is constant
and certain."*

—Ben Franklin.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 22, 1919.

Robert A. Brachvogel, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Chic-Mint Gum Co., 223 French street, Wilmington, Del., for registration of a trade-mark and trade-mark registered June 19, 1906, No. 84,082, to Robert A. Brachvogel, 1206 Tacoma Building, 121 La Salle street, Chicago, Ill., and a notice of such declaration sent by registered mail to said Robert A. Brachvogel at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Robert A. Brachvogel, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default. This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE,

Washington, D. C., May 8, 1919.

F. S. Draper, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Stern Brothers & Co., Nassau and John streets, New York, N. Y., for registration of a trade-mark and trade-mark registered December 11, 1893, No. 10,770, to F. S. Draper, Attleboro, Mass., and a notice of such declaration sent to said Draper at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said F. S. Draper, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

Attorneys—Disbarment.

(ORDER NO. 2,497.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,

Washington, D. C., May 7, 1919.

Pursuant to the provisions of section 487 of the Revised Statutes and with the approval of the Secretary of the Interior, Richard J. Jackel, of Chicago, Ill., whose registry number is 5187, is hereby disbarred from practice before the United States Patent Office for gross misconduct.

J. T. NEWTON,
Commissioner.

Access to Pending Applications.

No person except the applicant, the assignee whose assignment is of record, or the attorney of record will be permitted to have access to the file of any application, except as provided for under the interference rules, unless written authority from the applicant, assignee, or attorney, identifying the application to be inspected, is filed in the case to become a part of the record thereof, or upon the written order of the Commissioner, which will also become a part of the record of the case.

Amendments.

RULE 71. In every amendment the exact word or words to be stricken out or inserted in the application must be specified and the precise point indicated where the change or insertion is to be made. All such amendments must be on sheets of paper separate from the papers previously filed, and written on but one side of the paper. Erasures, additions, insertions, or mutilations of the papers and records must not be made by the applicant.

Amendments and papers requiring the signature of the applicant must also, in case of assignment of an undivided part of the invention, be signed by the assignee. (Rules 6, 107.)

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 9, 1919.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Railway Gates; Planting; Sowing; Unloaders; Trees, Plants, and Flowers.	Mar. 13	Mar. 25	231
128	2. Bag Culture; Curtains, Shades, and Screens; Dairy; Paper Piles and Binders; Medicines; Pneumatics; Preserving; Presses; Tools; Canopies, Umbrellas, and Canes; Tobacco.	Dec. 30	Jan. 24	300
175	3. Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Forming; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Mar. 21	Dec. 17	162
284	4. Conveyers; Elevators; Excavating; Hoisting; Material or Article Handling; Pneumatic Despatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Services; Traversing Hoists.	Dec. 14	Apr. 3	230
167	5. Book-Making; Books, Strips and Leaves; Harvesters; Jewelry; Manufacturing; Muds; Printed Matter.	Jan. 28	Jan. 9	164
519	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Substance Preparation.	Jan. 10	Feb. 3	312
112	7. Educational Appliances; Games and Toys; Optics; Velocipedes.	Mar. 10	Mar. 27	275
131	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Mar. 24	Apr. 4	187
221	9. Air and Gas Pumps; Hydraulic Motors; Motors; Fluids; Motors; Fluid-Current; Pumps; Marine Propulsion.	Nov. 4	Feb. 8	329
285	10. Carriages and Wagons; Motor Vehicles.	Feb. 19	Apr. 5	328
184	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Eyelets, and Rivet Setting; Harness; Leather Manufacture; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Feb. 24	Apr. 14	234
222	12. Journal-Boxes, Pulleys, and Shafts; Machine Elements.	Dec. 14	Nov. 9	984
239	13. Ammunition and Explosive Charge Making; Belt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements; Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Dec. 23	Apr. 3	713
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Sheet-Metal Ware; Making; Tools; Wire Fabric and Structure; Wire-Working.	Jan. 31	Mar. 7	179
268	15. Bread, Pastry, and Confection Making; Cooking; Fuel; Glass; Laminated Fabrics and Analogous Manufacture; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Dec. 21	Feb. 26	461
112	16. Electric Signaling; A; Radiant Energy; Telegraphy; Telephony.	Dec. 23	Jan. 2	200
307	17. Label Fastening and Paper Hanging; Ornamentation; Paper Manufacture; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Mar. 18	Apr. 5	144
229	18. Fluid-Pressure Regulators; Injectors and Ejectors; Liquid Heaters and Vaporizers; Power Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Dec. 7	Feb. 24	638
236	19. Dampers; Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels.	Mar. 7	Feb. 15	273
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Saws; Undertaking.	Apr. 3	Apr. 8	209
312	21. Brakes and Gins; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Nov. 5	Jan. 16	371
349	22. Aeronautics; Firearms; Ordnance.	Feb. 3	Mar. 12	275
317	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Feb. 18	Mar. 25	245
144	24. Apparel; Apparel Apparatus; Garment Supporters; Sewing-Machines.	Sept. 21	Jan. 26	402
316	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Mar. 24	Apr. 13	156
106	26. Electricity, Generation; Motive Power.	Nov. 6	Jan. 8	606
314	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Feb. 18	Mar. 6	438
228	28. Internal-Combustion Engines.	Jan. 10	Feb. 19	264
167	29. Boring and Drilling; Chucks or Sockets; Coopering; Fire-Escapes; Ladders; Rod Joints or Couplings; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Dec. 31	Feb. 6	369
182	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 1	Apr. 22	262
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glues; Sugar and Salt.	Feb. 15	Feb. 10	296
278	32. Gas and Liquid Contact Apparatus; Heat Exchange; Packaging Liquids; Refrigeration.	Nov. 5	Mar. 6	600
70	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving; Roads.	Jan. 25	Feb. 8	299
204	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Ties and Fasteners; Track-Sanders; Vehicle-Fenders.	Feb. 15	Feb. 13	330
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Signals; Teller.	Apr. 2	Apr. 7	291
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring.	Apr. 1	Mar. 29	619
167	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, Conducts; Electricity, General Applications.	Jan. 6	Jan. 9	690
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Walls.	Apr. 5	Apr. 10	151
239	39. Joint Packings; Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Valved Pipe Joints or Couplings; Water Distribution.	Dec. 16	Dec. 6	493
273	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Packages and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Mar. 13	Mar. 24	371
126	41. Railway Draft Appliances; Resilient Tires and Wheels.	Feb. 3	Dec. 28	296
114	42. Electricity, Conductors; Electricity-Transmission to Vehicles; Electric Signaling.	Dec. 18	Dec. 29	432
262	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Sewage; Surgery; Water Purification.	Apr. 13	Feb. 10	267
263	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Boats; Ships.	Mar. 8	Mar. 31	115
279	45. Clutches; Lubrication; Motors; Railway Brakes.	Feb. 3	Mar. 7	261

Oldest new case, Sept. 21; oldest amended, Dec. 6.
Total number of applications awaiting action.....

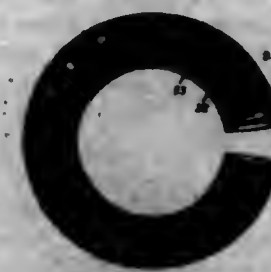
16,096

103	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Apr. 5	Apr. 21	1161
	Designs.....	Mar. 22	Apr. 5	823
	Labels and Prints.....	Apr. 14	Apr. 28	173

PATENTS

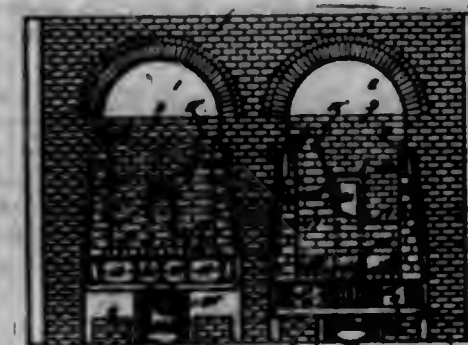
GRANTED MAY 13, 1919.

1,303,224. COVERING. WILLIAM ACHTMAYER, Middletown, Conn., assignor to The Russell Manufacturing Co., Middletown, Conn., a Corporation of Connecticut. Filed Oct. 18, 1918. Serial No. 258,675. 4 Claims. (Cl. 150-52.)



1. A covering for tires and other circular articles, comprising a tubular body of circular shape and formed of a single woven piece of fabric doubled up and provided with means to resist puckering at such doubled up portion and having elastic auxiliary warp threads at the side selvages drawing the body into circular shape over a form, means rendering the said body waterproof and setting the said elastic auxiliary warp threads, fastening devices at the ends of the body to fasten the ends together in overlapping relation, and fastening devices to fasten the selvage edges together.

1,303,225. SLAG-REMOVER. JOHN H. ASSEL, Monessen, Pa. Filed May 4, 1918. Serial No. 232,530. 8 Claims. (Cl. 263-45.)



1. In a slag pocket of the type described, a slag remover comprising a furnace bottom made in three sections, two of which are spaced to admit the third, means for tilting said three sections toward the front, and means for withdrawing the intermediate section longitudinally when desired.

1,303,226. PROCESS OF ELECTROLYSIS. HENRY I. ALLEN, Portland, Me., assignor to Electron Chemical Company, Portland, Me., a Corporation of Maine. Filed Feb. 1, 1917. Serial No. 145,883. 2 Claims. (Cl. 204-5.)

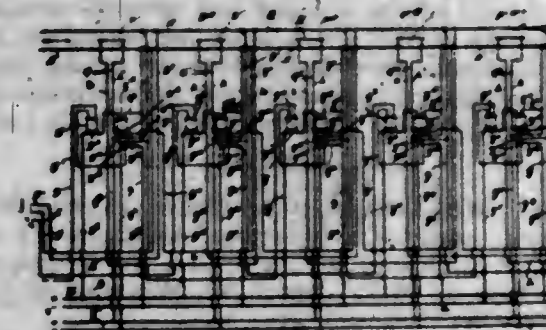
1. A process of recovering from an aqueous saline solution a metal which in its atomic state does not combine with water, which consists in causing a body of said solution contained in a cathode chamber to percolate through a diaphragm, passing an electric current from an unimmersed anode in contact with said diaphragm and percolated solution through said solution to a cathode immersed in the solution on the other side of the diaphragm,

thereby decomposing the salt contained in the solution, depositing the cationic metal on the cathode, and liberating



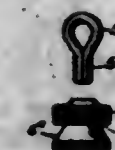
the anions at the anode, either to be freed as such or to combine with the water of the solution according to the character of the original salt.

1,303,227. TRAIN-CONTROL SYSTEM. JOSEPH E. ANDERSON, Coacab, Conn. Filed Dec. 9, 1915. Serial No. 65,004. 20 Claims. (Cl. 246-59.)



6. In an electrical train control system, a series of blocks each provided with a normally open train controlled track circuit adapted to be closed by the bridging of the track rails by the rolling stock and including said rails therein, and each of said blocks having a train controlling member therein, said track circuit including the rails of a block in advance of the train controlling member, said member comprising a rail consisting of spaced plates each having an electro-magnet arranged therein, said magnets being arranged in parallel with the track circuit in which the member is disposed, and being energizable by the closing of said circuit to convert said rail from a magnetic to a magnetized conductor.

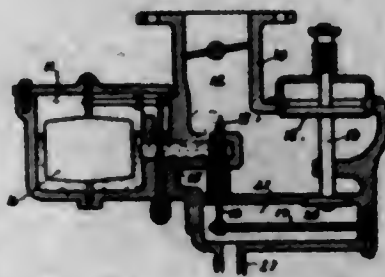
1,303,228. BUTTON. LLOYD A. ANGLE and JOHN P. SAGAN, Rochester, N. Y., assignors to Art in Buttons, Incorporated, Rochester, N. Y., a Corporation. Filed Dec. 29, 1917. Serial No. 209,396. 2 Claims. (Cl. 24-90.)



2. A button comprising a body portion formed with a pocket in its rear face, said pocket having an undercut

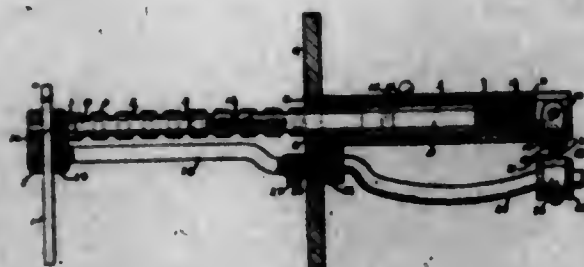
portion and a cylindrically formed wall extending from said undercut portion to the rear face of the button, and a shank formed of a wire portion provided with an eye and two ends, and an anchoring portion projecting into the undercut portion and having a cylindrically formed portion fitting the cylindrically formed wall of the pocket, the cylindrically formed portion receiving the ends of the wire portion.

1,303,229. CARBURETER. DONALD J. ANGUS, Indianapolis, Ind., assignor to John W. Esterline and Donald J. Angus, doing business under the name of Esterline & Angus, Indianapolis, Ind., a Partnership. Filed Aug. 3, 1916. Serial No. 112,998. 2 Claims. (Cl. 261-30.)



1. A carbureter for internal combustion engines comprising a casing providing a mixing chamber, a liquid fuel chamber, and a chamber adapted to receive heated gaseous fuel, means for projecting liquid fuel into the mixing chamber in the form of spray, a thermostatic control for said spraying means located in the chamber for the heated gaseous fuel, a valve controlling the admission of air into the mixing chamber and operable through the suction of the engine, and a valve controlling the admission of the heated gaseous fuel into the mixing chamber, said last named valve connected to and operated by the air intake controlling valve, substantially as set forth.

1,303,230. WELDING-TOOL. RALPH BAKER, Wilkesburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 3, 1917. Serial No. 209,041. 8 Claims. (Cl. 219-5.)



1. In a welding tool, the combination with an electrode holder and a supporting member thereof, of a heat-resisting handle for the supporting member, a conductor adapted to lead current to the holder, and means for supporting the conductor in a position spaced from and substantially parallel to the handle, comprising a movable supporting member depending from the handle.

1,303,231. CLOTHES-BASKET. JESSE L. BARNES, St. Clair, Mo. Filed Feb. 21, 1919. Serial No. 278,457. 1 Claim. (Cl. 217-125.)

In combination with a basket having an upper outer and inner band, a handle made of a single strip of material, including a relatively thin intermediate grip forming portion and relatively broad end portions angularly disposed relative to said intermediate portion, the inner surfaces of said end portions having transversely disposed

recesses said handle being held between said bands with said inner band held in said recesses, said end portions



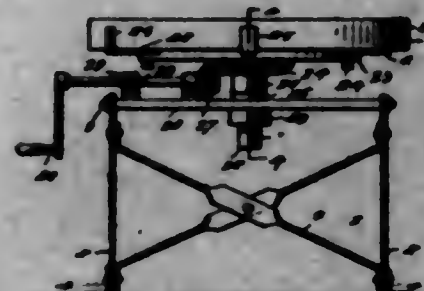
being gradually attenuated, as and for the purpose set forth.

1,303,232. GANG-PLOW. JOHN B. BARTHOLOMEW, Peoria, Ill., assignor to Avery Company, Peoria, Ill., a Corporation of Illinois. Original application filed Jan. 18, 1912. Serial No. 671,955. Divided and this application filed July 2, 1912. Serial No. 707,264. 11 Claims. (Cl. 97-60.)



8. The combination with a truck frame and a plow, of booms disposed opposite to each other and carried by the truck frame, eccentrics carried by the plow and mounted to turn in said booms and manually operable means for operating said eccentrics.

1,303,233. ROTARY PLACER-GOLD SEPARATOR. ORIN V. BAUM, Alamogosa, Colo., assignor of one-ninth to Henry J. Bailey, one-ninth to Opher L. Bigelow, one-ninth to Walter E. Campbell, one-ninth to Claude A. Smith, one-ninth to Jesse G. Griffin, one-ninth to Algie R. Greiner, one-ninth to Philip F. Voigt, and one-ninth to Henry C. Stevens, Alamogosa, Colo. Filed Nov. 4, 1916. Serial No. 129,482. 5 Claims. (Cl. 83-87.)



3. An apparatus of the character described comprising a frame, an axle pivotally carried thereby, a rotary pan carried by said axle, a bevel gear having connection with said rotary pan, a power shaft carried by said axle, a pinion carried by said power shaft and meshing with said bevel gear, and a support carried by said frame and adapted for supporting said pan in an inclined position.

1,303,234. [WITHDRAWN.]

1,303,235. RAIL-BEARING HUB. ANDREW BUNSON, Janesville, Wis., assignor to Janesville Products Company, Janesville, Wis., a Corporation of Wisconsin. Filed Feb. 9, 1918. Serial No. 216,306. 1 Claim. (Cl. 64-34.)

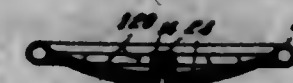
In a ball-bearing hub, the combination with spaced, inner and outer sheet metal hub members, the outer hub

member having cylindrical end portions over which dust caps are adapted to be telescoped; of an outer sheet metal race-plate at each end of the hub, each of said race-plates comprising a cylindrical portion telescoped with a nut fit within the end of the outer hub member, each of said race-plates having also an outwardly extended, relatively narrow flange engaging the adjacent end of the outer hub member, and also an inwardly ex-



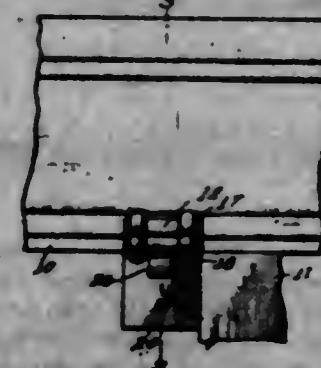
tended flange; inner sheet metal race-plates at each end of the hub, each of said inner race-plates comprising an annular member of substantially rectangular cross-section; a plurality of antifriction balls cooperable with each pair of race-plates at each end of the hub; said inner sheet metal hub member having both end edge portions thereof outwardly flared to overlap said inner race-plates.

1,303,236. SHEET-METAL WHEEL AND THE LIKE AND PROCESS OF MAKING SAME. ANDREW BUNSON, Janesville, Wis., assignor to Janesville Products Company, Janesville, Wis., a Corporation of Wisconsin. Filed Feb. 9, 1918. Serial No. 216,306. 9 Claims. (Cl. 29-174.)



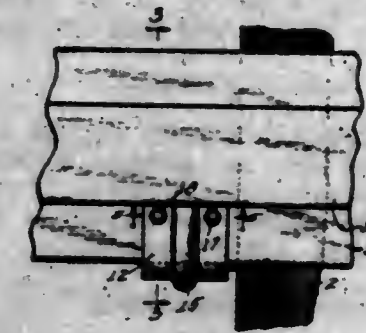
1. The herein described process which consists in: providing a sheet of metal stamped and pressed into circular form with the rim comprising a substantially semi-circular portion and a flange tangential thereto, said flange portion being notched at intervals along its free edge; bending the portion of the flanges between the notches in a direction to continue the curvature of said semi-circular portion of the rim; bending each portion of said flange between pairs of notches to a concave form; and completing the rim by bending said portions of the rim flange until the free edges thereof come into engagement with the inner edge of said semi-circular rim portion.

1,303,237. RAIL-ANCHOR. LAURENCE J. BERKELEY, Racine, Wis., assignor to The P & M Company, Chicago, Ill., a Corporation of Illinois. Filed July 30, 1918. Serial No. 247,404. 16 Claims. (Cl. 238-321.)



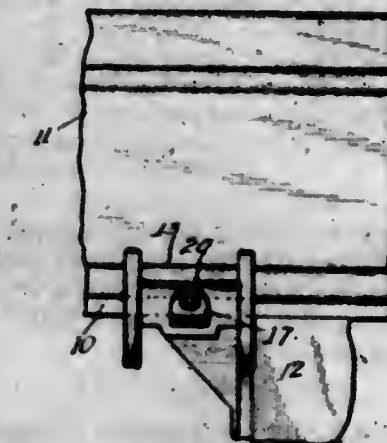
1. A rail anchor comprising a rail engaging member provided with a tongue adapted to bite into the rail at a point within the vertical edges thereof, and a wedge for forcing said tongue into engagement with the rail.

1,303,238. RAIL-ANCHOR. LAURENCE J. BERKELEY, Racine, Wis., assignor to The P & M Company, Chicago, Ill., a Corporation of Illinois. Filed July 30, 1918. Serial No. 247,405. 8 Claims. (Cl. 238-321.)



3. In a rail anchor, the combination of a rail engaging device formed with a perforation and a boss surrounding the perforation, and a spud arranged in said perforation so that it may be driven into the rail and the adjacent metal of the boss upset over it.

1,303,239. RAIL-ANCHOR. LAURENCE J. BERKELEY, Racine, Wis., assignor to The P & M Company, Chicago, Ill., a Corporation of Illinois. Filed July 30, 1918. Serial No. 247,406. 14 Claims. (Cl. 238-321.)



2. In a rail anchor, the combination of a rail engaging member and a key arranged between said member and rail adapted, when moved in the direction of its length, to have a biting engagement with the rail; said key being adapted to be bent when in its operative position to prevent movement in a direction to release its hold on the rail.

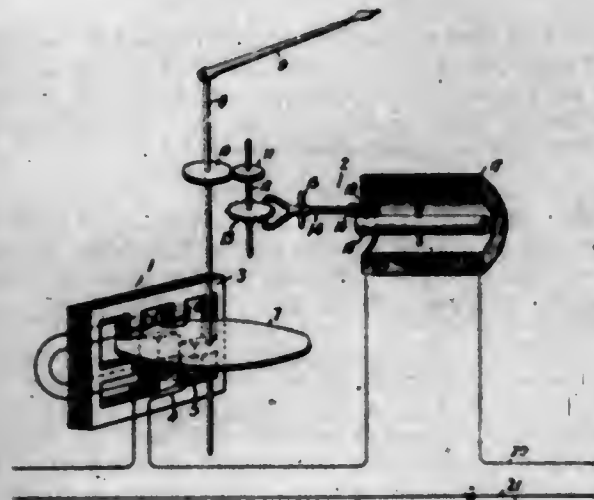
1,303,240. AUTOMOBILE-JACK. LOUIS H. BERRY, Minneapolis, Minn. Filed May 16, 1918. Serial No. 235,212. 4 Claims. (Cl. 254-66.)



1. In an automobile jack the combination of a frame, a pinion sector carried thereby, a head hinged to said frame and having a depending tongue, a sleeve surrounding said tongue and rotatably associated with said

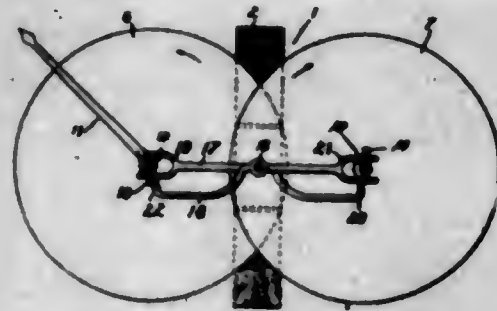
head, a nut fashioned in the lower end of said sleeve, a bevel gear fashioned exteriorly at the upper end of said sleeve, a foot having an upstanding screw projecting therefrom, a rack carried by the open end of said screw and adapted to impinge on and cooperate with said pinion sector during a portion of the travel of said screw in respect to said nut and means for rotating said bevel gear.

1,303,241. ELECTRIC-CURRENT METER. CLARENCE A. BODDIN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 4, 1916. Serial No. 88,972. 10 Claims. (Cl. 171-34.)



5. The combination with a movable member and means for actuating the same, of an escapement device for controlling the movable member, and means for controlling the escapement device in accordance with the energy of the actuating means.

1,303,242. AMPERE-HOUR METER. CLARENCE A. BODDIN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 4, 1916. Serial No. 88,973. 6 Claims. (Cl. 171-34.)

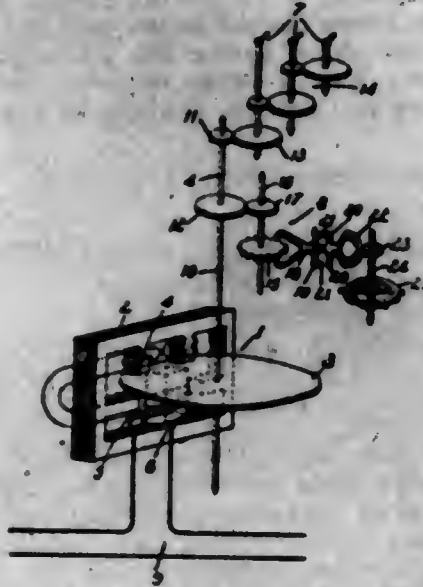


1. An ampere-hour meter comprising two rotatable members, means for simultaneously applying similar actuating forces thereto, and means for causing the rotatable members to control the movement of each other.

1,303,243. AMPERE-HOUR METER. CLARENCE A. BODDIN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 4, 1916. Serial No. 88,974. 14 Claims. (Cl. 171-34.)

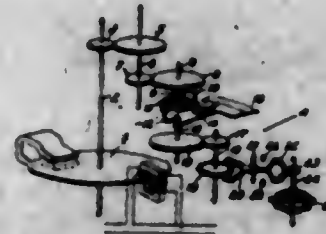
3. In an ampere-hour meter, the combination with a movable member having a tendency to rotate in accord-

ance with the square of the current to be measured, of an escapement device for so retarding the movement of



the movable member that it rotates in accordance with the current to be measured.

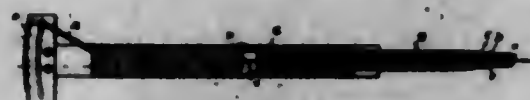
1,303,244. MAXIMUM-DEMAND METER. CLARENCE A. BODDIN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 12, 1916. Serial No. 90,674. 18 Claims. (Cl. 171-34.)



1. An attachment for a meter comprising a rotatable member, a spring one end of which is operatively connected to the rotatable member and an escapement device having a non-spring-restrained balance wheel connected to the other end of the spring.

13. The combination with a watt-hour meter, of a unitary attachment adapted to be substituted for the integrating mechanism of the meter for indicating the demand equivalent of the energy traversing the windings of the meter.

1,303,245. MICROMETER-INDICATOR. JOSEPH BOULET, Standish, Me. Filed Mar. 1, 1918. Serial No. 219,745. 3 Claims. (Cl. 33-172.)



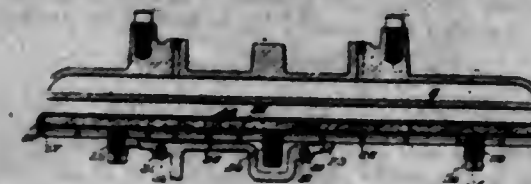
3. In a micrometer indicator, a graduated scale, a pivot block, an oscillating index finger carried by said block, a needle for operating said arm actuated by contact with the work, and means for adjusting said arm to indicate different systems of measurement on the same scale due to changing the point at which the needle engages said block, the tool body and carrier being provided with registering marks to guide the adjustment of the carrier to give the desired system of measurement.

1,303,246. HAT AND PROCESS OF MAKING SAME. VINCENT BOVIO, Flushing, N. Y. Filed Dec. 17, 1918. Serial No. 267,151. 2 Claims. (Cl. 2-108.)



1. The process of forming a hat which consists, in first fastening together a plurality of strips of material, sutting the composite strip of material thus formed and fastening together the composite strip of suted material to form a hat.

1,303,247. GARMENT-PRESS. CHARLES L. BEALEY, Rochester, N. Y., assignor to The American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 25, 1915. Serial No. 62,574. 10 Claims. (Cl. 68-9.)



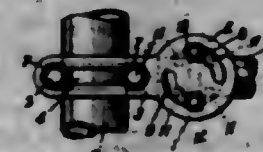
3. In a pressing machine, the combination with a heated chest, of a cooperating pressing member embodying a frame having a recess therein, and a padded member loosely positioned in the recess.

1,303,248. SAFETY DEVICE FOR HIGH-PRESSURE GAS-TANKS. WILLIAM F. BREIDENBACH, Indianapolis, Ind. Filed Aug. 9, 1918. Serial No. 249,127. 8 Claims. (Cl. 137-02.)



2. In a safety device for high pressure gas tanks, the combination with a valve having a recess extending inwardly from one face thereof, and a bore communicating with the inner end of said recess, of a plug adapted to close communication through the recess, a portion of the inner end of said plug being spaced from the wall of the recess to form a clearance space, the inner end of said plug having a cavity the walls of which are provided with openings, and fusible material in said cavity and openings.

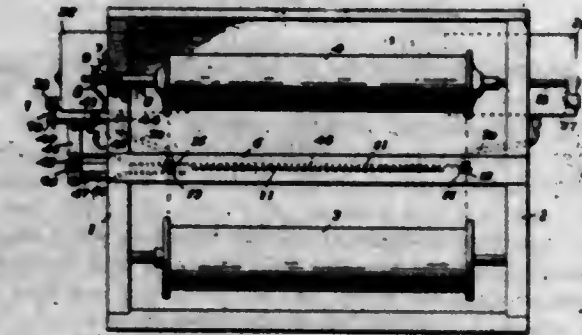
1,303,249. TUBE-CLAMP. JAMES M. BROWN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 28, 1915. Serial No. 47,890. 8 Claims. (Cl. 248-7.)



1. A clamp comprising a bracket having oppositely-disposed openings therein, a plate member having projec-

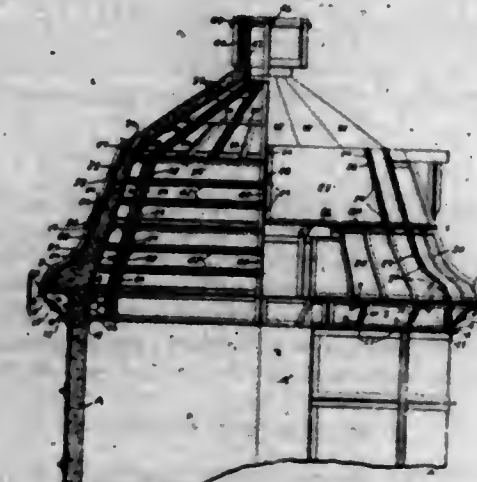
tions on one face thereof and oppositely disposed indentations along the periphery to register with the openings in the bracket, and a substantially U-shaped member adapted to be inserted in the indentations and in the openings.

1,303,250. MUSIC-SHEET-GUIDING DEVICE. THEODORE P. BROWN, Worcester, Mass., assignor to Simplex Player Action Company, Worcester, Mass., a Corporation of Massachusetts. Filed Jan. 27, 1915. Serial No. 4,673. 9 Claims. (Cl. 84-161.)



1. Tracking control mechanism for piano players, including a pneumatic having a single movable leaf, with unequal tension areas on opposite sides of said leaf, the forces acting on said leaf being balanced when the sheet is tracking normally, whereby a positive force is exerted in each direction to maintain the sheet in normal tracking relation, means for varying the force acting on one side of said leaf to restore the normal tracking movement of said sheet, and a common suction device operable on both sides of said movable leaf.

1,303,251. CONCRETE-FORM FOR HIPPED ROOFS. JOSEPH E. BRUNNER, Leopolis, Wis. Filed Feb. 28, 1916. Serial No. 80,769. 3 Claims. (Cl. 25-124.)



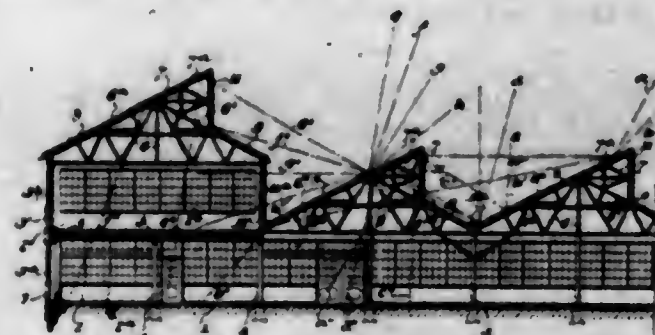
1. A mold for conically hipped concrete roofs, including the combination with an inner mold wall of an outer wall provided with an annular base having both vertical and horizontally disposed rings, a set of upwardly and inwardly curved tapering plates, each provided with connecting members adapted to be secured to the base and each having outwardly projecting connecting flanges along its side and top margins, a superposed set of flat tapering plates provided with connecting members, whereby said plates may be secured together to form a belt and may also be secured to the lower set of plates to provide an outer mold wall having the form of a truncated cone with a bell shaped bottom portion, and a set of extensible braces connecting the lower and outer margins of the vertical and horizontal base rings respectively, whereby the horizontal ring may be adjusted and supported from the vertical one in a true horizontal position.

1,303,252. HYDROCARBON-BURNER. MARTIN BAUSARD, Los Angeles, Calif. Filed Sept. 6, 1917. Serial No. 190,001. Renewed Mar. 26, 1919. Serial No. 283,384. 2 Claims. (Cl. 158-73.)



2. A hydrocarbon burner including an arm for engagement with a steam supply pipe, a substantially semi-spherical base member extending from the arm and having a port communicating with the interior of the arm, a substantially semi-spherical cap having a flat face adapted to bear against one end of the arm to hold the cap against rotation, a disk interposed between the marginal portions of the base member and the cap and having depressions in opposed faces and between the cap and base member to form outlets, bosses extending inwardly from the base member and cap, there being recesses in the disk for the reception of the ends of the bosses, means extending through the bosses and disk for clamping the base member and cap upon the disk, and an oil supply pipe extending from the arm and into the cap.

1,303,253. BUILDING. TRACY V. BUCKWALTER, Canton, Ohio. Filed Feb. 14, 1919. Serial No. 277,025. 5 Claims. (Cl. 108-1.)



1. The combination with an inclined roof section provided with an interior reflecting surface, of an approximately vertical transparent structural section extending downwardly from the upper end of said roof section, and an inclined roof section provided with an exterior reflecting surface adapted to reflect light through said transparent section against the reflecting surface first named.

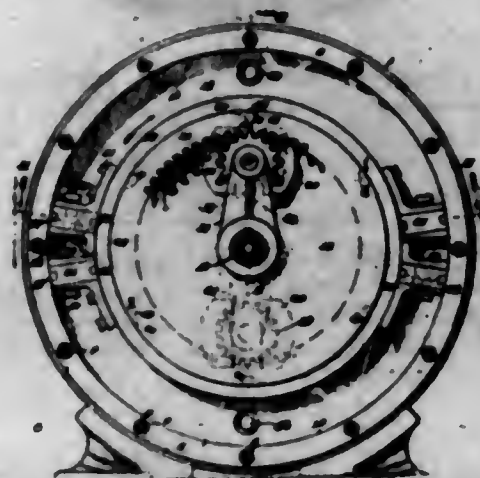
1,303,254. CUFF. STEVEN BURK, New York, N. Y. Filed Apr. 3, 1917. Serial No. 159,385. 2 Claims. (Cl. 2-79.)



2. In a reversible folding cuff, a plurality of faces arranged in pairs, adapted to form the faces of the cuff, means attaching said faces along the edges thereof to

form a pocket, all so arranged that either pair of faces when exposed will form a pocket, inclosed on three edges, for the other faces.

1,303,255. ROTARY ENGINE. GEORGE T. CARTER, Elizabeth, N. J., assignor of one-half to F. L. Kraemer, Fort Washington, N. Y. Filed July 18, 1917. Serial No. 181,216. 5 Claims. (Cl. 123-11.)



1. A device of the character described comprising, in combination, an annular piston chamber, a shaft coaxial therewith, pistons mounted for movement around said shaft in said chamber, means for connecting said pistons together adapted to cause them to approach and recede from each other as they revolve around the axis of the shaft, including an annular gear coaxial with the piston chamber, an arm rigidly attached to the shaft and carrying a pinion in position to mesh with the annular gear, a pin eccentrically mounted on said pinion, and a member rotatable about said shaft and to which certain of said pistons are rigidly attached, said member being provided with a guideway extending in a radial direction with which said pin on said pinion is adapted to cooperate.

1,303,256. TIRE-CORE. DON A. CLARK and CLYDE E. LOWE, Cleveland, Ohio, assignors to The Clyde E. Lowe Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 7, 1918. Serial No. 248,677. 8 Claims. (Cl. 18-45.)



2. In a tire core, a hollow arcuate sheet metal body having a pair of inwardly projecting spaced flanges, a ring having a portion located between said flanges, and means including headed fasteners for clamping said flanges against said ring, said fasteners being arranged with their length transverse to the plane of said ring.

1,303,257. TILTING-TYPE PRESSING-MACHINE. FORREST J. COUCH and WILLIAM F. WEBBER, Rochester, N. Y., assignors to The American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 24, 1916. Serial No. 116,645. 5 Claims. (Cl. 65-9.)

1. A pressing machine, comprising a frame, a stationary pressing bed thereon, a cooperating pressing member having advancing and retracting movement toward and away from said bed and also lateral movement relative

thereto, and means for gradually arresting the retracting movement of said member when the press is released, said



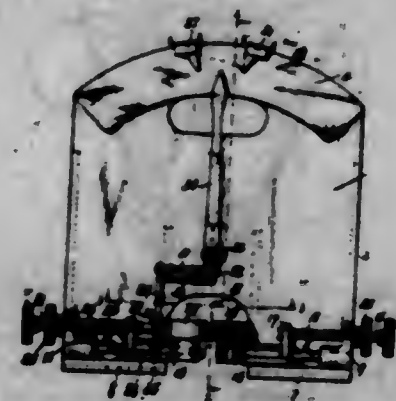
means also having a normal tendency to produce lateral movement of said member relative to said bed.

1,303,258. HARNESS-TERRIT. KENNETH L. CHOU, Mountville, W. Va. Filed Mar. 14, 1918. Serial No. 222,452. 2 Claims. (Cl. 54-83.)



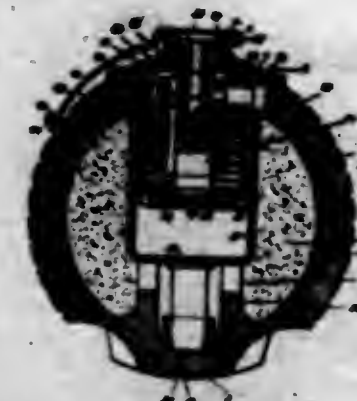
1. A terret comprising a ring having slots formed transversely thereof, on the interior adjacent the bottom, and a plate spaced from the bottom of the ring and having its ends received in the slots.

1,303,259. GAGE. EDWARD DAWNER, Toledo, Ohio, assignor to The Libbey Glass Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 21, 1917. Serial No. 150,114. 5 Claims. (Cl. 33-147.)



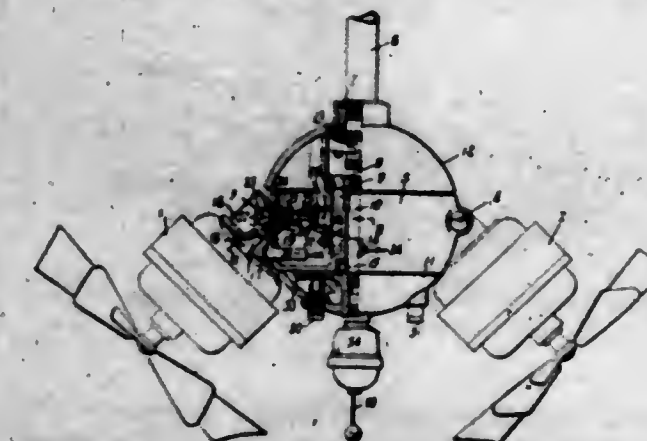
1. In a gage of the class described, a pair of work-coacting gage members mounted for relative to and from movements, means for adjusting the limit of inward movement of one of said members, means yieldingly resisting an outward movement of said adjustable member, and indicator means connected to said yieldingly movable member and operable by movements thereof to indicate in a multiplied manner variations in the size of the work passing between said members.

1,303,260. HAND-GRENADE. HARRY P. DAVIS, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 23, 1917. Serial No. 203,534. 5 Claims. (Cl. 102-29.)



1. In a hand grenade, the combination with a spring-actuated firing device, a member for releasing said firing device that is supported in unstable equilibrium, and means for locking said firing device in a safety position, of means for maintaining said firing device in its safety position against the action of said member after the said locking means is removed and until the flight of the grenade is arrested.

1,303,261. REVOLVING FAN. EARL W. DENMAN, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 17, 1915. Serial No. 3,856. 9 Claims. (Cl. 230-1.)



2. The combination with a support, of a relatively rotatable support, a motor mounted thereon, a system of bevel gearing driven by the said motor for rotating the said support, a worm wheel driven from the shaft of said motor and pivots aligned with the axis of said wheel for pivotally mounting said motors on said support.

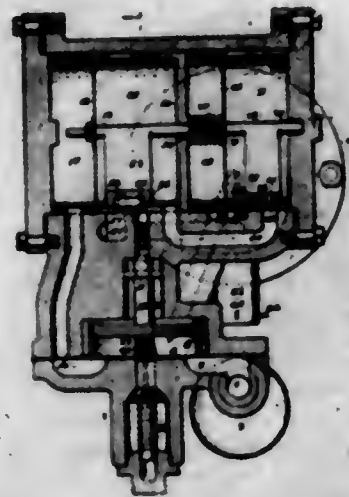
1,303,262. SUBSTITUTE MATERIAL FOR MAKING BOX-TOES FOR SHOES. ANSEL C. DENNING, Johnson City, N. Y. Filed Sept. 13, 1918. Serial No. 253,900. 2 Claims. (Cl. 92-3.)

1. A folded material for making box shoe toes composed solely of cotton fabric rags, tannery hair and a thermoplastic bladder.

1,303,263. TRIPLE VALVE. FRANK Y. DIBBLE, Oakland, Calif. Filed Feb. 1, 1916. Serial No. 75,519. 3 Claims. (Cl. 188-15.)

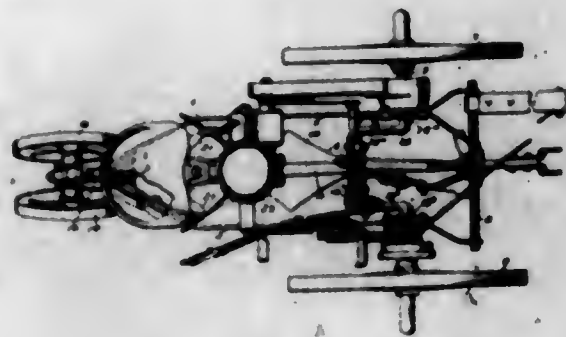
1. A triple valve for air brakes having a compartment normally communicating with the auxiliary air chamber and conduits communicating respectively with the atmosphere, with the brake cylinder and with the auxiliary air chamber, and comprising a valve operated by a reduction of train line pressure below that in the auxiliary air chamber for opening communication between the latter two

conduits, a valve operated by a reduction of train line pressure below that in said compartment for closing communication between the first two conduits, and means operated by a differential air pressure for closing the com-



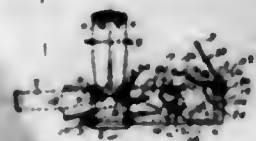
munication between said compartment and the auxiliary air chamber, said means having a small air-escape opening through which air can pass slowly to equalize said air pressure and render said means inoperative.

1,303,264. SEED-PLANTER. HARRY S. DICKINSON, Moline, Ill., assignor to Moline Plow Company, a Corporation of Illinois. Original application filed Feb. 21, 1917, Serial No. 149,981. Divided and this application filed Sept. 29, 1917. Serial No. 103,902. 3 Claims. (Cl. 111-52.)



1. In an agricultural implement, the combination of a frame, ground wheels sustaining the same, a furrow opener support provided with a furrow opener, seed discharging mechanism carried by the implement, press wheels on the frame in rear of the furrow opener to cover the deposited seed, and means for adjusting the frame horizontally relatively to the furrow opener to maintain the proper alignment of the press wheels with the furrow.

1,303,265. ANIMAL-TRAP. THOMAS H. DONLON, Syracuse, N. Y. Filed Mar. 6, 1919. Serial No. 280,882. 4 Claims. (Cl. 43-23.)



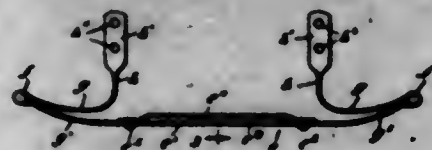
1. An animal trap including a pair of jaws, an actuating spring for opening and closing said jaws, a bait-plate, a trigger supporting said plate and movable therewith, said trigger having a socket, a latch pivoted for movement in line with said trigger, said latch having two arms, one of said arms adapted to be engaged by one of said jaws for swinging the other arm into temporary locking engagement with one portion of said socket, said trigger adapted to be tilted upwardly for permitting the trap to be sprung by the depression of the bait-plate.

1,303,266. SUBMARINE ARTILLERY. KENNEDY DOUGAN, Minneapolis, Minn. Filed June 8, 1918. Serial No. 32,827. 34 Claims. (Cl. 114-16.)



1. A submarine war vessel, a gun carried thereby exterior to the submarine, means for loading said gun when below the surface of the water, and means for excluding water from the muzzle of the gun while said muzzle is being raised to the surface of the water, while the submarine remains below the water.

1,303,267. AUTOMOBILE-BUMPER. EDWARD DOWLING, San Francisco, Calif. Filed Dec. 17, 1917. Serial No. 207,394. 4 Claims. (Cl. 298-55.)



4. A bumper of the character described, including a collision bar that is of substantially uniform strength throughout its active length; and a reinforcing bar carried thereby in rear thereof and having greater resiliency and a higher elastic limit than has the collision bar by which it is carried.

1,303,268. GLASS AND METHOD OF MAKING THE SAME. BERNARD F. DRACKENFELD, Jr., New York, N. Y. Filed Oct. 1, 1918. Serial No. 256,373. 15 Claims. (Cl. 106-36.1.)

15. As an article of manufacture, glass containing fused amblygonite.

1,303,269. GLASS AND METHOD OF MAKING THE SAME. BERNARD F. DRACKENFELD, Jr., New York, N. Y. Filed Oct. 1, 1918. Serial No. 256,374. 15 Claims. (Cl. 106-36.1.)

15. As an article of manufacture, glass containing fused spodumene.

1,303,270. FUNNEL. ANDREW DUNHAM, Wapakoneta, Ohio. Filed Feb. 27, 1918. Serial No. 219,463. 1 Claim. (Cl. 226-33.)



In a funnel, an inverted frusto-conical body provided with a depending pouring neck, a valve rod passing therethrough, guide bars in said neck for guiding the vertical movement of the valve rod, a valve carried by said rod and adapted to close the lower end of the funnel body when the rod is in a lowered position, a collar mounted on said valve rod adjacent the end thereof, an expansion spring positioned between the lower guide bar and the said collar for normally forcing the valve into operation, a float rod fulcrumed in the lower end of the neck beneath

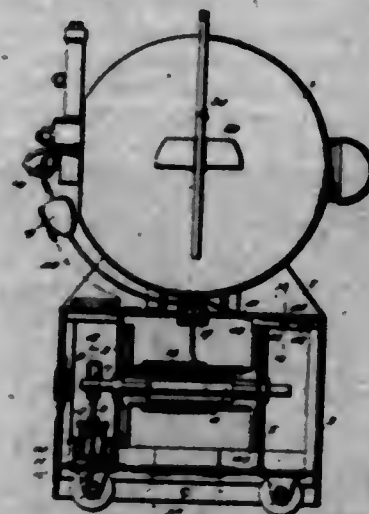
the valve rod, said seat and valve rods having their upper and lower ends respectively, adapted to cooperate with each other forming a continuous member, and a float secured to the lower end of the float rod for rocking the upper end thereof out of engagement with the lower end of the valve rod when raised upwardly thereby releasing the valve so that it may move downwardly to a closed position, said float also serving to move the upper end of the float rod into engagement with the lower end of the valve when the valve is drawn upwardly.

1,303,271. EMERGENCY SAFETY-BRAKE FOR ELEVATORS. JOHN A. DUNST, Portland, Oreg. Filed Oct. 27, 1918. Serial No. 128,068. Renewed Mar. 7, 1919. Serial No. 281,291. 5 Claims. (Cl. 187-78.)



1. An emergency safety brake for elevators of the cable hoist type including rods mounted on the elevator car in alignment and having their inner ends oppositely screw-threaded, brake shoes mounted on the outer ends of said rods and located to work against parts of the elevator shaft when the rods are extended, a rack bar mounted on the elevator shaft, a gear wheel having an oppositely threaded internal bore mounted on the threaded ends of said rods, the mounting for said rods being so arranged that movement of the same to throw the gear wheel into and out of mesh with the teeth of the rack bar is permitted, a connection from the hoist to normally hold the rods in such position that the gear wheel is out of mesh with the rack bar, and means to move the parts to an opposite position upon slackening of the hoist cable.

1,303,272. ANCHOR FOR SUBMARINE MINES. GIOVANNI EMANUELE ELIA, Turin, Italy. Filed Dec. 21, 1916. Serial No. 138,236. 11 Claims. (Cl. 102-3.)

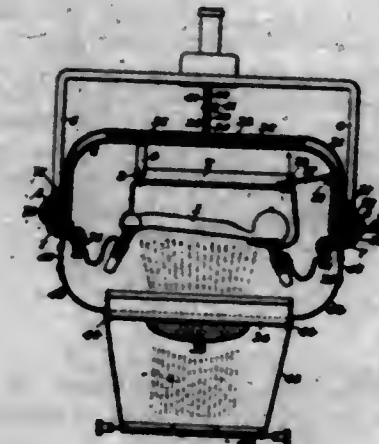


1. The combination with a submarine mine, of an anchor therefor, a winch carried by the anchor, a cable carried by the winch, and connected to said mine, means for stopping the winch, and means carried by the cable and adapted to be released when the mine has risen to a predetermined distance from the surface of the body of water for engaging the winch stopping device whereby the winch is stopped.

1,303,273. ELECTROTHERAPEUTICAL DEVICE. WILLIAM A. D. EVANS, New York, N. Y., assignor to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed July 25, 1914. Serial No. 883,008. 4 Claims. (Cl. 250-34.)

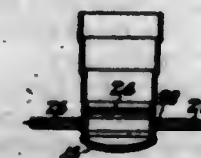
1. In an electro-therapeutic apparatus, the combination of an adjustable standard, a quartz lamp mounted thereon,

a container for the said lamp having an opening for the passage of ultra violet rays, a lens pervious to said rays



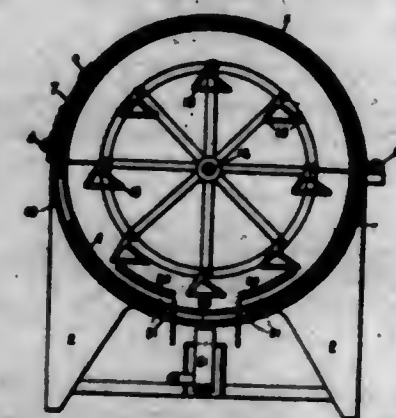
in said opening, and means for changing the position of the opening with relation to the lamp.

1,303,274. ELECTROTHERAPEUTICAL DEVICE. WILLIAM A. D. EVANS, New York, N. Y., assignor to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed July 25, 1914. Serial No. 883,009. 1 Claim. (Cl. 250-34.)



The combination with a quartz lamp of suitably supported quartz plates constituting the transition elements of the radiation of the lamp, said plates being spaced apart, and means outside the path of radiation for cooling the intervening space and the plates.

1,303,275. BAKING-OVEN. MILTON FEDER, Oakland, Calif. Filed July 9, 1918. Serial No. 244,087. 9 Claims. (Cl. 107-59.)

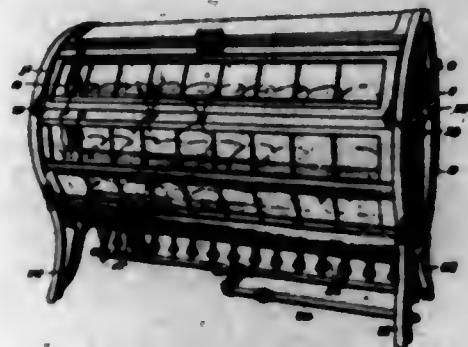


1. A bakery oven including an oven closure having a lower section and an upper section, the latter being pivotally connected to the former whereby the closure may be opened, and said oven having a circuitous series of means for supporting articles to be baked, extending into both sections of the oven closure.

1,303,276. BAKING-OVEN. MILTON FEDER, Chicago, Ill. Filed Jan. 22, 1919. Serial No. 272,445. 8 Claims. (Cl. 107-59.)

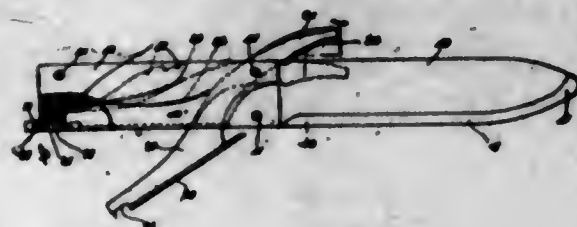
1. A bakery oven including a cylindrical oven closure formed substantially wholly of glass whereby heat within the closure will be retained as a result of reflective action

of the glass for forming the baked article with a heavy crust and a relatively moist interior, said oven containing



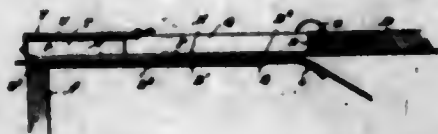
means for supporting articles to be baked, in heat absorbing relation to the cylindrical walls of the oven.

1,303,277. COMBINED KNIFE AND WIRE-CUTTER. JOHN FEDERKIEWICZ, Yardley, Pa., and MARCIN OLSEAN, Trenton, N. J. Filed May 10, 1918. Serial No. 233,667. 1 Claim. (Cl. 30-17.)



The combination with a manually operable knife having a recessed handle, of a beveled edge formed at the back of said knife, adapted to set as one element of a wire cutter, a lever pivoted in the recess of said handle, one end of said lever acting cooperatively with the beveled edge of said knife blade as a wire cutter, the opposite ends of said lever extending through the recess in said handle, a plate secured to said lever, said plate acting as a cover for the recess when said lever is inclined in said handle, a flat curved spring secured in said recess adapted to press said lever outward, a sliding slotted and recessed detent at the end of said handle containing an open slot, and a lug formed at the extreme end of said lever engageable with said sliding detent, whereby said lever is held when within said handle.

1,303,278. TICKET-VENDER. JACOB W. FIELD, Peoria, Ill. Filed Jan. 2, 1918. Serial No. 210,063. 10 Claims. (Cl. 211-33.)

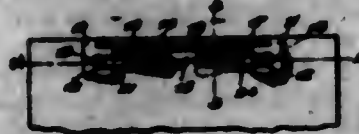


2. A vending device including in its construction a trough shaped guide having a continuous depression extending longitudinally of its bottom, and also having a tongue in its bottom having a raised extremity pointing in the direction of one end of said guide, and a member slidable within said guide including a tongue pointing in the same direction as the first said tongue and depending into said depression.

1,303,279. PAPER-FASTENER. CLARENCE G. FISHER, Rochester, N. Y. Filed July 11, 1918. Serial No. 244,473. 13 Claims. (Cl. 24-67.)

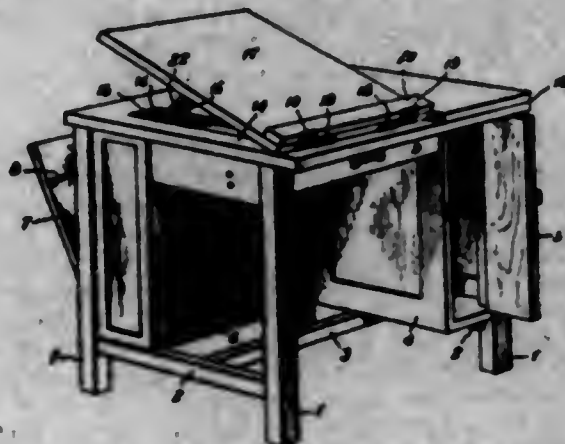
1. A paper fastener including in combination a backing member having upstanding flexible tongues, a top member comprising end portions each formed with an aperture to receive one of said tongues, the under side of

said portions adapted to rest against the top sheet of paper with the aperture in line with an aperture of the paper thus reinforcing the paper against tearing out



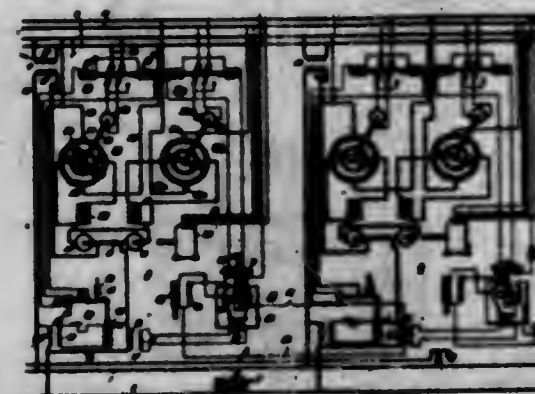
from its apertures, and a part of less width than the end portions joining said portions, the free ends of the tongues adapted to be bent down and under said part.

1,303,280. DRAWING-DESK. HELEN M. FLEISHER, Cleveland, Ohio. Filed Nov. 20, 1917. Serial No. 208,910. 3 Claims. (Cl. 45-6.)



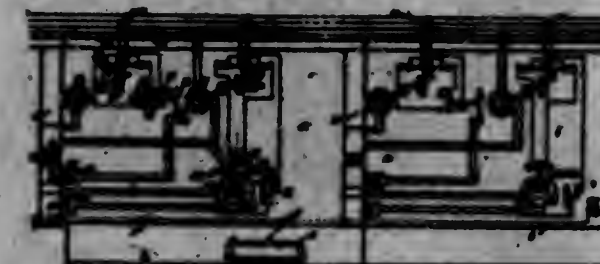
2. A drawing desk comprising a stand, a top formed of a plurality of surfaces of different levels, an easel hinged to one top surface and adapted to be flush with another, an auxiliary support for said easel adapted to rest upon a third top surface and beneath said easel, and a block movably carried by said easel and also adapted to lie flush with one of said surfaces.

1,303,281. NON-INDUCTIVE INTERFERENCE SYSTEM. CHARLES LE G. FORTNACUR, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 28, 1917. Serial No. 193,725. 3 Claims. (Cl. 171-97.)



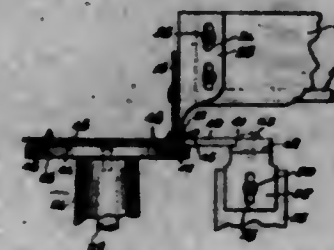
1. In an alternating-current distributing system, the combination with a single-phase alternating-current power circuit, of a plurality of spaced power units for furnishing energy to said power circuit, translating devices adapted to draw energy from variable points in said power circuit between said power-unit connections thereto, single-phase commutator-type generators connected in series with said power circuit and severally generating electromotive forces that are displaced 90° in phase from each other, and means for independently varying the electromotive forces of said commutator-type generators in order that the voltage impressed upon said power circuit may be maintained at a predetermined value irrespective of the position of said translating devices between said power-supply units.

1,303,282. DISTRIBUTING SYSTEM FOR MINIMIZING INDUCTIVE INTERFERENCE. CHARLES LE G. FORTNACUR, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 9, 1915. Serial No. 64,457. 5 Claims. (Cl. 171-97.)



2. An alternating-current railway system comprising a trolley circuit supplied with energy from a plurality of spaced sub-stations, and voltage controlling means for said sub-stations for maintaining the amperes-miles on each side of a moving load point on said trolley circuit equal, and additional means for simultaneously maintaining the currents flowing from the several sub-stations to said load point substantially directly opposed in phase relationship, said means being severally influenced by the conditions obtaining in said trolley circuit.

1,303,283. MACHINE FOR TRIMMING THE CANVAS OF REINFORCED INSOLERS. WILLIAM FOWLER, Cincinnati, Ohio, assignor of one-half to Charles H. Kripplendorf, Cincinnati, Ohio. Filed May 3, 1915. Serial No. 25,374. 3 Claims. (Cl. 12-30.)



1. In a device of the character described, the combination of an insole feeding element, an abutment element to guide the edge of the insole, and a cutting element positioned with relation to the abutment so as to engage a canvas facing on the insole inside of the edge thereof, and positioned with relation to the feeding element so as to cut the canvas without cutting the insole.

1,303,284. KNIFE-BLADE SWITCH. HARRISON J. L. FRANK, Detroit, Mich. Filed Aug. 7, 1918. Serial No. 246,676. 11 Claims. (Cl. 175-282.)

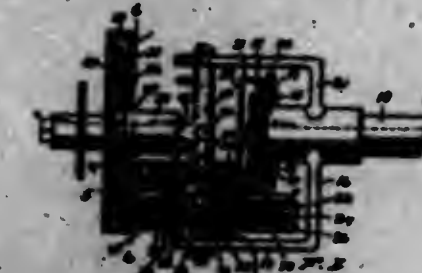


11. A switch clip having a pair of jaws adapted to receive a switch blade between them, a spring plate on the outside of one of the jaws, said jaws and spring having aligned holes near their ends adapted to receive a screw or rivet for fastening the blade, and means independent of the screw or rivet for fastening the spring to the jaws.

1,303,285. FRONT-WHEEL DRIVE MECHANISM FOR MOTOR-VEHICLES. FRANK L. FENSMAN, Omaha, Nebr. Filed Nov. 5, 1917. Serial No. 200,243. 1 Claim. (Cl. 100-43.)

In a front wheel drive for motor vehicles, the combination with the front axle, of a drive shaft in said axle, a

gear carried by each end of said shaft, a casting supported by said axle and formed with upper and lower beveled gears and a hub portion therebetween, the upper gear meshing with the first named gear, another gear in mesh with said lower gear and fixed to the hub of the adjacent wheel whereby power may be transmitted from said drive shaft to said wheel, housings for said gears each having vertical and horizontal sections which combine to induce said gears, one of said housings having a bearing on said hub portion and the other housing being rotatable relative to the first named housing and having a



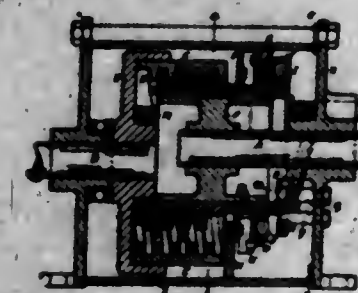
bearing on that portion thereof which engages said hub portion, a rod extending through portions of said housings and beyond the same, a sleeve member mounted upon that portion of the rod extending beyond said housings, a spindle extending from said sleeve member and upon which said hub of the wheel is mounted, and an arm also extending from said sleeve member and connected to the steering mechanism of the vehicle whereby said sleeve member will be rotated, when the steering mechanism is operated, to swing said wheel hub and said rotatable housing about said rod as an axis.

1,303,286. ELECTRIC BATTERY. HARRY F. FRENCH, Fremont, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Dec. 17, 1915. Serial No. 67,350. 11 Claims. (Cl. 304-33.)



2. In electric batteries, an electrode sheath consisting of two strips of pulpboard secured together at their sides, a coating of sealing material on the inside surfaces near one of the ends of the sheath, and a coating of flour on the remaining part of said inside surfaces.

1,303,287. VARIABLE-SPEED GEAR AND CLUTCH. WILLIAM JOHN GUN, London, England. Filed Nov. 13, 1917. Serial No. 201,830. 5 Claims. (Cl. 74-7.)



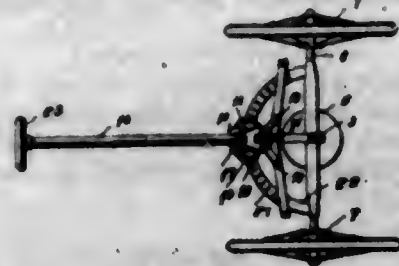
1. A variable speed gear or clutch comprising driving and driven elements having engaging teeth, the teeth on one member being movable thereon, and speed controlling means for causing a definite extent of slip of one set of teeth with relation to the other set of teeth, substantially as described.

1,303,288. SHOCK-ABSORBING MECHANISM. WILLIAM A. GATSON, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Sept. 30, 1918. Serial No. 256,165. 2 Claims. (Cl. 213-84.)



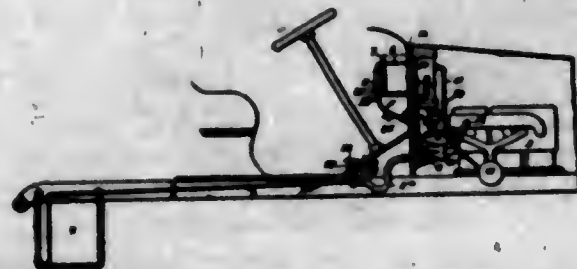
2. In a shock absorbing mechanism, the combination with a casting having an opening in one end thereof, said casting being internally recessed adjacent said opening and providing internal shoulders, of a follower comprising a plurality of parts, the parts of said follower being insertible within the opening of said casting and having shoulders arranged to be seated within the recessed portions of the casting, the parts of said follower being movable relatively to the casting, and a spring disposed within said casting and having one end thereof seated within the multiple part follower, said spring being adapted to hold the parts of the follower in expanded relation.

1,303,289. STEERING DEVICE. SAVINO GIACOLETTO, Hancock, Mich. Filed Sept. 27, 1917. Serial No. 193,582. 1 Claim. (Cl. 21-201.)



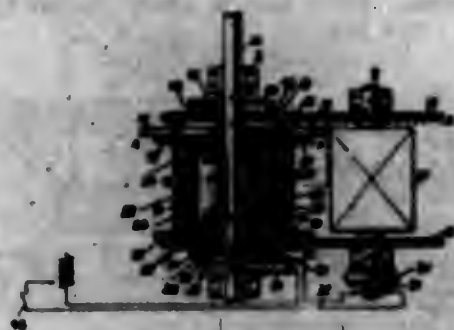
A steering device including a body having an axle pivoted thereto by a fifth wheel, a downwardly inclined bracket secured to the body, a housing secured to said bracket and supported in an inclined plane by the same and having an opening, a segmental plate passing through the opening and having its ends secured to the axle, teeth on said plate, a steering post extending into said housing, a conical shaped gear surrounding the post in the housing and in mesh with the teeth of the plate, a collar secured to the post and to the larger end of the gear and journaled in said housing, said gear having its apex journaled in the housing, an ear formed on said housing, and an arm secured to the ear and to the part of the fifth wheel carried by the body.

1,303,290. FUEL-FEED SYSTEM FOR INTERNAL-COMBUSTION ENGINES. FREDERICK H. GIBBS, Brooklyn, N. Y. Filed Mar. 24, 1916. Serial No. 86,478. 29 Claims. (Cl. 180-54.)



20. In combination in a device of the character indicated, a conduit for liquid fuel, a buoyant body adapted to indicate the passage of fuel through said conduit, and means adapted to strain fuel passing through the conduit.

1,303,291. SPEED-TRANSFORMER. MAXIMILIAN M. GOLDBERG, Dayton, Ohio. Filed July 10, 1915. Serial No. 39,093. 15 Claims. (Cl. 172-239.)



1. The combination with a rotatable armature and a bodily rotatable magnetic field, adapted to drag each other due to currents induced in the armature, of a gear wheel fast to the magnetic field, a gear wheel fast to the armature, a device rotated at a constant speed and two gear wheels carried by said device and meshing with the gear wheels fast to the armature and the field, the inter-meshing gears being of such ratio as to automatically maintain the relative speed between the armature and the field always less than that between the field and the device except when both relative speeds become zero.

1,303,292. MANUFACTURE OF LUBRICATING-OILS. HENRY F. GRANT, Franklin, Pa. Filed Oct. 11, 1918. Serial No. 257,787. 3 Claims. (Cl. 196-25.)

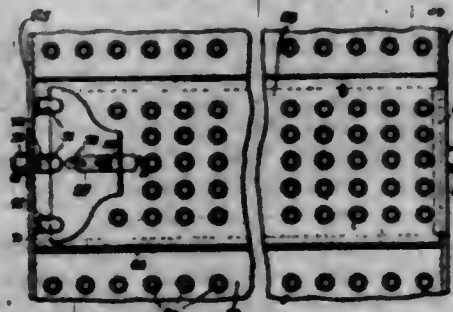
1. The herein described method of treating a natural lubricating oil to produce an improved lubricating oil of increased viscosity with comparatively slight reduction in gravity, which consists in taking a crude petroleum oil of rich green color, of a gravity of approximately 31.3 B. of 130 flash, of a viscosity of approximately 100 at 100° Saybolt, and whose cold test is zero or better, filtering the same to give it a color lighter than the color of the finished oil heating the same in a still to a temperature not exceeding 400°, and injecting steam into the oil while so heated.

1,303,293. SAFETY-GUARD FOR BOLTS AND THE LIKE. WILLIAM GAINES, Newark, N. J. Filed Mar. 6, 1917. Serial No. 152,850. 4 Claims. (Cl. 55-1.)



4. A safety guard for bolted joints and the like, comprising a guard element having a member embracing the joint and overlying both ends of the bolt, and attaching means for supporting the guard element.

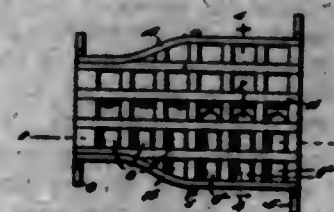
1,303,294. WASHING-MACHINE. JOHN F. GUBBINA, Chicago, Ill. Filed Aug. 6, 1915. Serial No. 43,906. 5 Claims. (Cl. 220-24.)



1. In a washing machine, a cylindrical clothes containing member, a bodily movable cover forming a part of the

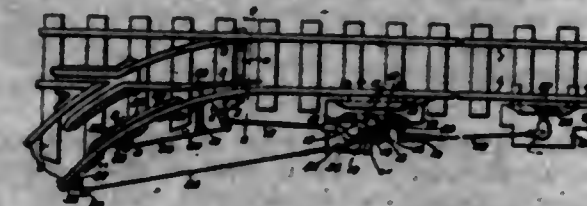
cylindrical wall of said cylinder, a supporting member secured to one end of said cylinder and having spaced apart arcuate flanges adapted to receive one end of said cover, a supporting member secured to the other end of said cylinder opposite said first-named supporting member and having a plurality of upwardly projecting lugs carried thereby, said cover having a plurality of apertures through one end thereof each adapted to be engaged by one of said lugs, said lugs each having a flange directed toward the other end of said cylinder, and a slidable locking plate mounted on said cover and adapted to move into locking position beneath said flanges.

1,303,295. SLUICE. CLESTIN GUILMART, Goshen, Conn. Filed Feb. 24, 1917. Serial No. 150,789. 5 Claims. (Cl. 94-2.)



1. A sluice comprising spaced side portions, and having a series of transverse parallel depressions, a trough common to said depressions at the inner ends of the latter, and a grating over said trough and supported by the sides.

1,303,296. SWITCH-CONTROLLING DEVICE FOR RAILWAY-TRACKS. ALBERT J. GURNEY, Canton, Ohio. Filed Sept. 13, 1918. Serial No. 253,971. 5 Claims. (Cl. 246-341.)

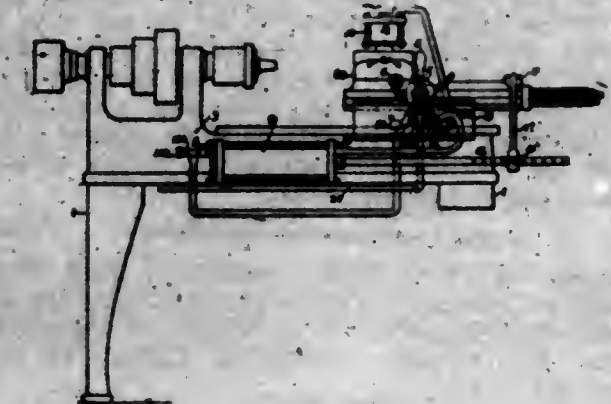


1. A device of the character described, comprising a sliding plate attached to the switch points of a railway switch, a bell crank pivotally mounted to move said plate, means connected to said bell crank for swinging said bell crank to move the switch points to open the siding, a second bell crank engaging said means, a cable secured to said second bell crank, arms pivotally mounted and secured to said cable and an engaging arm carried by a locomotive or the like and designed to contact with said pivotally mounted arms and to swing said second bell crank and cause said means connected to said first bell crank to rock said first bell crank and move said switch points to open the main line.

1,303,297. APPARATUS FOR PNEUMATIC CONTROL. WALTER G. HAAS, Dayton, Ohio, assignor to The Middletown Machine Company, Middletown, Ohio, a Corporation of Ohio. Filed Aug. 24, 1916. Serial No. 116,644. 23 Claims. (Cl. 29-42.)

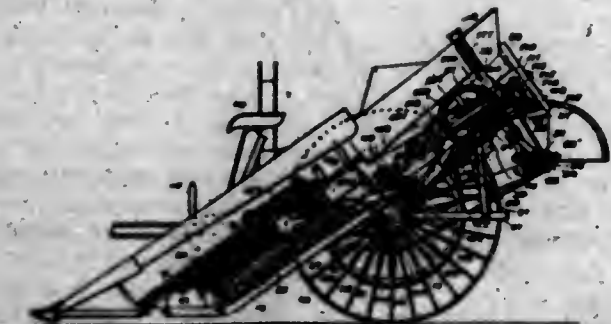
4. In a pneumatic control mechanism, the combination, with a regulator, valve devices to control the inlet and exhaustion of compressed air, a motor operable by compressed air so controlled, and a machine element operatively connected with said motor and means for locking another machine element in connection with the first men-

tioned machine element when the first machine element and the second machine element move together in one



direction, and for unlocking the two machine elements from one another when they move in another direction.

1,303,298. CORN-HARVESTER. CLINTON A. HAGADONE, Western Springs, Ill., assignor, by mesne assignments, to International Harvester Company, a Corporation of New Jersey. Filed Mar. 10, 1915. Serial No. 13,448. 16 Claims. (Cl. 56-118.)



1. In a corn harvester, the combination of snapping rolls, means for feeding the stalks to the snapping rolls, an independent ear conveyor receiving the ears from said snapping rolls, trash rolls located in substantial alignment with the receiving portion of said ear conveyor, and means for operating said snapping rolls and said trash rolls.

1,303,299. RECORD-HOLDER. EDGAR J. HAHN, New York, N. Y. Filed Mar. 13, 1916. Serial No. 83,781. 2 Claims. (Cl. 211-16.)



1. As a new article of manufacture, a phonograph disk record holder embodying a supporting member, an elongated machine element, and a supporting member.

gated sheet of suitable material secured at its upper end to the base member and a plurality of spaced, arcuate slits in said sheet arranged in parallel relation lengthwise of the sheet, the chords of the arcuate slits being less than the diameter of the disks to be positioned therein, whereby when disks are inserted in the slits they assume an inclined position with their lower edges resting against the supporting member and with their exposed portions spaced apart so that the disks may be readily withdrawn from, or inserted in, said slits.

1,303,300. RAIL-SANDER. ARTHUR J. HALL, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 8, 1915. Serial No. 65,705. 10 Claims. (Cl. 291-24.)



1. In a rail sander, the combination with a sand-delivery pipe, of flexible agitating means extending through said delivery pipe only and rotatably mounted therein.

1,303,301. PROCESS FOR TREATING ARTIFICIAL-SILK WASTE FOR SPINNING INTO YARN. WILLIAM R. D. HALL, Narberth, Pa. Filed June 28, 1918. Serial No. 242,110. 4 Claims. (Cl. 12-5.)

1. The process of conditioning artificial silk waste so that it may have its proper moisture content, which consists in placing the same in a conditioning room having its atmosphere charged with the proper moisture content and in then allowing the artificial silk waste to remain in such room until it has either absorbed or evaporated sufficient moisture to have the correct moisture content, and prior to its removal from such room in treating the silk waste with a substance whereby to prevent the loss or absorption of moisture from the air outside of such room.

1,303,302. SPINNING IMITATION-MOHAIR YARN. WILLIAM R. D. HALL, Narberth, Pa., assignor to S. Feather Company, a Corporation of Delaware. Filed June 26, 1918. Serial No. 242,112. 7 Claims. (Cl. 13-5.)

5. That process which consists in the production of artificial mohair by blending artificial silk waste, the moisture content of which has been reduced to a practical working point, and which artificial waste has then been treated with a vegetable oil to the extent of 6% to 7% per cent. of its own weight to prevent the absorption of moisture, with wool.

1,303,303. MINING APPARATUS. WILLIAM E. HAMILTON, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Continuation in part of application Serial No. 515,341, filed Aug. 30, 1909. Renewed Sept. 29, 1916. Serial No. 122,929. This application filed July 1, 1913. Serial No. 776,864. Renewed Sept. 29, 1917. Serial No. 194,083. 10 Claims. (Cl. 262-8.)

1. In a system of long-wall coal mining devices for performing successively a plurality of series of opera-

tions resulting in the formation of successive coal faces each parallel to the preceding one, the combination of movable roof and floor engaging posts arranged for each series of operations in a row parallel to and at a suitable distance from the coal face, a rail carried by the posts and extending along the coal face, and roof cutting and coal breaking mechanisms movably engaging



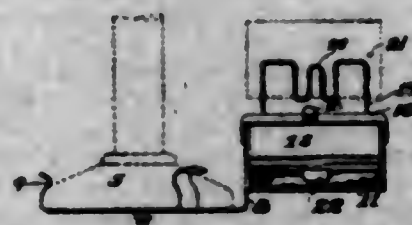
the rail and partly supported thereby and adapted respectively to cut a series of vertically separated horizontal berfs in the coal and to break down the blocks of coal between the berfs, the said rail being disposed at an elevation between the levels of the uppermost and lowermost berfs, whereby the berf cutting and breaking mechanisms are supported substantially centrally when in operation.

1,303,304. DEVICE FOR SECURING THE CORRECT HOLDING OF THE HAND WHEN WRITING AND FOR FACILITATING SUCH WRITING. CHRISTIAN HAUSELMANN, Samiswald, Switzerland. Filed Feb. 7, 1918. Serial No. 215,849. 4 Claims. (Cl. 35-8.)



1. In a device for securing the correct holding of the hand when writing and for facilitating such writing, the combination with a curved plate attachable to the elbow-side of the hand, of a hemispherical socket formed on said plate and of a flat spring attached adjustably at one end to said socket and carrying at its other and free end a rotary ball all as shown and described and for the purpose set forth.

1,303,305. ATTACHMENT FOR DESK-TELEPHONES. WERT L. HAYMOND, Webster Groves, Mo., assignor of one-half to Herman A. Morgan, St. Louis, Mo. Filed Apr. 3, 1917. Serial No. 159,419. 2 Claims. (Cl. 281-4.)



1. The attachment for desk telephones comprising a bracket; a pad removably secured thereon; a leaf hingedly secured to said bracket and normally resting upon said pad; and means for detachably securing a second pad in place upon said leaf; a base-plate arranged to be detachably secured to a telephone base and to which said bracket is fixed.

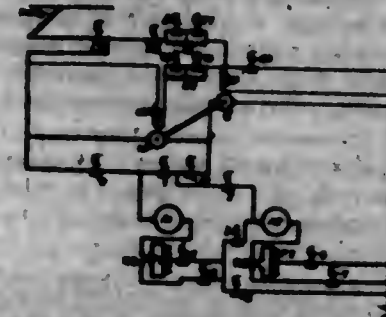
1,303,306. DISPLAY-CARD SUPPORT. JOSEPH A. HINTHAUS, Norwood, Ohio. Filed Dec. 17, 1917. Serial No. 297,484. 3 Claims. (Cl. 46-149.)

1. A display card support consisting of a card-attaching strip adapted to be secured to a card to be supported, a supporting portion adapted to be folded at an angle to the strip to support the card attached thereto,

and a spring tongue attached to the strip adapted to spring into locking engagement with the supporting portion when the portion is moved to card supporting position.

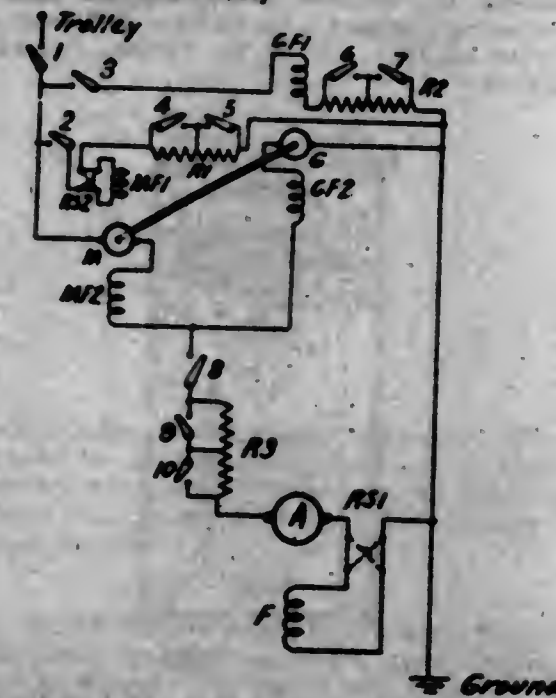


1,303,307. CONTROL SYSTEM. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 19, 1918. Serial No. 25,106. 14 Claims. (Cl. 172-179.)



12. The method of operating an electric motor in conjunction with an auxiliary motor-generator set which consists in connecting the armature of one of the machines of said set in parallel relation to said motor, varying the field excitation of the machines of said set to independently vary the voltages of the respective machines from zero to a predetermined value, and subsequently connecting said motor across both armatures of the motor-generator set, while increasing the motor field strength.

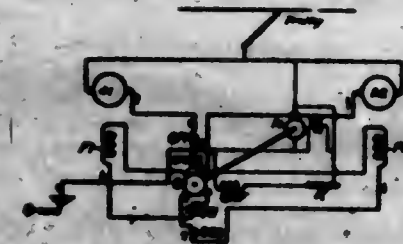
1,303,308. CONTROL SYSTEM. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 12, 1918. Serial No. 29,575. 11 Claims. (Cl. 172-179.)



1. In a system of control, the combination with a supply circuit, and a dynamo-electric machine having an

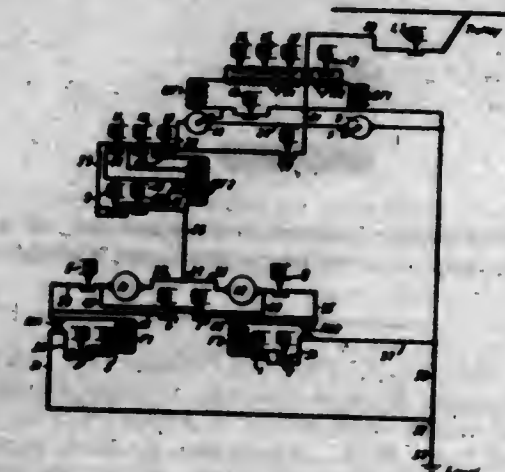
armature and a field-magnet winding excited solely therefrom during regenerative operation, of an auxiliary motor-generator set having one armature in series relation with said machine, and means associated with said set for gradually increasing the voltage of the said armature of said set to apply a decreasing voltage to the main machine, and vice versa, said motor-generator set embodying differentially-acting field windings to prevent surges of regenerative current.

1,303,309. SYSTEM OF CONTROL. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 10, 1918. Serial No. 44,785. 15 Claims. (Cl. 171-224.)



2. In a system of control, the combination with a supply circuit and a plurality of main dynamo-electric machines severally having armatures and field magnet windings, of an auxiliary exciting machine armature having a plurality of spaced sets of brushes, means for connecting the several sets of brushes to the respective field windings, and a plurality of differentially-connected field windings for said exciting armature respectively energized from the main armatures.

1,303,310. SYSTEM OF CONTROL. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 10, 1916. Serial No. 71,198. 20 Claims. (Cl. 172-179.)



1. In a system of control, the combination with a supply circuit and a plurality of momentum-driven main dynamo-electric machines severally having armatures and field-magnet windings, of auxiliary dynamo-electric means for inaugurating regenerative operation of the main machines, said means being provided with certain differentially-disposed field-magnet windings, means for varying the relative effect of said windings under predetermined conditions, and means for inherently maintaining a substantially equal distribution of regenerative current between the main machines.

1,303,311. STORAGE-BATTERY CONNECTOR. CLARENCE W. HASELHUTT, Lakewood, Ohio, assignor, by means of assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Oct. 30, 1916. Serial No. 128,881. 4 Claims. (Cl. 304-29.)

2. In storage batteries, a plate post member, a connector having a transverse hole, a clamping member adapted to fit in the hole with its upper surface flush with

the upper surface of the connector and a screw on one of said members having a threaded portion adapted to



coöperate with the screw to clamp the connector on the post member.

1,303,312. AUTOMOBILE-SEMAPHORE. WILLIAM JAMES HENRY, Akron, Ohio. Filed Oct. 4, 1917. Serial No. 194,732. 3 Claims. (Cl. 116-31.)



1. An automobile semaphore comprising a pair of signal members, a controlling shaft operatively connected to said signal members and shiftable longitudinally and rotatable to cause similar movement of the signal members, said shaft having a finger piece provided with a pair of extending wings, a bracket secured at one side of the shaft and having stop members between which one of the said wings is shiftable in the movement of the shaft longitudinally, and a guide member at the opposite side of the shaft to receive the other of said wings when the shaft is rotated and arranged to hold the shaft against longitudinal movement.

1,303,313. LATHING MATERIAL. ARTHUR W. HENBERT, Youngstown, Ohio, assignor to The General Fireproofing Company, a Corporation of Ohio. Filed Jan. 30, 1917. Serial No. 145,485. 10 Claims. (Cl. 106-30.)

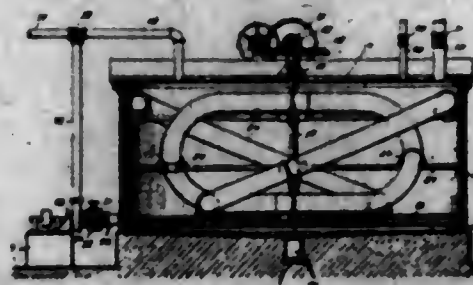
1. A plaster-keying lathing sheet consisting of a reticulated matted body of shredded material, and a binder therefor.

1,303,314. MANUFACTURE OF BISULFITE LIQUORS. ALBERT GUSTAV HINZKE, Toronto, Ontario, Canada, assignor, by mesne assignments, to Alnwell Gordon McIntyre, New York, N. Y. Filed May 4, 1916, Serial No. 95,395. Renewed Mar. 12, 1919. Serial No. 282,191. 10 Claims. (Cl. 22-13.)



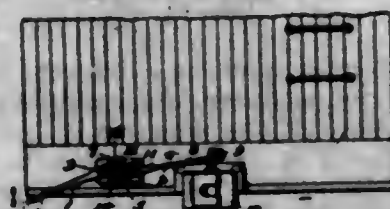
1. The method of producing bisulfite liquor which comprises flowing the sulfurous gases over a tortuous path through successive compartments, supplying lime water to the compartments in intimate contact with the gases therein, repeatedly circulating the liquor through each compartment and transferring the liquor progressively from one compartment to the next in a direction opposite to the general direction in which the gases flow through the compartments; substantially as described.

1,303,315. BLEACHING APPARATUS. ALBERT GUSTAV HINZKE, Toronto, Ontario, Canada, assignor, by mesne assignments, to Alnwell Gordon McIntyre, New York, N. Y. Filed Apr. 14, 1916, Serial No. 91,023. Renewed Mar. 12, 1919. Serial No. 282,192. 4 Claims. (Cl. 8-15.)



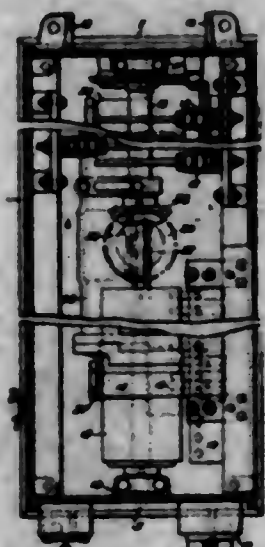
1. A bleaching apparatus comprising, in combination, a base, a tank mounted upon said base, a perforated bottom for said tank spaced above said base to form a chamber between said bottom and said base, means associated with said base and communicating with said chamber for admitting gases to said tank and for draining liquids therefrom, a shaft within said tank having its lower end supported on said bottom, a plurality of supports upon the shaft and a plurality of inclined tubular members mounted on said supports with their ends disposed on opposite sides of said shaft; substantially as described.

1,303,316. UNCOUPLING-LEVER. NICHOLAS E. HIRSCH, San Francisco, Calif. Filed Feb. 21, 1917. Serial No. 150,181. 2 Claims. (Cl. 212-50.)



1. An uncoupling mechanism of the class described including in combination a pivot block provided with oppositely disposed stops, a lever pivoted to said block having an inner end operable between said stops, and another lever pivoted to said block having an inner end adapted to loosely engage the inner end of the first mentioned lever for operating it in one direction between said stops.

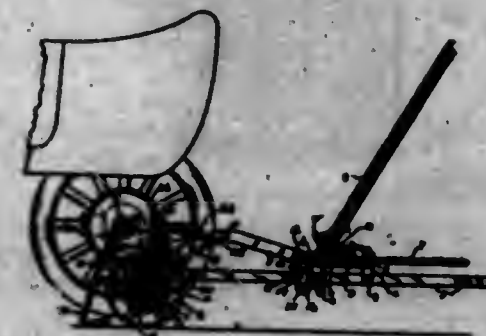
1,303,317. CONTROL APPARATUS. SAMUEL C. BOWY, Wilkesburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed June 19, 1917. Serial No. 175,591. 13 Claims. (Cl. 128-2.)



1. In a controller, the combination with incasing means, of a movable control member and a power-operated actuat-

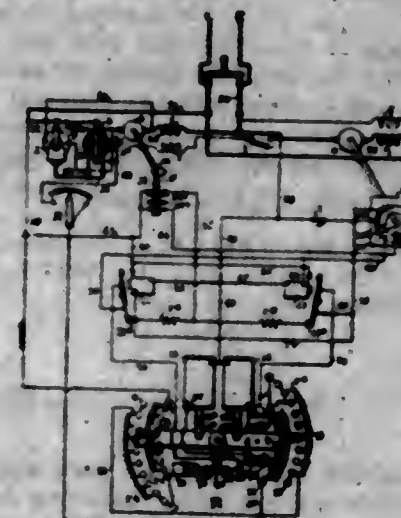
ing apparatus therefor located within said incasing means transversely to the direction of movement of said control member.

1,303,318. COMBINED AUTOMOBILE JACK AND AMBULANCE. ARTHUR C. HOPKINS, Minneapolis, Minn., assignor to Mid-West Manufacturing Company, Sioux Falls, S. D. Filed Jan. 17, 1919. Serial No. 271,619. 10 Claims. (Cl. 254-5.)



1. In a combined automobile jack and ambulance, an axle provided with wheels and having a rearwardly extending tongue, an operating-lever having arms substantially parallel in plan and provided with a pivot-post, said lever being movable longitudinally of the tongue to dispose its front end forwardly of and downwardly with reference to the axle, devices on the pivot-post for connecting a part of an automobile with the pivot post, means for moving said bar longitudinally to dispose its front end above the axle, and means to maintain the rear end of the operating-lever equidistant from the tongue during its movements.

1,303,319. MOTOR-CONTROLLER. ALBERT J. HORTON, White Plains, N. Y., assignor to The Cutler-Hammer Mfg Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 10, 1917. Serial No. 147,788. 28 Claims. (Cl. 172-239.)

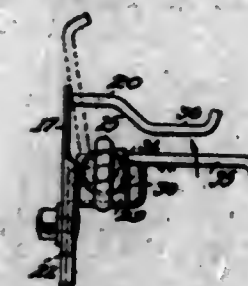


1. The combination with a plurality of motors, of means to synchronize the same including speed regulating means for one, active automatically after a given operation to effect definite curtailment of its regulative tendency incident to such operation.

1,303,320. YARN-TENSION DEVICE. LEWIS T. HOUTON, Worcester, Mass. Filed July 1, 1918. Serial No. 242,704. 10 Claims. (Cl. 343-154.)

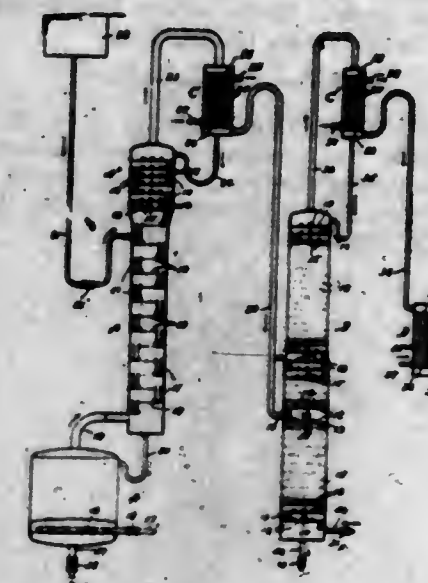
2. A yarn tension device comprising two series of guides for receiving and tensioning the yarn between them, one

series of guides being pivoted on a transverse axis, and readily releasable means for automatically and positively



locking the pivoted guides in the tensioning position when turned thereto.

1,303,321. PROCESS OF DISTILLATION AND APPARATUS THEREFOR. EDWARD J. HUDSON and HARRY C. MERRIAM, Marquette, Mich., assignors of one-half to The Cleveland-Coke Iron Company, Cleveland, Ohio, a Corporation of West Virginia. Filed Feb. 7, 1917. Serial No. 147,228. 9 Claims. (Cl. 203-6.)



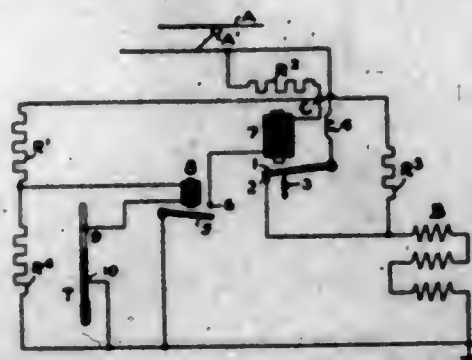
1. The continuous process of producing concentrated acetate solution and high strength, purified wood spirits from neutralized wood liquor, which consists in distilling the liquor to concentrate the acetate solution and drive off vapors containing the alcohol and a relatively large amount of water, rectifying the vapors thus formed by fractional condensation and collecting the resulting aqueous condensate separate from the concentrated acetate solution.

1,303,322. HOISTING MEANS. THOMAS F. HUNTER, Chicago, Ill., assignor to E. W. Sprout Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 4, 1918. Serial No. 261,040. 5 Claims. (Cl. 214-95.)



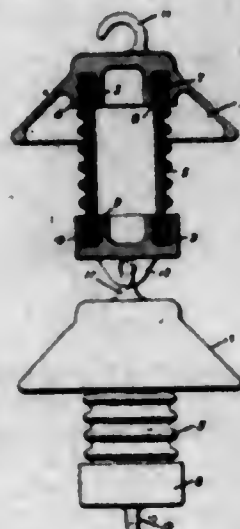
1. In a hoisting apparatus, in combination, a pair of uprights, a carrier reciprocatingly fitted between said uprights, a platform detachably arranged on said carrier and extending beyond the ends of said carrier to receive long articles, and means for exerting a lifting pull to both ends of said carrier.

1,303,323. HEATER SYSTEM. LES P. HYNES, Albany, N. Y., assignor to Consolidated Car-Heating Company, Albany, N. Y., a Corporation of West Virginia. Filed June 14, 1918. Serial No. 239,936. 6 Claims. (Cl. 219-20.)



1. In an electrically controlled heating system, a source of supply, heaters, and a normally closed connection from the heaters to the source of supply; in combination with an electro-magnetic switch for interrupting the connection at desired times, a thermostat, means controlled by the thermostat for actuating the switch, and means for reducing the current in the switch and in the thermostat when the latter closes its contacts.

1,303,324. ELECTRIC INSULATOR. RAY P. JACKSON, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 14, 1915. Serial No. 28,053. 2 Claims. (Cl. 173-318.)

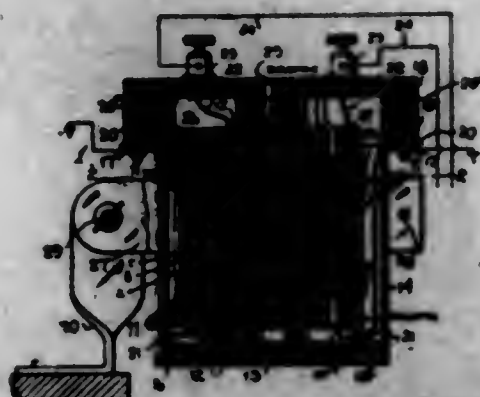


2. A suspension-type insulator comprising a plurality of superposed and flexibly connected units each of which comprises metallic end members and a tubular insulating member extending between said end members for transmitting all the mechanical stress therebetween, the upper one of said end members having a laterally extending outer flange formed thereon, the flanges of the units pertaining to the insulator effecting, in combination, a uniform distribution of the electrostatic fields surrounding the insulating members.

1,303,325. SPARK-INTENSIFIER. HUON JAMES, Montrose, Ill. Filed July 18, 1917. Serial No. 161,316. 5 Claims. (Cl. 250-41.)

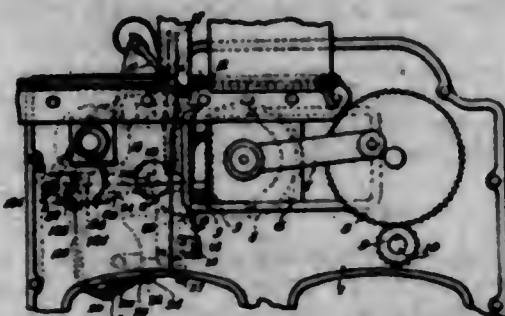
1. A condenser of the character described formed of a plurality of layers of flexible dielectric, and a plurality of conductive layers disposed alternately to the dielectric layers, each conductive layer being composed of a plurality of electrically conductive strips longitudinally spaced from each other in serial order, there being the same number of conductive strips in each layer, the layers being disposed in superposed relation around and concentric to a common axis, and the conductive strips of

the several conductive layers holding the same relative positions in their respective layers being disposed in more or less overlapped relation, each negative conductive strip



being disposed between the relatively outer and inner positive conducting strips of the next adjacent conductive layers.

1,303,326. SHEET-DELIVERY DEVICE. EMERSON P. JENNINGS, JR., Lehighton, Pa. Original application filed Mar. 30, 1916, Serial No. 87,725. Divided and this application filed Nov. 3, 1916. Serial No. 129,324. 23 Claims. (Cl. 271-82.)



1. A sheet delivery device comprising a frame mounted for swinging movement, gripping jaws carried by said frame, a pair of levers pivotally mounted on said frame and connected one to the other and with said jaws and means operated by the swinging movement of said frame to cause said levers to close said jaws as said frame approaches one limit of its movement and to open the same as the frame approaches the other limit of its movement

1,303,327. CROCHET-NEEDLE. INDEPENDENCE M. JANSSEN, Chicago, Ill. Filed July 16, 1917. Serial No. 160,965. 3 Claims. (Cl. 66-17.)

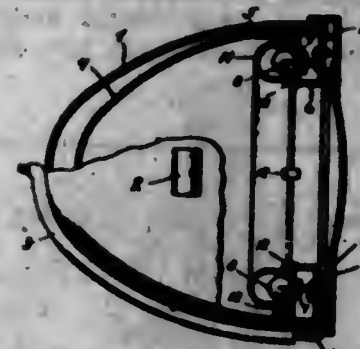


1. A hand crochet hook having a flattened hook connected to the body portion by a connecting portion that is slightly higher at its highest point than the height of the hook, and which is tapered from said highest point down to the neck of the hook, and which is also tapered at right angles to the first taper from said highest point to said hook, substantially as described.

1,303,328. HEADLIGHT. ROBERT H. KAISER, Chicago, Ill. Filed Nov. 27, 1917. Serial No. 204,208. 6 Claims. (Cl. 240-41.)

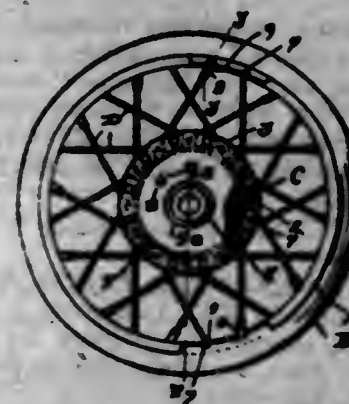
1. An electric headlight comprising a casing having an annular mouth, an attaching ring in the mouth of the casing having its peripheral portion engaged within the periphery of said casing, the inner portion of the ring being inwardly offset, a bowl-shaped reflector having its

mouth portion disposed about and secured on the inwardly offset portion of the ring, an annular lamp base



seated in the outer portion of the ring and lamps carried by the inner side of said base.

1,303,329. SPRING-WHEEL. ABRAHAM KAJANUS, Virginia, Minn. Filed Sept. 4, 1917. Serial No. 189,457. 1 Claim. (Cl. 152-23.)



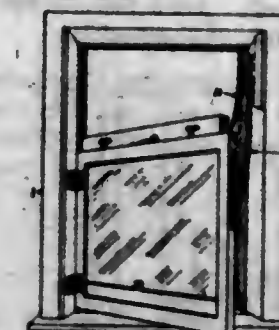
A spring wheel, comprising, in combination, a rim, a spool having a core and sides, one of said sides being detachably secured to said core and said sides projecting peripherally from said core to form a circular channel, intersecting spokes each attached by its opposite ends at spaced points of said rim, said spokes being tangentially arranged to and bearing freely and movably at their intersection on said core between said sides, and cross bars detachably secured to said sides for movably holding said spokes to transmit rotary motion and allow free sliding movement of the spokes on the periphery of said core.

1,303,330. COMBINED SHOULDER-BRACE AND ABDOMINAL SUPPORT. NORMAN KARLIN, New York, N. Y. Filed June 10, 1916. Serial No. 102,842. 5 Claims. (Cl. 2-180.)



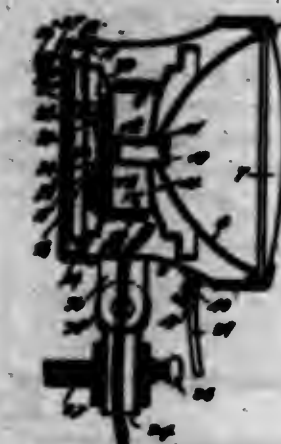
5. In a garment of the character described, a one piece back engaging portion extending for a relatively long distance above and below the waist line, arm bands at the upper part of said back engaging portion adapted to extend over the shoulders and beneath the arms of the wearer, and having their ends attached in spaced relation to said back engaging portion, shoulder engaging straps extending in crossed relation from the respective upper ends of said arm bands to the opposed respective lower ends thereof, a waist band extending forwardly from the waist line of said back engaging portion, an abdominal support extending forwardly from each side of said back engaging portion below the waist line and secured at its upper edge to said waist band.

1,303,331. WINDOW. ALEXANDER E. KUNEMAN, Erie, Pa. Filed Nov. 6, 1917. Serial No. 200,611. 3 Claims. (Cl. 20-46.)



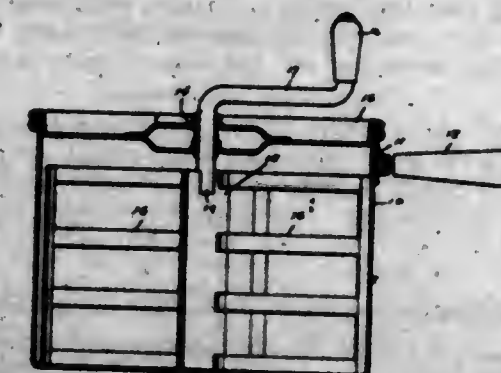
1. In a window, the combination of two closure members comprising a casing and a lower sash swingingly mounted in the casing; an upper sash slidably mounted in the casing; means for securing the upper sash to the lower sash whereby the upper sash may swing with the lower sash; and a stop carried by one of the sashes and engaging the opposing face of the other sash holding the upper sash in spaced relation to the lower sash as the upper sash is raised and lowered and as the sashes are swung together.

1,303,332. ELECTRIC LAMP. OTTO KUNZ and CHARLES KUNZ, New York, N. Y. Filed Apr. 1, 1918. Serial No. 225,931. 4 Claims. (Cl. 240-7.)



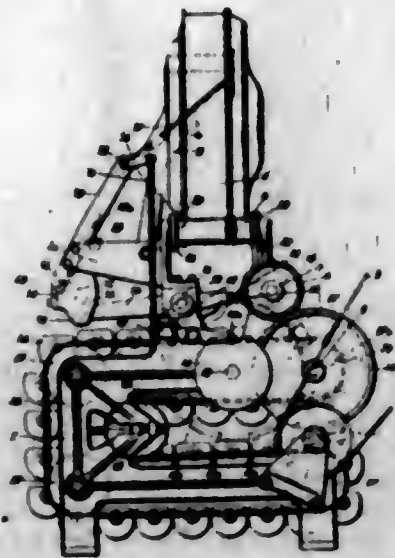
1. In an electric lamp, a rotatable reel, a lamp-socket carried thereby, a conducting cable in circuit with said socket, said cable being wound upon said reel, a handle connected with said reel, a circuit-closer, and means carried by said handle, to operate the circuit-closer.

1,303,333. STIRRING-COOKER. GEORGE A. LAMBERT, Anderson, Ind. Filed Apr. 27, 1917. Serial No. 164,856. 5 Claims. (Cl. 250-108.)



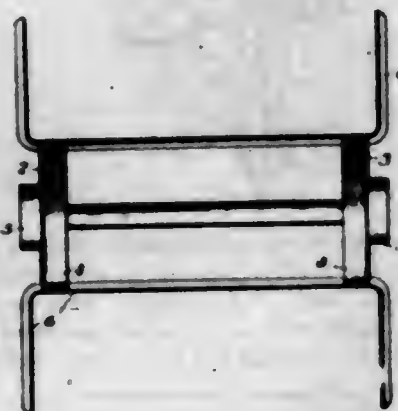
1. A stirring device including a container, a stirring element loosely disposed within said container so that it may shift laterally to engage and disengage the inner surface of said container, and means for driving said stirring element which permits such shifting movement thereof.

1,303,334. SHOE-NAIL-RECLAIMING MACHINE. ROBERT H. LAWSON, Beverly, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 7, 1918. Serial No. 215,770. 35 Claims. (Cl. 83-92.)



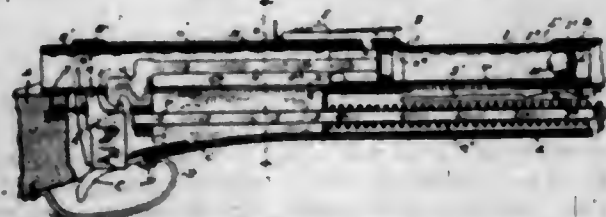
1. In a machine of the class described, in combination, gaging means for determining a physical characteristic of nails, means for moving the gaging means, means for positively controlling the arrangement of said nails relatively to the direction of the movement of the gaging means, and mechanism including said gaging means for separately delivering the nails which differ in the characteristic determined by the gaging means.

1,303,335. REEL. LEIF LEE, Youngstown, Ohio. Filed Jan. 9, 1919. Serial No. 270,344. 9 Claims. (Cl. 242-77.)



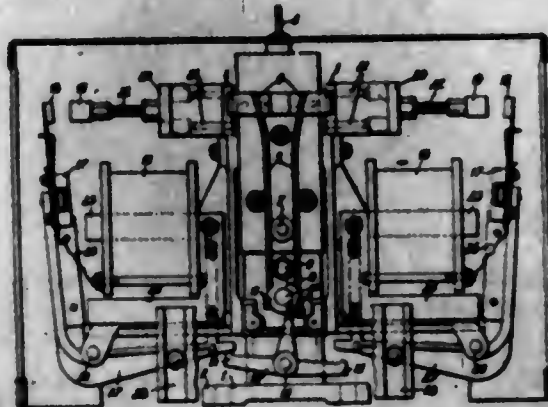
1. A metal reel comprising two spaced opposing flanged heads, and a plurality of U-members secured to the flanges of and connecting the heads, said members forming the only connections between the heads and also forming the carriers of the reel, substantially as described.

1,303,336. GUN. CHARLES F. LEFVER, Plymouth, Mich., assignor to Daisy Manufacturing Company, Plymouth, Mich., a Corporation of Michigan. Filed Apr. 12, 1918. Serial No. 228,105. 17 Claims. (Cl. 124-10.)



1. In a gun provided with a barrel, a tube simulating a cartridge, insertible into the barrel of the gun to form an element of the air compression chamber.

1,303,337. CONTROL APPARATUS FOR INDUCTION-MOTORS. EDWIN LERN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 10, 1918. Serial No. 50,090. 12 Claims. (Cl. 171-119.)



4. A relay device comprising reversing switches, electromagnets for actuating said switches, means for selectively energizing said electromagnets, means for interrupting the circuits of said magnets, and means controlled by said circuit-interrupting means for forcibly disengaging the cooperating contact members under predetermined conditions.

1,303,338. HIGH-CAPACITY FRICTION SHOCK-ABSORBING MECHANISM. GOODRICH Q. LEWIS, Washington, D. C., assignor to William H. Miner, Chazy, N. Y. Filed June 3, 1918. Serial No. 237,840. 4 Claims. (Cl. 213-64.)



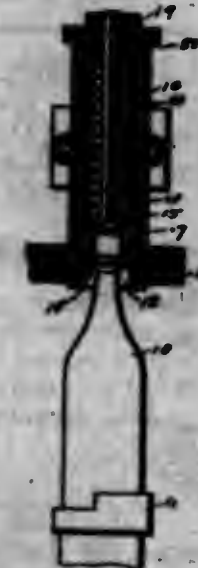
1. In a friction draft rigging, the combination with draft sills, front and rear stops, a draw bar, and yoke-acting means; of a friction shock absorbing mechanism including a main spring resistance, the latter comprising four coils, two of said coils being arranged horizontally side by side and occupying substantially the full width between the sills, the other two coils being located one above and the other below the first mentioned two coils.

1,303,339. MOTOR-VEHICLE FRAME. MOSES VOLNEY LIDDELL, Harvey, Ill., assignor to Austin Manufacturing Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 25, 1918. Serial No. 259,643. 14 Claims. (Cl. 21-182.)



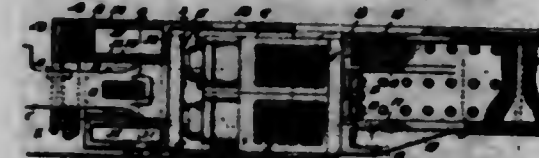
1. In a vehicle frame, the combination of side rails having inward deflections at intermediate points in their length, struts secured to said rails near their deflections, and tension members secured to the rails in front and rear of said deflections and sustaining said struts.

1,303,340. BOTTLE-CAPPING MACHINE. PETER CARL LAMM, Indianapolis, Ind., assignor to Progress Machine Company, Indianapolis, Ind., a Corporation. Filed Apr. 14, 1917. Serial No. 161,982. 3 Claims. (Cl. 113-2.)



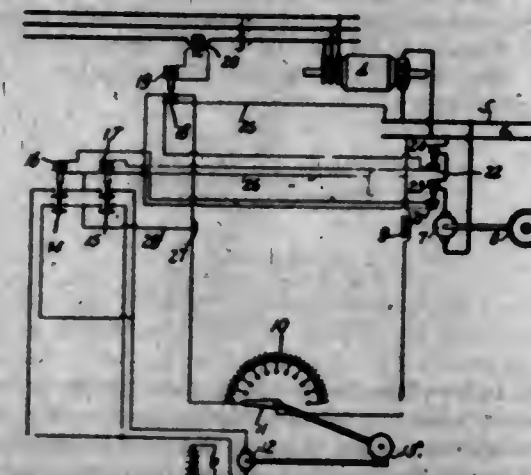
1. In a bottle capping apparatus, a plurality of plungers for capping bottles, and means on the capping head of each plunger for making an identifying mark on the cap, operated on by such plunger, the identifying means on the various plungers being different from each other.

1,303,341. CAR CONSTRUCTION. HARVEY J. LOUNSBURY, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 1, 1918. Serial No. 242,848. 8 Claims. (Cl. 213-42.)



2. As an article of manufacture, a cast end sill for railway cars, said end sill comprising a pair of transversely extending webs, a top plate, a bottom plate, rearwardly extended securing flanges, said casting having a centrally disposed opening therein defined by upper and lower horizontal webs and vertical webs, said opening being adapted to accommodate a draw bar butt and the front ends of a yoke.

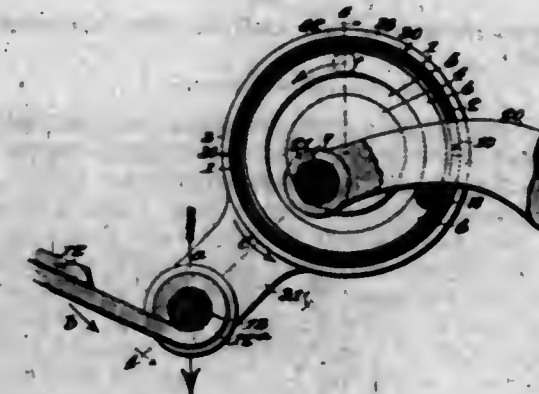
1,303,342. SYSTEM OF CONTROL. WALTER O. LUM, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 30, 1914. Serial No. 828,207. 13 Claims. (Cl. 171-312.)



9. In a system of control, the combination with a source of current, of a dynamo-electric machine connected

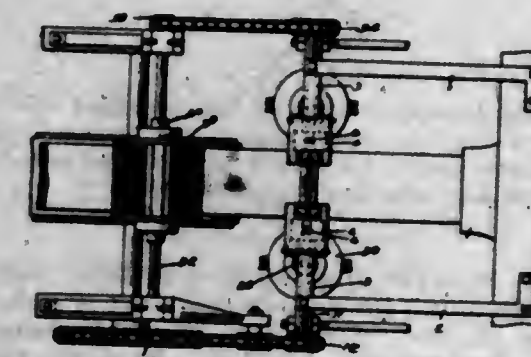
to said source, means controlled by the current supplied by said source for controlling the voltage generated by said machine, and means for controlling the operation of said first means.

1,303,343. SHOCK-ABSORBER. HERBERT LUTS, Hamilton, Ontario, Canada, assignor of one-half to George Morris, Hamilton, Ontario, Canada. Filed Jan. 14, 1919. Serial No. 271,079. 5 Claims. (Cl. 267-17.)



1. An appliance of the character described comprising a casing having an opening at one side to adapt it for being fitted over the free end of a relatively fixed bracket, a pivotal connection between said bracket end and the casing, a body supporting spring, the said casing including extensions, a shackle connection that joins the said extensions and the end of said supporting spring, and a shock take-up cushioning device within the casing having a relatively fixed connection with the casing and held under tension to bear against such portion of the bracket that extends within the casing.

1,303,344. BRICK-MACHINE. HERBERT R. MCCUNE, Decatur, Ill., assignor to Decatur Brick Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed Mar. 2, 1917. Serial No. 151,918. 8 Claims. (Cl. 25-1.)

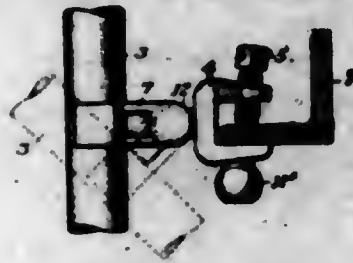


1. An attachment for brick presses of the type described including in combination a supporting frame having a horizontal member and a pair of vertically arranged bracket members movably supported on said horizontal member, a brush member journaled on a vertical axis in each of said bracket members, and means for driving said brush members.

1,303,345. PIPE-HANGER. GEORGE H. McFEATHERS, Johnstown, Pa. Filed Dec. 23, 1918. Serial No. 267,906. 4 Claims. (Cl. 248-32.)

1. A pipe hanger, comprising a member having a support engaging clamp, a ball connected thereto, jaw members each having sockets at one end for the reception of the ball, the other end of each jaw member having a re-

cess for the reception of the pipe, and means intermediate of the ends of the jaw for simultaneously clamping



ing said jaws about the ball and the pipe, substantially as described.

1,303,346. PIPE-HANGER. GEORGE H. McFEATHERS, Johnstown, Pa. Filed Dec. 23, 1918. Serial No. 267,906. 5 Claims. (Cl. 248-32.)



3. A pipe hanger, comprising two cooperating members which together form one pair of jaws to engage a support and another pair of jaws to engage a pipe, each pair of jaws having separate clamping means, substantially as described.

1,303,347. PIPE-HANGER. GEORGE H. McFEATHERS, Johnstown, Pa. Filed Dec. 23, 1918. Serial No. 267,907. 5 Claims. (Cl. 248-32.)



1. A pipe hanger comprising two members which together form a pair of support-engaging jaws and also a pair of pipe-engaging jaws, said jaws having interfitting hook projections, substantially as described.

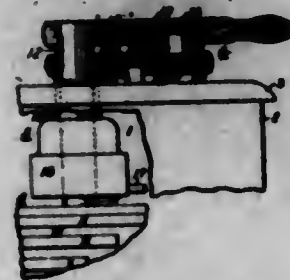
1,303,348. SULFUR-OXIDIZING PROCESS AND APPARATUS THEREFOR. AINWELL GORDON McINTYRE, Toronto, Canada. Filed Apr. 28, 1916. Serial No. 94,130. Renewed Mar. 12, 1919. Serial No. 282,196. 10 Claims. (Cl. 23-1.)



1. A sulfur burner, comprising in combination, a supply chamber, a plurality of combustion chambers below said supply chamber, supply controlling means between

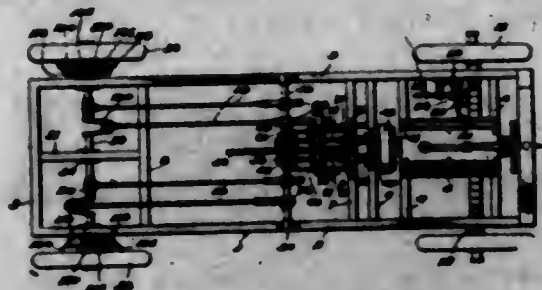
said supply chamber and the upper one of said combustion chambers, openings between adjacent combustion chambers, means for admitting air to said combustion chambers and means associated with the bottom one of said combustion chambers for withdrawing the products of combustion.

1,303,349. CONTROL APPARATUS. ROBERT D. McMANIGAL, JR., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed July 6, 1917. Serial No. 178,966. 12 Claims. (Cl. 188-4.)



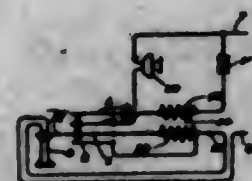
1. In control apparatus, the combination with a plurality of movable members for respectively controlling independent braking systems, of means for manipulating one of said members alone for a portion of its travel and concurrently with a second member during another portion of the travel.

1,303,350. AUTOMOBILE. HOMER F. MANLEY, Rochester, N. Y. Filed Apr. 12, 1917. Serial No. 161,581. 6 Claims. (Cl. 74-26.)



1. In a motor vehicle, the combination of a rear axle, a jack shaft, operative connection between said axle and the jack shaft, a master gear on the jack shaft, pivotally mounted guides at the sides of said gear, means for holding said guides normally away from the gear, means for moving the guides selectively to the gear, a gear supported by each guide, means for rotating said gears in the same direction, and means for shifting said gears longitudinally of the guides.

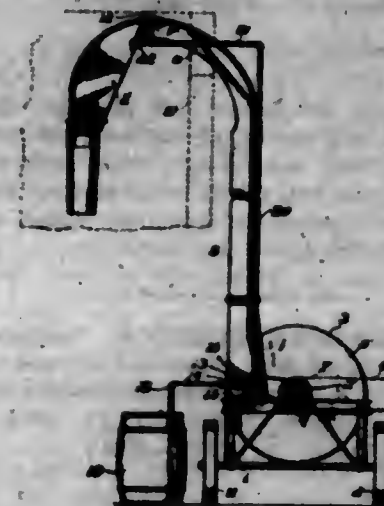
1,303,351. HOOKSWITCH AND CIRCUITS THEREFOR. RAY H. MANSON, Rochester, N. Y., assignor to The Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Dec. 18, 1916. Serial No. 137,620. 5 Claims. (Cl. 179-81.)



4. In a telephone substation instrument, a telephone receiver therefor, supporting means for the said telephone receiver, spring means to move the said supporting means when the said receiver is removed from the said supporting means, a plurality of sets of electrical contacts, means to cause one of the said sets of contacts to be operated

by the moving of the said supporting means to connect in conventional circuit the transmission elements of the said telephone according to a given manner of connections for outgoing and incoming telephonic transmission, stop means to stop the said support in the said movement at a point where it fails to operate the second set of contacts, the said stop means being capable of manual operation to cause the said supporting means to continue its movement to a position wherein the second set of contacts are operated, the operation of the second set of contacts changing the manner of connection of the transmission elements of the said telephone to produce a different operative transmission effect for incoming and outgoing transmission.

1,303,352. FODDER-DISINTEGRATOR. GEORGE M. MURWIN, Berwyn, Ill., assignor, by mesne assignments, to International Harvester Company, a Corporation of New Jersey. Filed Jan. 24, 1916. Serial No. 73,887. 3 Claims. (Cl. 146-26.)



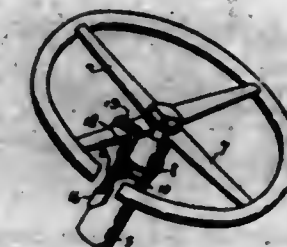
1. In a fodder disintegrating and delivering machine, ensilage cutting and delivering mechanism including means for delivering the fodder in a continuous stream, an upwardly extending delivery member, a downwardly extending distributor connected thereto and receiving material therefrom, means for supplying moisture to the moving stream of fodder as it passes through said distributor, and common operating means for said moisture supplying means and said ensilage cutting mechanism.

1,303,353. PRIMER FOR INTERNAL-COMBUSTION ENGINES. WILLIAM T. MANNING, Minneapolis, Minn., assignor to George M. Watters, Minneapolis, Minn. Filed Dec. 1, 1916. Serial No. 134,312. 2 Claims. (Cl. 123-180.)



1. A primer for internal combustion engines including a reservoir, a fuel supply conduit leading to the reservoir from a suitable source of supply, a fuel feed conduit having at its receiving end two branch conduits opening into the reservoir, the one above the liquid level and the other below the same, the latter of said branch conduits and the fuel feed conduit arranged to permit a gravity feed to the intake of the engine, and two valves for independently closing said two branch conduits.

1,303,354. LOCKING DEVICE FOR STEERING WHEELS. HIRSH C. MILLER, Parkersburg, Pa. Filed June 12, 1918. Serial No. 239,003. 1 Claim. (Cl. 70-129.)



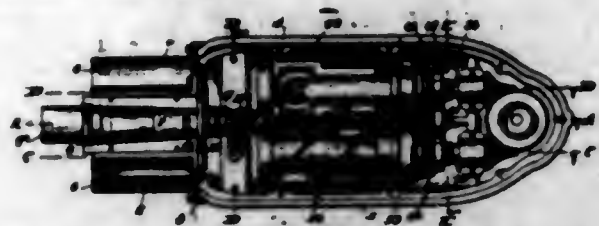
The combination with a steering post having a steering wheel on its upper end, of a locking member anchoring means rigidly fastened to the steering post axially below the steering wheel, said anchoring means having a cylindrical eye offset laterally from the steering post, a cylindrical steering wheel locking member comprising a cylindrical rigid body passing through said eye and arranged in parallelism to the post and having an opening at its lower end immediately contiguous with and adjacent to the under part of the eye, the upper end of the cylindrical body terminating in a laterally extending rigid hook provided with a downwardly extending lug, which together with the body of the hook overhangs in a hooked engagement with the spoke of the steering wheel, and locking means having a shackle engaging through the opening at the lower end of the body, whereby owing to the location of the opening, it may contact with the under edges of the eye, thereby affording a rigid lock for the steering wheel, said locking member when the locking means is detached, adapted to be moved vertically, whereby the hook is disengaged from the spoke, so that the member may be allowed to move downward through the eye until it engages with the eye to support the locking member in a non-used position.

1,303,355. ARMOR-PLATE MOUNTING. JOSEPH MILNEWICK, Elyria, Ohio, assignor of one-half to Adam Steminski, Elyria, Ohio. Filed Oct. 5, 1918. Serial No. 256,972. 1 Claim. (Cl. 114-240.)



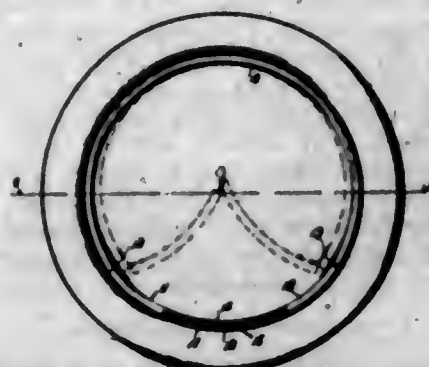
In an armor plate mounting, the combination with the hull of a vessel and a plurality of armor plates, of a plurality of clips disposed at regular spaced intervals and in vertical rows on said hull, loops formed in said clips, spirally wound conical springs having their inner ends passed through said loops and their outer ends secured to said plates, their outer ends extending radially from said hull, a plurality of brackets detachably engaged with the gunwale of said ship, bars formed with said brackets extending diagonally downward and outward, loops formed at the bottom of said bars engageable with the openings formed in said plates, said armor plates resting against the outer ends of said springs, bolts rigidly fixed in said hull at a point below said brackets and extending outwardly, angular arms having enlarged circular heads, stems formed with said arms, and hollow sleeves in which the inner ends of said stems and said bolts are slidably engaged.

1,303,356. POWER-TRANSMITTING MECHANISM FOR DRILLS AND THE LIKE. FRANK H. MILLS, Camden, N. J. Filed Jan. 18, 1911. Serial No. 608,218. 6 Claims. (Cl. 74-36.)



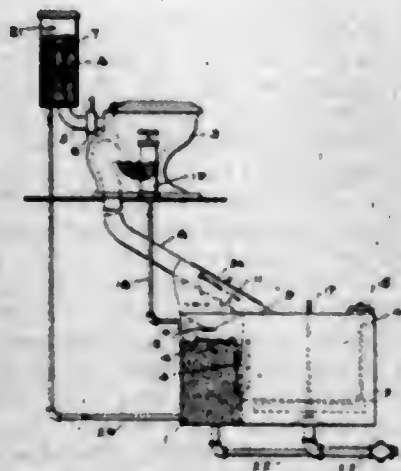
1. Power transmitting mechanism comprising in combination, a support, a rotatably driven shaft, a conical worm screw tapered from its base outward and fixedly mounted on the free end of said shaft, said worm having a longitudinally concave periphery, the concave face of which is spirally threaded, the convolutions thereof being of relatively different angularity and also of progressively varying diameter, and a peripherally concave worm wheel the teeth of which are thicker in the center than at their ends, operatively meshing with said worm, and provided with means adapted to impart its motion to a rotary machine element.

1,303,357. AUTOMOBILE-RIM. JUDSON H. MISKIMEN, Glendive, Mont. Filed June 19, 1918. Serial No. 240,794. 2 Claims. (Cl. 152-21.)



1. A demountable rim including a section equal in length to approximately two-thirds the circumference of the rim, a pair of sections equal in length jointly to the remaining third of the circumference, one of said mentioned sections being slightly shorter than the other, hinges applied to the internal surface of the sections to connect the terminals of the first mentioned section with the remote ends of the second mentioned section, and a hinge member applied to the external surface of the second mentioned sections for hingedly connecting their adjacent ends.

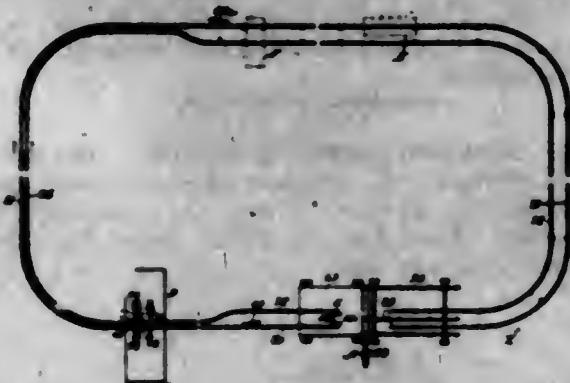
1,303,358. SANITARY CLOSET STRUCTURE. EARLE T. MONROOMAN, Alfred, N. Y. Filed June 21, 1915. Serial No. 35,206. 5 Claims. (Cl. 4-30.)



1. A sanitary closet structure comprising a deposit bowl, a tank, a passageway from said bowl to said tank

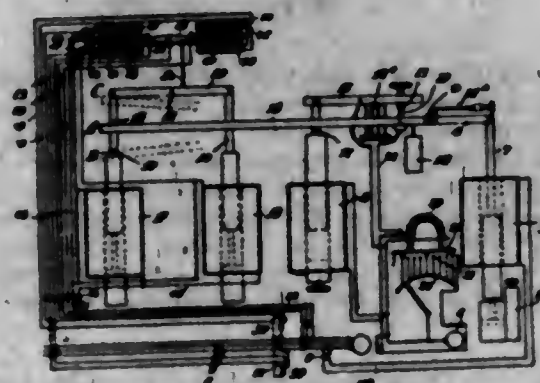
with a perforate portion to separate the fluids of the sewage from the solids while such solids are passing toward said tank.

1,303,359. BRICK-CONVEYER. BENJAMIN S. MOORE, Joliet, Ill., assignor to Raymond C. Penfield, New York, N. Y. Filed May 6, 1916. Serial No. 95,829. Renewed Nov. 29, 1918. Serial No. 364,730. 12 Claims. (Cl. 214-7.)



1. In conveyers for bricks and the like, the combination with conveying tracks, of carriers, traveling thereon between loading and unloading points, said carriers consisting in different types, one type having means to receive its load transversely and the other type having means to receive its load longitudinally.

1,303,360. VOLTAGE-REGULATOR. ARCHIE FRANKLIN MORAY, Cedara, Quebec, Canada, assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 21, 1914. Serial No. 857,896. 4 Claims. (Cl. 171-312.)



1. In combination, a generator, a main circuit supplied by the generator, an exciter circuit for the generator, a regulator connected to the main circuit for regulating the voltage of the exciter circuit, a wattmeter connected to the main circuit and adapted to control the regulator, and means responsive to a function of the energy delivered for controlling a circuit of the wattmeter.

1,303,361. DISPLAY-FIXTURE. CHARLES H. MORGAN, Hillside, N. J. Filed Nov. 14, 1917. Serial No. 201,894. 2 Claims. (Cl. 211-18.)

1. A display fixture for flexible articles, as window shades and the like, comprising a cabinet, spring rollers on which the articles to be displayed are mounted, secured to the interior of the cabinet and near the top thereof, and so disposed that a plurality of articles may be displayed simultaneously without altering the position of the rollers relatively to the cabinet, a cord secured to the bottom of each article for actuating the same to extended or display position, rollers at the bottom and top of the cabinet, the cords passing from their point of attachment to the articles downwardly around the first-named rollers and upwardly about the second named rollers and from thence substantially at a right angle out

through the side of the cabinet, and guides engaging the lower outside edges of the articles, the cords at all times



and the articles when on display maintaining themselves in extended position.

1,303,362. PROCESS OF PURIFYING LAMBLACK AND MAKING CARBON ARTICLES. WILLIAM ROY MOYR, Lakewood, Ohio, assignor to National Carbon Company, Inc., a Corporation of New York. Filed Nov. 1, 1917. Serial No. 199,631. 3 Claims. (Cl. 134-60.)

1. The process of purifying carbon which consists in heating it in the presence of carbon tetrachloride at such a temperature as to drive off the products resulting from the reaction between the carbon tetrachloride and the impurities.

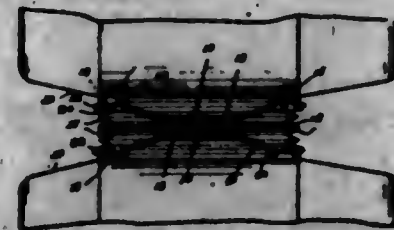
2. The process of making a carbon article which consists in forming it into shape with a binder consisting of a chlorinated hydrocarbon and calcining it to set the binder.

1,303,363. COLLAR AND SUPPORT. JAMES L. MURPHY, Chicago, Ill. Filed Feb. 26, 1918. Serial No. 219,197. 3 Claims. (Cl. 2-61.)



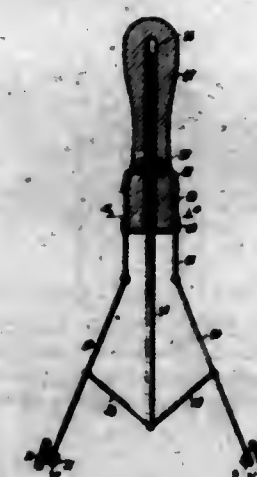
1. A collar support consisting of two parts arranged with their ends adjacent, a covering incasing said parts and constituting a hinge at said ends, said support detachably secured to the collar parts between the inner band and the turned over portion and adjacent the ends thereof.

1,303,364. BUFFER-SPRING FOR CAR-VESTIBULE-DIAPHRAGM FACE-PLATES. WALTER P. MURPHY, Chicago, Ill. Filed Nov. 16, 1916. Serial No. 131,624. 10 Claims. (Cl. 105-14.)



1. In combination with the end wall and diaphragm face-plate of a vestibuled railway car, of a leaf spring secured to one of the aforesaid structural elements of the car, and retaining means for the end of the spring arranged on the other of said car elements and comprising rollers arranged on opposite sides of the end of the spring,

1,303,365. EXPANSION-BRUSH. FANNLEY MYERS, Sacramento, Calif. Filed Sept. 7, 1918. Serial No. 255,056. 1 Claim. (Cl. 15-41.)



A cleaning device, comprising a support including a sleeve having a pair of arms connected therewith, a pair of movable arms on said first mentioned arms, having brushes at their free ends, links connected to said movable arms, an operating rod passing through said sleeve in pivotal connection with said links and means connected with said rod to control the movement of said brushes relatively to the support.

1,303,366. SPRING-TIRE. FLOYD L. MURDOCK, Cleveland, Ohio. Filed May 20, 1918. Serial No. 235,530. 3 Claims. (Cl. 152-8.)



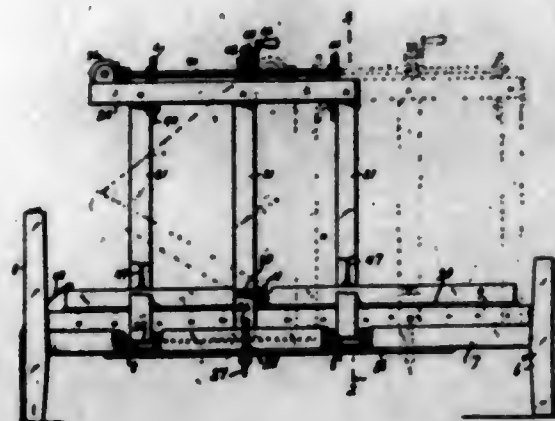
1. In a spring tire for wheels, a plurality of springs disposed laterally of the rim of the wheel, a tread member connected to each pair of said springs, the said tread members being pivotally connected together at their ends, and bands connecting the said laterally disposed spring members.

1,303,367. HOSE-COUPLING. JOHN T. NELSON, Aurora, Ill., assignor to Independent Pneumatic Tool Company, Chicago, Ill., a Corporation of Delaware. Filed May 22, 1918. Serial No. 235,931. 9 Claims. (Cl. 285-75.)



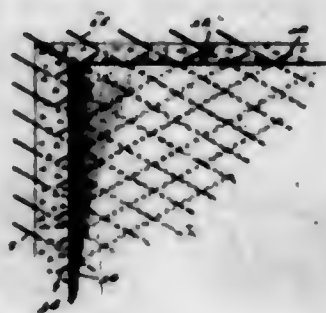
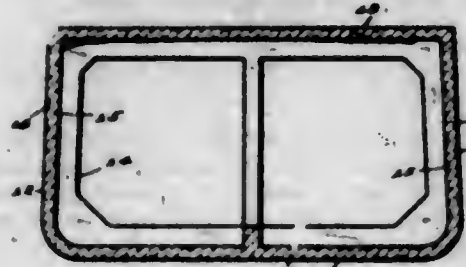
1. A coupling, comprising two cooperating coupling members, each having a tubular body portion provided with a plurality of fixed locking members adapted to interlock with the fixed locking members on the body portion of the opposed coupling member for holding said coupling members from being moved apart endwise, and each coupling member being provided with means non-rotatably connected with the body portion thereof and adapted to interlock with the fixed locking members on the body portion of the opposed coupling member for holding the coupling members against relative rotation.

1,303,368. INVALID-LIFTING APPLIANCE FOR BED-STEADS. PHILIP NELSON, East Las Vegas, N. Mex. Filed Aug. 17, 1918. Serial No. 250,339. 1 Claim. (Cl. 5-44.)



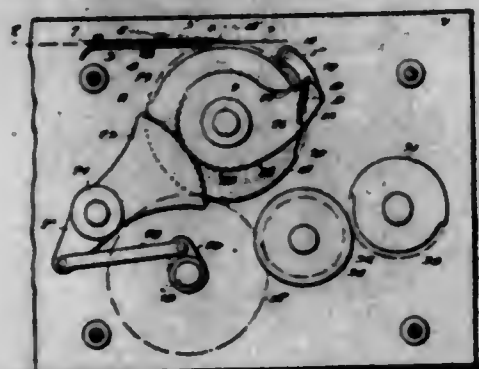
In combination, a cot having relatively movable pivotally connected frame sections, means for locking the frame sections against relative movement, a relatively stationary frame structure extending over the cot, lifting mechanism mounted upon the frame structure and including spaced pairs of drums having their axes disposed in parallel relation, chains connected to each side of the cot frame, the chains at one side being adapted for connection to one drum in each pair, additional drums having their axes of rotation disposed at right angles to the first named drums, chains connected to one end of the cot frame and adapted for connection to the latter drums, and a common manually operable gearing for said drums.

1,303,369. REINFORCED-CONCRETE SHIP. GEORGE C. NEWTON and RALPH E. NEWTON, Milwaukee, Wis. Filed Aug. 24, 1918. Serial No. 251,212. 10 Claims. (Cl. 114-65.)



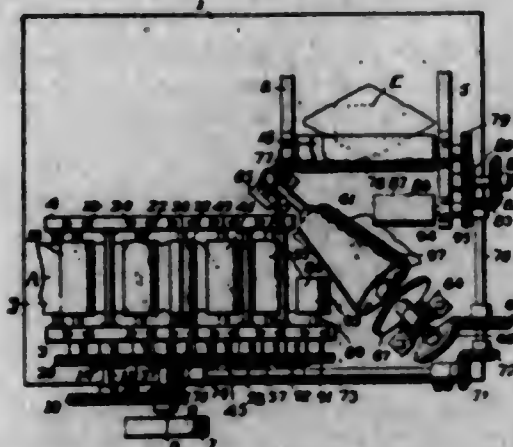
1. A reinforced concrete ship, comprising a concrete skin and deck, cross ribs against the inner face of the skin and deck and spaced apart along the longitudinal axis of the ship, and two separated layers of reinforcing rods embedded in said skin and deck, one set of rods being near the inner face of said skin and deck and comprising rods extending in one oblique direction with respect to the longitudinal axis of the ship, and the other set of rods being near the outer face of said skin and deck and comprising rods extending in the oppositely oblique direction with respect to such longitudinal axis.

1,303,370. FOLDING MECHANISM. ABRAHAM NOVICK, New York, N. Y., assignor to United States Envelope Company, Springfield, Mass., a Corporation of Maine. Continuation of application Serial No. 875,124, filed Dec. 2, 1914. This application filed Oct. 17, 1917. Serial No. 197,024. 7 Claims. (Cl. 93-61.)



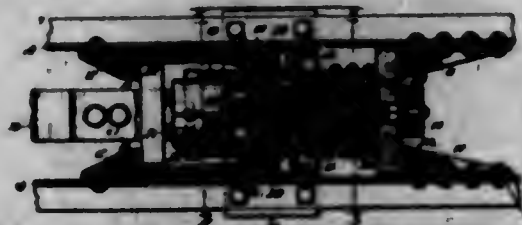
2. In a folding mechanism, a blank support, a forming plate, an oscillating roll for folding a sheet over the edge of said forming plate, and a segmental revoluble roll having a portion of its periphery arranged to contact with said oscillating roll to compress the folded sheet, and means for rotating said revoluble roll.

1,303,371. BLANK-FORMING MECHANISM. ABRAHAM NOVICK, New York, N. Y., assignor to United States Envelope Company, Springfield, Mass., a Corporation of Maine. Original application filed Oct. 17, 1913, Serial No. 795,629. Divided and this application filed Aug. 13, 1917. Serial No. 185,836. 9 Claims. (Cl. 164-68.)



3. The combination with means for cutting parallelogramic blanks from a continuously advancing web of paper, of means for forwarding said blanks, conical rolls for rotating a blank in transit through a predetermined angle, and means for forwarding said blank after rotation.

1,303,372. FRICTION DRAFT-RIGGING. KARL F. NYERON, Montreal, Quebec, Canada, assignor to William H. Miner, Chazy, N. Y. Filed July 1, 1918. Serial No. 242,807. 4 Claims. (Cl. 213-64.)



1. In a draft rigging for railway cars, the combination with draft stiles and front and rear stop means, of a friction shell movable in buff and stationary in draft, spring means for yieldingly resisting the movement of

said shell in buff, friction elements coöperable with said shell, and spring means for yieldingly resisting relative movement between the shell and friction elements during the latter part of the buffing movement only.

1,303,373. SLIP-RESISTING OVERSHOE FOR ANIMALS. MATTHEW M. O'BRIEN, Brooklyn, N. Y. Filed Mar. 1, 1919. Serial No. 290,080. 5 Claims. (Cl. 168-1.)



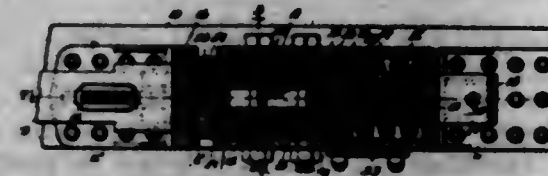
1. An overshoe for animals comprising a rigid chain-holder provided with upstanding chain-holding lugs and having a frog-protecting plate, upstanding hoof-supporting means fixed to the holder, and a bottom slip-resisting chain structure provided with members fixed to said lugs.

1,303,374. FRICTION DRAFT-RIGGING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Mar. 23, 1917. Serial No. 156,914. 4 Claims. (Cl. 213-64.)



1. In a draft rigging, the combination with tandem stop castings having the usual end and intermediate main stops and corresponding limiting stops, of tandem arranged end and intermediate followers, the intermediate followers normally engaging their respective intermediate limiting stops, tandem arranged springs, friction elements located between the intermediate followers and between the center posts of said stop castings, and means for moving either end follower and the nearest intermediate follower simultaneously in the same direction to thereby compress the springs and actuate the friction elements.

1,303,375. FRICTION SHOCK-ABSORBING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Apr. 27, 1918. Serial No. 231,108. 4 Claims. (Cl. 213-64.)



1. In a friction shock absorbing mechanism, the combination with a friction shell comprising a plate bent to U-shape and having the free ends thereof prevented from spreading by connecting means extending therebetween, of friction shoes slidable on the inner faces of said free ends, wedge means co-acting with said shoes, and spring means arranged to resist relative movement between the friction elements and the shell.

1,303,376. FRICTION DRAFT-RIGGING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Apr. 27, 1918. Serial No. 231,104. 7 Claims. (Cl. 213-64.)



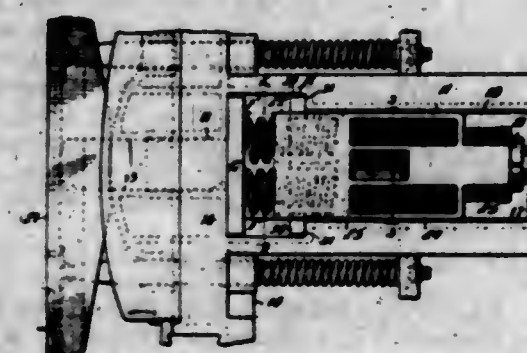
1. In a friction draft rigging, the combination with a draw bar, yoke-acting means, and rear and front stop acting means; of a spring; and friction devices, the latter including wedge elements and relatively slidable friction members, one of said wedge elements remaining stationary under draft and all of the wedge elements being movable in buff.

1,303,377. HIGH-CAPACITY FRICTION SHOCK-ABSORBING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Apr. 27, 1918. Serial No. 231,105. 13 Claims. (Cl. 213-64.)



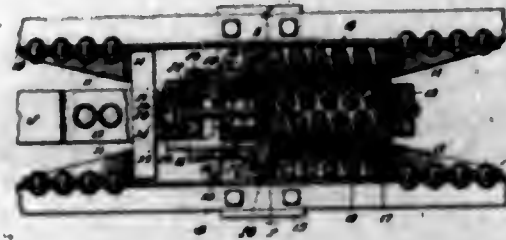
1. In a friction shock absorbing mechanism, the combination with a friction shell and pressure-transmitting member relatively longitudinally movable; of wedge means co-acting with and movable relatively to said shell; spring means co-acting with said wedge means; friction elements movable in unison with said pressure-transmitting member and interposed between said member and the wedge means.

1,303,378. BUFFING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Apr. 27, 1918. Serial No. 231,107. 5 Claims. (Cl. 213-39.)



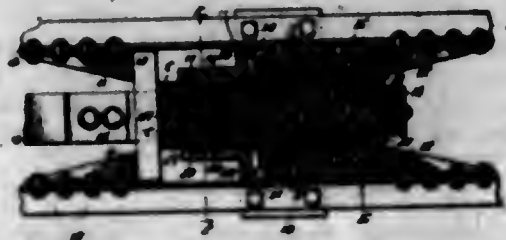
1. In a shock absorbing mechanism of the character described, the combination with a member having a friction shell, a spring casing adjacent thereto, and a second spring casing; of friction elements coöperable with said shell and including a pressure-transmitting member; spring means co-acting with said friction elements and disposed within the first named spring casing; an abutment member within the second named spring casing; a preliminary spring within the second named spring casing; and means for maintaining said abutment member and pressure-transmitting member in relatively fixed relation during actuation of said mechanism.

1,303,379. FRICTION SHOCK-ABSORBING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 1, 1918. Serial No. 242,824. 1 Claim. (Cl. 213-64.)



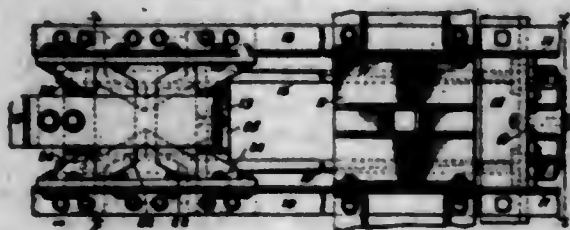
In a friction shock absorbing mechanism, the combination with a friction shell and a spring casing associated therewith, said shell having a rearwardly facing shoulder, of a plurality of friction shoes coöperable with said shell, said shoes having forwardly facing shoulders arranged to engage the shoulder of the shell when the parts are in normal condition, a wedge associated with the shoes, a spring follower disposed within the casing, spring means in the casing coöperable with said follower, a retaining bolt extending from said wedge between the shoes, said shoes having inwardly extending shoulders intermediate their ends, and a spring interposed between said inner shoulders of the shoes and the inner end of the bolt, whereby the shoes and wedge are limited in their outward movement with respect to the shell by said coöperating shoulders on the shell and shoes and said bolt and spring immediately associated therewith serve to retain the friction elements in tight engagement with the bolt under a substantially constant tension.

1,303,380. SHOCK-ABSORBING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 13, 1918. Serial No. 244,754. 1 Claim. (Cl. 213-64.)



In a shock absorbing mechanism of the character described, the combination with a friction shell having interior shoulders, of friction shoes coöperable therewith, said shoes having shoulders at their ends coöperable with the shoulders of the shell to limit the outward movement of the shoes with respect to the shell, a spreader coöperable with said shoes and interlocked therewith when the parts are assembled within the shell, and spring means for resisting relative movement between the shell and said shoes and spreader, the spreader and shoes in interlocked relation being insertible within the shell from its inner end.

1,303,381. RAILWAY DRAFT-RIGGING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed July 20, 1918. Serial No. 247,088. 6 Claims. (Cl. 213-64.)



6. In a railway draft rigging, the combination with draft sill, draw bar and yoke-acting means, of a plurality of

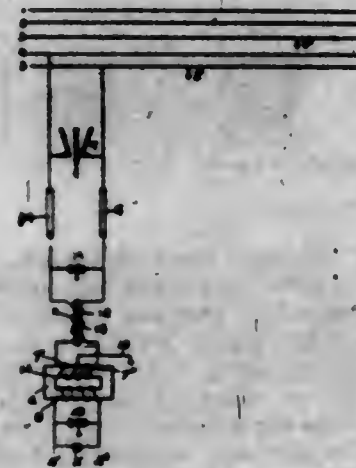
straight torsion bars, means for translating linear movement of the draw bar to twisting movements of said rods and always in the same directions upon either buff or draft action, and means for adjusting the initial tension of said rods.

1,303,382. OBTURATING DEVICE FOR NON-REFILLABLE FLASKS OR THE LIKE. LUIS ARNAVAT OLIVE, Habana, Cuba. Filed Mar. 15, 1918. Serial No. 222,671. 1 Claim. (Cl. 215-69.)



A non-refillable receptacle including a neck, a plug provided with a passage, in said neck, an abutment extending from the side wall of said passage into the same, the passage making an acute bend around said abutment, a flap valve hinged below said abutment, and a second abutment having its outer edge below the plane in which said flap valve is hinged, such second abutment extending into the passage from the opposite side thereof and being adapted to have its outer edge engaged by the outer edge of the valve.

1,303,383. TELEPHONE PROTECTIVE APPARATUS FOR TELEPHONE-LINES PARALLELING POWER-LINES. RALPH WILLOUGHBY OSBORNE, Hamilton, Ontario, Canada. Filed Jan. 28, 1918. Serial No. 214,158. 5 Claims. (Cl. 175-294.)



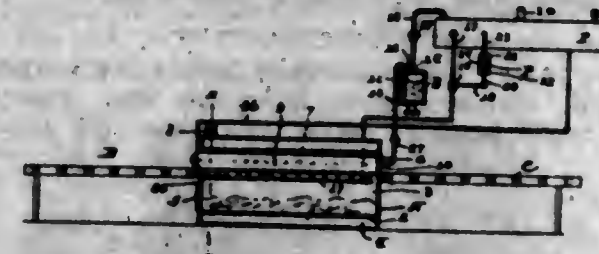
2. In a telephone protective apparatus for telephone wires paralleling high tension power wires, the combination with the telephone wires, of a transformer interposed in the circuit and having primary and secondary coils extending between the telephone wires, a ground wire extending from the neutral point of the primary coil, and fuses located in the telephone wires leading to the primary winding of the transformer, a choke coil, and an arrester connected across the circuit between the fuses and the choke coil.

1,303,384. [WITHDRAWN.]

1,303,385. APPARATUS FOR GENERATING GAS FROM VEGETATION. FRANK PRINCE, Minneapolis, Minn., assignor to Straw Gas and Creosote Distilling Co., Minneapolis, Minn., a Corporation of Minnesota. Filed June 24, 1918. Serial No. 241,893. 3 Claims. (Cl. 202-3.)

1. Apparatus of the class set forth, comprising, in combination, with a gas retort in which waste material may be placed, a furnace having a fue adapted to receive said retort longitudinally therein, a gas burner in said furnace below said fue, a washer detachably coupled with said retort, a gas reservoir connected with the washer

to receive gas therefrom and with said burner to deliver gas thereto and means for automatically regulating the



amount of gas admitted to said burner controlled by the pressure of gas in said reservoir.

1,303,386. SEAL-TAG. PAUL PHILIPSEN and IONATHAN PHILIPSEN, Brooklyn, N. Y. Filed Mar. 6, 1918. Serial No. 220,725. 10 Claims. (Cl. 40-2.)



1. A seal tag composed of a plurality of foldable parts, a number of said folded parts being adapted to be passed through a part of a garment, and means for interlocking said number of folded parts with another part of said tag to seal the same.

1,303,387. INDICATOR FOR SHAFT-BEARINGS. GEORGE D. POORE, St. Louis, Mo. Filed May 17, 1917. Serial No. 160,180. 7 Claims. (Cl. 33-172.)



1. A shaft bearing indicator, comprising a member that is adapted to be arranged transversely of the shaft in a bearing, depending portions on said member that are adapted to engage stationary surfaces located in close proximity to the shaft, which surfaces are separate and distinct from the shaft and bear a fixed relation to the shaft at the time the shaft is originally fitted to the bearing, a movable member carried by the member first referred to and adapted to be arranged in engagement with the shaft, and means coöperating with said movable member for indicating any variation in the fixed relation between said shaft and stationary surfaces.

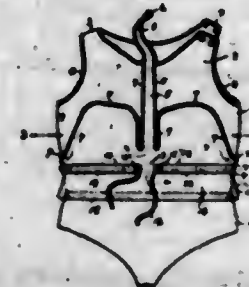
1,303,388. SKEE ATTACHMENT FOR VEHICLES. WILLIAM F. BRACK, Chicopee, Mass. Filed May 25, 1918. Serial No. 236,508. 6 Claims. (Cl. 21-94.)



1. In combination in a vehicle having ground engaging means upon which the vehicle ordinarily runs, shiftable from one position to another for guiding the vehicle, operating connections for shifting said ground engaging means, skee runners movably attached to the ground en-

gaging means to be tipped laterally in relation thereto and connections between the ground engaging means and skee runners for tipping the skee runners when the said ground engaging means is shifted to guide the vehicle, substantially as described.

1,303,389. INFLATABLE BATHING-GARMENT. JOHN REBEL, Cleveland, Ohio. Filed July 29, 1918. Serial No. 247,186. 3 Claims. (Cl. 9-20.)



1. An inflatable bathing garment comprising a body portion of fabric having an outer lining of fabric stitched thereto on irregular lines forming a plurality of air pockets at the front and back and waist thereof, and provided with an inflating tube formed from and stitched in the layers of fabric, the fabric being closely woven and adapted to be made substantially air-tight when immersed in water.

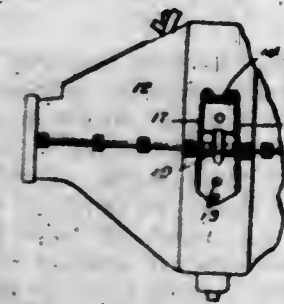
3. An inflatable bathing garment comprising separate plies of woven fabric stitched together to provide an air belt and a plurality of communicating air pockets between the layers of fabric, said belt and pockets being separated at the waist line of the garment by parallel stitches and a space for a draw or fastening member.

1,303,390. WAGON END-GATE. HARRY E. REED, Smith Center, Kans. Filed Sept. 3, 1918. Serial No. 252,383. 3 Claims. (Cl. 21-21.)



1. An end gate comprising a pair of relatively adjustable sections, plates secured to the inner ends of said sections and having free ends arranged in overlapping relation, a cleat carried by one of said sections, a lever having one end pivotally connected to one of said plates, links pivoted to said lever and also to the other plate whereby swinging movement of said lever will adjust the sections toward and away from each other, and a lock device carried by said cleat and engageable with the free end of said lever whereby to retain said sections in their closed positions.

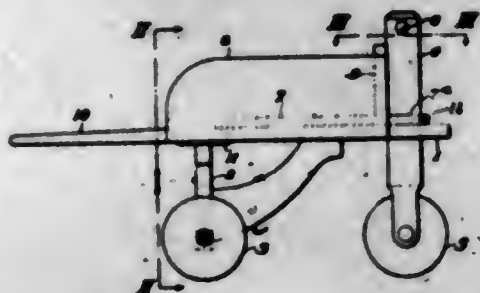
1,303,391. REINFORCING AND REPAIR BRACKET. HENRY C. REICH, New York, N. Y. Filed Oct. 7, 1918. Serial No. 267,802. 2 Claims. (Cl. 180-64.)



1. A reinforcing bracket fashioned with a slotted base plate and having an offset body portion bifurcated to

form legs attached to the base plate, said legs terminating in inwardly projecting portions complementary with the base plate.

1,303,392. PLAYTHING FOR CHILDREN. EDWARD J. KENNER, Swimsale, Pa. Filed Jan. 10, 1919. Serial No. 270,481. 5 Claims. (Cl. 21-183.)



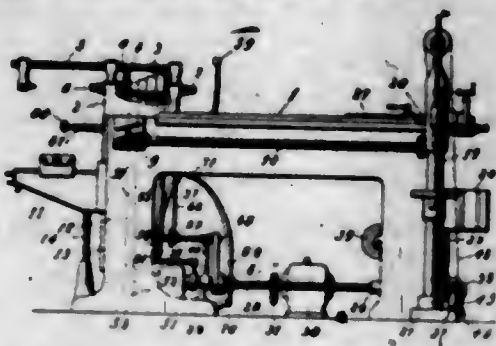
1. A plaything for children comprising a kiddie car, a toy wheelbarrow body, and means for removably attaching said wheelbarrow body to said car.

1,303,393. SPARK-ARRESTER. CLAUDE A. KENNER and EDWIN A. KENNER, Perkasie, Pa. Filed Dec. 10, 1918. Serial No. 266,069. 6 Claims. (Cl. 183-101.)



1. In a spark arrester for locomotives, the combination with a hood substantially semi-circular in side elevation and its bottom having an inlet at the front end and an outlet at the rear end; of two pairs of pivotal supports connecting said hood with the boiler and permitting its movement forward to throw its inlet over the stack or rearward out of such position, manually operable means for moving the hood, a receptacle under its outlet opening, and a funnel connecting the rear end of the hood with the receptacle, for the purpose set forth.

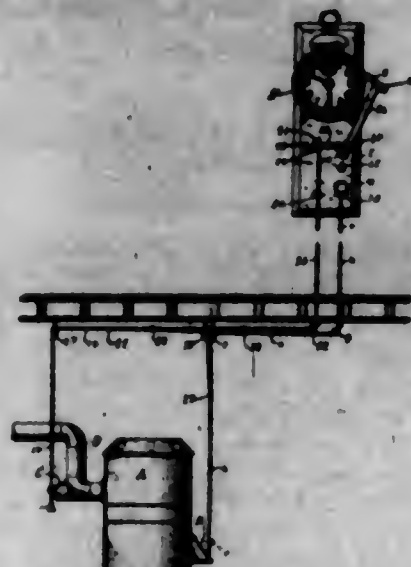
1,303,394. UNIVERSAL IRON-WORKING MACHINE. GUY FRANKLIN ROBBINS, Portland, Oreg. Filed July 27, 1918. Serial No. 246,978. 5 Claims. (Cl. 20-28.)



1. In a universal iron working machine, the combination of means for turning, milling, cylinder and surface grinding, shaping and drilling combined in one single machine so that there is a minimum of interference in simultaneous operation, said means comprising a lathe with a head stock, a miller at the head end, common driving gear in the head stock for lathe and miller, a grinder alongside the miller, a common work table for both miller and grinder, driving gear for the grinder for both cylinder and surface grinding, a shaper at the tail end, driving gear attached to said shaper, a drill press at the tail end, driving gear attached to said drill press, with

a common support for all said means, and a common driving mechanism within the support adapted to operate said means either individually or collectively.

1,303,395. HEAT-CONTROLLING ALARM MECHANISM. PHILIP A. BORN, Milwaukee, Wis. Filed Dec. 27, 1915. Serial No. 68,941. 4 Claims. (Cl. 161-8.)



2. Time controlled heat regulating apparatus, including the combination with a pivotally supported, substantially horizontally disposed trip lever, a damper actuating flexible connection adapted to engage one end of said lever, and a pivotally supported time operated trip latch having one end linked to said lever on the opposite side of its fulcrum from that engaged by said flexible connection.

1,303,396. MAGNETIC ORE-SEPARATOR. LEWIS G. ROWAND, Brooklyn, N. Y., assignor to The New Jersey Zinc Company, New York, N. Y., a Corporation of New Jersey. Filed June 21, 1917. Serial No. 176,027. 4 Claims. (Cl. 82-71.)

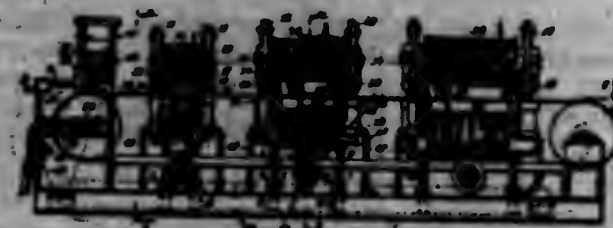


1. In a magnetic separator, the combination of an ore-conveying belt, an electro-magnetic unit positioned entirely above said belt and having in its magnetic circuit a plurality of relatively narrow air gaps, the field strength of each of which may be independently altered, and separate discharge belts running under each of said air gaps transversely of said ore-conveying belt to laterally convey magnetic particles lifted from the ore-conveying belt at said air gaps.

1,303,397. MAGNETIC SEPARATOR. LEWIS G. ROWAND, Brooklyn, N. Y., assignor to The New Jersey Zinc Company, New York, N. Y., a Corporation of New Jersey. Filed June 21, 1917. Serial No. 176,028. 17 Claims. (Cl. 82-71.)

3. In a magnetic ore separator, the combination of an ore conveying belt, opposed magnetic poles, one above and one below said belt to form an air gap through which the ore is carried on said belt, said upper pole having a right angled recess and a pole point of substantially square cross-section detachably secured in said recess, a plurality of the edges of said pole point being adapted to serve in

occurrence as the working pole face, said pole point having a rounded tip at one end of each of said working edges, and a discharging belt mounted to pass beneath said pole point transversely of said ore conveyor to convey laterally the magnetized particles lifted from said ore conveying belt at said air gap.



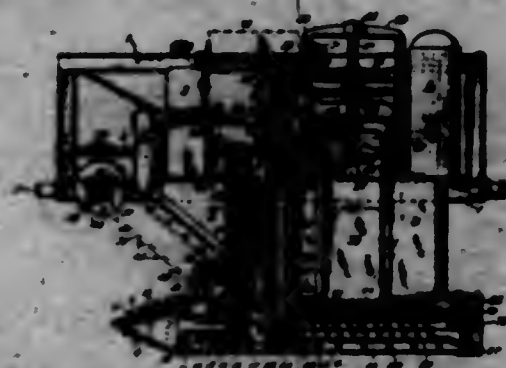
16. An electromagnetic ore separating unit comprising upper and lower parts between which is a plurality of air gaps, four jacks supporting the upper part of said unit and each having a universal connection therewith, said jacks and the parts supported thereby being adapted for independent adjustment to vary the shape and magnitude of said air gaps as occasion may require; substantially as described.

1,303,398. MAGNETIC ORE-SEPARATOR. LEWIS G. ROWAND, Brooklyn, N. Y., assignor to The New Jersey Zinc Company, New York, N. Y., a Corporation of New Jersey. Original application filed June 21, 1917. Serial No. 176,027. Divided and this application filed Apr. 1, 1918. Serial No. 235,504. 5 Claims. (Cl. 176-21.)



1. An electromagnetic unit comprising a pair of coils, each provided with a magnetizable core, and a magnetizable pole magnetically cooperating with said cores and positioned between said coils to form a pair of elongated magnetic air gaps, of substantially the same size and shape and rigid spacers of non-magnetic material filling said gaps and holding said cores and intermediate pole in proper spaced relation, substantially as described.

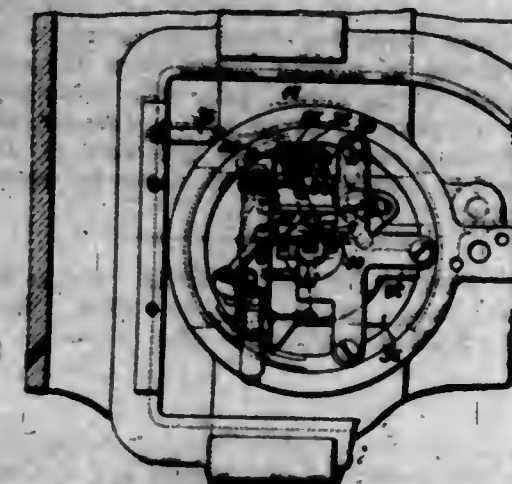
1,303,399. MACHINE FOR FORMING SUBTERRANEAN PASSAGES AND LINING THE SAME WITH EARTHENWARE, ARTIFICIAL STONE, OR THE LIKE. NETA MURIEL RYAN, Northcote, Victoria, Australia, assignor of one-third to Bartle Ryan, Northcote, Australia, one-sixth to Charles Columbine Jackson, Melbourne, Australia, and one-half to Ralph Sadler Walker, Melbourne, Australia. Filed Jan. 8, 1919. Serial No. 276,248. 19 Claims. (Cl. 111-8.)



3. In a machine of the class described, the combination of a cylindrical casing; a boring head rotatably carried by

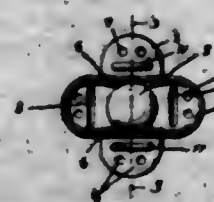
the casing; and means for discharging soil excavated by the boring head, comprising a slotted opening in the boring head adjusting the cutter thereof, a spiral conveyor fixed to a vertical shaft, a cylindrical casing intersecting the spiral conveyor, and a lateral chute at the top of the conveyor casing, the excavated soil being delivered through the boring head into the lower end of the conveyor casing and being discharged by said spiral conveyor through the casing and chute.

1,303,400. BUTTONHOLE-SEWING MACHINE. EUGENE J. RAY, Beverly, Mass., assignor, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed May 19, 1915. Serial No. 29,106. Renewed July 25, 1918. Serial No. 246,738. 8 Claims. (Cl. 112-39.)



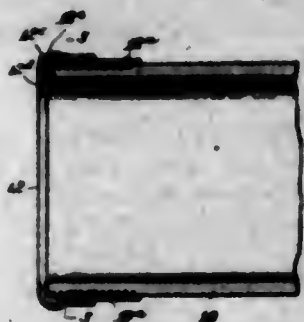
1. A buttonhole sewing machine, having, in combination, stitch forming mechanism comprising upper and under thread mechanisms, a work clamp carrier, a rotary turret carrying the under thread mechanism, mechanism for relatively actuating the stitch forming mechanism and clamp carrier to sew about a buttonhole, an under thread tension device mounted on the turret comprising a movable thread engaging member, and a finger on the clamp carrier engaged with and disengaged from said movable member by the relative movement of the clamp and stitch forming mechanism to apply the tension at the beginning of the sewing and to relieve the tension at the completion of the sewing.

1,303,401. CLASP OR FASTENER FOR GARMENTS. ISAAC L. SANCHEZ, Dallas, Tex. Filed Feb. 4, 1918. Serial No. 215,250. 2 Claims. (Cl. 24-218.)



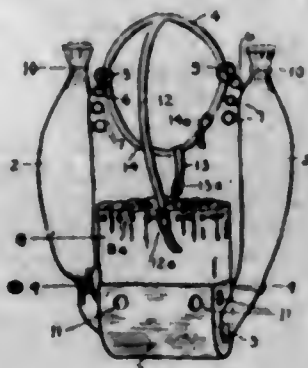
1. In a device of the character described, a plate of substantially oblong shape, a socket carried by said plate, a spring carried by the plate and projecting through the neck of the socket, a second plate of substantially oblong shape and arranged in locking position so that its ends project beyond the sides of the socket plate, a ball carried by said second plate and lugs carried by each plate, said lugs coacting to force said plates apart to release the ball from the socket when said plates are brought into alignment, the arrangement being such that when the respective projecting ends of one plate are brought into alignment with the projecting ends of the other plate, the two plates are released from locking engagement.

1,303,402. **THREAD-PROTECTING DEVICE.** JULIUS SCHIRRA, Pittsburgh, Pa., assignor to Projectile Protector Company, Wilkesburg, Del., a Corporation of Delaware. Filed May 11, 1917. Serial No. 107,570. 7 Claims. (Cl. 137-91.)



1. A thread protecting device comprising a strip of fibrous material of greater length than the circumferential length of the device, said strip being shaped to provide a ring-shaped exterior having different diameters and overlapping ends with the difference in diameters compensated by corrugations, and means for securing the ends together.

1,303,403. **FEED-BAG FOR HORSES.** JACOB SCHMIDT, Portland, Oreg. Filed Dec. 30, 1918. Serial No. 268,868. 2 Claims. (Cl. 119-65.)



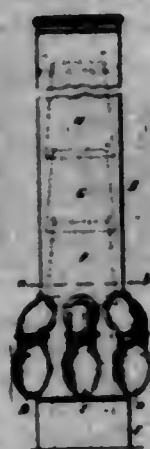
1. A device of the character described, comprising a trough-shaped basket, a contractible ruffle at the upper edge of the basket adapted to prevent during the feeding period a spilling of feed from the basket, tubular feed bags at opposite ends of the basket adapted to counterbalance the load on the animal's head and being capable of discharging their contents into the basket, a series of rings along the exterior walls of the feed bags adapted to engage susp hooks, a strap for suspending the feed bags with the basket and having a snap hook at each end for engaging said rings at the feed bags.

1,303,404. **RESISTANCE UNIT.** ARTHUR SIMON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 9, 1914. Serial No. 865,862. 3 Claims. (Cl. 219-73.)



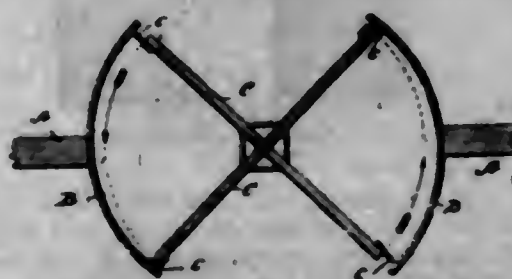
2. A resistance unit comprising a cylindrical non-conductive base, a resistance medium surrounding said base and extending from end to end thereof in the form of a helix, the adjacent edges of said medium being separated by an appreciable space, said medium consisting of a coating having particles thereof penetrating the surface of said body for mechanical anchorage.

1,303,405. **CHIMNEY AND VENTILATING-SHAFT.** JAMES DAVIDSON SLOAN, Glasgow, Scotland. Filed Nov. 14, 1916. Serial No. 131,264. 1 Claim. (Cl. 98-4.)



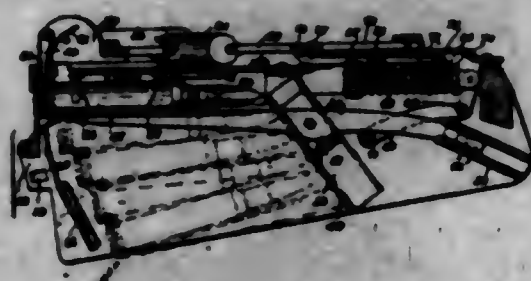
In a chimney and ventilating shaft, a cylinder provided with openings, air trumpets connected to such openings, a shaft within such cylindrical casing, said shaft comprising a number of upwardly tapered sections, such sections being provided at their lower ends with brackets to engage the upper ends of the next underlying sections, whereby to support said first mentioned sections, the shaft provided with an annular space between the sections by virtue of their tapered constructions.

1,303,406. **REVOLVING DOOR.** DATUS C. SMITH, Kinderhook, N. Y. Filed May 28, 1918. Serial No. 237,041. 9 Claims. (Cl. 20-18.)



1. In combination with a revolving door, a casing having curved confronting walls between which the door is revolvably mounted, said door having radially projecting wings provided with elastic extensions or strips on their outer edges, and said walls being arranged eccentric to the axis of the door and nearer said axis at the exit than at the entrance end of the casing, whereby a gradually increasing frictional resistance is exerted against the movement of the door members toward the exit end of the casing.

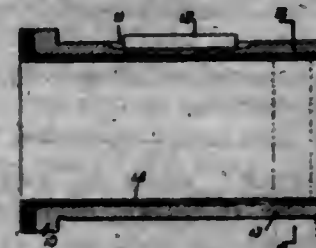
1,303,407. **CARTRIDGE-FEED MECHANISM FOR FIRE-ARMS.** JOHN WILLIAM SMITH, Syracuse, N. Y. Filed Jan. 28, 1918. Serial No. 214,043. 20 Claims. (Cl. 42-18.)



7. The combination with a firearm having a breech-bolt, of a cartridge actuating device having means for upwardly advancing a plurality of horizontally disposed

clips of cartridges, means for successively feeding the uppermost row of cartridges in a transverse direction into engagement with the breech-bolt, and means for ejecting the cartridges after firing from engagement with the breech-bolt in a vertically downward direction.

1,303,408. **SHAFT-BEARING.** CHARLES W. STARKES, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 10, 1915. Serial No. 50,085. 4 Claims. (Cl. 64-20.)



1. A shaft bearing comprising a unitary cylindrical steel shell, a ring of bearing metal secured to the inner surface of the said shell, and a lining of Babbitt metal cast within the said shell and completely embedding the said ring of bearing metal.

1,303,409. **HANGER.** THOMAS J. STEELE, Norfolk, Va. Filed Jan. 15, 1919. Serial No. 271,270. 1 Claim. (Cl. 248-24.)



A hanger of the class described comprising a member provided with a head, said head having an opening, a wall of said opening being provided with inwardly directed teeth, a block disposed through said opening and provided with an arcuate rack meshing with the teeth, said block being of a size less than the size of the opening, the rear edge of the block and the corresponding wall of the opening being spaced apart a distance less than the length of the teeth of the block, and a hook member having separated parts at an end portion thereof secured to the side faces of the block.

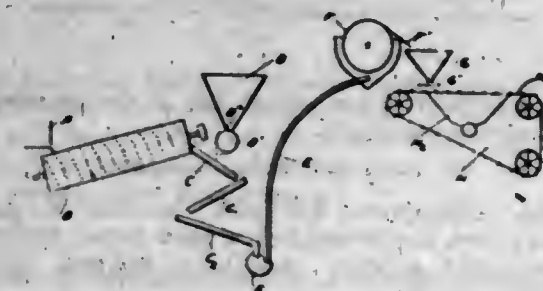
1,303,410. **VENTILATING SYSTEM.** FRANK C. BROWNELL, Medford, Mass. Filed Feb. 6, 1915. Serial No. 8,579. 7 Claims. (Cl. 96-22.)



1. A ventilating system for traveling vehicles, having in combination, a wall or roof structure with a series of

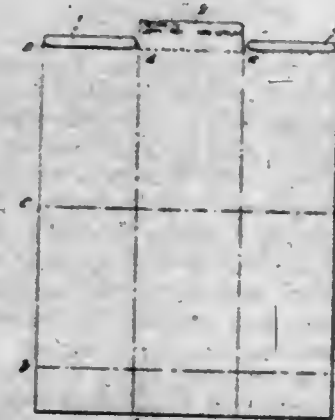
vent openings arranged in longitudinal alignment in a common plane, registers for said openings, two series of oppositely movable shutters for said openings and co-operating with said registers, an actuating device disposed intermediately between said series of shutters, and rods, one for each series of shutters, having connection with said actuating device whereby the shutters may be simultaneously opened or closed moving in opposite directions during the opening or closing, said shutters and connecting means mutually counterbalancing each other to overcome the tendency of inertia to close the shutters accidentally during the starting or stopping or traveling of the vehicle on an inclined plane.

1,303,411. **PROCESS OF TREATING CONCENTRATES.** WALTER G. SWART, Duluth, Minn., and BETHUNE G. KLUGH, Anniston, Ala. Filed Nov. 17, 1917. Serial No. 202,455. 4 Claims. (Cl. 75-73.)



1. A process of the class described comprising the steps of mixing fuel and metalliferous particles with water to obtain a fluid mixture, then removing the excess water content, and then agglomerating the mixture.

1,303,412. **COMBINED LETTER-SHEET AND ENVELOPE.** CLAUDE L. TAGGART, Jamestown, N. Y. Filed Apr. 3, 1918. Serial No. 226,513. 1 Claim. (Cl. 229-92.1.)

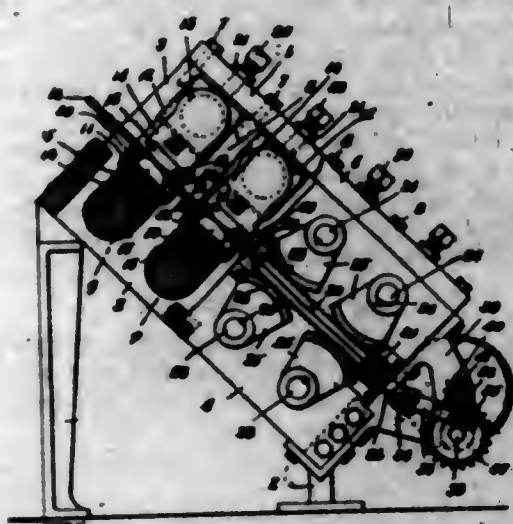


A combined letter sheet and envelope, comprising a blank sheet having a middle and side tabs at one end and foldable transversely and longitudinally, the longitudinal folds coinciding with the spaces between the tabs, the side tabs being of less length than the middle tab, the projecting portion of the latter bearing printed matter, the several tabs being foldable on one another and gummed for attachment and separated from the body of the sheet by a straight line of perforations.

1,303,413. **OSCILLATING NAIL-MAKING MACHINE.** CHARLES A. TAYLOR, Whitman, Mass. Filed Apr. 9, 1917. Serial No. 100,638. 10 Claims. (Cl. 10-55.)

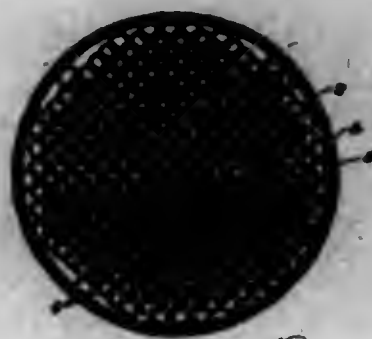
1. A nail making machine of the kind described, comprising a plurality of sets of oscillating dies, carriers for

said dies and means to operate them, said dies and carriers being arranged at an angle to secure a gravity feed



for nail blanks from one set of dies to the successive set and out of the machine.

1,303,414. **CLEANING DEVICE.** EDWARD A. TREFILL, Germantown, Pa. Filed Oct. 8, 1912, Serial No. 724,546. Renewed Oct. 4, 1918. Serial No. 256,914. 3 Claims. (Cl. 83-64.)



1. A cleaning device adapted for use within an engine cylinder, comprising a flexible metallic body portion having a circular contour when flat and resilient means for normally maintaining said circular contour.

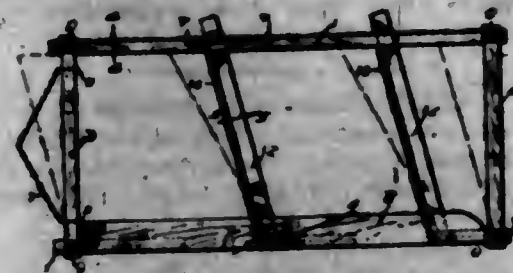
2. A cleaning device for cylinders of internal combustion engines comprising a plurality of interconnecting metallic links forming a fabric having a circular contour when flat, corresponding to the interior cross-section of the cylinder, and an annular spring engaged by marginal links of the fabric and adapted to maintain the fabric normally flat under tension of the spring.

3. A cleaning device for engine cylinders and pistons comprising a plurality of interconnecting metallic links forming a flexible fabric having an approximately circular margin when flat, a helical spring engaging the marginal links of the fabric to maintain the fabric normally flat, said device adapted to lie upon the top of the piston and to be reciprocated between the piston and the cylinder head for the purpose specified.

1,303,415. **GRADER DRAG-PLANE.** HAROLD H. THURSTON, Anoka, Minn. Filed Sept. 5, 1918. Serial No. 252,729. 1 Claim. (Cl. 37-42.)

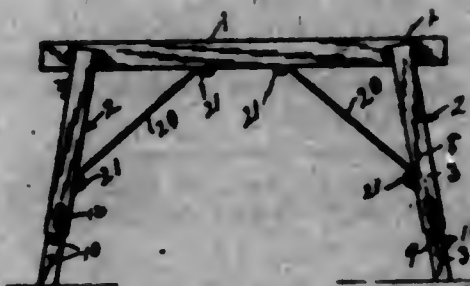
A device of the character specified, comprising a frame consisting of spaced parallel runners, one of the said runners consisting of sections spaced apart longitudinally from each other and rigidly connected, cross bars connecting the ends of the runners, the connection being capable of being loosened, plates pivoted to the front ends of the rear sections of the sectional runner, blades connected with the forward edges of the plates, said plates being de-

terminably connected with the other runner and held at an angle with respect to the long axis of the frame, and a



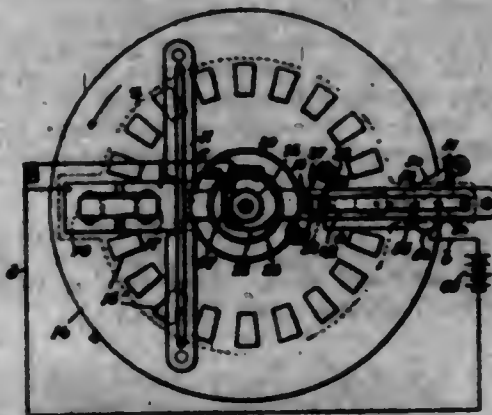
flexible member connected at its ends to the front cross bar near the ends thereof.

1,303,416. **TRESTLE.** ALVIN L. TIDMAN, Jennings, Kans. Filed Mar. 1, 1918. Serial No. 219,997. 1 Claim. (Cl. 20-88.)



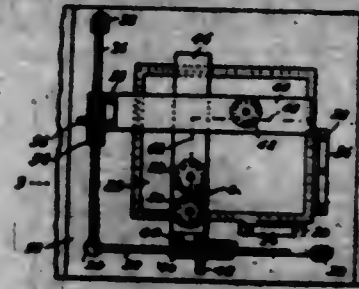
A trestle comprising a beam having on each side near its ends a bearing inclined downwardly and inwardly, a leg journaled in each bearing and inclined outwardly both laterally and longitudinally relatively to said beam, folding links connecting the legs of each pair, which are disposed at the ends of the beam, a removable brace rigidly connecting each leg with the lower face of said beam, said legs being composed of adjustably connected sections to vary their length.

1,303,417. **GOVERNOR.** GEORGE S. TIFFANY, Summit, N. J., assignor to Tiffany Motor Company, a Corporation of Delaware. Original application filed Aug. 7, 1914, Serial No. 355,574. Divided and this application filed Jan. 2, 1918, Serial No. 303. Renewed Oct. 2, 1918. Serial No. 256,631. 10 Claims. (Cl. 175-355.)



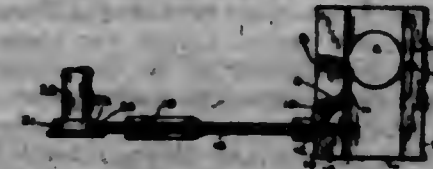
8. A governor for controlling the speed of an electromagnetic motor by controlling the supply of current thereto, comprising a rotary member, a flexible member carried by the rotary member and secured thereto at a point distant from the axis of rotation thereof, a centrifugal weight carried by said flexible member and permitted to make its outward and inward movement by the flexing of said member, and a contact terminal mounted axially of the rotary member and movable longitudinally of the axis of the rotary member and controlled in its movement by said centrifugal weight.

1,303,418. **PHOTOGRAPHIC-PRINTING APPARATUS.** GUSTAF E. TENNARE, St. Paul, Minn. Filed Aug. 19, 1918. Serial No. 256,417. 5 Claims. (Cl. 95-1.1.)



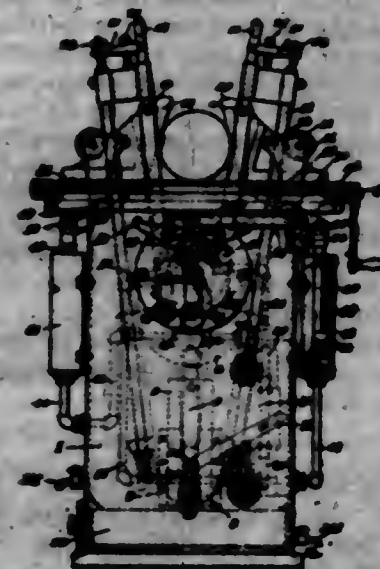
1. A photographic printing apparatus comprising a support for the negative and the printing paper, a stop adjacent an edge of said support, said stop being adapted for engagement by an edge of said paper, an adjustable masking strip adapted to be positioned underneath the edge of said paper opposite the aforementioned edge thereof, and means carried by said strip for printing identification characters upon the waste edge of said paper.

1,303,419. **COIN-CONTROLLED SWITCH.** CHARLES A. TRIPP, Indianapolis, Ind., assignor to Holcomb & Hoke Manufacturing Company, Indianapolis, Ind., a Corporation. Filed Nov. 15, 1917. Serial No. 202,131. 3 Claims. (Cl. 194-6.)



1. A coin controlled switch, comprising a body portion, said body portion having a groove in one face and a slot communicating with the groove between its ends, a face plate adapted to fit over said groove and slot, bolts for holding said face plate in position on the body portion, said bolts forming binding posts, a fixed contact point at one edge of said groove and connecting with one of said bolts, a movable contact point pivotally mounted on the other bolt, said pivoted contact point being positioned in said slot, one end of the movable contact point being convex and the opposite end straight, means for normally holding the bowed end of the contact point in the path of the coin descending in said groove and means for moving said bowed end out of the path of the coin.

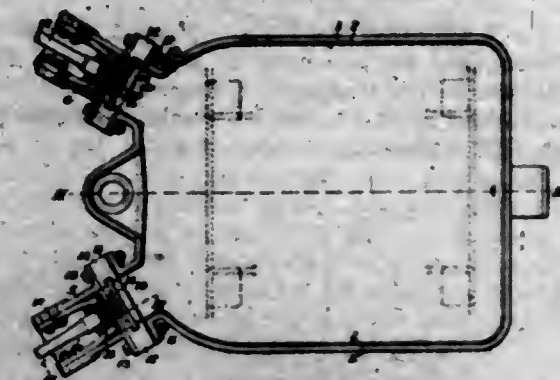
1,303,420. **DUPLEX SAWING APPARATUS.** BENJAMIN W. TUCKER, South Orange, N. J., assignor to Coats Machine Tool Company, Inc., New York, N. Y., a Corporation of New York. Filed Jan. 18, 1917. Serial No. 143,973. 45 Claims. (Cl. 29-74.)



1. A sawing apparatus comprising a reciprocable saw, said pressure means for forcing said saw laterally for the

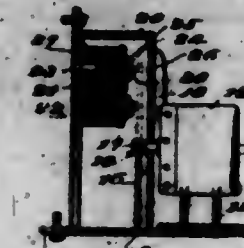
feed movement, and means for maintaining said fluid pressure constant throughout each cutting stroke of the saw.

1,303,421. **TANK FOR HOLDING CORROSIVE SUBSTANCES.** LAWRENCE H. UNDERWOOD, Youngstown, Ohio. Filed Sept. 13, 1918. Serial No. 253,996. 5 Claims. (Cl. 23-3.)



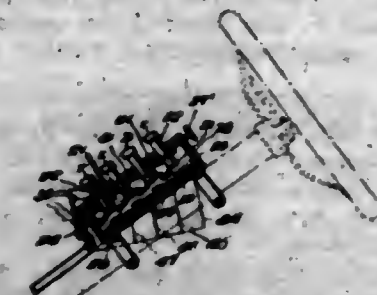
5. A tank for holding corrosive substances having a body of corroddible metal and a lining of non-corroddible metal, said tank having a flanged outlet, the lining being continued through the outlet and along the face of the flange, substantially as described.

1,303,422. **DIRECTION-SIGNALING MECHANISM FOR MOTOR-VEHICLES.** PAUL W. VANDERHOFF, Topeka, Kans. Original application filed May 1, 1917, Serial No. 138,702. Divided and this application filed May 28, 1918. Serial No. 234,722. 4 Claims. (Cl. 177-327.)



1. In signals for vehicles, an electric motor adapted to be supported at the front or rear of a vehicle, a signal carried by the motor shaft, an arm fixed to the shaft and projecting therefrom to be swung by the shaft, yieldable means connected to the arm for normally holding the shaft in one position, and means mounted in concentric relation to the axis of the shaft and selectively projectable into the path of said arm for stopping the shaft in predetermined other positions.

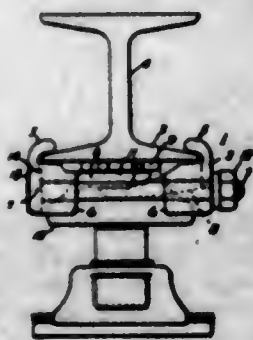
1,303,423. **SWITCH FOR MOTOR-VEHICLE SIGNALING DEVICES.** PAUL W. VANDERHOFF, Topeka, Kans. Original application filed Feb. 27, 1917, Serial No. 151,318. Divided and this application filed Dec. 31, 1917. Serial No. 209,691. 2 Claims. (Cl. 175-283.)



1. A selective switch for signals including a casing, a plurality of contacts in the casing, a plurality of spring contacts each movable into engagement with one of the

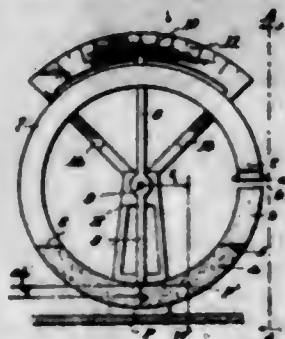
first contacts, operating plungers for moving the spring contacts, said plungers projecting into the casing and being connected to the spring contacts to be held thereby against displacement from the casing, a slide, and an operative engagement between the slide and plungers whereby depression of any plunger will automatically lock such plunger in depressed position and cause release of any plunger previously depressed.

1,303,424. CLAMPING DEVICE. NILS J. A. WAHLBERG, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 3, 1917. Serial No. 200,046. 5 Claims. (Cl. 189-35.)



1. A clamping device for securing an insulator, having a supporting plate thereon, to an I-beam, comprising bolts, similar body members, each body member having lugs for engaging the edges of the I-beam base, and recessed projections adjacent the lugs for the reception of said bolts that extend below the I-beam and cooperate with the recessed projections of the other body member to force the supporting plate against the I-beam.

1,303,425. FLUID-METER. WALTER JACOB WOHLBERG, Roseman, Mont. Filed Oct. 22, 1917. Serial No. 197,907. 15 Claims. (Cl. 73-31.)

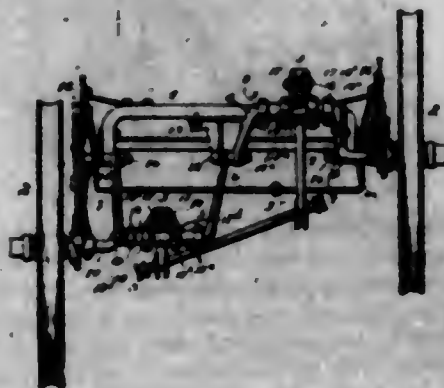


1. In meters, a casing adapted to be placed in a fluid whose properties are to be measured, said casing being suspended from an axis about which it is rotatable, said casing inclosing within it the density chamber closed at one end and having an opening to the surrounding fluid, said casing inclosing a space having an intermediate portion at the lowest gravity level, said casing containing a sealing fluid and also containing a density fluid in the space adjacent the closed end, said density fluid being confined to this space by the sealing liquid as and for the purpose set forth.

1,303,426. DYE RECOVERY. EDWARD J. WALL, Syracuse, N. Y., assignor to Kalmus, Comstock & Wescott, Incorporated, Boston, Mass., a Corporation of Massachusetts. Filed May 18, 1917. Serial No. 169,463. 4 Claims. (Cl. 8-5.)

3. The method of recovering dye from a dye solution comprising precipitating in the dye solution a metallic hydroxide which will form a color lake with the dye, separating the color lake from the solution, and subsequently dissolving the dye out from the color lake.

1,303,427. WHEELED PLOW. BENJAMIN B. WALLACE, Poughkeepsie, N. Y., assignor to Moline Plow Company, a Corporation of Illinois. Original application filed Feb. 12, 1915, Serial No. 7,000. Divided and this application filed Aug. 16, 1916. Serial No. 115,130. 1 Claim. (Cl. 97-36.)



In a plow beam, the combination of a frame, a swinging ball mounted thereon and provided with a transverse supporting arm, a bearing sleeve of non-circular form in cross section loosely mounted on the supporting arm, a fore and aft extending plow beam, cheek plates applied to the opposite sides of the beam and comprising each an upper section having a horizontal flange formed with arcuate slots, and a flat under side, and a lower section with a flat upper side seated against the under side of the flange, said lower sections of the cheek plates being formed with sockets in which the bearing sleeve fits, cap plates applied to the lower sections over the sockets to confine the sleeve therein, and through bolts extending through the cap plates, the lower sections of the cheek plates, and the arcuate slots in the upper sections, and serving to connect said parts together; whereby the beam may be adjusted relatively to the supporting arm about a vertical axis and may be adjusted also lengthwise of said arm.

1,303,428. FLY-WHEEL ATTACHMENT. HARRY G. WALLACE, Sag Harbor, N. Y. Filed Mar. 9, 1917. Serial No. 153,632. 1 Claim. (Cl. 74-6.)

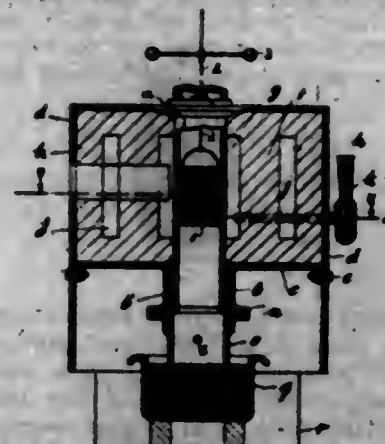


In a device of the class described, a wheel including a hub having a flat and plane end face, the hub being provided with a tapered bore; a shaft comprising a tapered part received in the bore, and a cylindrical end of the same diameter as the smaller end of the tapered part; a nut threaded on the cylindrical end of the shaft and comprising a flange abutting against the flat end of the hub, a cylindrical part, and a wrench head projecting from the cylindrical part; a collar comprising a thickened body having a recess and provided with a flange overhanging the flange of the nut; and securing devices connecting the body of the collar with the hub, the body of the collar being rotatable on the flange of the nut, and the flange of the collar being rotatable on the cylindrical part of the nut, for adjustment, to permit the insertion of the securing devices into the hub.

1,303,429. FURNACE FOR THE HEAT TREATMENT OF METALS. CECIL MONTAGUE WALTER, Birmingham, England. Filed Aug. 6, 1917. Serial No. 184,743. 5 Claims. (Cl. 206-4.)

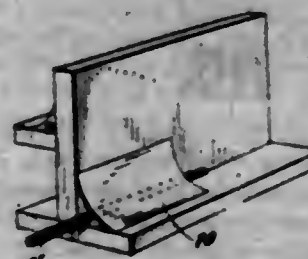
1. An improved furnace of the type set forth for the heat treatment of metals comprising in combination a

vertical refractory retort tube closed at its upper end with a removable closure device, and having a heated portion for heating by radiation from its walls the metals or metal articles under treatment, and means for suspending the metals or metal articles therein from or through the closure device so as to be clear of the walls,



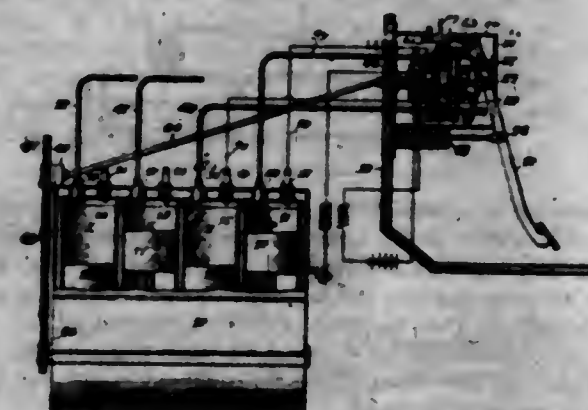
and an inclosed continuation or extension of the retort tube leading to and dipping in a quenching bath so as to be effectively sealed therein, with an inlet in the said continuation or extension by means of which the whole retort tube is charged with an inert gas or vapor or with a carburizing medium as desired.

1,303,430. FILLET MATERIAL. JOHN E. WASHBURN and ALBERT E. SHAW, Lakewood, Ohio. Filed Aug. 8, 1918. Serial No. 248,907. 6 Claims. (Cl. 22-187.)



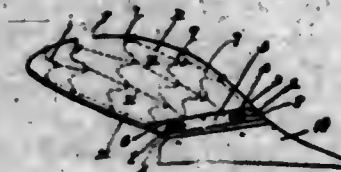
1. As an article of manufacture, a fillet comprising a body portion of plastic pilable material, and a core formed as a distinct unitary body extending longitudinally through the body of the fillet.

1,303,431. ENGINE-STARTER. WILLIAM HART WASHBURN, Chicago, Ill. Filed Apr. 23, 1917. Serial No. 163,858. 12 Claims. (Cl. 123-180.)



1. In an internal-combustion-engine starter, the combination of means to inject an explosive-charge into the engine-cylinder whose piston is in the power-cycle and into the engine-cylinder whose piston is in the compression-cycle, and means supplemental to and constructed to operate later than the regular ignition device of the engine to explode said charge in the power cycle cylinder, substantially as described.

1,303,432. APPARATUS FOR HOLDING PLASTIC MATERIAL ON PLOWES. GEORGE P. A. WEISENBORN, Oklahoma, Okla. Filed Jan. 21, 1916. Serial No. 73,406. 1 Claim. (Cl. 97-18.)



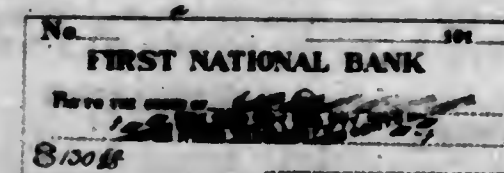
In combination with a moldboard, a protector plate secured to the lower portion of said moldboard and curved outwardly at its upper edge, pins projecting inwardly from the upper portion of the said protector plate, sinuous wires secured to said pins and the edge of the moldboard, other wires crossing said sinuous wires and secured thereto, and plastic material covering the moldboard and the wires and extending down to the protector plate, substantially as described.

1,303,433. CUP-DISPENSING APPARATUS. EDWIN G. WEASMAN, Passaic, N. J. Filed Apr. 15, 1909. Serial No. 490,025. 16 Claims. (Cl. 211-8.)



2. A cup-dispensing apparatus comprising a casing having in its front a dispensing opening, a cup-receiver communicating with the casing near its top, a delivery member rotatable in the casing and provided with a cup-holding recess having an opening normally in alignment with the cup-receiver and at the opposite extreme of movement registering with the dispensing opening, and means for drawing a cup from the receiver during movement of the delivery member.

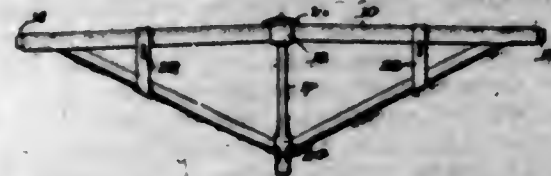
1,303,434. CHECK. JOHN WHITAKER, North Wales, Pa., assignor to Safe-Guard Check Writer Company, Inc., Lansdale, Pa., a Corporation of Pennsylvania. Filed Jan. 9, 1917. Serial No. 141,390. 2 Claims. (Cl. 283-9.)



2. A check having a longitudinal space for the payee's name and a longitudinal space directly below the first mentioned space for the amount of the check, the amount of the check being printed in the last mentioned space in words arranged on diagonal lines spaced apart, one line underlapping a preceding line, the paper beneath the above printed matter having the fibers separated at close

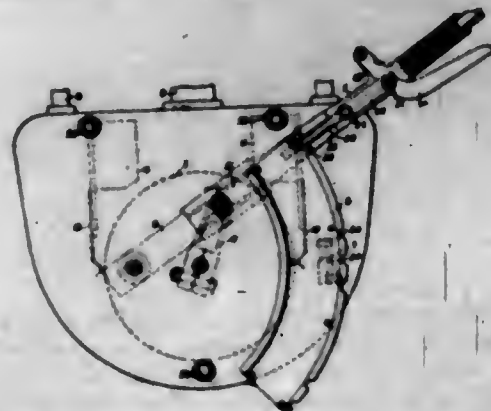
intervals, the separation of the fibers extending beyond the printed matter and into the space occupied by the payee's name.

1,303,435. METHOD OF MANUFACTURING BRAKE-BEAMS. LOREN L. WHITNEY, Hammond, Ind., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Original application filed July 12, 1917, Serial No. 180,002. Divided and this application filed Nov. 30, 1917. Serial No. 204,573. 2 Claims. (Cl. 29-164.)



1. The method of forming a brake beam having tension and compression members consisting first in connecting a strut to said members, then clamping the ends of the members together, then temporarily haying the strut to one of said members, then heating the ends to a welding heat, then welding them together to form a trussion for a brake head, and then permanently keying the strut to one of said members for eliminating any looseness occasioned by the above mentioned operations.

1,303,436. CONTROL APPARATUS. CHARLES C. WHITTAKER, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 18, 1916. Serial No. 132,084. 6 Claims. (Cl. 74-88.)



1. The combination, with a control drum adapted to assume two sets of positions separated by an "off" position, of a handle member for effecting free forward or backward movement through either set of positions, a guide-member carried by and extending beyond the handle member, a latch member normally engaging said guide-member in said "off" position, and means for temporarily actuating said guide-member out of engagement with said latch member.

1,303,437. ASSEMBLING-TABLE FOR END-GATES. BEVILL W. WHITWORTH, Cedar Falls, Iowa, assignor to Thomas A. Whitworth, Cedar Falls, Iowa. Filed Sept. 9, 1918. Serial No. 233,188. 8 Claims. (Cl. 144-286.)



1. A device of the character described, comprising supporting-means, a table hinged reversibly to said support-

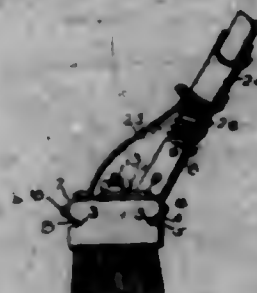
ing-means, means pivotally mounted on said table for holding said table in either of reversed positions, and means for clamping an object upon said table.

1,303,438. STRAINER. FREDERICK WHEEL and THOMAS WHEEL, New York, N. Y. Filed Dec. 9, 1918. Serial No. 265,906. 5 Claims. (Cl. 210-10.)



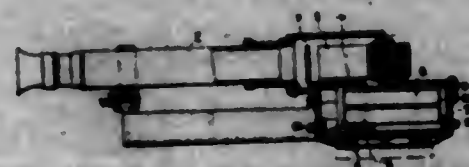
5. A reticulate hollow strainer body of greater diameter in the center than at the ends and having longitudinal entrant rebent portions extending from end to end, and shorter entrant rebent portions of less length and less depth alternating with said rebent portions extending from end to end.

1,303,439. TOOL. WILLIAM HYNE WILSON, Tulsa, Okla. Filed July 17, 1918. Serial No. 245,374. 2 Claims. (Cl. 287-23.)



1. In a device of the character specified, a sectional means for engaging a tool, the sections of said means being movable toward and from each other into and out of engaging position, one section carrying a socket for a handle and the other a sleeve in substantial alignment with the socket, said sleeve and socket being spring held in spaced relation for the purpose specified.

1,303,440. GUN-SIGHT. JOHN SIGMUND WILSON and WILLIAM ERNEST DALBY, London, England, assignors of one-third to Sir W. G. Armstrong-Whitworth and Company Limited, Newcastle-upon-Tyne, England. Filed Aug. 7, 1917. Serial No. 184,962. 3 Claims. (Cl. 33-48.)



1. Sighting apparatus for guns comprising a telescope including an object glass and eye-piece, a pivotal support for said telescope, said telescope turning about said support on an axis passing through the optical center of said object glass, and a sighting device independent of the pivotal movement of said telescope and situated in the focal plane of the object glass of said telescope, as and for the purpose described.

2. Sighting apparatus for guns comprising a telescope including an object glass and eye-piece, a pivotal support for said telescope, said telescope turning about said support on an axis passing through the optical center of said object glass, and a sighting device independent of the pivotal movement of said telescope and situated in the focal plane of the object glass of said telescope, said sighting device being in the form of a movable wire, as and for the purpose described.

3. Sighting apparatus for guns comprising a telescope including an object glass and eye-piece, a pivotal support for said telescope, said telescope turning about said support on an axis passing through the optical center of said object glass, and a sighting device independent of the pivotal movement of said telescope and situated in the focal plane of the object glass of said telescope, said sighting device being in the form of a moving wire, and means for controlling the movements of said wire by an electric current from a distance, as and for the purpose described.

1,303,441. AUTOMATIC LID-SUPPORT. CARL EDWARD WILTON, Philadelphia, Pa. Filed May 10, 1917. Serial No. 167,080. 1 Claim. (Cl. 217-60.)



In combination with a hinged cover of a box or the like, a cover support including a bar having one of its ends pivotally connected to the cover, a bracket supported by the box, said bracket having a depending slotted portion, a cam pivotally connected to the depending slotted portion, said cam having slots adapted to register with the slot of the depending portion, and a pin carried by the free end of the pivoted bar for co-operating with the slots of the cam and depending portion of the bracket for supporting the cover in a predetermined position.

1,303,442. DUPLEX PENHOLDER. LEAMAN H. WINEMAN, Dewitt Lake, N. D. Filed Feb. 11, 1918. Serial No. 276,439. 2 Claims. (Cl. 120-19.)



1. In a duplex penholder, the combination with a shell having longitudinal slots each provided with a transverse branch, of arc-shaped pen-carriers, each provided with a button whose shank is movable in one of said slots and adapted to be turned into the transverse branch thereof to lock said carrier, said carriers serving for withdrawal of the pens into the shell or their projection therefrom, and a member extending longitudinally within the shell between the carriers and provided with curved surfaces on which the carriers slide and turn.

1,303,443. ELASTIC-FLUID METER. WALTER JACOB WOLLENSHANE, Lincoln, Neb. Filed July 10, 1918. Serial No. 40,750. 21 Claims. (Cl. 73-107.)



1. In elastic fluid meters having a means controlled by the fluid being metered which may be adapted to control a rotary motion, the combination of a primary rotor

with a secondary rotor, said primary rotor having its rate of revolution controlled by said means adapted to control rotary motion, said rotors having surfaces of revolution, said secondary rotor receiving its motion by having the circumferential velocity of a circumference of the primary rotor transmitted, by mechanical contact, to a circumference of said secondary rotor, and a means of so varying the contacts on said surfaces of revolution, whereby rotation is transmitted from the primary to the secondary rotor, as to cause when actuated a change in the speed ratio between said rotors.

1,303,444. DOOR-STOP. WILLIAM H. WOOD, Cleveland, Ohio, assignor, by mesne assignments, to The Astrup Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 15, 1915. Serial No. 56,010. 2 Claims. (Cl. 16-6.)



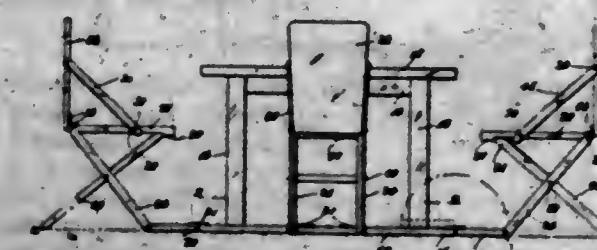
1. In a door holding device, a bracket, a rod connected thereto, a guiding bracket for said rod, latch mechanism between said guiding bracket and rod, and a yielding stop comprising a sleeve, a spring within said sleeve and at one end engaging the same, and an abutment on said rod for the opposite end of the spring, said parts co-operating to retard the movement of the door as the latch operation takes place.

1,303,445. BAND-WHEEL. CLYDE S. WRIGHT, Toledo, Ohio, assignor to The National Supply Company, Toledo, Ohio, a Corporation of Ohio. Filed Nov. 20, 1918. Serial No. 264,547. 7 Claims. (Cl. 66-17.)



1. A wheel with a central opening having different diameters, a hub seated in the opening and having different diameters corresponding in number and size to those of the said opening, an inclined centering shoulder connecting the adjacent diameters of the hub, a flange on the hub, and means securing the wheel to the flange.

1,303,446. FOLDING FURNITURE. ANDREJ ZARAWA, Shawenegan Falls, Quebec, Canada. Filed July 2, 1918. Serial No. 243,047. 1 Claim. (Cl. 45-31.)



In combination, a table having a rectangular top and corner supports extending downwardly from said top, a

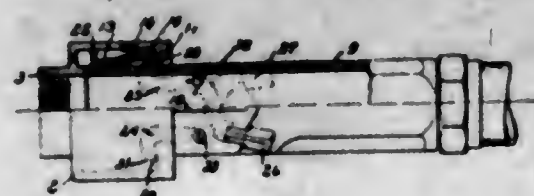
plate upon which said supports are rigidly engaged, lateral extensions from each of the rectangular edges of said plate, plate links having outwardly flaring side faces hinged to said lateral extensions, collapsible chair legs pivotally secured to the outer edges of said links, and chair seats and backs connected by arm rests, all of these parts adapted to be folded upon said plate.

1,303,447. GYRATORY CRUSHER-HEAD. CHARLES B. ANDREWS, High Bridge, N. J., assignor to Taylor Wharton Iron and Steel Company, High Bridge, N. J., a Corporation of New Jersey. Filed Jan. 23, 1918. Serial No. 213,286. 5 Claims. (Cl. 83-10.)



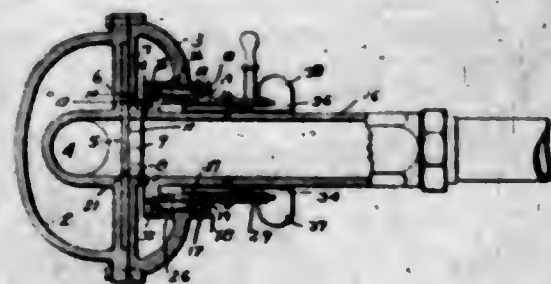
1. A crusher head mounting comprising a tapered seat, a mantle thereon, means engaging the end of the mantle to force it on the seat and a key interlocking the mantle and seat and removably confined in place by said means.

1,303,448. COUPLING. FERDINANDO ANTONIETTI, San Francisco, Calif. Filed Mar. 7, 1918. Serial No. 220,904. 15 Claims. (Cl. 285-108.)



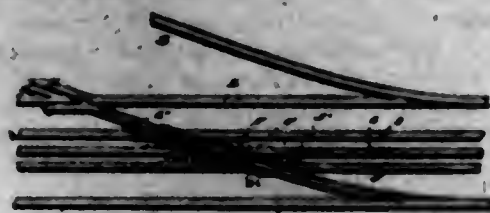
1. In combination with a hydrant, a nipple terminating in a seat, a laterally closed housing surrounding said seat and rigidly fixed thereto, and a plug nozzle adapted to be inserted in said housing and to abut against said seat.

1,303,449. FIRE-HYDRANT AND COUPLING THEREFOR. FERDINANDO ANTONIETTI, San Francisco, Calif. Filed Apr. 22, 1918. Serial No. 229,914. 12 Claims. (Cl. 137-13.)



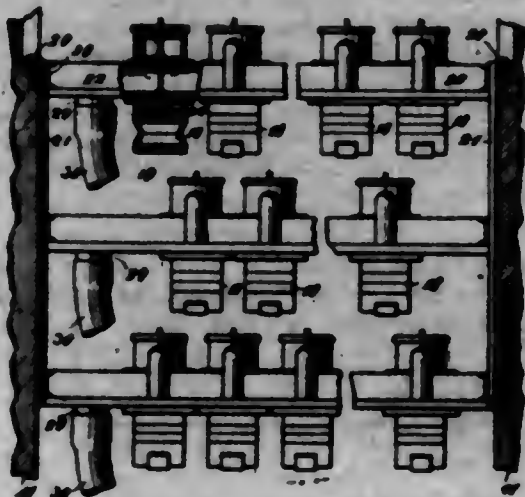
1. In combination, a pipe, a valve for controlling the flow of water through said pipe, a nozzle adapted to be connected to said pipe, and means on said nozzle for operating said valve.

1,303,450. RAILWAY SIGNALING SYSTEM. EARL BALL, Rainier, Oreg. Filed Aug. 27, 1918. Serial No. 251,068. 5 Claims. (Cl. 246-66.)



3. A railway signaling system, including in combination with a railway track, three conductor rails secured on the track and between the rails thereof, a source of electrical supply, connections between the source of supply and two of the rails, a car for the track, contacts on the car and adapted to engage the respective rails, terminals in the car, connections between the respective terminals and the contacts, a signal, means for selectively connecting the signal to the terminals, and means for selectively connecting the rails in circuit to actuate the signal.

1,303,451. PIANO-ACTION. HOLDEN P. BALLOU, New York, N. Y., assignor to Charles A. Dall, Plainfield, N. J. Filed Sept. 7, 1916. Serial No. 118,790. 15 Claims. (Cl. 84-178.)



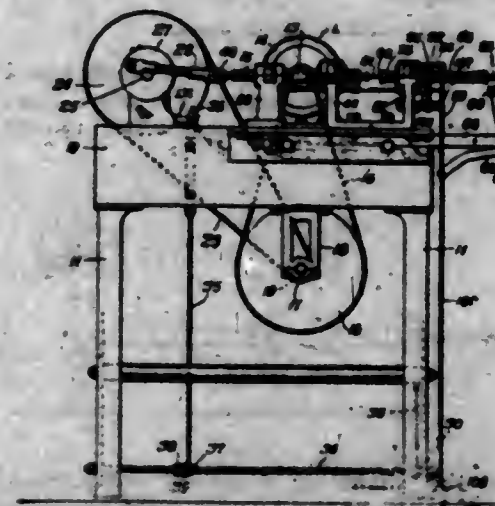
1. In a player piano, a small metal pneumatic action including a pair of channel sheet metal members having their trough portions facing each other to form a wind box and having outstanding flanges projecting laterally of the wind box so as to reinforce the same in the plane of the laterally extending flanges and means for fastening the flanges together to form an air-tight connection therebetween, and a unitary valvular mechanism supported on the lower of said channel members and extending through and fitted within the upper member and acting to reinforce the wind box in a plane at right angles to the plane reinforced by the laterally extending flanges.

1,303,452. PROCESS OF AND APPARATUS FOR DRAWING GLASS. HARRY TRISTRAM BELLAMY, Oak Park, Ill., and JESSE CONRAD SMITH, New York, N. Y., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 26, 1917. Serial No. 306,926. 18 Claims. (Cl. 40-28.)

2. The process of drawing and forming thin walled glass articles, which consists in drawing plastic glass through a die and over a ram or punch.

7. In a device of the character described, in combination, a reciprocating ram, a die, a forming pad cooperating

with said ram, means to advance said ram and pad through said die, and means to retract said pad out of the

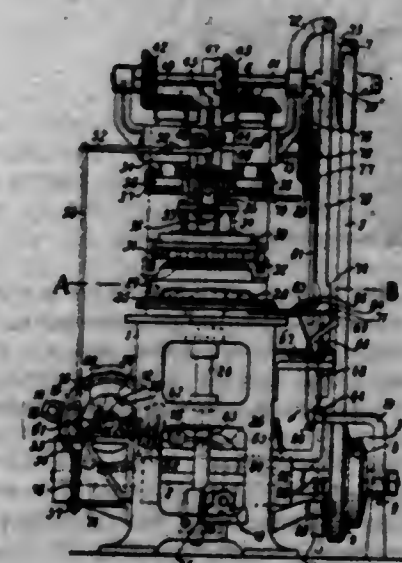


path of said ram immediately after the ram has formed the plastic glass about its end to the thickness desired.

1,303,453. ELECTRIC BATTERY. RAYMOND C. BENNER and HARRY F. FRENCH, Fremont, Ohio, assignors, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York, Filed Dec. 2, 1916. Serial No. 134,732. 2 Claims. (Cl. 204-29.)

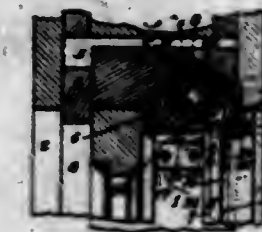
2. In electric batteries with alkaline electrolyte, a negative element containing lead peroxid and sulfur mixed therewith.

1,303,454. MACHINE FOR DIVIDING AND WORKING DOUGH. HERMANN BERTRAM, Halle-on-the-Saale, Germany. Filed Aug. 3, 1915. Serial No. 43,495. 13 Claims. (Cl. 107-28.)



13. In a machine of the class described, a table for carrying the material, means for cutting and kneading the material, a rack disconnected from the kneading means while the latter is inactive, means for throwing the rack into operative connection with the kneading means while the latter is active, a projection on said rack and means operated by said projection to arrest the motion of the machine, and a support determining the position of the rack before its connection with the kneading mechanism, said support being adjustable in the direction of the rack's longitudinal movement, for varying the distance separating the initial position of said projection from its operating position, and thus varying the length of the kneading operation.

1,303,455. SCREENED WINDOW. BRUCE BLACKBURN, Los Angeles, Calif. Filed Oct. 24, 1916. Serial No. 127,502. 5 Claims. (Cl. 156-39.)



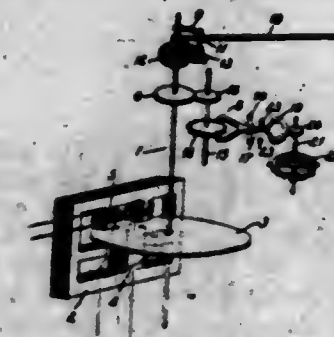
5. The combination with a screen roller and a screen thereon; of a housing for said roller and screen; said housing being provided with a slot through which said screen may be drawn from the roller; and a guide for the screen, said guide being so located relatively to an edge of the housing at one side of the slot that only when the screen is drawn into the guide and mainly unwound from the roller the screen will contact with said edge to exclude insects from the housing.

1,303,456. SECURING DEVICE FOR ARTICLES. WILLIAM W. BLAKELY, Detroit, Mich. Filed Jan. 26, 1918. Serial No. 213,969. 6 Claims. (Cl. 24-1.)



1. A securing device for articles comprising a main body portion formed of padding material and a metal member interlocked with said material, having portions projecting beyond said padding material to form fastening means.

1,303,457. MAXIMUM-DEMAND METER. CLARENCE A. BOBBIN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 4, 1916. Serial No. 88,975. 14 Claims. (Cl. 171-95.)



1. In a maximum-demand meter, the combination with an indicating wattmeter, of an escapement device for causing the time of operation of the wattmeter to vary in accordance with its torque.

1,303,458. PISTON-RING REMOVER. JOHN BRETZ, Jr., Detroit, Mich. Filed July 1, 1918. Serial No. 242,761. 3 Claims. (Cl. 81-3.)

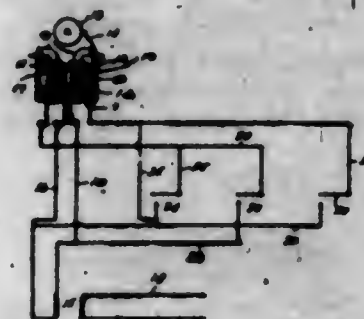
2. A piston ring expander comprising two flat metal strips overlapped and pivotally connected intermediate of their ends, the portions of said strips between their pivotal connection and both ends of each strip being curved laterally in opposite directions to be grasped in the hand and both end portions of each strip being twisted to bring

the side faces thereof into planes at right angles to the planes of the side faces of its intermediate portion and



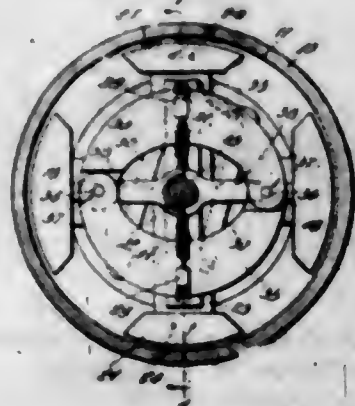
each formed with an end notch beveled to conform to the bevel of the end of a piston ring.

1,308,458. ELECTRIC BELL. CARL H. BUEHL, Cleveland, Ohio. Filed Jan. 16, 1917. Serial No. 142,004. 1 Claim. (Cl. 177-7.)



A selective signal apparatus comprising a pair of electromagnets each having a separate armature, a source of alternating current, lines connecting opposite sides of said source to relatively opposite ends of the coil of each magnet, a pair of switch circuits connected to the other end of each coil and to the line from said source to the other coil, and a third circuit bridged across said switch circuits, to close them both.

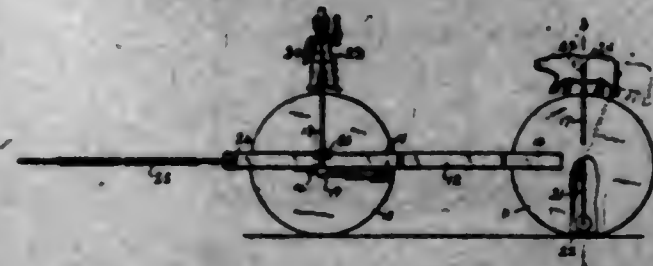
1,308,460. MACHINE-BRAKE. WESLEY E. CAIR, Port Jervis, N. Y. Filed July 29, 1918. Serial No. 247,292. 7 Claims. (Cl. 74-45.)



1. The combination of an annular frictional surface, a rotor concentric with said frictional surface, brake shoes carried by said rotor and movable into and out of frictional engagement with said annular surface, a second rotor rotatable with the first mentioned rotor and also capable of an independent rotary movement relative to the first mentioned rotor, brake shoes carried by the second rotor, and means operatively connecting the first mentioned rotor to the brake shoes of the second rotor in such relation that the frictional engagement of

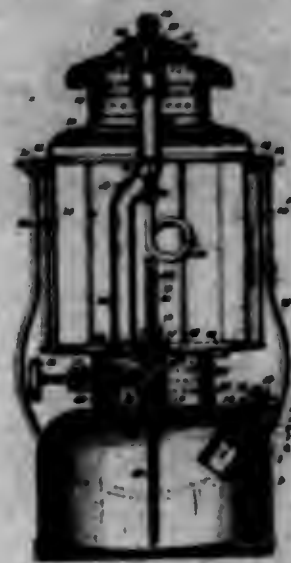
the first mentioned brake shoes effects a rotary movement thereof relative to the second mentioned brake shoes and thereby moves the latter into engagement with said frictional surface.

1,308,461. TOY. HENRY FRANK CARTER and LANS STRICKLER PARSONS, Piedmont, Va. Filed Apr. 29, 1918. Serial No. 262,489. 6 Claims. (Cl. 46-45.)



1. A toy of the character described comprising forward and rear wheels, yokes having portions extending through the centers of the wheels, a weight disposed within each wheel and connected to the yoke below its axis, and a figure pivotally mounted upon each yoke adjacent the periphery of the wheel.

1,308,462. VAPOR-BURNER. WILLIAM C. COLEMAN, Wichita, Kans. Filed Aug. 31, 1917. Serial No. 189,157. 13 Claims. (Cl. 67-50.)

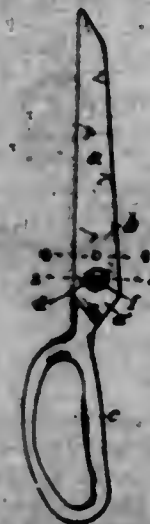


1. In a vapor lamp, the combination with a font having upstanding delivery means, of an upstanding standard comprising a tube having its lower end at one side of the delivery means and having an offset between its ends that places its upper end in upstanding alignment with and above the delivery means, a burner supported on the upper portion of the tube, means for fixedly securing the lower end of the tube, whereby it constitutes means for supporting the burner on the font, and a fuel conducting tube extending from the delivery means of the font and having its upper end delivering into the tube at the offset and into the upper end of said tube, the weight of the burner being carried by the first-mentioned tube and the fuel conducting tube being substantially free from said weight.

1,308,463. LUBRICATING DEVICE FOR SHEARS. THOMAS R. CRANE, East Orange, N. J., assignor, by mesne assignments, to Bishop White, West Hartford, Conn., and Edward F. von Wettberg, Fairfield, Conn. Filed Mar. 19, 1918. Serial No. 223,312. 4 Claims. (Cl. 28-12.)

1. In a pair of scissors or shears having a tension device applied to the shear members, comprising a spring and plug seated in a socket in one of said members, the

end of the plug bearing upon the other member, means to prevent rusting of the tension device, said means com-



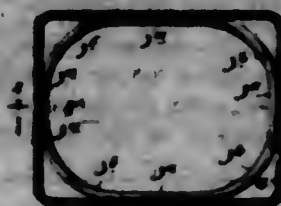
prising an oil pad seated in the socket behind the plug and operating to lubricate the bearing end of the plug.

1,308,464. DISTANT-CONTROL-SWITCH SOCKET FOR ELECTRIC LIGHTS, &c. JAMES MATTISON DAVIS, Dallas, Tex. Filed June 8, 1917. Serial No. 173,612. 4 Claims. (Cl. 173-340.)



1. An electric socket or receptacle having means for the inclusion of the socket in an electric circuit, means for the attachment of a translating device to the socket, interior circuit connections with accessible circuit terminals having a normal tendency to close the circuit through the socket, a plug with circuit terminals introducible into the socket to engage the accessible circuit terminals therein and separate them to divert the circuit through the plug with the latter in series with the socket or receptacle, flexible conductors connected to the plug, and a distant switch connected to the flexible conductors.

1,308,465. CONTAINER. MARY J. DU BOIS, Passaic, N. J., assignor to Passaic Metal Ware Company, Passaic, N. J., a Corporation of New Jersey. Filed Dec. 27, 1917. Serial No. 260,020. 2 Claims. (Cl. 230-71.)



1. A rectangular container having a hinged groove therein adjacent to its open mouth, and a reinforce within said groove and entirely within the container, portions of the reinforce extending along the inner walls of the

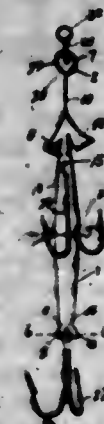
container and portions of the reinforce extending between the first named portions thereof and spaced from the corners of the container within the same to reinforce the walls between said corners.

1,308,466. VIOLIN. BURNETT E. DUNHAM, Seattle, Wash. Filed July 16, 1918. Serial No. 245,417. 2 Claims. (Cl. 84-44.)



1. A violin one side of its upper body portion removed on a line extending from the intersection of the violin neck and body to the C-shaped curve in the side of the violin.

1,308,467. FISHING-BAIT. ROY ETTENBERG, Vancouver, British Columbia, Canada. Filed June 17, 1918. Serial No. 240,373. 8 Claims. (Cl. 43-30.)

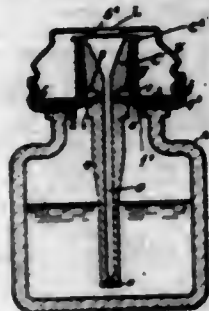


1. A fishing bait having the body thereof formed from a metal blank the intermediate portion of which is of greater width than the head and tail ends and is provided with angular projecting portions outstanding from its opposite edges and free of the body on all sides but one, the said tail end extending centrally from the intermediate portion and tapering inwardly toward its free end, the said head end being adapted to be formed into a line attaching means.

1,308,468. SEALED, SAFETY, FOUNTAIN-INKSTAND. JONATHAN O. FOWLER, New York, N. Y. Filed Nov. 10, 1914. Serial No. 871,288. 3 Claims. (Cl. 130-64.)

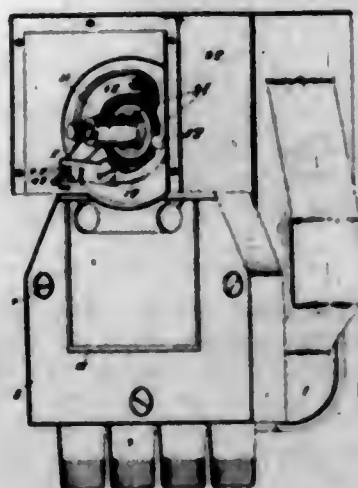
1. In a device of the class described, a container having a neck, a horizontally disposed diaphragm mounted upon and extending entirely across said neck, a dip-cup having a flange at its upper portion, an apertured washer mounted adjacent the diaphragm, a spring intermediate the central portion of the washer and the flange of the dip-cup, said washer supporting said spring to partly relieve the diaphragm from the tension of the

spring, a housing to inclose the diaphragm, dip-cup, washer and spring, and a threaded attachment post-



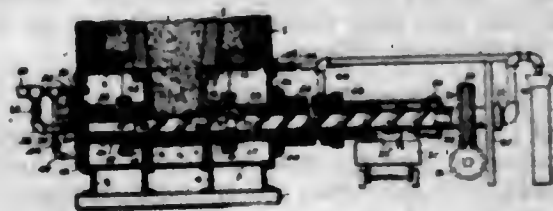
tioned on and extending over the container neck to engage the housing.

1,303,460. IGNITION-GENERATOR. IGNATIUS P. GALANTIN, Chicago, Ill., assignor to Splittdorf Electrical Company, Newark, N. J. Filed Nov. 16, 1918. Serial No. 262,759. 12 Claims. (Cl. 123,149.)



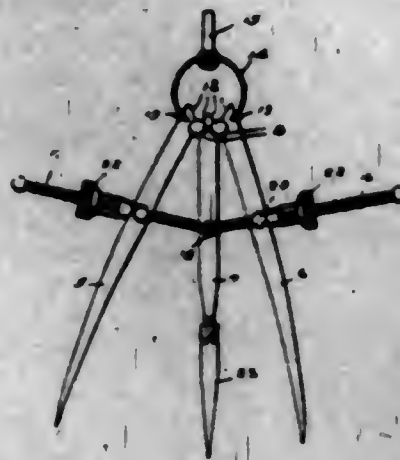
1. In an ignition generator having a hollow rotatable operating member, a driving shaft extending through said hollow member, a driving member fastened to said shaft, a driven member supported on said shaft and having a driving engagement with the generator rotatable member, resilient means associated with the driving and driven members, means for causing a relative displacement between the driving and driven members and storing energy in the resilient means and means for releasing the displacing means so the stored energy in the resilient means will act on the driven member to rapidly restore it to normal position for the purpose described.

1,303,470. LIQUID-COOLED CONVEYER APPARATUS. JOHN C. GILLETTE, Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Apr. 12, 1916. Serial No. 90,546. 10 Claims. (Cl. 237-86.)



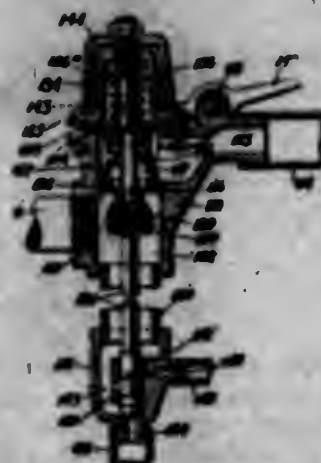
1. In apparatus for heating materials to high temperatures, a hollow casing adjacent to a furnace base, a discharge spout connected to the top of said casing and passing therethrough, a hollow screw conveyer in said discharge spout adapted to remove heated material therefrom, and means for passing cold water through the casing around said discharge spout and through said conveyer to cool the heated material.

1,303,471. MEASURING INSTRUMENT. GEORGE W. GROSS, Seattle, Wash. Filed July 27, 1918. Serial No. 247,334. 3 Claims. (Cl. 33-149.)



1. A measuring instrument of the class described, comprising a medial leg member, two outer leg members disposed on opposite sides of said medial leg member in the same plane therewith, pivot means connecting the upper ends of all of said leg members, an arcuate flat spring engaging the two outer leg members above their pivotal point, and screw devices connecting each of said outer leg members with said medial leg member.

1,303,472. FROST-PROOF VALVE MECHANISM. PHILIP HAAS, Dayton, Ohio. Filed Dec. 2, 1918. Serial No. 264,907. 4 Claims. (Cl. 137-09.)

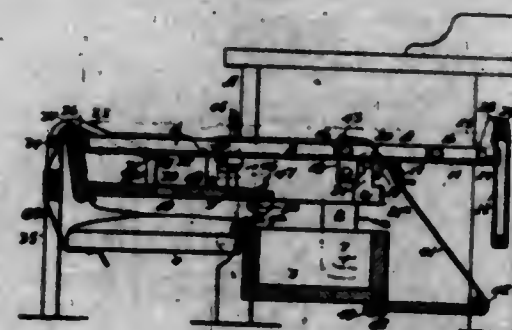


1. In a frost proof valve mechanism, the combination with a valve casing, provided with a water inlet, a tubular passage above the water inlet, a lateral waste passage communicating therewith, and a by pass extending from the water inlet laterally of and around the tubular passage, to a point above said passage, of a reciprocating plunger in said passage provided at its lower end with a valve for closing the water inlet, said plunger loosely fitting said tubular passage and having a solid portion of reduced diameter within said passage, and an expansion ring of elastic material surrounding said solid reduced portion of the plunger and acting as a piston ring, said expansion ring being normally out of registration with the lateral waste passage, but located in position to close said passage when the inlet valve is in open position, whereby said expansion ring is protected from the water passing through the valve by its location within said tubular passage and between the walls of said passage and the solid reduced portion of the plunger.

1,303,473. DAVENPORT-BED. CHARLES B. HALL, Oakland, Calif. Filed Feb. 7, 1918. Serial No. 315,739. 14 Claims. (Cl. 5-48.)

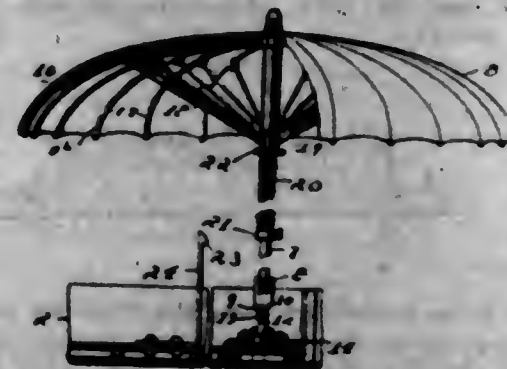
5. In a davenport, the combination with a pivotally mounted back rest, of a mattress frame mounted on the rear side of the back rest, said mattress frame consisting

of a main section, an intermediate section and an end section, all pivotally connected, means controlled by the swinging movement of the back rest for folding said mattress frame sections when the back rest is swung to a



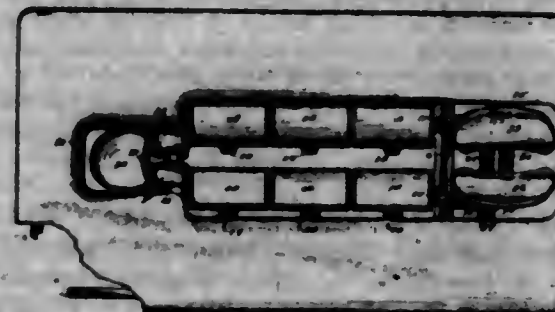
substantially vertical position and causing said frame sections to assume a horizontal position when the back rest is swung to a horizontal position, and means for raising and lowering the bed frame within the back rest.

1,303,474. SAFETY PARACHUTE ATTACHMENT FOR AEROPLANES. JOHN HARVEY HALL, Wellington, Colo. Filed Nov. 27, 1918. Serial No. 264,370. 6 Claims. (Cl. 244-21.)



1. A parachute attachment for aeroplanes, including a collapsible parachute formed with a handle and having a ferrule slidable upon the handle to control the opening and closing of the parachute, means for loosely connecting the handle to the airship whereby the parachute can be folded against the airship when not in use, a spring arm projecting from the airship and provided with a detent which engages the ferrule to lock the parachute in a collapsed condition when it is folded against the airship, said detent remaining in engagement with the ferrule until the handle is partially swung upwardly, means for locking the parachute in a folded position, and means for releasing the parachute.

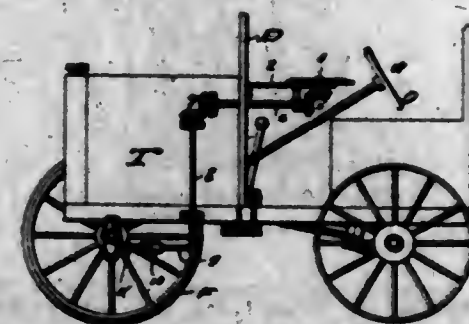
1,303,475. MECHANICAL MANIPULATING MECHANISM. CLARA B. HARDY and KATHARINE E. GIBSON, Los Angeles, Calif. Filed Nov. 13, 1917. Serial No. 202,059. 16 Claims. (Cl. 128-49.)



2. In a device of the character referred to, a supporting structure, manipulating elements movably mounted in positions to engage the back of the human body supported thereon, manipulating elements movably mounted in po-

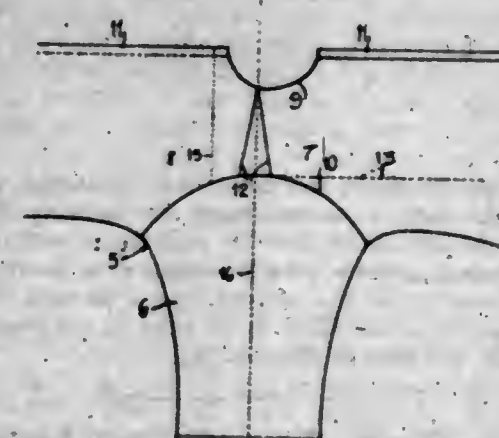
sitions to engage the neck at opposite sides thereof, and means for operating said manipulating elements with an alternating massaging action, substantially as described.

1,303,476. DIRECTION-INDICATOR. JENNINGS B. HARRISMAN, Davenport, Iowa. Filed Sept. 27, 1918. Serial No. 255,927. 1 Claim. (Cl. 116-31.)



A direction indicator for tractors comprising a dial inscribed with graduations, an index moving over the same and mounted on a shaft, a rock shaft having a crank arm forked at its end and passing astride the connecting rod between the knuckles on the steering axle, the fork arms being slotted, a pin through said rod engaging said slots, a horizontal shaft, gearing connecting one end thereof with said rock shaft, and gearing connecting its other end with the index shaft.

1,303,477. SLEEVE-PATTERN AND METHOD OF PRODUCING THE SAME. MAY P. HARDIN, Harrodsburg, Ky. Filed Apr. 18, 1917. Serial No. 163,019. 2 Claims. (Cl. 2-61.)

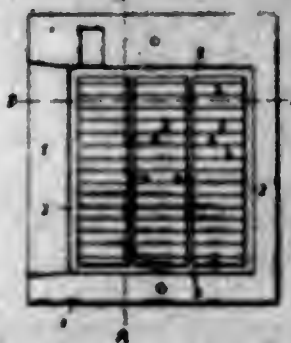


2. A sleeve pattern for garments formed from a single piece of material, the material being first folded upon itself and cut in accordance with predetermined measurements to provide a sleeve portion and back and front shoulder portions, a seam formed in the material to provide for fullness in the sleeve portion thereof, additional obliquely disposed seams between the front and back shoulder portions extending from spaced points on the first named seam in convergent relation and meeting upon the neck line of the material, and a separate shoulder yoke piece adapted to be superimposed upon the back shoulder portion between the first named seam and the neck line of the material.

1,303,478. STORAGE-BATTERY GRID. LEON B. HILLS, Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Nov. 15, 1918. Serial No. 181,600. 1 Claim. (Cl. 204-29.)

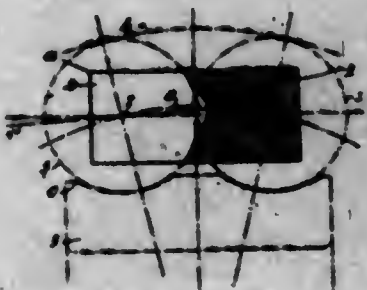
In electric batteries, a grid consisting of an outer frame, a plurality of spaced ribs of less depth than said

frame extending thereacross at each side, said ribs having V-shaped grooves on the inside and being spaced away from the middle plane of the frame whereby a continuous



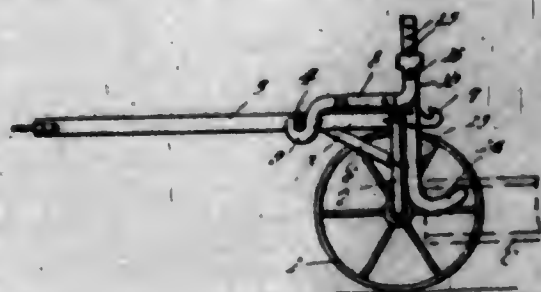
middle chamber is formed for the active material, the ribs on one side being staggered in relation to those on the other.

1,303,479. BALL-RETAINER FOR DOUBLE-ROW RADIAL BALL-BEARINGS. AXEL GUSTAF BRANFORS, HULTONEN and PATRIK HANUS RYSSOCK, Gottenborg, Sweden, assignors to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden, a Corporation of Sweden. Filed Mar. 21, 1918. Serial No. 223,940. 4 Claims. (Cl. 64-60.)



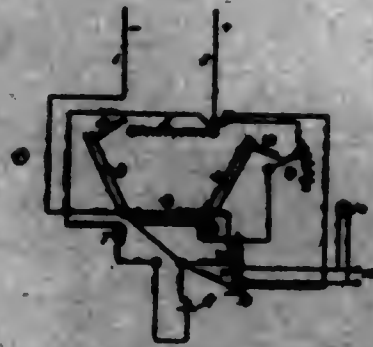
1. A ball retainer for radial ball bearings, consisting of a ring having lateral bores or recesses serving as pockets for the balls, and in which the center lines of the said ball pockets extend obliquely in relation to the axis of rotation of the bearing, and a portion of the ring overhangs the outer sides of the balls to hold them against the inner ball race of the bearing.

1,303,480. TRUCK. WILLIAM N. KELLY, Mansford, Ohio. Filed Sept. 9, 1918. Serial No. 253,225. 2 Claims. (Cl. 214-65.2.)



1. A truck including a wheel supported arch, a yoke fixedly connected to the axle, a bar detachably supported on the axle and having a hooked end extending under and engaging the yoke, a hanger adjustably connected to the other end of the bar and extending downwardly below the axle, and a load engaging element upon the hanger.

1,303,481. METHOD OF SERIES ARC-WELDING. OTIS ALLEN KENTON, New York, N. Y. Filed Jan. 9, 1918. Serial No. 211,981. 9 Claims. (Cl. 219-38.)



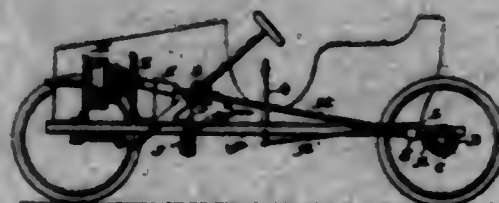
1. A method of series arc welding consisting in dividing the main line into sections each having a welding arc, striking an arc and drawing it out to a predetermined voltage limit, then shutting the arc and dropping the voltage of the section to a point below the arc voltage limit.

1,303,482. GAME. NETTIE E. KNALL, Phoenix, Ariz. Filed Sept. 24, 1918. Serial No. 255,498. 2 Claims. (Cl. 46-21.)



2. A game including a game board having perforations, and game pieces consisting of pins movable at each end thereof into the openings of the game board and having intermediate enlargements nearer to one end than to the other, for the purpose described.

1,303,483. SPRING-MOTOR POWER FOR DRIVING AUTOMOBILES. OSCAR KNAUER, Lehr, N. D. Filed June 1, 1918. Serial No. 237,990. 3 Claims. (Cl. 290-168.)

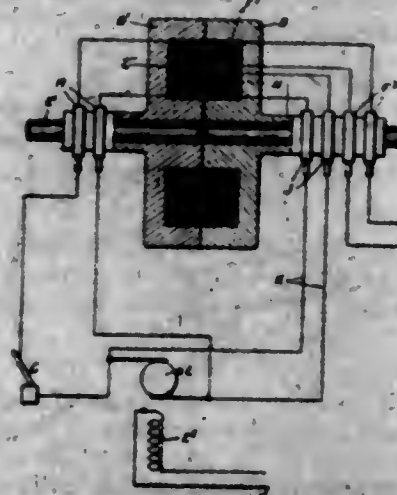


1. A spring motor driven apparatus for automobiles, comprising in combination with a chassis, a driving axle journaled therein, a spring motor, a driving shaft geared thereto, a swinging transmission shaft mounted upon the chassis and adapted to be thrown into and out of gear connection with the driving axle, and means for controlling the rotary movement of said transmission shaft.

1,303,484. ELECTRICALLY-CONTROLLED CLUTCH. WALTER LANGDON DAVIES, Weybridge, England, assignor of two-thirds to Alfred Seamen, London, England. Filed June 2, 1916. Serial No. 101,557. 2 Claims. (Cl. 171-231.)

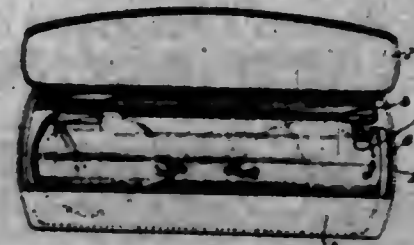
1. In an electromagnetic clutch the combination with the clutch members, of three controlling coils, one energized from some source of approximately constant voltage and tending to produce driving pressure between the

clutch members and two other coils, one energized by the current from a dynamo driven through the clutch and



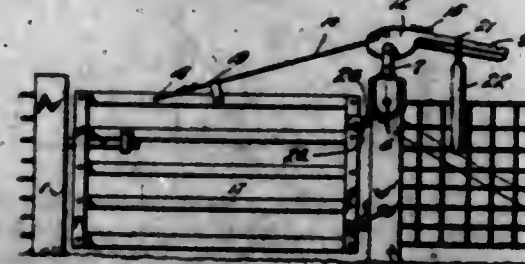
the other by a current varying with the voltage of such dynamo.

1,303,485. EYEGLASS-CASE. BENJAMIN FRANKLIN LINDEMAN, Portland, Oreg. Filed Sept. 13, 1918. Serial No. 253,932. 3 Claims. (Cl. 206-5.)



1. In combination with an eye glass case, of a plate adapted to rest upon the glasses, said plate being of a width to engage at one edge beneath the lip of the case and having an upturned flange at the other edge and a flange at one end, and having a split eyelet between the said flanges, said plate having an upstanding lug at the opposite end, and the flange at the edge being partially cut away at the said lug.

1,303,486. TENSION DEVICE. DANIEL LOCKE, Summersfield, Kans. Filed Dec. 14, 1918. Serial No. 266,828. 5 Claims. (Cl. 89-87.)

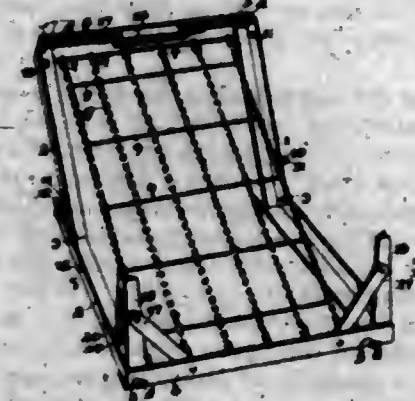


1. A device for the purpose set forth comprising a lever consisting of an arm and parallel wings extending from one end of said arm, the end of the arm adjacent the wings being beveled, a stud on the upper side of the arm adjacent said beveled end, a fulcrum inserted through said wings eccentric to the arm, a line-engaging tension member carried by said wings, and a counterbalance suspended on the arm.

1,303,487. PORTABLE FOLDING BED. ROBERT H. McCUNE, Roswell, N. Mex. Filed Nov. 11, 1918. Serial No. 262,007. 3 Claims. (Cl. 5-5.)

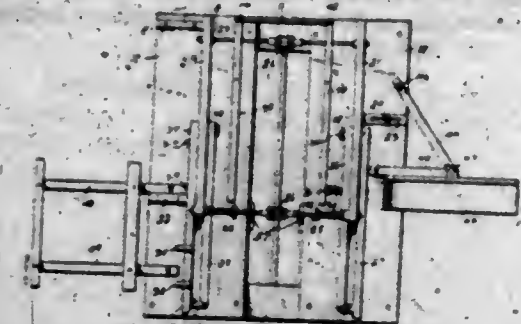
1. The combination in a folding bed, of side rails with end lugs, end rails with slots to receive the lugs, a mat-

trass with springs attached to the end rails, to hold the lugs in the slots, adjacent projections in the corners of



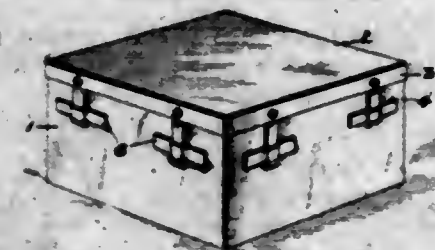
the end and side rails, and pivotally mounted folding legs capable of being fitted over the projections to form a lock.

1,303,488. BOX-NAILING BENCH. PURDY NEWTON MCGLOTHLEN, Yakima, Wash. Filed Aug. 31, 1918. Serial No. 252,188. 6 Claims. (Cl. 144-288.)



1. A work support of the character described comprising a table, oppositely disposed pairs of vertical work engaging clamping wings mounted upon the table and adapted to receive the end blanks of a box between the wings, pairs of clamping wings being relatively adjustable toward or from each other, one wing of one pair of clamping wings being rigidly mounted upon the table, and vertically disposed guide members carried by said rigid clamping wing extending upward therefrom to indicate the position of slats to be nailed to said end blanks.

1,303,489. PACKAGE AND PACKING-BOX. JAMES D. MCLAURIN, New York, N. Y. Filed June 4, 1918. Serial No. 771,004. Renewed Sept. 25, 1918. Serial No. 255,702. 4 Claims. (Cl. 220-45.)



1. A packing box comprising a box body, a cover having a flange to overlap the upper edge of said box body and a plurality of tongues fastened adjacent to the inner face of said flange so as to lie wholly in juxtaposition thereto when the cover is separate from the box body, and to depend from said flange when the cover is applied to close the box body, and means normally separate from the box body for fastening the free ends of said tongues to the box body when in said depending position.

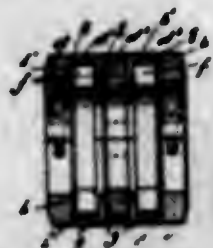
2. A packing box comprising a box body, a cover having a flange to overlap the upper edge of said box body and a plurality of tongues attached adjacent to the inner face of said flange, so as to depend therefrom when the cover

is applied to close the box body and single service adhesive means normally separate from the box body adapted to fasten the free ends of said tongues to the box body whereby the cover may be held in rigid box closing position and removed only by breaking the adhesive fastening means.

3. A packing box comprising a box body, a cover having a flange to overlap the upper edge of said box body and a plurality of tongues fastened adjacent to said flange so as to depend therefrom when the cover is applied to close the box body, and single service adhesive means normally separate from said box body and adapted to be secured thereto and to the tongues to fasten the latter to the box body when in said depending position.

4. A packing box comprising a box body, a cover having a flange overlapping the upper edge of said box body and provided with a plurality of depending tongues juxtaposed when in normal box closing position to said box body along their entire length and with their flange engaging ends lying between the overlapping flange and the box body, and single service adhesive means for fastening the free ends of the tongues to the box body.

1,303,490. PACKING FOR PISTON-RODS OR OTHER FLUID-ENGINES. THOMAS M. MALLON, Philadelphia, Pa., assignor of one-half to Edward A. Mallon, Brooklyn, N. Y. Filed Mar. 23, 1917. Serial No. 156,815. 3 Claims. (Cl. 286-24.)



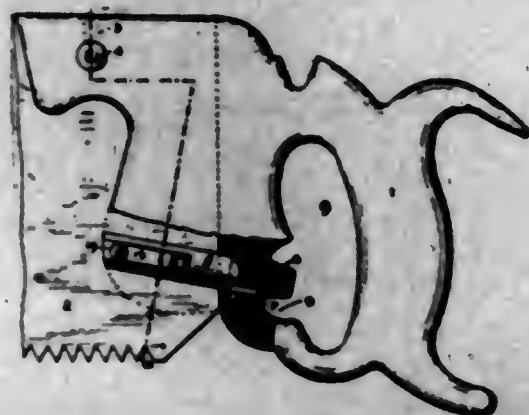
3. The combination with a stuffing box and piston rod or shaft, of a packing comprising a packing container in said stuffing box mounted around said piston rod and made in form of a sleeve composed of two removable sections, the inner surface of the said sleeve having a number of parallel annular grooves, a packing ring in each of said grooves made in two sections and having circumferential grooves at the adjoining ends of said ring sections, a spring encircling the said two sections of each packing ring and adapted to tightly close the same around the said piston rod and a ring formed with diametrically opposite flaps and adapted to bear against one side of each packing ring and with its flaps to engage the said circumferential grooves and to close the crevices between the adjoining ends of the two sections of the said packing ring.

1,303,491. CLOTHES-LINE SUPPORT. FRANK F. MILLER, Sioux Falls, S. D. Filed June 17, 1918. Serial No. 240,477. 3 Claims. (Cl. 68-12.)



1. A support for clothes lines comprising a head block including flat plates connected by an intermediate web and defining oppositely disposed recesses, there being a transverse opening formed in the web, hooks extending laterally from the outer faces of the plates, diverging legs fitting in the adjacent recesses of the head block, and a bolt passing through the upper ends of the diverging legs and through the opening of the web for securing the head block in position on the legs.

1,303,492. SAW-HANDLE FASTENER. GEORGE E. MILLER, Stege, Calif. Filed Aug. 16, 1915. Serial No. 45,627. 2 Claims. (Cl. 148-113.)



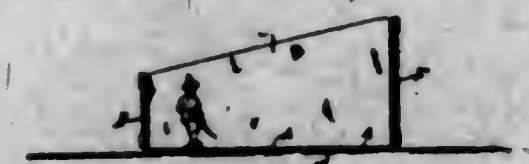
1. A saw handle fastening device, comprising in combination with a blade and handle, said blade provided with a vertical slot in its back edge and a hole near its toothed edge, a transverse holding bolt on said handle engaging said slot and a longitudinal slotted bolt entirely in said handle adapted to receive said blade, a spring latch on said bolt engaging automatically said hole and holding said blade within said slot.

1,303,493. FOURDRINIER PAPER-MAKING MACHINE. SAMUEL MILNE, Edinburgh, Scotland. Filed Jan. 2, 1919. Serial No. 269,502. 8 Claims. (Cl. 92-45.)



1. In a Fourdrinier paper making machine, an endless wire, a breast roll and guide roll therefor, vacuum boxes over which the wire passes, deckle frames and deckle straps for limiting the sidewise flow of the pulp, side frames for supporting the breast roll, guide roll, tube rolls and under-wire rolls, and means for vibrating the wire independently of the said side frames, tube rolls and under-wire rolls, as set forth.

1,303,494. GAME-BOARD. LEWIS F. NICHOLS, Uniontown, Pa. Filed Apr. 17, 1918. Serial No. 229,159. 3 Claims. (Cl. 46-59.)

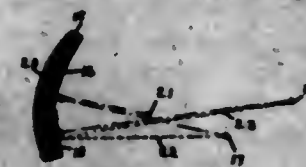


1. A game board involving a field divided into a plurality of targets having variable values in determining the count; suitable objects or images for positioning on the targets; a rearwardly disposed wall; a forwardly disposed barrier of suitable height for wholly concealing the targets from the line of vision of the player; and a missile for knocking over the objects.

1,303,495. LENS. CLARENCE E. QUIMBY, Toledo, Ohio, assignor, by mesne assignments, to The Continental Lens Co., Toledo, Ohio, a Corporation of Ohio. Filed Oct. 22, 1914. Serial No. 867,951. 2 Claims. (Cl. 88-54.)

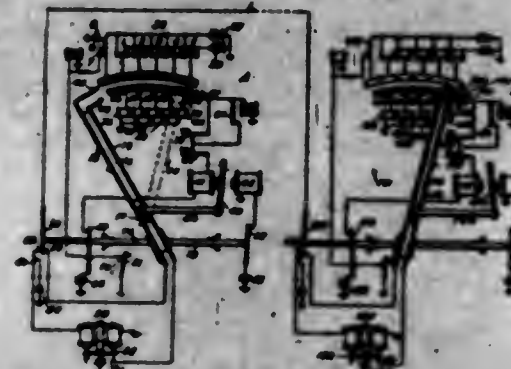
1. A lens consisting of a single homogeneous piece of crystal embodying a major lens portion and a minor lens portion, the minor lens portion being tilted to shift its optical center toward the center of the major lens portion, the centers of curvature of said two lens portions being

so disposed that in a plane through said curvature centers and the lens a radius from the minor lens center to its lens portion intersects a radius from the major lens portion center to its lens portion, there being a ledge between



the minor lens portion and the major lens portion, said ledge defining a curve at the minor lens portion edge, which curve has its axis eccentric to the axis of the major lens portion.

1,303,496. SELECTING SYSTEM. PAUL M. RAINY, West Hoboken, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Feb. 10, 1917. Serial No. 147,800. 7 Claims. (Cl. 178-33.)



1. In a selecting system, the combination of a transmission line and a station at each end thereof, a reciprocating brush carrying distributor at each station for transmitting and receiving groups of signaling impulses, an electromagnet for operating said distributor, and means at each station for controlling the distributor at the other station whereby said distributors operate substantially in unison.

1,303,497. TIRE-EXPANDER. CHARLES REEDER, Ephrata, Wash. Filed Oct. 22, 1918. Serial No. 259,178. 3 Claims. (Cl. 157-1.)

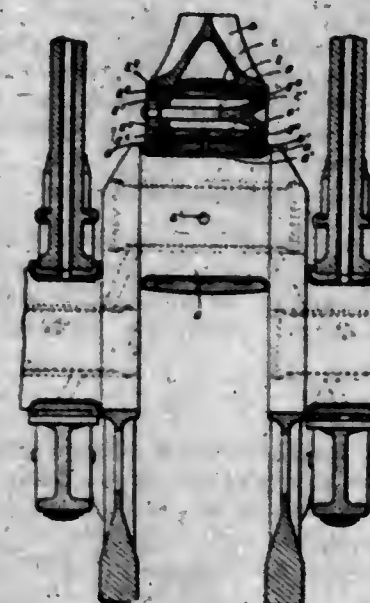


1. In a device for manipulating wheel rims, a base of sufficient size to support the rim; a lever; means for fulcruming the lever on the base adjacent to the center of the base; links assembled with the lever on opposite sides of its fulcrum; and arms pivoted to the links, the arms having tire-engaging fingers.

1,303,498. CONNECTING-ROD FOR INTERNAL-COMBUSTION ENGINES. HARRY RALPH RICARDO, London, England. Filed July 22, 1918. Serial No. 246,227. 6 Claims. (Cl. 74-17.)

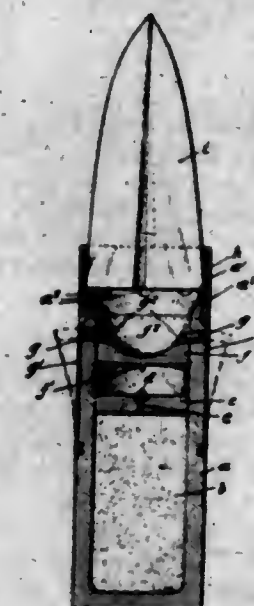
4. A connecting rod construction for internal combustion engines comprising in combination; a hollow crank pin, a main connecting rod having a bearing at one end on said pin, a second connecting rod having a forked end, a hollow pivot pin securing said forked end to the main

rod, said crank pin formed with a lubricant passage through its wall, said main rod having a corresponding



passage, and means for conducting lubricant from said latter passage to the exterior surface of said pivot pin.

1,303,499. EXPLOSIVE DEVICE. AUGUSTUS D. ROMAIN, Brooklyn, N. Y. Filed July 25, 1917. Serial No. 182,614. 10 Claims. (Cl. 102-29.)



1. An explosive device having a casing, a hammer block mounted slidably therein, a bolt carried in the casing and engaging the block to hold it locked and an opening formed in the block and by which the end of the bolt is exposed to the hydraulic pressure of the water into which the device may be plunged to release the bolt.

1,303,500. BRUSH. MORRIS ROSENBERG, Brooklyn, N. Y. Filed June 28, 1917. Serial No. 177,522. 1 Claim. (Cl. 16-29.)



The combination with a brush head having bristle tufts and a plate having apertures each receiving a tuft there-

through, of a tubular member slidably disposed in each corner of the brush head, said tubular member having a pair of diametrically opposite longitudinally extending slots, one of said slots opening through the inner end of the tube, a pin carried by the head and disposed in the other slot, a stem slidably in the tubular member and having its outer end secured in one corner of said plate, and a lug on said stem slidably in the first-named slot of the tubular member.

- 1,303,501. CONSTRUCTION OF SOLID WHEELS. LOUIS ROUANET, Ivry-Port, France, assignor to Compagnie D'Applications Mécaniques, Ivry-Port, France. Filed Aug. 4, 1917. Serial No. 184,497. 4 Claims. (Cl. 21-60.)



1. A wheel for automobiles containing, in combination, a hub, a rim, a stamped disk flanged at the center and at the periphery, means for fixing the inner flange of the disk upon the hub, means for fixing the outer flange to the rim, and metal wire spokes connecting the hub and the peripheral flange of the disk, substantially as described and for the purpose set forth.

- 1,303,502. ATTACHMENT FOR TALKING-MACHINES. RAYMOND R. RUNDLE, ALFRED E. OGDEN, and FREDERICK S. ELLETT, Elmira, N. Y. Filed Feb. 19, 1919. Serial No. 277,994. 14 Claims. (Cl. 274-24.)

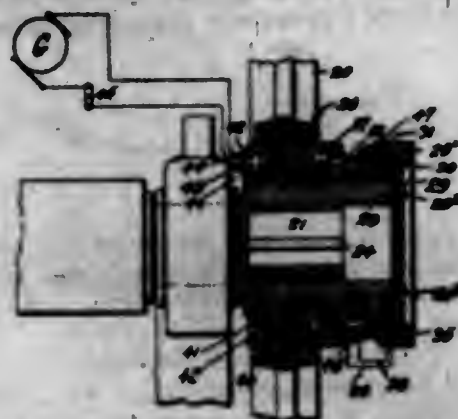


1. An attachment for talking machines, comprising an element having a chamber therein and adapted to be secured to move with a talking machine swinging tube, a spring within said chamber and having frictional engagement with said element, and means for connecting said spring with a sound box tube rotatably supported on said swinging tube.

- 1,303,503. CLUTCH. CARL F. SCHNUCK, Ansonia, Conn., assignor to Farrel Foundry & Machine Company, Ansonia, Conn., a Corporation of Connecticut. Original application filed Sept. 13, 1914. Serial No. 861,825. Divided and this application filed Mar. 13, 1916. Serial No. 84,468. 29 Claims. (Cl. 192-14.)

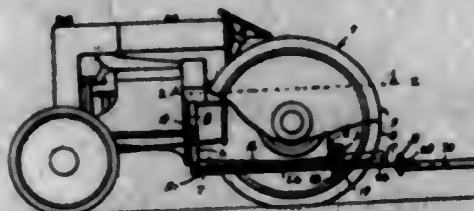
1. In a coil clutch, the combination of driving and driven members, a friction coil attached to one member

and embracing the other member, a plate rigid with each other member, and electromagnetic means for locking one



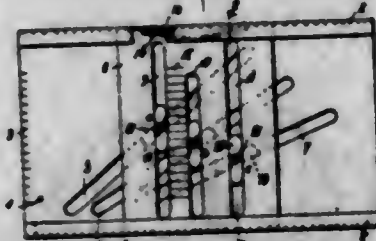
end portion of said friction coil to said plate to tighten said coil; substantially as described.

- 1,303,504. DRAW-BAR HITCH FOR TRACTORS. HENRY J. SCHULTZ, Fullerton, Calif. Filed Mar. 17, 1919. Serial No. 283,215. 3 Claims. (Cl. 213-67.)



2. A drawbar for tractors comprising a crossbar adapted to be mounted behind and below the rear axle, a ring adapted to be clamped to the transmission case, a stud extending downwardly from the ring, a brace connecting the stud to the crossbar, and a bar pivotally mounted upon the stud and extending backwardly beyond the rear wheels.

- 1,303,505. PROPORTIONAL LETTER-GUIDE. HARRY R. SHIFFER, Brownstown, Pa. Filed June 27, 1918. Serial No. 242,246. 8 Claims. (Cl. 33-41.)



1. An instrument for laying off guide lines for lettering, the same comprising a base having a straight edge and provided with a plurality of slots relatively inclined at different angles to said straight edge, a slide movable on the base and provided with a plurality of slots perpendicular to said straight edge and guides for a pencil point or like marker having portions disposed in the inclined and perpendicular slots.

- 1,303,506. COLORING OF PHOTOGRAPHIC AND CINEMATOGRAPHIC PICTURES. HENRY SMOCK, Chorlton-on-Medlock, England. Filed May 16, 1918. Serial No. 234,967. 2 Claims. (Cl. 95-22.)

1. Process for producing photographic and cinematographic pictures in two colors, consisting in taking negatives with the aid of red and green color screens, printing positives from such negatives, temporarily stopping out the future green pictures, immersing the stopped and the unstopped pictures in a bleaching solution, washing the

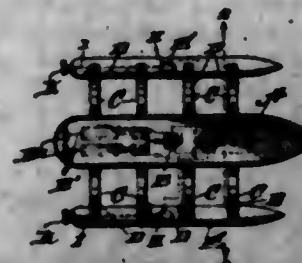
positives, removing the stopping out means and immersing both the bleached and the unbleached pictures in a combined dyeing and toning solution, wherein the bleached pictures are dyed red and the unbleached pictures toned green, as set forth.

- 1,303,507. STRUT, SPAR, OR THE LIKE FOR USE IN AIRCRAFT CONSTRUCTION. FREDERICK STORIST, Kingston-on-Thames, England. Filed Oct. 10, 1917. Serial No. 195,908. 4 Claims. (Cl. 244-81.)



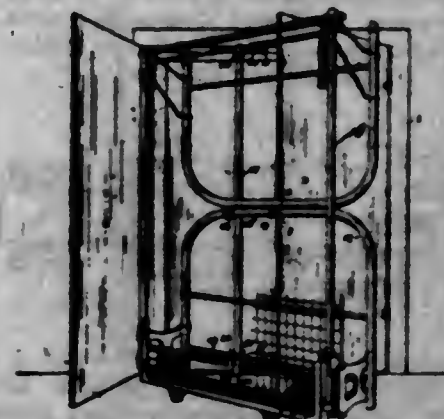
1. A strut, spar or the like for use in the construction of aircraft, comprising two pieces of wood adapted on being placed edge to edge to give the desired exterior shape to the strut, spar or the like, a metallic rib of a double channel section located between said pieces and extending through both the length and the depth or thickness of the strut or spar, and means for fixing and holding said elements together.

- 1,303,508. MULTIPLE-PROPELLER BOAT. WILLIAM MARCUS SIMPSON, Portland, Oreg. Filed Sept. 18, 1918. Serial No. 254,624. 1 Claim. (Cl. 114-123.)



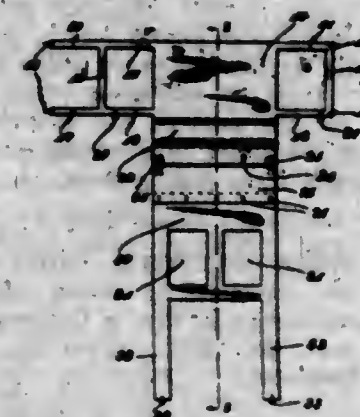
A multiple propeller boat, comprising a hull with downwardly curved arms having flaring ends secured to the opposite sides of the boat, brace members having flaring ends fastened to said arms and to the hull, the outer ends of the arms having concave braced portions, pontoons secured to said concave portions of the arms, a motor within each pontoon, and a propeller connected to each pontoon and driven by said motors, a power plant within the hull, and electrical connection between the same and the motors in the pontoons.

- 1,303,509. CLOSET-BED. NEIL SINGLAI, Oakland, Calif. Filed May 8, 1918. Serial No. 232,238. 6 Claims. (Cl. 5-12.)



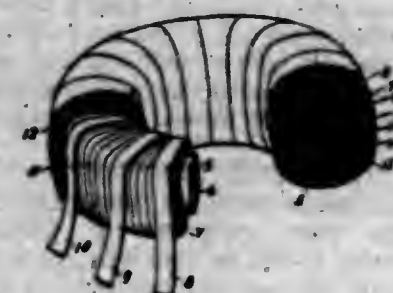
1. In combination with a door and a frame against which the door closes, an article of furniture, a vertically extending device attached thereto, a horizontally swinging arm carrying said device, and means for so pivotally connecting said article to the door adjacent to its free edge that said article can be swung bodily around the free edge of the door.

- 1,303,510. BREAST-PLATE. SAM BOKOL, South Boston, Mass. Filed July 5, 1918. Serial No. 243,347. 4 Claims. (Cl. 2-190.)



1. In a breast plate, the combination with a body portion having arm holes in the sides thereof, and leg openings in the lower portion, of straps by which said body portion may be secured, other straps extending below said body portion, and means for engaging all of said straps in operative position.

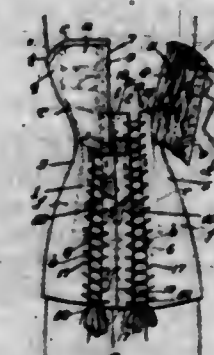
- 1,303,511. INSULATION FOR ELECTRICAL APPARATUS. WILLIAM J. SHACKLETON, Scotch Plains, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 16, 1917. Serial No. 184,539. 11 Claims. (Cl. 178-21.)



1. In a transformer, a layer of diffusive insulating compound, and a plurality of layers of material impervious to said compound forming a compartment inclosing said layer of insulating compound.

9. The method of insulating superimposed windings which consists in applying a layer of impervious or partially impervious material over one of said windings, surrounding such layer with a suitable layer of plastic or highly viscous material of high dielectric strength, applying a second layer of impervious or partially impervious material over said plastic material, and superimposing a second winding thereover.

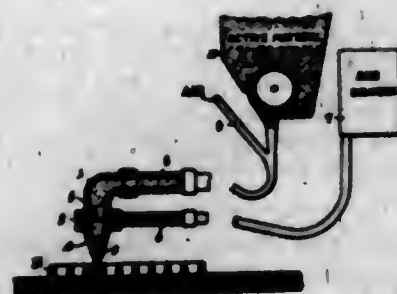
- 1,303,512. CORSET. EMMA SONNEN, Redlands, Calif. Filed Jan. 11, 1915. Serial No. 1,696. 2 Claims. (Cl. 2-72.)



1. A corset comprising a body and a mammary cover, each having straight front edges and the mammary cover

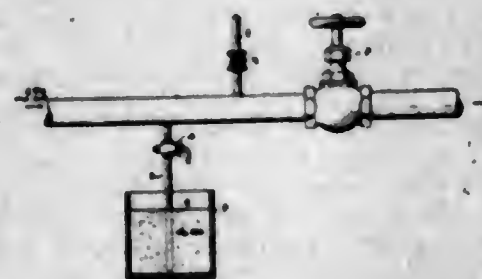
having its upper edges sloping downward from the front center to under the arm; means to connect the straight front edges of the body to each other; means to connect the straight front edges of the mamma cover members to each other; straight flexible side stays extending from the groin to the upper edge of the corset, the upper portions thereof being at the rearward sides of the mamma cover and in front of the arms, thus constituting lateral supports for the mamma and avoiding obstruction and protrusion of the upper edge of the corset and preventing the mamma from falling forward.

1,303,513. STORAGE BATTERY. THOMAS SPENCER, Philadelphia, Pa., assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Sept. 30, 1916. Serial No. 122,996. 5 Claims. (Cl. 204-29.)



3. The process of pasting battery grids, which consist in automating a sulfuric acid solution by means of a stream of air containing a lead oxid, spraying a layer of the mixture into the central portion of the grid and gradually increasing the strength of the acid solution, as succeeding layers are sprayed, whereby the acid strength gradually increases from the inside toward the outside of the grid.

1,303,514. METHOD OF AND APPARATUS FOR DETERMINING THE PURITY OF CARBONIC ACID GAS. CHARLES SPINDLER, San Francisco, Calif. Filed Nov. 21, 1918. Serial No. 263,467. 3 Claims. (Cl. 23-3.)

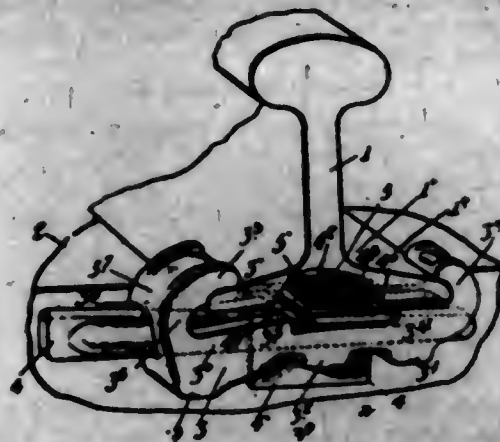


1. The method of determining the stage in the production of carbonic acid gas at which it becomes substantially free from admixture with air which consists in causing the mixture to flow through a solution of caustic soda and observing the presence or absence of bubbles in the caustic soda.

1,303,515. DEVICE FOR PREVENTING THE CREEPING OF RAILWAY RAILS. WALTER ALLEN STEWART, Smith's Falls, Ontario, Canada, assignor to Smith's Falls Malleable Castings Company, Limited, Smith's Falls, Ontario, Canada, a Joint-Stock Company of Ontario. Filed Feb. 10, 1919. Serial No. 276,003. 4 Claims. (Cl. 238-324.)

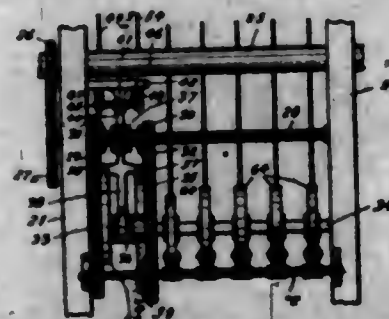
4. In a device for preventing the creeping of railway rails, a holder adapted to engage the base flange of a rail, a movable member extending between the holder and the lower face of the base flange of the rail and adapted to

bear against the rail supporting means and to engage the lower face of the rail, and means extending into the holder



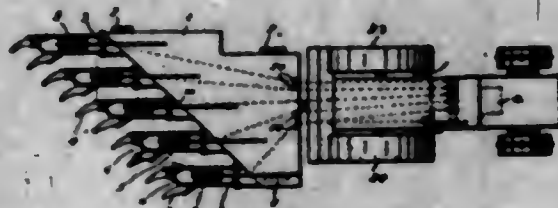
between the holder and movable member for forcing such member into the engaged position with the rail.

1,303,516. AUTOMATIC POWER-OPERATED PLOW-LIFT. GEORGE T. STARR, Minneapolis, Minn., assignor to Avery Company, Peoria, Ill., a Corporation of Illinois. Filed Dec. 8, 1911. Serial No. 664,629. Renewed July 23, 1917. Serial No. 182,359. 15 Claims. (Cl. 97-70.)



11. Power lifting means for plows comprising lifting devices, a driven shaft, a second shaft having means thereon for actuating the lifting devices, a pair of gears fast on the second shaft, correspondingly positioned gears loose on the driven shaft cooperating with the gears on the second shaft for driving the same at two speeds, a clutch splined to the driven shaft intermediate the gears thereon for connecting either for driving action, and means for holding the clutch from connection with the gear last clutched-in until after the other gear has been clutched-in and operated.

1,303,517. POWER-OPERATED PLOW-LIFT. GEORGE T. STARR, Minneapolis, Minn., assignor, by direct and mesne assignments, to Avery Company, Peoria, Ill., a Corporation of Illinois. Filed Feb. 20, 1911. Serial No. 669,623. 7 Claims. (Cl. 97-80.)



1. In a traction plow having a tractor and a gang of plows, means on the tractor connected with said plows for successively lifting the plows, a shaft driven from the tractor, a cam shaft, a series of cams thereon formed with differentially positioned cam surfaces having continuous operative connection with said plow lifting means, and means under the control of the operator for connecting the driven shaft to the cam shaft, whereby said cams will be caused to lift successively each plow of the series independently and hold the same stationary while all the other plows are being moved.

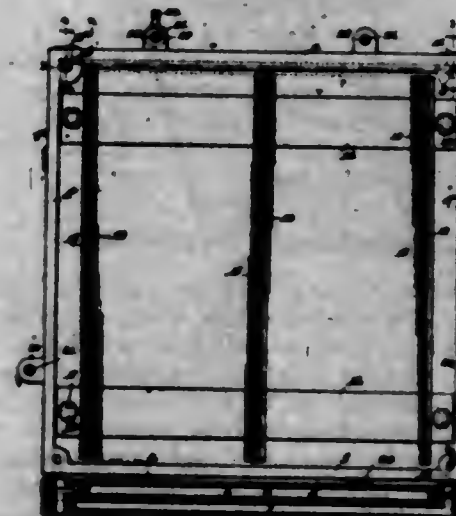
4. In a traction plow having a tractor and a gang of plows, a series of oscillating members connected with the plows for successively lifting the same, a cam-shaft having cams thereon, said cams being differentially placed on the shaft each in cooperative and continuously contacting relation with a single oscillating member whereby rotation of said cam-shaft will cause the cams to operate the oscillating members to lift the plows successively and hold the same stationary while all the other plows are being moved, and means to rotate said shaft.

1,303,518. PLOW. GEORGE T. STARR, Minneapolis, Minn., assignor to Avery Company, Peoria, Ill., a Corporation of Illinois. Original application filed Feb. 20, 1911, Serial No. 669,623. Divided and this application filed Aug. 29, 1917. Serial No. 182,359. 13 Claims. (Cl. 97-80.)



13. In a power operated gang plow lift, the combination of a gang of plows, each plow having a connected and relatively depressible supporting wheel, power operated means for relatively depressing said wheels in automatically predetermined succession and thereby correspondingly lifting said plows successively as a gang, stops for holding the said wheels depressed and the plows elevated together, independent individual plow lifting means for depressing a wheel and lifting its plow separately from the other wheels and plows, and stops for said individual plow lifting means for holding depressed any wheel when its plow is elevated, the elements of the last mentioned stops being separable by said power operated means.

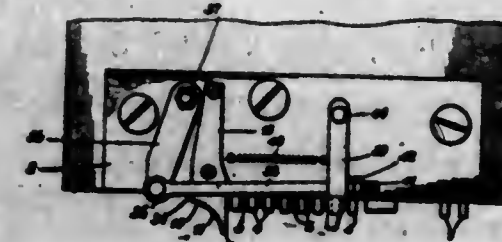
1,303,519. ELECTROLYTIC CELL AND ELECTRODE THEREFOR. ALEXANDER THOMAS STUART, New York, N. Y., assignor to Robert Biel, trustee, New York, N. Y. Filed Aug. 27, 1918. Serial No. 251,624. 15 Claims. (Cl. 204-5.)



4. An electrode comprising a rigid back, a plurality of equally spaced, thin blades secured to said back and extending at an angle therefrom, said back forming a closure for the spaces at one side of the entire length of the blades.

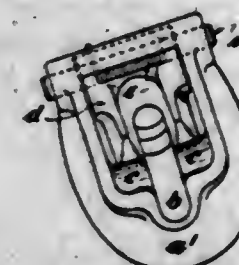
12. An electrode comprising a plurality of thin blades equally spaced apart and arranged with their edges in a common plane, a flange along one longitudinal edge of each blade, said flange engaging the next adjacent blade and bridging the space at that edge of the blade, and means for securing the flange of one blade to the said next adjacent blade.

1,303,520. PRESS MECHANISM. ALBIN P. SWAIDMARK, Hackensack, N. J., assignor to Universal Industrial Corporation, Hackensack, N. J., a Corporation of Delaware. Filed May 27, 1918. Serial No. 236,676. 6 Claims. (Cl. 113-1.)



1. In press mechanism, the combination of a press head carrying a forming member having a curved lower surface, a movable arm adjacent said member, a link connected to said arm, and a downwardly-extending arm connected to said link, and a bed having a downwardly-curved surface registering with the lower surface of said forming member, a blade adapted to rise to form a loop in a metal ribbon extending over said bed and surface, means coacting with said downwardly-extending arm to operate said link to swing said movable arm toward said forming member as the press head descends, and means for causing said blade to rise to press a loop of the ribbon between said movable arm and forming member as said arm is being moved toward said forming member.

1,303,521. CHAIN-COUPLING AND CHAIN-ADJUSTING APPLIANCE. WALTER SYLVESTER, Tunstall, England. Filed Mar. 4, 1918. Serial No. 220,296. 3 Claims. (Cl. 24-116.)



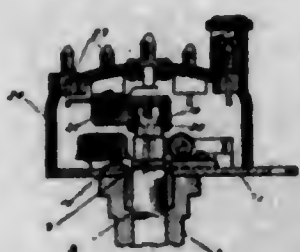
2. A chain adjusting appliance comprising a substantially tubular body part, having openings in its opposite sides and also having at one end an elongated and rectangular opening through which and one of the openings in the side of the body part a chain may pass and said opening at one part being provided with a groove parallel to the longitudinal axis of the appliance and also with teeth lying to right and left of and at right angles to said groove, a pawl pivotally mounted in another part of said opening, and having a central groove in its free end adapted to come opposite the groove in the opening, a spring for holding the pawl normally within the said opening, and with its free end bearing against the said teeth, a boss at the other end of the appliance with central boring, and a hook with stem part rotatably fitting the bore of said boss, substantially as herein set forth.

1,303,522. TORPEDO GUARD OR SHIELD. MILLARD EDWARD THEODORE, New York, N. Y. Filed Apr. 19, 1918. Serial No. 220,540. 3 Claims. (Cl. 114-240.)



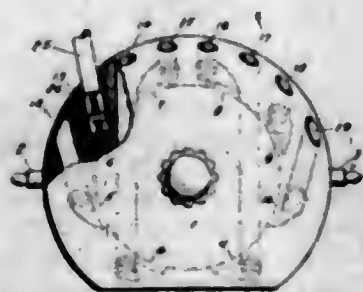
1. A torpedo guard having a pivoted plate and a plurality of vertically movable plates thereon the alternate plates being connected together to move oppositely in unison.

1,303,523. TIMER-DISTRIBUTER MECHANISM. EDWARD J. TOMLINSON, Newark, N. J., assignor to Spittorf Electrical Company, Newark, N. J. Filed Nov. 3, 1917. Serial No. 200,175. 2 Claims. (Cl. 123-168.)



1. In an ignition timer distributor, the combination of an operating shaft terminating in an internally threaded spindle with teeth cut on the end of the shaft at the base of said spindle, a contact operating member consisting of a hollow cam having a thimble projecting therefrom and having teeth cut in its end face, said cam and thimble adapted to be carried on said shaft spindle, a screw seated in said thimble and engaging the threads of said spindle to hold said teeth in permanent enmeshment, and a distributing finger carried by said thimble.

1,303,524. BINDING-POST FOR ELECTRIC CABLES. EDWARD J. TOMLINSON, Newark, N. J., assignor to Spittorf Electrical Company, Newark, N. J., a Corporation of New Jersey. Filed Feb. 18, 1918. Serial No. 217,839. 4 Claims. (Cl. 173-259.)



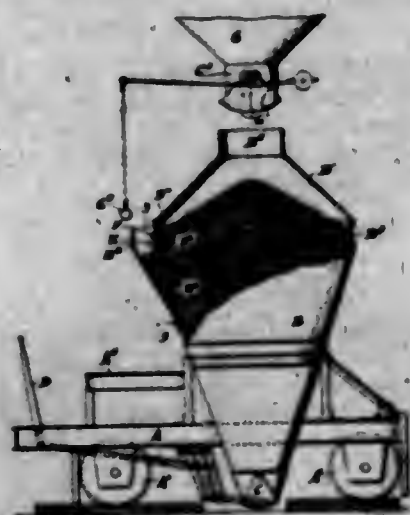
1. In a device of the character described, the combination of a block of insulating material having two borings, of a metallic connecting piece securely held in said insulation and having a threaded opening in line with one of said borings, a screw adapted to be carried in said threaded opening and having a hole in one end thereof, said hole in the screw end adapted to receive the bared end of an electric cable introduced in the other of said borings whereby when said screw is turned said cable is drawn into the boring and its bared end wrapped around the end of said screw as and for the purpose described.

1,303,525. FISHING-REEL. JOHN A. WHEAT, New Orleans, La. Filed Dec. 21, 1917. Serial No. 206,231. 7 Claims. (Cl. 243-54.5.)



1. The combination, with a fishing pole having a reel mounted thereon, of a check or brake mechanism, normally effective to oppose a rotation of said reel in its unwinding sense, said brake mechanism including disabling means for rendering and maintaining the same ineffective during the paying out of a line, said disabling means comprising a movable line-controlled member and a tension device to control the movement of said member, said device being so located as to have engaging relation with said line at a point separated from its point of departure from said reel, the tension exerted by said device being such as to cause said line-controlled member to be moved and maintained in such position as to render said disabling means continuously effective during the paying out of said line irrespective of the variation in its tension between said tension device and said reel.

1,303,526. COAL-CHARGING LORRY. LOUIS WILPUTTE, New Rochelle, N. Y., assignor of two-thirds to Alice A. Wilputte, New Rochelle, N. Y. Filed Sept. 1, 1916. Serial No. 117,960. 4 Claims. (Cl. 73-62.)

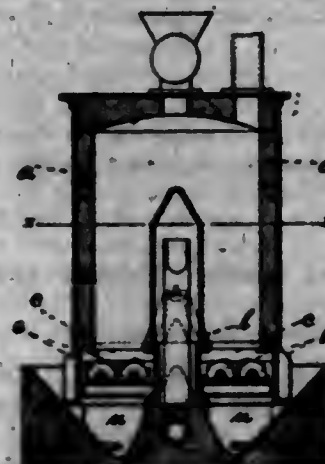


1. A measuring receptacle for granular material formed with a discharge opening at its lower end and with an overflow opening above said discharge opening, and provided with means for receiving material passing through said overflow opening out of the receptacle in filling the latter, and for returning such material to the receptacle when the latter is discharged, said means comprising a conduit open to the interior of said receptacle through said overflow opening, and also at a level below that of said overflow opening, and open externally of said receptacle at its upper end.

1,303,527. GAS-PRODUCER. THOMAS ROLAND WOLLASTON, Manchester, England. Filed Jan. 10, 1918. Serial No. 212,651. 1 Claim. (Cl. 43-87.)

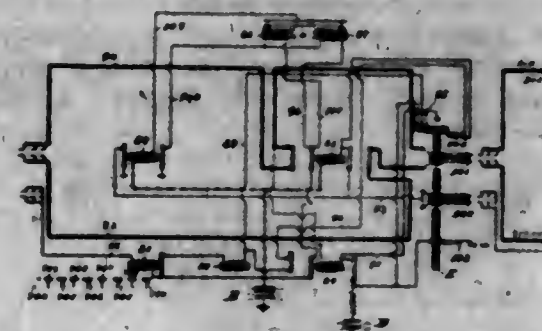
In combination, a water-bottomed gas producer, a grate area divided by members into distinct areas or sectors, a

pair of crusher rolls in each area aforesaid, one pair of said crusher rolls capable of movement when other pairs are at rest, a water lute below said rolls and in continuous contact with them, and water pipes leading from said lutes for hydraulic removal of the ash and clinker, substantially as herein set forth.



tinuous contact with them, and water pipes leading from said lutes for hydraulic removal of the ash and clinker, substantially as herein set forth.

1,303,528. TELEPHONE-EXCHANGE SYSTEM. JOSEPH L. WRIGHT, Cleveland, Ohio, assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed June 23, 1916. Serial No. 105,234. Renewed Jan. 9, 1919. Serial No. 270,436. 25 Claims. (Cl. 179-27.)



1. In a telephone exchange system, the combination with an automatic switch provided with a relay, stepping means for said switch, means for energizing said relay for rendering operable said stepping means, means controlled by said switch when it assumes a predetermined position to shunt said relay thereby disabling said stepping means.

1,303,529. AUXILIARY AIR-INLET DEVICE. LORNA M. YORK, Detroit, Mich., assignor to Automotive Manufacturing Company, Dayton, Ohio, a Corporation of Ohio. Filed Oct. 6, 1917. Serial No. 195,006. 1 Claim. (Cl. 48-180.)



An auxiliary air inlet device comprising a member adapted to be interposed between a carburetor and a manifold, superposed immovable convex concave spaced screens having the edges thereof set in the upper and lower faces of said member, with the upper screen extending upwardly into the manifold and the lower screen extending through said member in proximity to the upper screen, and automatically actuated air intake valves tangentially disposed in said member and adapted to admit air at opposed points to the space between said screens.

1,303,530. METHOD OF MAKING FINGER-RINGS. KARL EIX, Bathbeach, N. Y. Filed Feb. 2, 1917. Serial No. 146,210. Renewed Mar. 21, 1919. Serial No. 284,178. 3 Claims. (Cl. 29-8.)



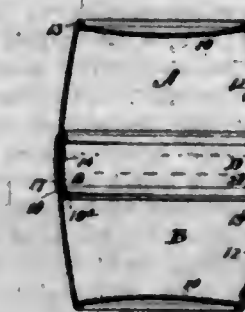
3. Method of making a finger ring, which consists in forming two disbed platinum sections, joining said sections edge-wise to each other under comparatively high heat to form a grooved platinum shell, forming two gold lining sections, dividing each of said sections crosswise whereby the same is made contractile, springing the contractile lining sections into the shell, and joining the lining sections to each other and also to said shell under relatively low heat.

1,303,531. COMBINED BLACKING CONTAINER AND DAUBER. WILLIAM O. ALBIO, Adrian, Mich. Filed May 26, 1916. Serial No. 100,011. 5 Claims. (Cl. 15-46.)



1. A device of the character described comprising a collapsible tube for blacking provided with an externally flanged discharge end, a centrally apertured dauber mounted at the discharge end, a ring shaped cover member for the dauber having internal flanges at each end engaging over the flanged portion of the tube preventing removal of the ring from the tube, said cover member being adapted to be moved longitudinally of the tube to cover or uncover the sides of the dauber, and a cap for the said dauber.

1,303,532. METALLIC BARREL. HENRY W. AVERY, Cleveland, Ohio. Filed Nov. 27, 1914. Serial No. 874,132. 3 Claims. (Cl. 220-80.)



1. In a metallic barrel, the combination of two end members each comprising a head and a body part which is integral with the head and is open at the end opposite said head, and an intermediate annular band which includes a spacing member that fits between and abuts the ends of both body parts, and two pairs of concentric flanges which are connected with and project respectively up and down from said spacing member, the two upwardly extended flanges being respectively outside of and inside of the lower part of the upper body, and in intimate contact therewith, and the two downwardly extended flanges being respectively inside and outside of the upper part of the lower body and in intimate contact therewith, and each inside flange having at a distance from its edge an external annular groove, and each over-

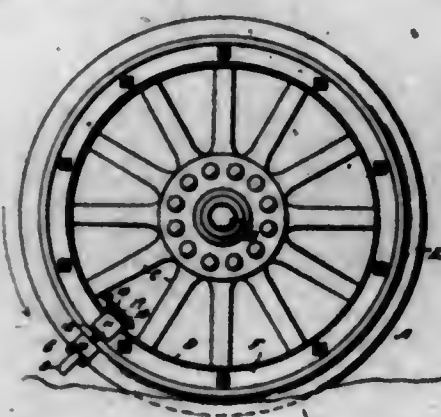
lapping body part having at a distance from its end an inwardly pressed annular rib which fits in the groove in the associated inside flange.

1,303,533. RIDING ATTACHMENT FOR CULTIVATORS. ORVILLE D. BENDIS, Mound City, Kans. Filed Aug. 17, 1917. Serial No. 186,741. 1 Claim. (Cl. 97—35.)



The combination with the tongue, the arch, and cultivator beams of a cultivator, of a riding attachment therefor including a pair of notched members disposed longitudinally at the sides of the tongue of the cultivator, the said notches being arranged to interchangeably receive portions of the arch of the cultivator, a seat carried by the rear ends of the notched members, and chains connected to the forward ends of the notched members and to the cultivator beams.

1,303,534. TRUCK-WHEEL IMPELLER. KARL BLOOM, New York, N. Y. Filed July 25, 1916, Serial No. 111,182. Renewed Feb. 20, 1919. Serial No. 278,236. 2 Claims. (Cl. 182—2.)

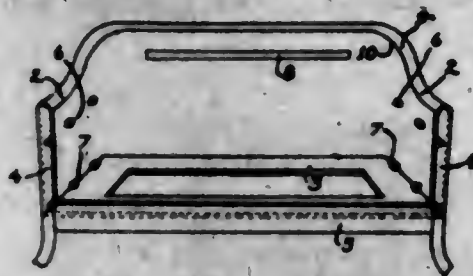


1. A truck wheel impeller comprising, a tire embracing section formed to provide an elongated relatively flat tread engaging portion, arms extending from the ends of said tread engaging portion to lie against the side faces of the wheel, each of said arms composed of a pair of sections, means for permitting of rigid adjustable connection between the sections of each arm, whereby the length of the arms may be varied, one of the sections of one of said arms being curved inwardly and rolled outwardly to form a hinge eye lying inwardly of the outermost line of the main body portion of the arm, a retainer hingedly connected with said eye to extend across the felly of a wheel, and means for detachably securing the free end of said retainer to the arm opposite to the arm having the eye formed thereon.

1,303,535. VEHICLE-BODY CONSTRUCTION AND UPHOLSTERY THEREFOR. SPINO S. BOWEL, Detroit, Mich. Filed July 15, 1918. Serial No. 244,896. 5 Claims. (Cl. 155—25.)

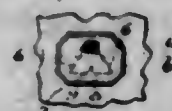
1. In a vehicle body construction in combination, a metal body member provided with an intumed flange having a continuous depending edge, and upholstery therefor comprising separate units each of a shape conforming to the shape of a particular portion of the body member, each unit having a portion thereof adapted for insertion behind the depending edge of the flange, a spacing member for each upholstery unit secured to the body member near the upper edge, the body member having a seat por-

tion, and a cushion for said seat adapted to engage the said units at the bottom to hold the same in engagement.



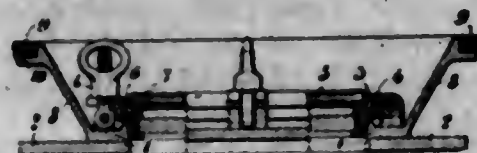
with the respective spacing members and depending flange.

1,303,536. ARTICLE OF MANUFACTURE. CHARLES WM. BURLITT, Richmond Hill, N. Y., assignor to Frederick Osann Company, a Corporation of New York. Filed May 26, 1918. Serial No. 100,636. 2 Claims. (Cl. 112—262.)



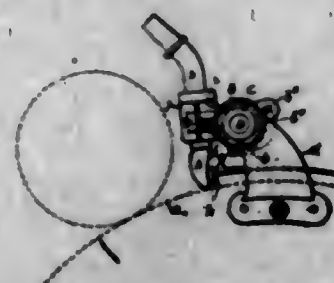
1. An article of manufacture comprising two members, a group of stitches temporarily to attach said members and adapted to be released by action on a thread of one of said stitches, and a releasing indicating stitch extending at an angle from one of said attaching stitches.

1,303,537. SIDE SCUTTLE. ROLF GUNNAR CRAVIN, Stockholm, and BISOM SILVERBERG, Arboga, Sweden. Filed June 4, 1917. Serial No. 172,747. 6 Claims. (Cl. 114—178.)



1. The combination with the side of a ship having a space between the outer plating and inner wall, of a scuttle frame fixed to the outer plating and provided with a continuous flange which extends from the frame across the space to the inner wall, said flange having a smooth inner surface for guiding moisture to the inner side of the inner wall.

1,303,538. APPARATUS FOR STRIPPING CARDING-ENGINES. JOHN W. COOK, THOMAS ERNEST LEIGH, and JOHN JOWETT, Manchester, England. Filed Sept. 12, 1916. Serial No. 119,644. 6 Claims. (Cl. 19—16.)



1. Stripping mechanism of the character described comprising an actuating screw, a guide parallel with said screw, a carriage mounted to travel on said guide, a pawl mounted on a pivot arranged transversely of the guide and provided with a screw-engaging portion, an actuator connected with said pawl, and means interposed in the path of said actuator as it travels with the carrier to trip the same whereby the pawl is rocked on its pivot.

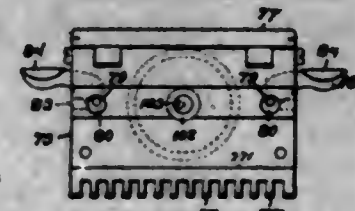
2. Stripping mechanism of the character described comprising an actuating screw, a guide parallel with said screw, a carriage mounted to travel on said guide, a pawl pivoted between its ends on a pivot arranged transversely of the guide and provided with a screw-engaging portion, an actuator for said pawl, and means for engaging the actuator to trip the pawl.

3. Stripping mechanism of the character described comprising an actuating screw, a guide parallel with the screw, a carriage mounted to travel on said guide, a pawl provided with a pivot mounted transversely in the guide, said pawl also having a screw-engaging portion, an actuator arm attached to said pivot, and means interposed in the path of the actuator as it travels with the carrier, to trip the same whereby the pawl is rocked.

4. Stripping mechanism of the character described comprising an actuating screw, a guide parallel with said screw and provided with a longitudinal slot over the screw, a carriage mounted to travel on said guide, a pawl attached to a pivot arranged transversely of the guide, said pawl having screw-engaging portions, an actuator connected with said pivot, and means interposed in the path of said actuator as it travels with the carrier, to trip the same whereby the pawl is rocked.

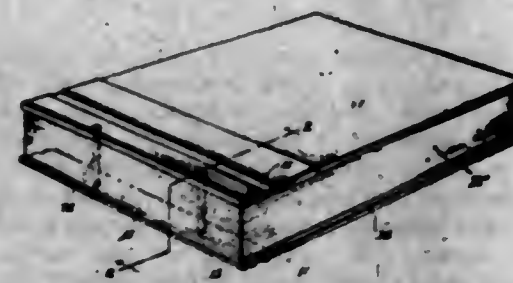
5. Stripping mechanism of the character described comprising a guide, a carriage mounted thereon and free to have limited circumferential play, means for causing the carriage to travel on the guide, a doffer rail parallel with the guide, and a suction nozzle clamped to the carriage and having an extension bearing against said doffer rail.

1,303,539. ELECTRICAL SAFETY-RAZOR. NEWTON CRANE, Boston, Mass., assignor, by direct and mesne assignments, to Charles F. Brown, Reading, Mass. Filed July 19, 1907. Serial No. 384,507. Renewed Aug. 11, 1917. Serial No. 185,799. 27 Claims. (Cl. 30—12.)



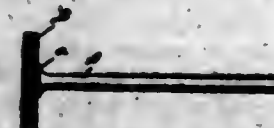
25. In a safety razor, the combination of a blade-holder and a blade mounted to reciprocate in said holder, the holder being constructed with means for guiding the blade and with provisions on both sides of the blade for permitting the blade to free itself of bits of hair which may work into the blade guideway.

1,303,540. BINDER. FRANK HOWARD CRUMP, Los Angeles, Calif. Filed Oct. 29, 1918. Serial No. 260,178. 4 Claims. (Cl. 281—25.)



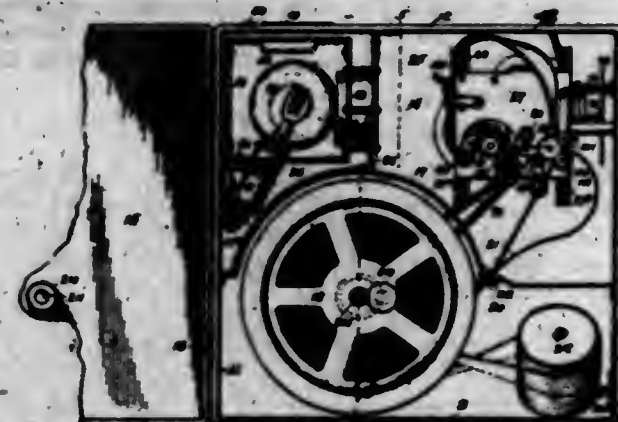
1. In a binder, spaced leaf-confining members, a flat U-shaped resilient wire carried by and projecting through one of said members, the other member being provided with apertured means having openings conforming to the shape of and receiving the free ends of the U wire, said ends being twisted at their extremities and forming locking heads of greater width than the width of the said openings.

1,303,541. GRINDING-WHEEL FOR DENTAL PURPOSES. WILLIAM W. CURTIS, Chicago, Ill. Filed May 7, 1917. Serial No. 166,793. 4 Claims. (Cl. 51—1.)



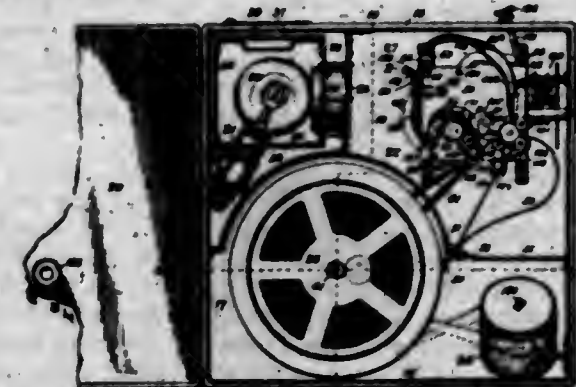
1. A grinding tool for dental purposes, comprising the combination with a spindle adapted to be supported by the operator's hand, of a composite wheel of a size adapting it for use in the human mouth, said wheel having an even peripheral grinding surface and being formed of a series of small, thin, carborundum disks each having an unbroken periphery, said disks being secured upon the end of said spindle and against relative movement and having interstices between them to afford access of air and moisture.

1,303,542. MOTION-PICTURE MACHINE. HERMAN A. DE VRY, Chicago, Ill., assignor to The De Vry Corporation, Chicago, Ill., a Corporation of Illinois. Filed Aug. 16, 1915. Serial No. 45,632. 8 Claims. (Cl. 88—17.)



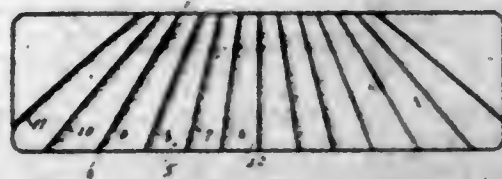
1. The combination of a film supply spool, a take-up spool, film feeding mechanism, a lamp for projecting light through the film, a portable substantially rectangular carrying case inclosing said spools, lamp and feed mechanism, the spools being located side by side in the lower portion of the case, the lamp and feed mechanism being disposed in the upper portion of the case, means for conducting air to the upper rear portion of the case containing the lamp to prevent heat transference to and through the film and film-feed mechanism, and an outlet for air in the top of the case.

1,303,543. MOTION-PICTURE MACHINE. HERMAN A. DE VRY, Chicago, Ill., assignor to The De Vry Corporation, Chicago, Ill., a Corporation of Illinois. Filed Aug. 16, 1915. Serial No. 45,633. 24 Claims. (Cl. 88—17.)



1. The combination of a substantially rectangular portable carrying case, film supply and take-up means disposed in the lower portion of the case, mechanism for feeding the film disposed in the upper front portion of the case, and a lamp for projecting light through the film disposed in the upper rear portion of the case.

1,303,544. **AEROPLANE.** LUCIUS BRADLEY DOAN, Buffalo, N. Y. Filed July 26, 1917. Serial No. 182,896. 4 Claims. (Cl. 244-12.)



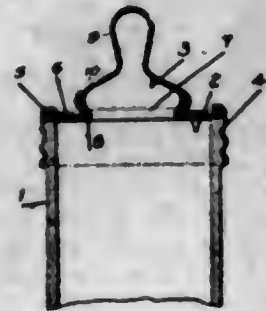
1. In an aeroplane, in combination with a plane, upwardly-extending and diverging projections thereon arranged to force the subjacent air laterally from the center stream line.

1,303,545. **IMPRESSION-CAKE.** JAMES H. DOWNIE, San Antonio, Tex. Filed Nov. 12, 1918. Serial No. 262,210. 3 Claims. (Cl. 252.)

1. A cake of dental impression material consisting of two layers of said material the inner faces of which are in intimate contact.

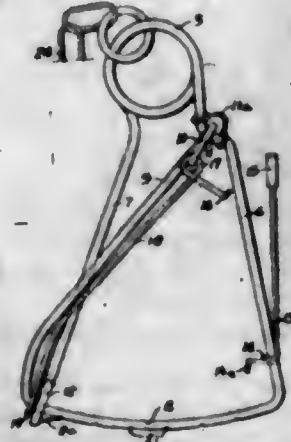
3. The method of making a dental impression cake which consists in forming a strip of impression material, folding the strip to form layers, slightly heating the material and pressing the layers together, and cutting the folded strip into cakes.

1,303,546. **NURSING-BOTTLE.** ANTON C. ECKHART, Brooklyn, N. Y., assignor to The Goodyear's India Rubber Glove Manufacturing Co., a Corporation of Connecticut. Filed Feb. 15, 1916. Serial No. 78,351. 4 Claims. (Cl. 128-18.)



1. A nipple for a nursing bottle having a substantially flat, smooth margin constituting the extremity of the nipple and adapted to rest on the edge of the bottle, and side walls molded into the form of an inwardly converging flange to meet said margin at a sharp acute angle.

1,303,547. **ANIMAL-TRAP.** THOMAS J. ELLISON, Terrell, Ky. Filed Feb. 17, 1919. Serial No. 277,456. 2 Claims. (Cl. 43-21.)



2. An animal trap comprising a pair of spring-tensioned arms one of which is looped and the other arm be-

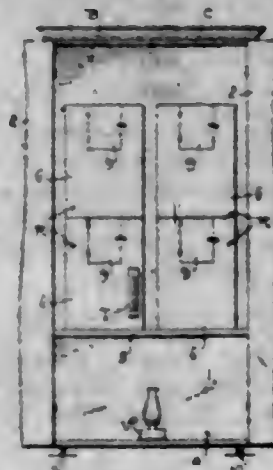
ing positioned to swing across the loop from one side to the opposite side, a detent for holding the last mentioned arm adjacent to one side of the loop, the detent being slidably mounted on said side of the loop, and a trigger engageable with the detent and having an actuating arm extending into the loop, that portion of the detent which is engaged by the trigger being looped.

1,303,548. **STOPPER FOR BOTTOM-POUR LADLES.** JAMES MILTON ENGLISH, Alliance, Ohio. Filed Jan. 23, 1919. Serial No. 272,782. 1 Claim. (Cl. 22-85.)



A stopper device for bottom pour ladles comprising a rod having its lower portion of reduced diameter to receive the stopper, said reduced portion having flanges spaced apart from each other and extending in a direction circumferentially of the rod, flanges spaced apart at the lower end of the full diameter portion of the rod, said flanges being in the same radial planes with the lower flanges and said rod having recesses extending between and above the upper flanges and with their bottoms substantially coincident with the side face of the reduced diameter portion on the rod and tilting supported on the upper flanges, all of said flanges being integral with the rod, substantially as described.

1,303,549. **MEANS FOR PRESERVING.** CORNELIUS T. EVANS, Americus, Kans. Filed Dec. 19, 1917. Serial No. 207,906. 1 Claim. (Cl. 34-19.)



Means for preserving tubers or the like consisting of an inclosed chamber, a shelf intersecting said chamber and provided with openings, a heating unit positioned within the chamber below the shelf, and receptacles supported upon the shelf and adapted to contain tubers or the like, the sides and bottoms of each of said receptacles being provided with openings, said receptacles being arranged in series, the receptacles of one series being mounted one upon the other, an end of each of the receptacles being provided with a door whereby access to one receptacle may be had independently of the remaining receptacles.

1,303,550. **COLLAPSIBLE BOAT.** ARCHIBALD HOWARD FENN, London, England. Filed June 10, 1918. Serial No. 229,229. 13 Claims. (Cl. 9-2.)

1. A collapsible boat comprising a skin of flexible waterproof material, a pocket at each end of said skin, a plu-

rality of flexible longitudinal ribs connected together at their ends and engaging in the said pockets, means for connecting the longitudinal ribs to the skin intermediate of their ends, a plurality of transverse stretchers for distending one pair of the said ribs to form the angle at the junction of the sides and the bottom of the boat, a



plurality of cross-ties for connecting the ribs together and, toward each end of the boat, a pair of crossed diagonal struts, connected together, each engaging at one end with an upper longitudinal rib, on one side and at the other end with a lower longitudinal rib on the other side of the boat.

1,303,551. **ENVELOP.** MARY GAY, Butte, Mont. Filed Aug. 26, 1918. Serial No. 251,525. 2 Claims. (Cl. 229-82.)



1. An envelop comprising a body portion provided with end flaps and side flaps, one of the end flaps having parallel slots disposed transversely of the body portion, the second end flap being provided with a tongue adapted to thread through the slots of the first end flap when said flaps are in folded position, said tongue being of a length to be returned after being threaded through the slots of the second end flap, for attachment to the second end flap, a side flap being provided with a tongue adapted to be threaded through the slot of the first named tongue when said side flaps are in folded position, said tongue being of a length to be returned after being threaded through the slot of the first named side flap for attachment to the second side flap, said first named flap having its marginal portion at opposite sides of its tongue secured to the end flaps.

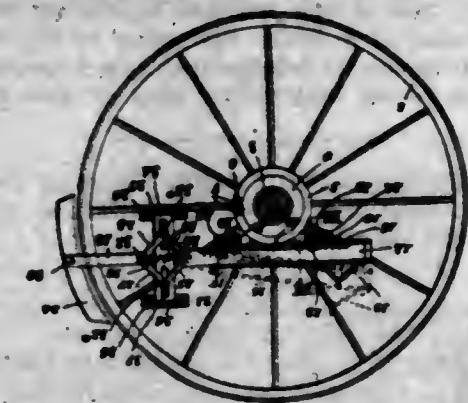
1,303,552. **ELEVATOR FOR CORN, &c.** JOHN H. GILMAN, Ottawa, Ill., assignor to King & Hamilton Company, Ottawa, Ill., a Corporation of Illinois. Original application filed Dec. 17, 1914. Serial No. 877,046. Divided and this application filed June 29, 1917. Serial No. 177,778. 2 Claims. (Cl. 193-48.)



1. In an elevator for corn, etc., the combination with a narrow elevator-casing, of an endless conveyor running

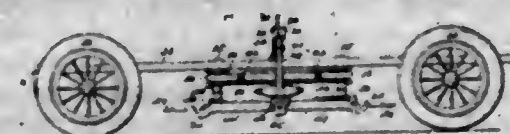
therein, a hopper open at its top and two ends, having its outer end wider than the casing so as to span and embrace the rear end of a wagon-bed being dumped, and its inner end narrowed to substantially the width of the conveyor pivoted to the casing so as to be folded with its bottom parallel to and in contact with the elevator-casing or extended substantially horizontally therefrom at varying angles to receive the corn poured into its outer end from the wagon-bed being dumped, and having a rectangular bottom portion extending from the outer to the inner end of the hopper, having teeth extended across its upper face and adapted to be reciprocated between the stationary converging sides, spring connections between the sides of the elevator-casing and the hopper to hold the latter in contact with the bottom of the end of the wagon-bed, and means for driving the hopper and reciprocating the bottom portion of the hopper, for the purpose described.

1,303,553. **EMERGENCY VEHICLE-BRAKE.** FREDERICK GRAY, New York, N. Y. Filed July 25, 1918. Serial No. 246,623. 11 Claims. (Cl. 21-8.)



1. In a brake of the character described, the combination with a cog to be attached to turn with a vehicle wheel, of a rack bar to be arranged in the path of said cog, a brake shoe, and a set of pantograph links connecting said rack bar and brake shoe, whereby the brake will be applied when the wheel is turning in either direction.

1,303,554. **TURN-TABLE DEVICE FOR AUTOMOBILES.** JAN GAYCSEKI, Bayonne, N. J. Filed Feb. 12, 1919. Serial No. 276,687. 9 Claims. (Cl. 254-87.)



2. In combination with a vehicle frame, a gear positioned therebeneath, anti-friction bearings between the frame and gear, an adjustable support carried beneath the gear adapted for engaging the roadbed, means adapted for elevating the gear and frame above said support and means for revolving the frame upon the gear.

9. In combination with a vehicle frame, a ring secured substantially centrally beneath the frame, a gear of substantially the same diameter as the ring positioned beneath the latter, guide clips carried by the ring extending beneath the periphery of the gear, supporting rollers carried beneath the ring mounted for travel upon the gear, a wheel adapted for movement toward and away from said gear positioned beneath the latter, resilient connections between said wheel and gear, a shaft centrally threaded through said gear and centrally swiveled to said wheel and freely extending centrally through the ring, the said shaft being adapted for rotation whereby the wheel and gear are relatively shifted at will, ground engaging means beneath the wheel, a pinion in constant mesh with said gear, operating means for said pinion carried by the vehicle frame whereby said

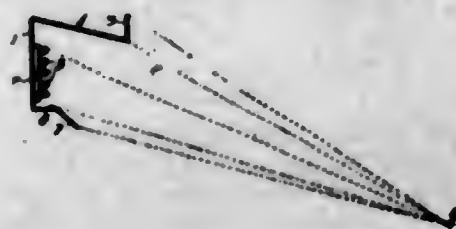
frame and ring are adapted for rotation relatively of the gear, supporting legs pivotally attached to said wheel, an operating shifter for said legs beneath said wheel, an operating rack swivelly connected to said shifter axially extending through the shaft and sliding means for the rack mounted adjacent the upper end of said shaft.

1,303,555. ELECTRIC-LAMP HOLDER. HERMAN HAUSMANN and GUS CHARLES KIRSLING, Chicago, Ill. Filed May 20, 1918. Serial No. 237,345. 1 Claim. (Cl. 243-42.)



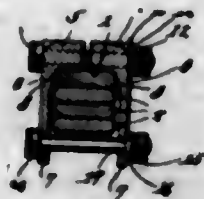
A holder of the character described including a clamp having relatively movable jaws, a split resilient clamping band having its medial portion permanently fixed to the outer face of one jaw and in contact therewith, said band being of a width equivalent to the length of the jaw and having its longitudinal axis disposed in parallel relation to the longitudinal axis of said jaw.

1,303,556. ILLUMINATED SIGN. ALFRED HERR, Chicago, Ill. Filed Mar. 10, 1918. Serial No. 13,496. 7 Claims. (Cl. 40-130.)



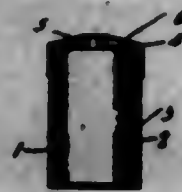
4. In an illuminated sign a plurality of electric lamps arranged on a common background in the form of letters, said letters comprising substantially vertical rows of substantially uniform length, a common sun shield extending out from the background above the sign substantially the whole length of the background and adapted to shield the lamps and the background from the rays of the sun.

1,303,557. ADJUSTABLE SPRING-CLAMP. HARRY C. HILLIN, El Paso, Tex. Filed Oct. 20, 1917. Serial No. 197,068. 1 Claim. (Cl. 267-35.)



A clamp for leaf springs, comprising opposed members including parallel arms provided at their upper ends with bodies disposed approximately at right angles to the arms and extended toward each other, the inner ends of the bodies being spaced slightly apart, the bodies being thicker than the arms, the arms being thickened immediately below the bodies, the thickened portions of the arms having concave seats on their inner surfaces, the inner surfaces of the arms below the thickened portions thereof being spaced more widely apart than are the seats; a connecting device detachably uniting the lower ends of the arms; and a connecting device passing through the bodies and uniting said members.

1,303,558. BATTERY-CELL. HARRY T. HIPWELL, Pittsburgh, Pa. Filed Mar. 6, 1918. Serial No. 230,784. 1 Claim. (Cl. 204-28.)



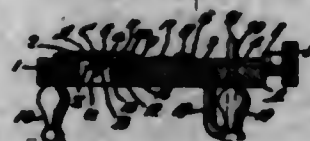
A dry cell having its wall formed of an inner thickness of metal and an outer thickness of paper forming a cushioning jacket and permanently attached to the metal, said jacket projecting beyond the ends of the metal portion.

1,303,559. MANIFOLD-HEATER FOR INTERNAL-COMBUSTION ENGINES. FRANK J. HOAG, Cortland, N. Y., and REXFORD M. SMITH, Washington, D. C.; said Smith assignor to said Hoag. Filed Nov. 25, 1916. Serial No. 133,446. 1 Claim. (Cl. 287-241.)



The combination with an internal combustion engine and air intake manifold of trifurcated formation, of a heater embodying a jacket also trifurcated formation surrounding and inclosing the legs of the intake manifold and including a heating chamber which surrounds all branches of said manifold, means for introducing a portion of the hot exhaust gases from the engine into said jacket, the latter having an outlet for said gases, and a tubular air admission, cover plate supporting and fastening bolt, extending from and communicating with the intake manifold and passing through said cover plate, for the purpose set forth.

1,303,560. HAIR-SPRING-COILLET REMOVER. WILLIAM M. JONES, Checotah, Okla. Filed June 27, 1916. Serial No. 106,201. Renewed Mar. 21, 1919. Serial No. 234,174. 9 Claims. (Cl. 31-6.)



2. The combination with a base having an aperture with a groove communicating with said aperture, of a plunger within said groove ending in two spring fingers held within said aperture, each spring finger terminating in a chisel-edged ear, means to hold said plunger to said groove, and means for raising said spring fingers.

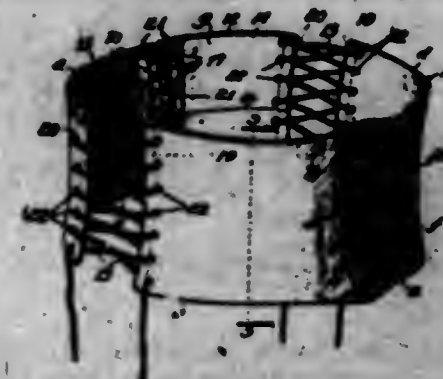
1,303,561. DRAG-SAW. JAMES JOHNSON, O'Brien, Wash. Filed Sept. 21, 1918. Serial No. 265,107. 6 Claims. (Cl. 143-62.)



1. A drag saw of the class described comprising a saw holding device, guide rods therefor, a pitman for reciprocating said saw holding device and a saw adjustable

lengthwise within said saw holding device to increase or decrease the length of that portion of the saw that projects forwardly from said saw holding device.

1,303,562. BELT OR GIRDLE. IDA LOUISE KANE, Chicago, Ill. Filed Mar. 7, 1918. Serial No. 230,947. 7 Claims. (Cl. 2-188.)

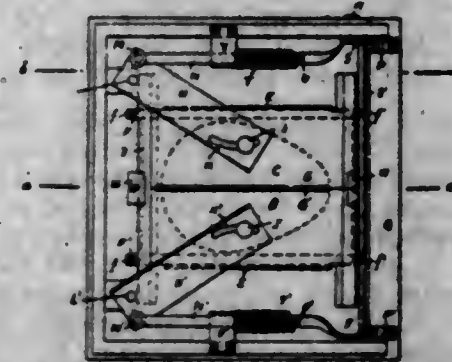


4. A belt or girdle, comprising a front section and a rear section, at least one of said sections being made of textile fabric cut on the bias and being folded upon itself with the longitudinal meeting edges of said section secured together and located intermediate the upper and lower folded edges of said section, the latter being folded transversely upon itself intermediate the ends thereof to provide a pocket, and a stiffening stay in said pocket.

1,303,563. CELLULOSE-ACETATE COMPOSITION. JOHANNES M. KESSEL, West Orange, N. J., assignor to E. I. du Pont de Nemours & Company, Wilmington, Del., a Corporation of Delaware. Filed Nov. 14, 1918. Serial No. 262,525. 8 Claims. (Cl. 184-79.)

8. A composition containing 6 to 8% by weight of cellulose acetate, 10 to 20% by weight of acetaldol and a volatile solvent mixture comprising acetone, ethyl acetate, benzol and denatured alcohol.

1,303,564. AUTOMATIC SHUTTER FOR SANITARY CLOSET-SEATS. GEORGE EDWARD KINCH, Quirindi, New South Wales, Australia. Filed Oct. 14, 1918. Serial No. 55,850. 7 Claims. (Cl. 4-32.)



1. A closet seat comprising a seat panel having an aperture therein, a pair of shutters movable toward and away from each other to cover and uncover said aperture, guides in which said shutters are slidably supported, a pair of levers fulcrumed on said panel at the rear thereof and connected to said shutters, a pair of substantially parallel rods connected to said levers and extending forwardly therefrom, and means at the front of said panel connecting said rods and movable to operate the rods to swing the levers and open the shutters.

1,303,565. FOOTWEAR. WILLIAM H. LAMBERT, Chelsea, Mass. Filed May 25, 1918. Serial No. 236,462. 10 Claims. (Cl. 36-1.)

7. A shaped article of fabricated structure, comprising a plurality of courses of fibrous material laid in successive

contiguous traverses, each traverse having a succession of individual loops and said-loops engaged with the loops of



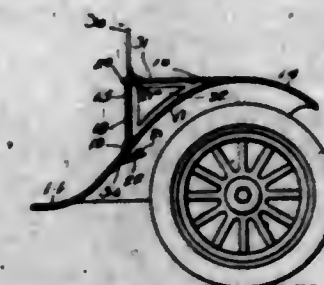
an adjacent traverse in such manner as to lock the formation at a plurality of points against disintegration upon the severance of the strand in any traverse.

1,303,566. CONCRETE-ROAD-LAYING MACHINE. OLIVER LANCE, San Diego, Calif. Filed May 31, 1918. Serial No. 237,510. Renewed Mar. 7, 1919. Serial No. 281,255. 3 Claims. (Cl. 94-46.)



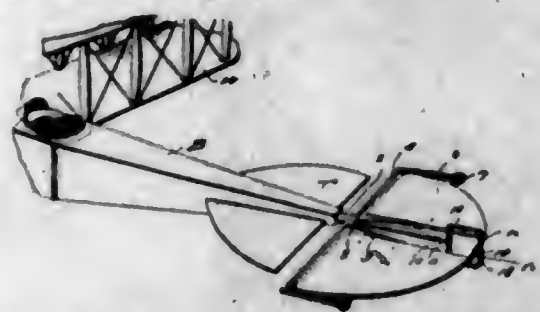
3. A device of the class described adapted to be attached to a concrete mixing machine, comprising two runners adapted to form the side walls of a concrete road; a convexly curved plate mounted on said runners and adapted to form and finish the surface of a concrete road; a hopper mounted on said runners adapted to receive green concrete from a mixing machine; lugs on said hopper by which it is connected to the mixing machine; a bottom plate mounted on said runners; a series of standards mounted on said bottom plate; a transversely disposed crank shaft having a plurality of cranks, journaled in said standards; a toothed wheel mounted on said shaft by which said shaft is actuated; a tamper member comprising a transversely disposed beam having lugs thereon, slidably mounted on said bottom plate under said hopper, adapted to move longitudinally of said device; a series of pitmen connecting said cranks and said lugs on said tamper member; and a transversely disposed perforated water pipe mounted on the front end of said bottom plate adapted to be connected to a hose and to sprinkle the road ahead of said device; for the purposes set forth.

1,303,567. MUD-GUARD FOR MOTOR-VEHICLES. FELIX LOHMEYER, Boston, Mass. Filed Dec. 8, 1917. Serial No. 206,288. 7 Claims. (Cl. 21-23.)



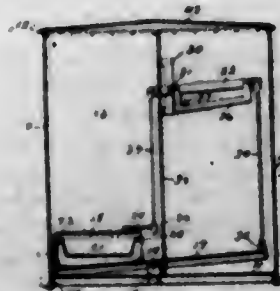
1. A motor vehicle of the character described comprising a mud guard located over the steering wheel of the vehicle and having a sight opening to permit the occupant of the vehicle to see a portion of said steering wheel, a hinged transparent cover for said opening attached to said mud guard, and means for releasably securing said cover in its closed position over said opening.

1,303,568. AEROPLANE CONTROL. EMMET G. LA VOIE, Greenwich, Conn. Filed Oct. 21, 1918. Serial No. 258,929. 6 Claims. (Cl. 244-29.)



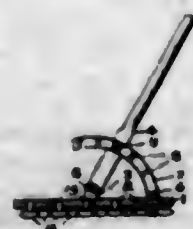
1. In an aeroplane control, the combination with a tubular shaft extending to the rear of the machine, a yoke whose center is connected with the shaft, a collar fast on the tubular shaft in rear of the yoke, arms leading from said collar rearward, and a two-part tail pivotally mounted between the last named arms and the arms of the yoke; of manually operable mechanisms for turning said shaft to tilt the tail transversely, a split shaft extending through the tail transversely, and with its parts linked to the rear of said tail, and means for moving said parts forward and rearward for tilting the tail longitudinally.

1,303,569. DUPLEX STOCK-FOUNTAIN. WILLIAM A. MCCOLLOUGH, Webster City, Iowa. Filed May 13, 1918. Serial No. 234,160. 4 Claims. (Cl. 119-74.)



1. A device of the class described, comprising a water tank, a valve-controlled supply pipe leading therefrom, a rocking frame mounted for oscillation on a horizontal axis, a drinking pan carried by one end portion of said frame and adapted to receive water from said pipe, said pan and frame being so balanced that when water reaches a certain level in the pan it will move to lowered position and when water is reduced below a certain level it will rise through oscillation of the frame, means operable by oscillation of said frame for opening the valve of said supply pipe when the pan moves to elevated position and for closing when said pan is lowered by oscillation of said frame, and a shifting weight connected with said valve operating means for governing and controlling said operation, said weight being movable toward the axis of oscillation of the frame when the pan is lowered and away therefrom when the pan is raised, thereby increasing the amount of water variation required for the oscillation of said frame.

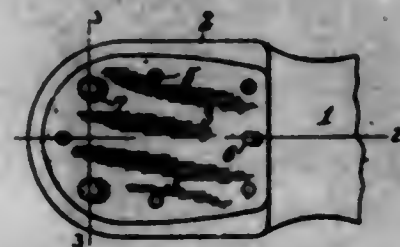
1,303,570. GROUND-WORKING TOOL. FREDERICK OTTO MINER, Crafton, Pa. Filed May 3, 1918. Serial No. 232,408. 2 Claims. (Cl. 55-67.)



1. A ground working tool comprising a body portion provided with rows of openings, a shank secured in

each of said openings, and a head secured centrally thereof to one end of a shank and projecting from the body portion, each of said heads being elliptical in longitudinal section and substantially oval in cross section.

1,303,571. NON-SLIPPING ATTACHMENT FOR OVER-SHOES. WILLIAM A. MINTELOVE, Dayton, Ohio. Filed Nov. 27, 1918. Serial No. 264,330. 2 Claims. (Cl. 36-59.)



1. An overshoe attachment comprising in combination therewith, an inner plate, and an outer plate attachable to each other through the tread portion of the heel of the overshoe and held firmly thereagainst, the outer plate having ice-penetrating spurs thereon, and a lug on the forward part thereof, substantially as specified.

1,303,572. COMB. SOL WILLIAM MOISELLE, Atlanta, Ga., assignor to B. J. and E. Klein, Atlanta, Ga., a Firm. Filed Apr. 8, 1918. Serial No. 227,176. 4 Claims. (Cl. 34-26.)



1. In a comb, a back member provided with a comparatively long transverse notch, a pair of leaves pivoted in superimposed relation in the notch, the leaves being of a width equal to the width of the back of the comb and the combined thickness of the leaves being substantially equal to the depth of the notch, the leaves being pivoted together at one end of the notch and adapted to be turned in opposite directions substantially at a right angle to the back.

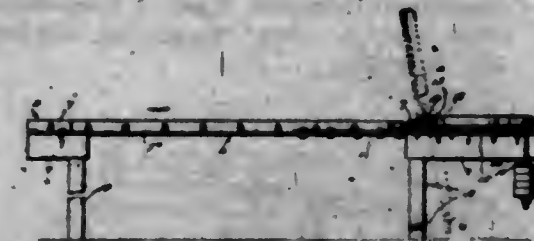
1,303,573. WATER-SEALED TRAP FOR RADIATORS. DAVID FLOURNOY MORTON, Boston, Mass. Filed May 28, 1918. Serial No. 237,114. 7 Claims. (Cl. 182-15.)



1. A radiator trap adapted to connect the radiator and the return line pipe, said trap comprising a body portion having a connection to the return line pipe and having a

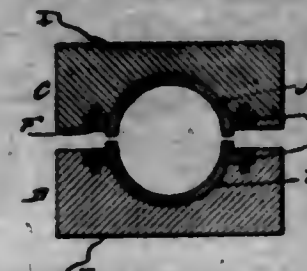
connection to the radiator, said body portion having passages formed therein and fixed parts arranged so as to form an outlet passage for the water of condensation from the radiator through the trap to the return pipe, which outlet passage is formed with a double water seal for preventing vapor in the radiator from passing through the return line pipe and vapor in the return line pipe from passing to the radiator.

1,303,574. COUNTERBALANCED GATE FOR CONVEYER-TRACKS. JOHN D. MURPHY, Chicago, Ill. Filed Sept. 28, 1918. Serial No. 255,754. 5 Claims. (Cl. 182-55.)



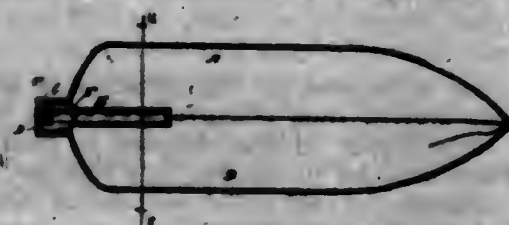
1. The combination of a stationary track having a gap therein, a gate at said gap and forming a continuation of said track, said track and gate being constructed of parallel spaced bars and transverse rollers journaled thereon, and adapted to support objects which are slid along the same; bars secured to said track and to said gate and having sidewise bent end portions hingedly secured together at points beyond the gate, the bars which are secured to the gate having rearward extensions, and counterweights secured to said extensions.

1,303,575. WELDING-ELECTRODE. THOMAS E. MURRAY, Jr., and JOSEPH B. MURRAY, Brooklyn, N. Y. Filed Mar. 22, 1918. Serial No. 233,886. 4 Claims. (Cl. 219-4.)



1. In a welding electrode having a recess in which a body to be welded fits, a removable lining of metal in said recess.

1,303,576. HOLLOW PROJECTILE. THOMAS E. MURRAY, Jr., and JOSEPH B. MURRAY, Brooklyn, N. Y. Filed July 15, 1918. Serial No. 244,937. 5 Claims. (Cl. 102-26.)



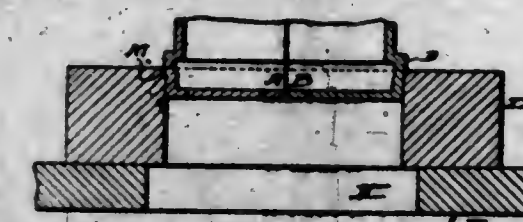
1. A hollow projectile for containing, under pressure, a lethal gas, comprising a plurality of sections electrically rendered impervious to said gas at their places of union.

1,303,577. METHOD OF TRUING ELONGATED PROJECTILE-SHELLS. THOMAS E. MURRAY, Jr., and JOSEPH B. MURRAY, Brooklyn, N. Y. Filed Oct. 25, 1918. Serial No. 259,638. 1 Claim. (Cl. 29-143.)

The method of truing an elongated projectile shell to cause the same to fit a gun bore, which consists first in

262 O. G.-16

forming on said projectile a surrounding circumferential rib slightly larger in diameter than the final desired diameter of said rib after truing, and then forcing said



rib into a truly circular die concentric with the longitudinal axis of said shell and of a diameter corresponding to the rib diameter finally desired.

1,303,578. HORIZONTAL OIL-BURNER. ALEXANDER Q. NASH, Kansas City, Mo. Continuation in part of application Serial No. 141,877, filed Jan. 11, 1917. This application filed May 2, 1917. Serial No. 106,008. 7 Claims. (Cl. 158-45.)



1. In an oil burner, a hollow cylindrical burner head, a laterally extending baffle internally dividing said head into a lower mixing chamber and an upper distributing chamber, and means embedded in one end of said chamber and forming a part of the wall thereof for introducing gas thereto at a point intermediate the ends.

1,303,579. SYSTEM FOR SUCCESSIVE AMPLIFICATION OF ENERGIES. ALEXANDER MCLAREN NICOLSON, New York, N. Y., assignor, by means assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Apr. 16, 1918. Serial No. 21,919. 48 Claims. (Cl. 250-27.)



1. A thermionic device comprising a plurality of electrodes adapted to be supplied with current to provide a plurality of space current paths, and connections to said electrodes whereby one of them is adapted to operate as an input element for one of said paths and as an anode for another of said paths.

1,303,580. BOTTLE-CAPPING MACHINE. ELOF NORDSTROM, Newark, N. J., assignor to American Dan Stopper Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 6, 1918. Serial No. 89,363. 11 Claims. (Cl. 118-4.)

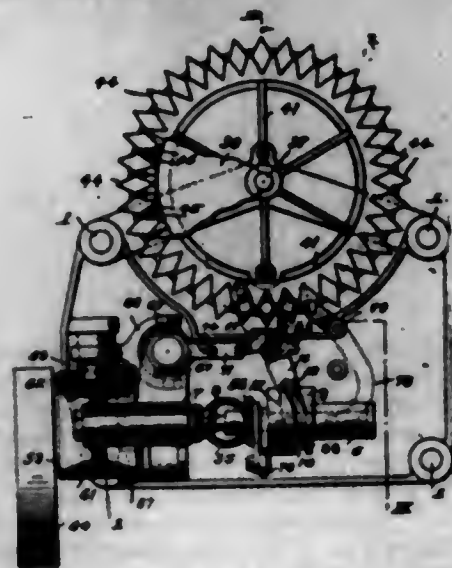
1. In a machine of the character described, the combination with a fixed guide or support, of cap-holding

means, a cap-applying plunger movable past said cap-holding means for displacing a cap therefrom onto a



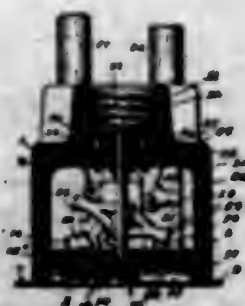
bottle, and cap-crimping means movable with said plunger and operated by engagement with said fixed guide or support for crimping the applied cap.

1,303,581. BOTTLE-CAPPING MACHINE. ELOF NORDSTROM, Newark, N. J., assignor to American Dan Stopper Company, Bridgeport, Conn., a Corporation of Connecticut. Filed July 22, 1916. Serial No. 110,654. 13 Claims. (Cl. 112-4.)



2. In a machine of the character described, a continuously movable conveyor provided with means for holding caps in predetermined position, means disposed in the path of a cap carried by said conveyor and adapted to intercept said cap, and means for removing said cap from the intercepting means and applying it to a vessel.

1,303,582. PANEL-BOARD CONSTRUCTION. EDWIN A. OLLEY, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed Aug. 2, 1915. Serial No. 43,121. 3 Claims. (Cl. 175-292.)



1. An electrical appliance for panel boards comprising supporting means, switch and fuse-receiving devices car-

ried by the supporting means, the supporting means comprising a base mountable upon a panel board, the switch device being located within the base and the fuse-receiving device being mounted on the top of said base above the switch and switch operating means extending through the top on the base adjacent the fuse-receiving device whereby the switch and fuse-receiving devices occupy substantially the same area on the base, substantially as and for the purpose described.

1,303,583. SHUTTLE FOR SIDE-MOTION FEELER-LOOMS. DANA OSGOOD, Hopedale, Mass., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Sept. 7, 1918. Serial No. 253,080. 2 Claims. (Cl. 139-27.)



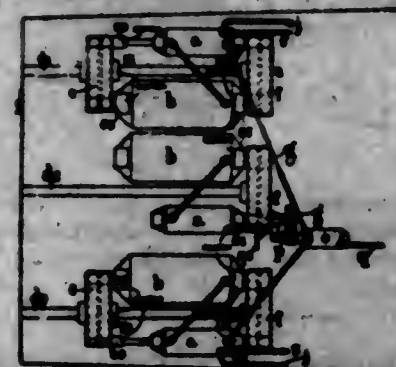
1. A shuttle for use in side motion feeler looms provided with a filling carrier recess and with means to clamp and hold a filling carrier by its butt in said recess, one wall of said recess being slotted to permit the passage of the feeler therethrough, the said shuttle being further provided on its outer wall with a serrated surface adjacent, and longitudinally in line with, that end of the slot nearer the butt end of the shuttle recess whereby, if the shuttle be longitudinally mispositioned at the time of feeling, the feeler contacting with said serrated surface will be prevented thereby from premature side motion.

1,303,584. SANITARY INCINERATOR. JOHN B. OWENS, Metuchen, N. J. Filed Jan. 16, 1917. Serial No. 142,674. 2 Claims. (Cl. 110-9.)



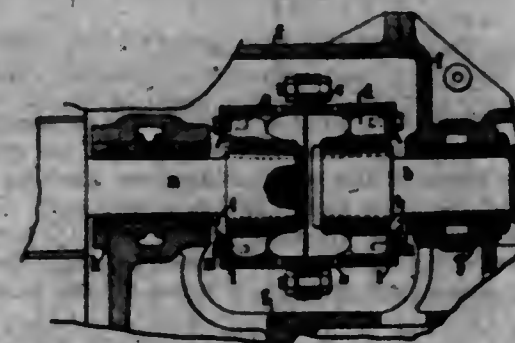
2. A sanitary incinerator for the utilization of products of combustion derived from a source extraneous thereto, having an incinerating chamber adapted to receive the material which is to be incinerated, said chamber having an outlet, a damper for said outlet, suspending means for said damper which normally retains the damper in partially closed condition and prevents the complete closing thereof, thus permitting a normal "bleed" or draft leakage from said incinerating chamber for the ventilation thereof, said suspending means enabling the damper to be raised to wholly open the outlet of the chamber, a separate heating chamber for directly receiving the products of combustion, said separate heating chamber having an inlet and an outlet for the products of combustion, dampers for said inlet and outlet, and a wall between said chambers through which heat derived from the products of combustion may pass from the heating chamber to the incinerating chamber.

1,303,585. TURBINE INSTALLATION FOR SHIP PROPULSION. CHARLES ALGERNON PARSONS, Newcastle-upon-Tyne, and ROBERT JOHN WALKER, STANLEY SMITH COOK, and RAMSAY ALEXANDER SIMON, Wallsend, England; said Walker, Cook, and Simon assignors to said Parsons. Filed Sept. 18, 1915. Serial No. 51,495. 6 Claims. (Cl. 60-70.)



1. In a marine turbine installation of the type indicated, including in combination a main turbine set having high and low pressure stages, a shaft, speed ratio changing gearing between the turbines and the shaft, and cruising turbine elements associated with the main set to exhaust directly thereto.

1,303,586. LUBRICATION OF SLIDING COUPLINGS. CHARLES ALGERNON PARSONS, Wallsend, England. Filed Sept. 12, 1917. Serial No. 191,010. 4 Claims. (Cl. 64-89.)



2. A sliding coupling comprising in combination a hollow cylindrical central piece, claw members adapted to be connected to the shafts to be coupled, means on said central piece adapted to engage with said claw members, a casing surrounding said central piece, said casing carrying bearings for the shaft, and baffle plates adapted to conduct oil from the bearings to the interior of said central piece, as set forth.

4. A sliding coupling comprising in combination a hollow cylindrical central piece, claw members adapted to be connected to the shafts to be coupled, means on said central piece adapted to engage with said claw members, inwardly projecting pipes open at their inner ends and adapted to carry off oil beyond a certain level from said central piece, and baffle plates adapted to conduct oil from the bearings to the interior of said central piece, as set forth.

1,303,587. WEANER. CHARLES H. PATTERSON, Trinidad, Colo., assignor to The Patterson Colt and Calf Weaner Co., Incorporated, Trinidad, Colo. Filed May 24, 1918. Serial No. 234,502. 1 Claim. (Cl. 110-131.)

In a weaner, the combination of a nipple-receiving body, a closure member pivoted thereto and having a comparatively heavy rear portion, and cooperating means complementary to the body and the closure member, respectively, constructed and arranged to lock the closure member in closed position when the animal raises its head to nurse and also constructed and arranged to release the closure member when the animal lowers its head to

graze, the said locking means comprising a slot forming an arc of a circle having a swell adjacent thereto and a loop that moves upwardly and downwardly in the slot whereby when the closure member is gravitating to its



closed or open position the said loop will be caused to ride outwardly to a slight extent or fall inwardly when the closure member has reached its uppermost or lowermost position.

1,303,588. TOOTH-BRUSH. ARTHUR E. PECK, Minneapolis, Minn., assignor to A. E. Peck Manufacturing Co., Minneapolis, Minn., a Corporation. Filed Aug. 21, 1916. Serial No. 116,080. 2 Claims. (Cl. 40-2.)



1. A tooth brush handle having an eyelet mounted therein and bearing a distinguishing color.

1,303,589. WHEEL. LOUIS H. PERLMAN, New York, N. Y. Filed Sept. 23, 1916. Serial No. 121,833. 4 Claims. (Cl. 152-21.)

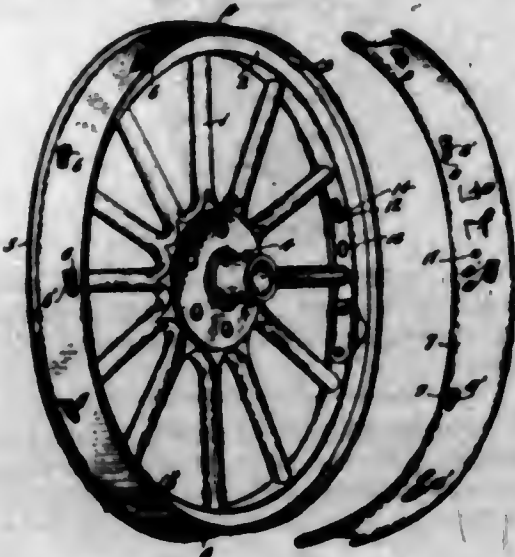


2. In a demountable rim structure, a cap connected thereto and formed into cup shape, the cap having a projection extending into the space surrounded by the cup, the said projection being adapted to receive wedge locking means.

1,303,590. WHEEL. LOUIS H. PERLMAN, New York, N. Y. Filed Jan. 10, 1917. Serial No. 141,635. 4 Claims. (Cl. 152-21.)

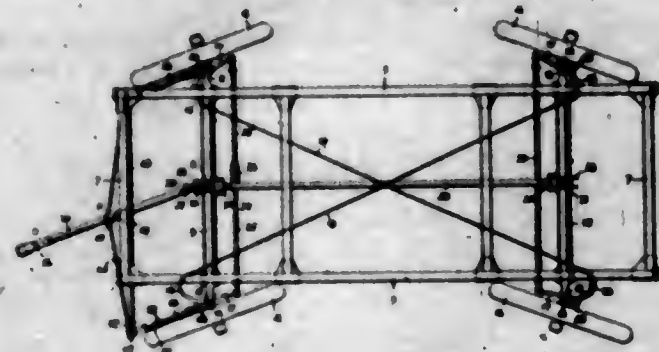
1. In a wheel structure of the demountable rim type, the combination of a felly band having a supporting stop

flange and wedge plates spaced substantially equi-distant about the outer surface of the felly band and disposed alternately adjacent the outer and inner edges of the felly band, each wedge plate being formed with an inclined plane exposed in a general direction toward the supporting stop flange, and a demountable rim of greater diameter than the exterior surface of the felly band but of less diameter than the supporting stop flange, the said rim being provided with wedge plates similar in



form and relative location and correspondingly spaced and each having an inclined plane exposed in a general direction away from the supporting stop flange, the said wedge plates being proportioned and located for having the inclined planes of those of the rim engage the inclined planes of those of the felly band for causing the demountable rim to be moved to a tensioned position in engagement with the supporting stop flange when shifted in a rotary direction after contact of said inclined planes.

1,308,501. REVERSIBLE TRAILER AND STEERING MECHANISM. VICTOR E. PETERSON, Omaha, Nebr. Filed July 5, 1918. Serial No. 243,406. 6 Claims. (Cl. 21—137.)

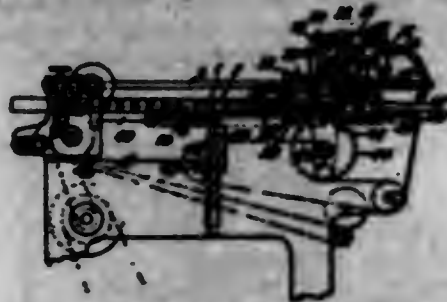


1. The combination with a trailer vehicle having wheels mounted on horizontally swingable steering knuckles, of a main draft-bar, a transverse rigid member connected therewith, side draft-bars pivotally connected with the ends of said transverse member, and means connecting said side draft-bars directly with the steering knuckles.

1,308,502. SHEET-FEEDING MECHANISM. JOHN PATTON PERRY, Crowthorne, England. Filed Dec. 12, 1916. Serial No. 136,581. 9 Claims. (Cl. 271—28.)

1. In a machine of the character described, in combination, a table adapted to receive a pile of sheets, pneumatic means operating upon the marginal portion of said pile to loosen and separate the edges of sheets thereon, suction means for engaging and raising the uppermost sheet of said pile in the proximity of said marginal portion, pneumatic means acting from the time of said en-

gagement for raising the portion of said sheet beyond said engaging portion and then completing the separation of said uppermost sheet from said pile after said suction



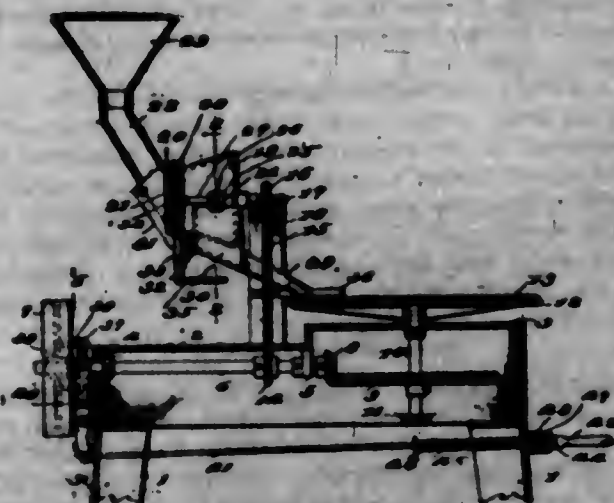
means has commenced its raising function and automatic mechanical means operative immediately under said raised sheet for retaining the remaining sheets of said pile in position thereon.

1,308,503. PROCESS OF MANUFACTURING STOCKINGS. JOHN EDWARD QUINN, Philadelphia, Pa. Filed Mar. 13, 1917. Serial No. 184,493. 4 Claims. (Cl. 66—4.)



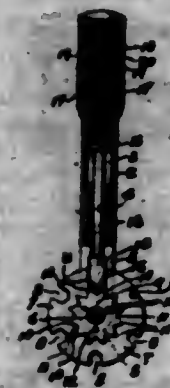
1. The process of forming a stocking which consists in knitting the stocking with marker stitches on opposite sides of the center of the back; folding the stocking along the center of the back from the top to the heel; cutting away a portion of the stocking at the back thereof to a depth indicated by the marker stitches to shape the leg; and stitching the cutting edges to form a mock fashioned stocking.

1,308,504. MACHINE FOR USE IN ASSORTING BUTTONS. HARRY G. BOUTELLE and WILLIAM W. CANNON, Camden, N. J.; said Cannon assignor to said Boutelle. Filed Apr. 9, 1918. Serial No. 227,530. 7 Claims. (Cl. 83—92.)



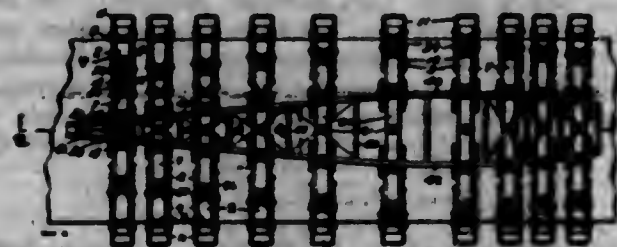
1. An apparatus for the purpose set forth comprising a support, a drum mounted for rotation upon the support, the ends of the drum being of unequal diameters and the drum being provided with escape openings in its peripheral wall near its larger end, gates mounted on the drum to extend over said openings, and means to adjust the gates longitudinally of the drum and hold them in a set position.

1,308,505. WRENCH. GILBERT RIFFLAND, New York, N. Y. Filed Oct. 31, 1918. Serial No. 260,400. 6 Claims. (Cl. 81—53.)



1. In a device of the kind described, a handle-portion having a lower bifurcated end, an axle member mounted in said bifurcated end, a wrench plate having work engaging means connected with its periphery mounted on said axle within said bifurcated end, a star-wheel connected with said wrench plate having notches in its periphery, a plunger-rod longitudinally slidable relative to said handle-portion, the lower end of said plunger-rod having a housing for engagement in a notch of said star-wheel, a spring tension means connected with said handle-portion for exerting downward pressure upon said plunger-rod, and means for varying the amount of pressure so exerted by said spring tension means.

1,308,506. JIG SYSTEM FOR AEROPLANE MANUFACTURE. GILBERT RIFFLAND, New York, N. Y. Filed Nov. 13, 1918. Serial No. 262,290. 9 Claims. (Cl. 144—288.)

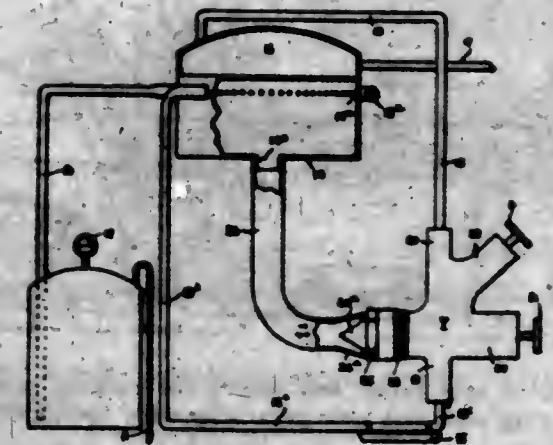


1. A system of jigs for assembling the elements of an aeroplane body-frame or the like comprising, a plurality of jig sets mounted in suitably spaced relation to each other, each jig set comprising a fixed rail, opposed jig standards slidable upon said rails, each jig standard having upper fork mechanisms and lower fork mechanisms for embracing and holding the longitudinal chords of an aeroplane body-frame in a desired produced curvature in vertical plane, and means for sliding said jig standards forwardly on said rails for producing a desired curvature of said longitudinal chords in horizontal plane and thus positioning a plurality of said longitudinal chords relative to each other for securing thereto in assembled relation therewith the stretchers, struts and trusses of the aeroplane body-frame.

1,308,507. BURNER. JOSEPH BONA, Brooklyn, and FRANK KURZMOCK, Canarsie, N. Y. Filed Aug. 7, 1918. Serial No. 248,065. 3 Claims. (Cl. 186—54.)

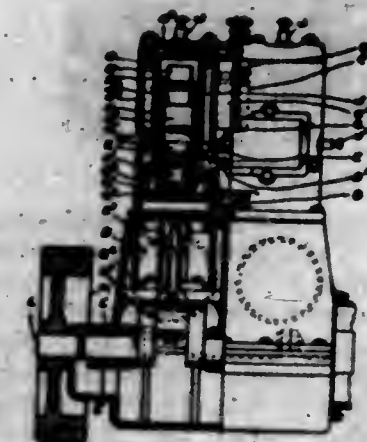
1. In a burner of the character described, the combination with a burner casing, of a boiler associated therewith, a source of liquid fuel, a fuel feed conduit connected with said source and having a portion thereof encircling

said burner whereby the fuel passing through said conduit is converted into gas, a steam conduit connected to said boiler, a mixing valve into which both of said con-



duits discharge and wherein gas and steam are admixed, and a conduit leading from the discharge end of said valve to said burner casing.

1,308,508. DOUBLE-ACTING INTERNAL-COMBUSTION ENGINE. SYDNEY HERBERT RUDDLE and EDGAR CHURCHILL DAVIDSON, Brisbane, Queensland, Australia. Filed Aug. 1, 1917. Serial No. 183,885. 4 Claims. (Cl. 123—61.)

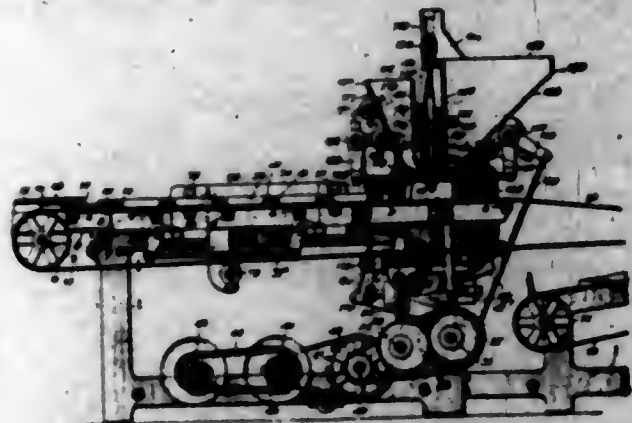


1. In an improved double acting internal combustion engine, two, or a multiple of two, pairs of cylinders, said pairs of cylinders being of smaller and larger diameters, and arranged tandemwise, the smaller cylinders each having a closed end, a pair of pistons of smaller and larger diameters, working in unison within each of said cylinders, fixed pistons rigidly carried and projecting into said smaller pistons, compression and explosion chambers between the closed ends of the smaller cylinders and said smaller pistons and between said smaller pistons and said fixed pistons, the pistons in one of each two pairs of cylinders being arranged to work in opposition to those in the other, a crank shaft having cranks connected to said pistons by connecting rods, as and for the purposes herein set forth and as illustrated in the accompanying drawings.

1,308,509. MACHINE FOR DEPOSITING CONFECTIONS ON WAFERS, CAKES, AND THE LIKE. FERDINANDO G. SALERNO, Chicago, Ill. Filed Apr. 27, 1914. Serial No. 834,780. 44 Claims. (Cl. 91—3.)

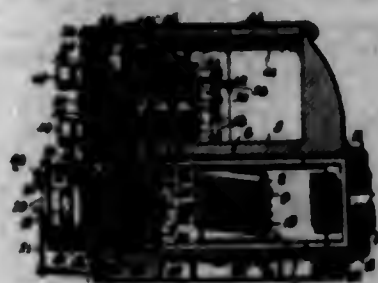
1. In a depositing machine, a forcing mechanism having nozzles mounted in fixed position, a pivoted table below said nozzles, a drum rotatably mounted upon said pivoted table near the rear end of the machine, means for intermittently rotating the drum, a cross bar secured in

fixed position near the front end of the machine, a feed belt engaging said drum and cross bar and traveling over



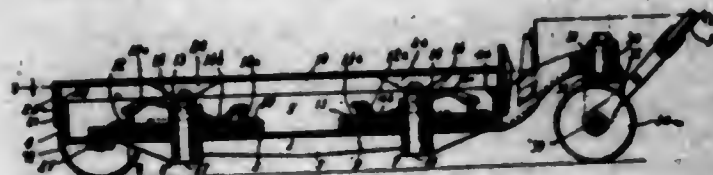
the top of said table, and means for rocking said table and lifting said belt into proximity with the nozzle.

1,303,600. MAGNETO FOR INTERNAL-COMBUSTION ENGINES. HERMAN SCHMID and GOTTLIEB FUSGEL, Brooklyn, N. Y., assignors to Apollo Magneto Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed July 18, 1917. Serial No. 181,276. 20 Claims. (Cl. 123-149.)



1. A magneto comprising a base with an upright portion at one end, said portion having shoulders for a distributor gear casing.

1,303,601. ELEVATING-TRUCK. CHARLES F. SCHULTIS, Cleveland, Ohio, assignor, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 3, 1916. Serial No. 129,258. 12 Claims. (Cl. 234-5.)

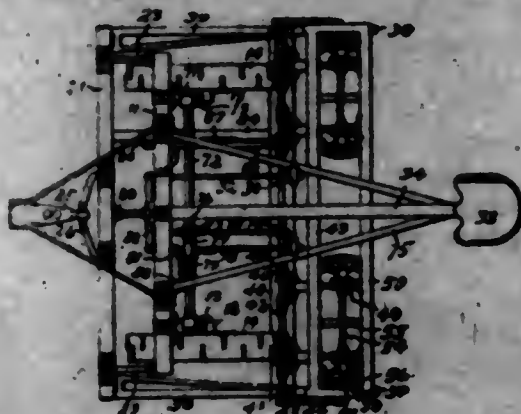


12. In a vehicle of the character described, the combination of a frame, a load carrying table, a continuous rotary track supported by the frame, said track being rotatable about a vertical axis, and connections between said table and said track whereby the table may be raised and lowered by rotating said track in the same direction.

1,303,602. BEET-CULTIVATOR. RYUMATSU SARA, Banning, Calif. Filed Mar. 15, 1918. Serial No. 222,712. 5 Claims. (Cl. 97-45.)

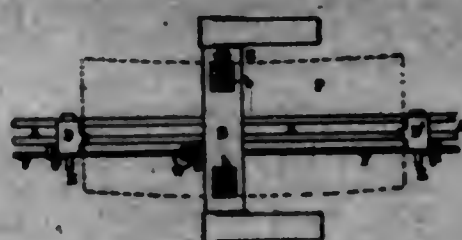
1. In a beet thinning machine, a frame, master wheels supporting the frame, an auxiliary frame pivotally connected to the main frame, a counter shaft supported by the main frame, cooperating gear wheels whereby the counter shaft is driven by the master wheels, a revoluble shaft carried by the auxiliary frame, means whereby the last-named shaft is driven by the counter shaft, a rectangular frame mounted to slide relative to the auxiliary

frame, rotary cranks carried by the rectangular frame, means whereby the cranks are operated by the revoluble shaft, hoes actuated by the cranks, and adapted to cut out portions of a row of beets at consecutive intervals,



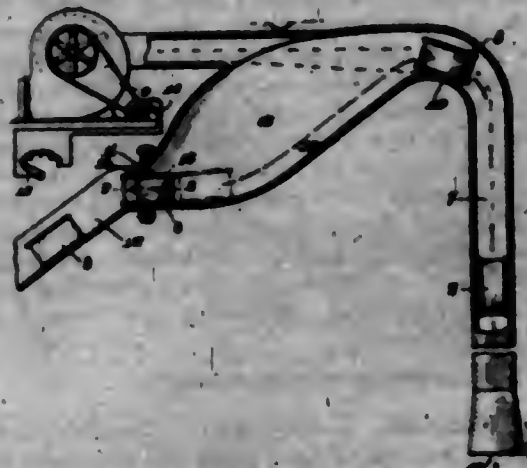
crank arms on the revoluble shaft, and pitmen connecting the crank arms and rectangular frame, whereby the forward motion of the last-named frame is retarded relative to the ground during the cutting stroke of the hoes.

1,303,603. METAL-PUNCHING MACHINE. RICHARD SHAW, Manchester, England, assignor to De Borge & Company Limited, Manchester, England. Filed Dec. 5, 1917. Serial No. 206,806. 4 Claims. (Cl. 164-117.)



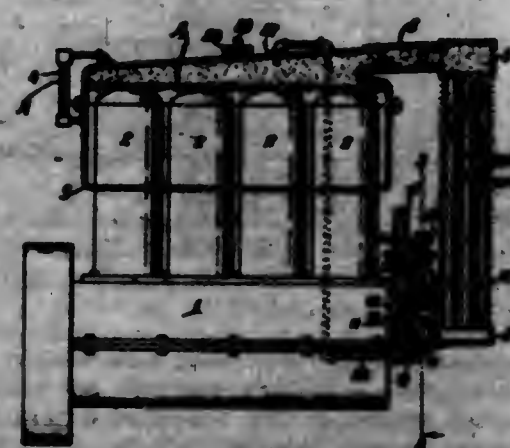
1. In a punching machine the combination with a longitudinal bed, a punch head carrying punches, a die bed with punch dies, and two separated work holder carriages, of means for shifting the carriages transversely in straight lines and means for connecting the carriages to cause them to move unitedly and simultaneously to and fro in a transverse direction substantially as described.

1,303,604. TRANSLATING MATERIAL. MIRABEAU SIMS, Llanerch, Pa., assignor to Sims Automatic Conveyor Company Incorporated, a Corporation of Delaware. Filed July 31, 1915. Serial No. 42,890. 2 Claims. (Cl. 243-33.)



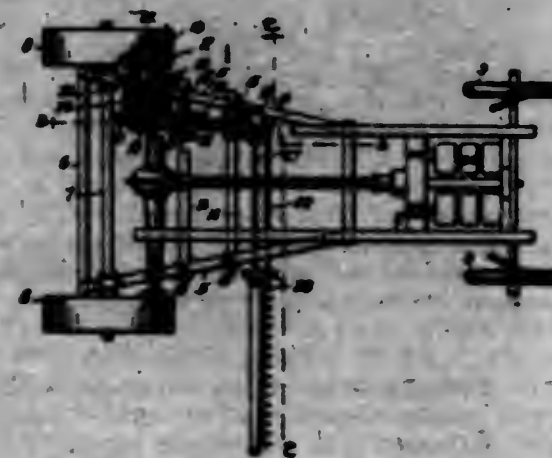
1. The method which consists in delivering a receptacle by pneumatic pressure to a discharge port and automatically maintaining said discharge port closed by said receptacle against the admission of air until and during the movement of another receptacle thereto.

1,303,605. ENGINE-COOLING SYSTEM. THOMAS B. SLATT, Washington, D. C., assignor to American Mechanical Improvement Company (Incorporated), Washington, D. C. Filed Aug. 15, 1917. Serial No. 186,308. 4 Claims. (Cl. 123-170.)



1. In an engine cooling system, the combination of a water jacket, the water jacket being only partially filled with water, a radiator connected with the water jacket, a vacuum pump operatively connected with the lower portion of the radiator, the vacuum pump having an adjacent seat chamber, a seat control valve in said chamber, a pipe leading from said chamber to the water jacket to allow water to flow back to the water jacket, and an adjustable spring-controlled valve in the water jacket to admit air when the pressure caused by the vacuum in the water jacket exceeds a given absolute pressure, and means for operating the pump.

1,303,606. MOWING ATTACHMENT FOR TRACTORS. EDWARD W. SLINN, Bridgeport, Nebr. Filed Aug. 8, 1917. Serial No. 165,077. 3 Claims. (Cl. 56-33.)

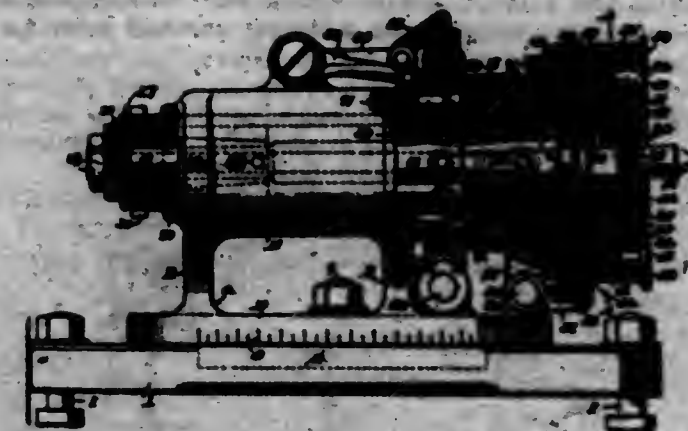


1. The combination with a power-driven vehicle including traction wheels, a chassis having girders between the same, a gear-wheel in operative connection with one of the traction wheels and a motor in driving connection with the gear-wheel, of a frame detachably fastened to the girders of the chassis, a mower on the frame, and mechanism for the transmission of power to the mower, mounted in its entirety on the frame and including a driving pinion, the frame being positioned with relation to said gear-wheel to hold the pinion in operative engagement therewith.

1,303,607. GRINDER HEAD-STOCK. MILTON A. SMITH, Woonsocket, R. I., assignor to The Taft-Peirce Manufacturing Company, Woonsocket, R. I., a Corporation of Rhode Island. Filed July 14, 1917. Serial No. 180,652. 23 Claims. (Cl. 51-4.)

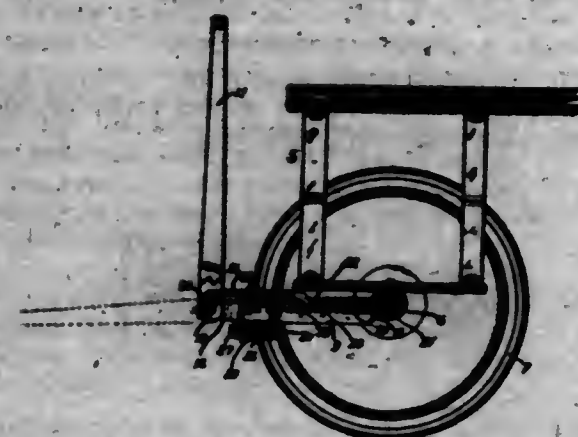
1. A headstock for grinding machines and the like comprising in combination, a spindle, means to support

said spindle, and a floating drive operatively connected with said spindle and mounted to rotate upon the support



for said spindle and independently of the bearings for said spindle.

1,303,608. TRUCK-BRAKE. AXEL G. STEPHENSON, Denver, Colo. Filed May 27, 1918. Serial No. 236,077. 3 Claims. (Cl. 21-8.)



1. The combination in brake mechanism of the class described, of a reciprocable support, a brake bar whose central portion is mounted on said support, the extremities of the bar being adapted to engage the wheels of the vehicle in braking relation, a spring connecting said support with a stationary part of the vehicle, a stationary support, a tongue pivoted on said last named support, and an operative connection between the tongue and the movable support to raise the tongue as the brake bar is moved toward the wheels of the vehicle for braking purposes.

1,303,609. ELECTRIC PLUG AND SOCKET CONNECTION. WILLIAM STEWART, West Kogarah, New South Wales, Australia. Filed Aug. 21, 1917. Serial No. 187,460. 8 Claims. (Cl. 173-356.)

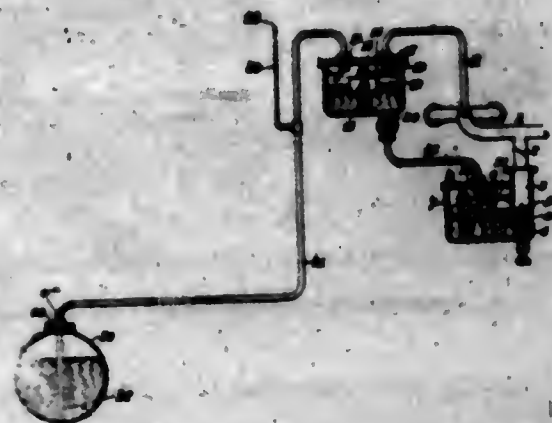


4. In an electrical plug and socket connection, means for positively locking the parts together comprising a band provided with holes, spring-pressed pins extending through said holes and engaging orifices in the wall of the socket.

1,303,610. FLOAT FEED-CHAMBER AND SUPPLY SYSTEM THEREFOR. CHARLES LAWRENCE STOKES, Los Angeles, Calif. Filed July 10, 1917. Serial No. 179,622. 5 Claims. (Cl. 150-36.)

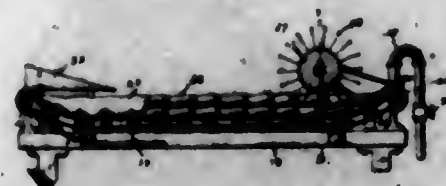
1. In a carburetor of the class described, a passage for air, a fuel jet therein, a float chamber adapted to

supply liquid fuel to said jet, a passage for supplying fuel under pressure to said float chamber, a valve for closing said passage, a float within said chamber and a one-way connection between said float and said valve for



closing the valve to cut off the supply of liquid fuel when the supply within the float chamber reaches a predetermined level while permitting downward motion of said float without opening said valve, upon fall of the level of the liquid in said float chamber.

1,303,611. CLAY-MIXING MACHINE. HALVER RUFUS STRAIGHT, Adel, Iowa. Filed July 3, 1918. Serial No. 243,161. 4 Claims. (Cl. 83-73.)



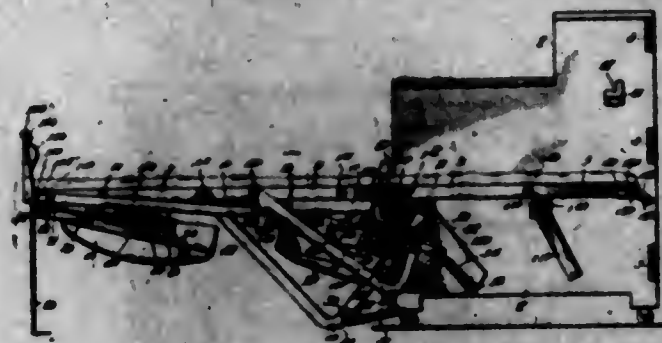
1. In a mixing device, an endless conveyer having its central portion comprised of a plurality of rows of rotating members arranged with the rotating members at the ends of the row higher than those between the ends of said row, the respective rollers in the different rows being aligned longitudinally of the conveyer and having belts thereon, and an endless flexible conveyer member mounted upon said belts.

1,303,612. PISTON-RING CONTRACTOR. WILLIAM G. STROUD, St. Paul, Minn., assignor of one-half to William R. Watkins, St. Paul, Minn. Filed Jan. 29, 1917. Serial No. 145,082. 3 Claims. (Cl. 81-3.)



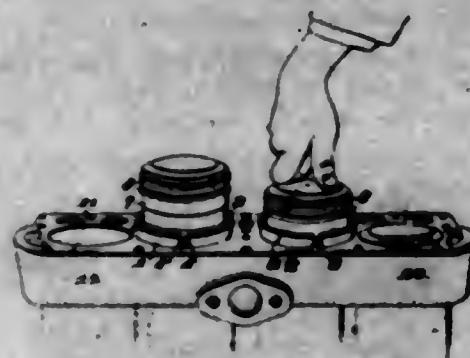
1. A piston ring contractor comprising a pair of pivotally connected levers having at their jaw ends, pivoted jaws movable from the plane of said jaws into positions at a right angle thereto, and conversely, and a flexible ribbon having its ends anchored to the said pivoted jaws.

1,303,613. SOFA-BED. HENRY M. SVENDELIN, Chicago, Ill., assignor to Pullman Couch Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 2, 1918. Serial No. 43,146. 36 Claims. (Cl. 8-43.)



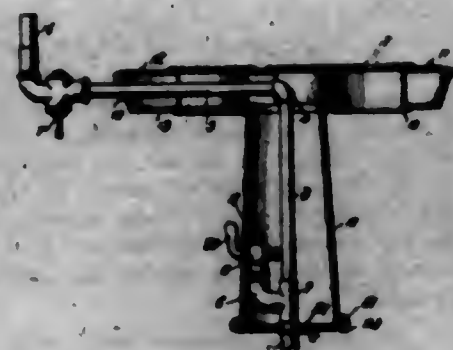
1. A device of the class described, comprising a frame, in combination with a foldable sectional bed bottom including a back section having a pair of carrying links pivoted thereto on each side for swinging the same forward, a forwardly overturnable seat section having a carrying arm coacting with the front part of said frame, a connecting section, a bottom section, a head section arranged in the foregoing order, and a seat attached to the reverse side of said seat section, said bed bottom being arranged to fold with the bedding thereon in madeup form.

1,303,614. PISTON-RING COMPRESSOR. CHARLES E. SWART and GRANT W. SMITH, Chattanooga, Tenn. Filed July 12, 1917. Serial No. 180,185. 2 Claims. (Cl. 20-84.)



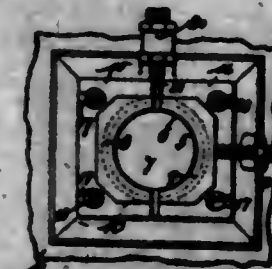
1. In a piston ring compressor, a semi-rigid split ring of two diameters, the end of larger diameter adapted to closely conform to the diameter of the piston.

1,303,615. GAS-BURNER. ROBERT THOMPSON, Jersey City, New Jersey. Filed Nov. 24, 1917. Serial No. 203,742. 5 Claims. (Cl. 158-110.)



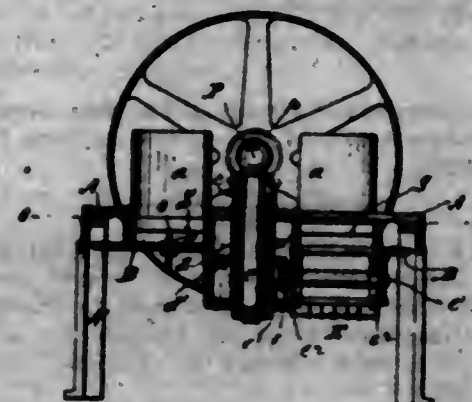
1. A hollow stove burner having a depending casing communicating therewith, a gas supply pipe extending through said casing and projecting through one side wall of the burner, a gas jet mounted on said projecting pipe end, and a valve controlled branch pipe opening into said casing for supplying gas to the burner.

1,303,616. SHAFT-BEARING. JAMES B. TOUR, Saugus Center, Mass. Filed Jan. 23, 1918. Serial No. 218,378. 5 Claims. (Cl. 64-10.)



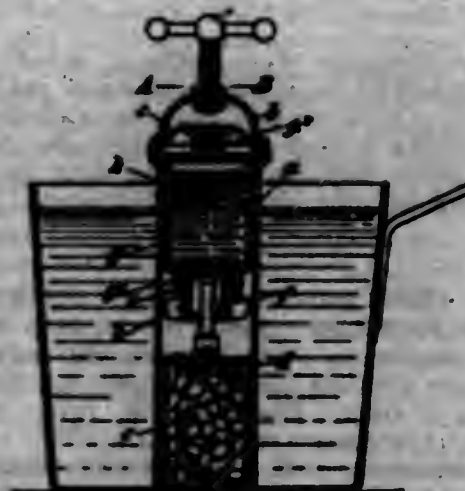
1. A shaft bearing comprising a sleeve with a cylindrical bore, split longitudinally thereof into two parts and having a flat outer side, a frame in which said sleeve fits, means to adjust one part of said sleeve toward the other part thereof, one end of said sleeve projecting beyond said frame and having a flange on the projecting portion of said sleeve adjacent said frame and screws projecting through said flange and having screw-threaded engagement with said frame, whereby said sleeve may be locked to said frame in adjusted position.

1,303,617. VEGETABLE-CUTTING APPARATUS. WILLIAM W. TUCK, Richmond Hill, N. Y. Filed Sept. 25, 1918. Serial No. 255,595. 17 Claims. (Cl. 146-11.)



15. In apparatus for cutting vegetables, a horizontal perforated plate, a knife disk rotatably suspended beneath the same and substantially parallel therewith, and means for presenting and holding sliceable material thereto, a rotatable shaft with a series of rotary cutters carried by and beneath said disk and means for giving rotary motion to said disk independently of said presenting and holding means.

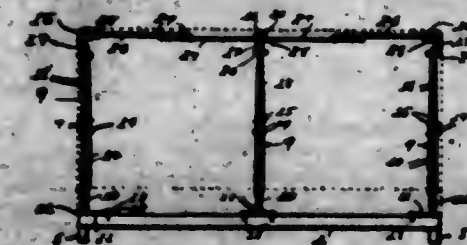
1,303,618. PROCESSING AND APPARATUS FOR HEATING LIQUID BY MEANS OF HEAT PRODUCED BY CHEMICAL REACTIONS IN CLOSED VESSELS. HORACE TURRETTINI, Geneva, Switzerland. Filed Mar. 23, 1918. Serial No. 224,157. 5 Claims. (Cl. 126-263.)



1. A heating apparatus comprising a casing adapted at its lower portion to contain a chemical base, a vessel

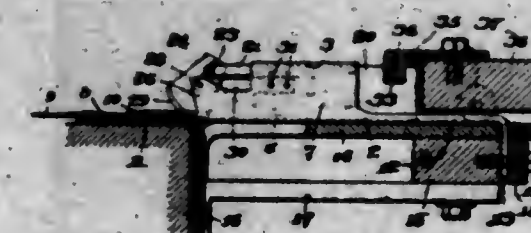
containing acid in the said casing, a frangible bottom associated with the said vessel, means for supporting the vessel adjacent the top of the casing, means for closing the casing to make the same gas tight, and means operated from the exterior of the casing for breaking the frangible bottom of the said vessel to release the acid therein and permit it to come into contact with the said chemical base.

1,303,619. MOSQUITO-FOLI FOR BEDS. BETTA H. VANCE, San Francisco, Calif. Filed Sept. 13, 1918. Serial No. 253,919. 5 Claims. (Cl. 5-14.)



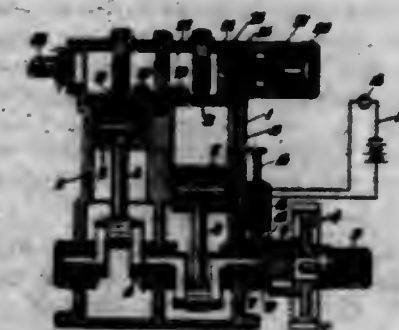
2. The combination with a bed-bottom having a transversely extending cross-piece at one end thereof, of a pair of vertically adjustable laterally spaced apart uprights having their lower ends secured to said cross-piece and supported thereby, means comprising a plurality of links, some of which are longitudinally adjustable, extending between the upper ends of said uprights and arranged for removably connecting said upper ends together, and vertically adjustable means having the lower end supported by said cross-piece intermediate its ends adapted for supporting a section of said first named means intermediate the ends thereof.

1,303,620. PILE-CUTTING DEVICE FOR USE IN LOOMS FOR WEAVING PILE FABRICS. ANDREW VELUARD, Philadelphia, Pa. Filed June 20, 1918. Serial No. 240,967. 5 Claims. (Cl. 139-62.)



1. A pile cutting device comprising in combination a support having oppositely disposed grooves, an arm fixedly mounted in said support, a knife pivotally mounted on said arm, a member slidably movable in the grooves of said support, connecting actuating means between said slidable member and said knife adapted to rock the knife on its pivotal bearing to effect the cutting operation, and means forming part of said support adapted to direct the pile to the cutting edge of the knife.

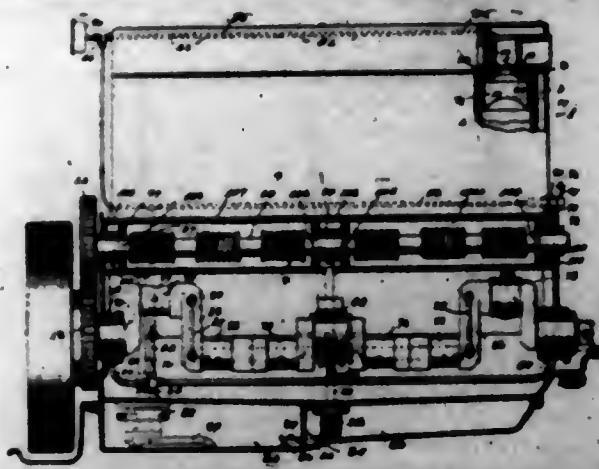
1,303,621. PUMP. HENRY WANAMAKER, Albany, N. Y. Filed Aug. 16, 1915. Serial No. 45,731. 18 Claims. (Cl. 230-24.)



1. The combination of a pump, means to operate said pump comprising a mechanical connection, and means to

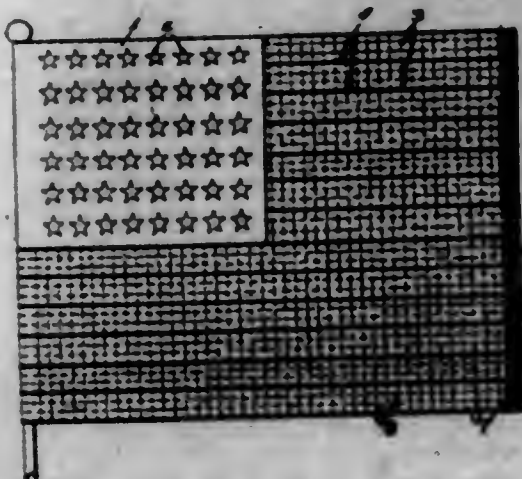
discontinue the pumping operation when a predetermined pressure is attained comprising means to load compressed air directly to a surface of one of the elements of said mechanical connection to disconnect the same.

1,303,622. LUBRICATING SYSTEM. MARTIN L. WILLIAMS South Bend, Ind., assignor, by mesne assignments, to American Sleeve-Valve Motor Company, a Corporation of Delaware. Filed June 9, 1915, Serial No. 33,017. Renewed Oct. 2, 1918. Serial No. 256,629. 8 Claims. (Cl. 184-6.)



1. In a lubricating system, the combination with a ported cylinder and a movable sleeve controlling the ports of said cylinder, of means for feeding lubricant to the contacting surfaces of the movable sleeve and cylinder, and a member carried by said sleeve for governing the amount of lubricant fed.

1,303,623. FLAG. SAMUEL C. WILSON, Chicago, Ill. Filed July 20, 1917. Serial No. 181,781. 7 Claims. (Cl. 116-12.)



1. A flag comprising a plurality of strips sewed together, a reinforcing cord secured in the outer edge of the flag, and rows of reinforcing stitches in the body of the flag.

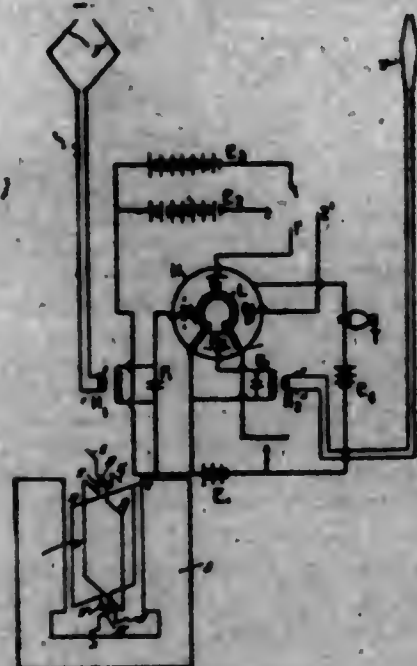
1,303,624. PROCESS OF PRODUCING ANILIN HYDROCHLORIDE. CHARLES CHESTER ANLUM, Chester, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a Corporation of Delaware. Filed Sept. 21, 1917. Serial No. 192,440. 11 Claims. (Cl. 23-24.)

1. The process which comprises reacting upon aniline with hydrochloric acid gas to form aniline hydrochloride.

1,303,625. RECEIVING INSTRUMENT FOR WIRELESS SIGNALING. ALESSANDRO ARTOM, Turin, Italy. Filed Nov. 2, 1917. Serial No. 199,911. 4 Claims. (Cl. 250-11.)

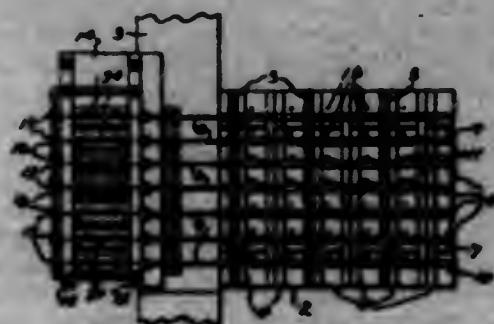
1. A receiving apparatus for wireless signaling, for the purpose of showing the direction from which the wireless

signals arrive, comprising means for producing a stationary magnetic field, directive aeriads and movable coils in



which thermo-couples are placed, said thermo-couples being under the thermo action of the current arriving from the directive aeriads.

1,303,626. ELECTRICALLY-GOVERNED KEY-OPERATED MECHANISM. JOHN T. AUSTIN and BASIL G. AUSTIN, Hartford, Conn., assignors to Austin Organ Company, Hartford, Conn., a Corporation of Maine. Filed Jan. 11, 1919. Serial No. 270,644. 6 Claims. (Cl. 175-21.)



1. The combination of a series of spaced uprights, plates supported by the respective uprights and each having a series of slots, cranked elements of conducting material, extending through and turning in the slots of the respective plates, and non-conducting strips in the slots, holding down the respective cranked elements.

1,303,627. TREATMENT OF IRON OR STEEL OR OTHER ARTICLES. HENRY C. BAINES, Springfield, Mass., assignor, by mesne assignments, to The Cleveland Metal Products Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 10, 1916. Serial No. 114,104. 13 Claims. (Cl. 204-1.)

13. The treatment of iron or steel which comprises subjecting the same to the action of a phosphate solution under pressure greater than that of the atmosphere, passing an electric current through such solution and the

article or articles to be coated, and subjecting the article or articles to a solution capable of chemically combining



with the coating thereon to alter the color or texture thereof.

1,303,628. OPHTHALMIC MOUNTING. NELSON M. BAKER and HAROLD K. PARSONS, Southbridge, Mass., assignors to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Dec. 13, 1916. Serial No. 186,692. 3 Claims. (Cl. 88-42.)



1. In a device of the character described, the combination with a trough-like clip member having inwardly projecting points, of a frame fitting within the trough and interlocking with the points, and an additional member projecting through the clip member and engaged with the frame for more firmly interlocking the clip therewith.

1,303,629. SMOKING-PIPE. FRANK W. BRALL, New York, N. Y. Filed June 18, 1918. Serial No. 240,651. 2 Claims. (Cl. 131-12.)



2. In a smoking pipe, the combination with a bowl, a neck fixed thereto, and a mouth piece secured to the neck, said neck and mouth piece being counterbored forming a saliva pit, of a scraping plug comprising a body fitted in the saliva pit, the side walls of the body bearing against the side walls of the pit, but being shorter than the pit, providing for a smoke passage around one end of the body, said plug also including a nipple threaded into the wall of the bowl between the bowl and the neck, and a spike leading from the body to the tip of the mouth piece, said body and spike being provided with sharp edges to scrape the surfaces of the pit and mouth piece bore when relative rotation is set up between the plug and the other parts.

1,303,630. POWDER-BOX. VINCE L. BRACHAMP, Evanston, Ill. Filed Jan. 13, 1919. Serial No. 270,843. 3 Claims. (Cl. 221-64.)

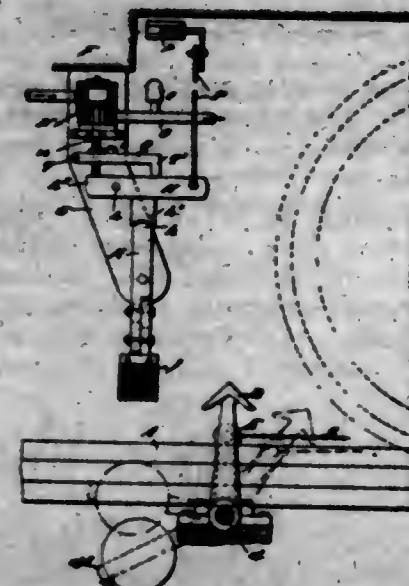
1. A powder box having a foraminous wall, an oscillatable foraminous plate in contact with the named wall,

means for normally positioning the plate to close the openings in the wall, and a cam operable from without



the box for shifting the plate to bring its apertures into register with the apertures of the foraminous wall.

1,303,631. AUTOMATIC TRAIN-CONTROL APPARATUS. WALTER HARRISON BIDDLE, Eastbourne, England. Filed Feb. 11, 1916. Serial No. 77,736. 11 Claims. (Cl. 246-200.)



1. In apparatus for controlling the operation of trains having a track stop adapted to be lowered or raised according to whether the line is clear or is blocked, a pivoted tripping lever adapted to be carried on the train, resilient means on one end of said lever adapted to engage the stop without shock when the latter is in raised position, the combination of a rock lever engaging the other end of said trip lever and adapted to be operated thereby, means operative by said rock lever for controlling the operation of the train, and means automatically operative to lock the rock lever in the operated position after its engagement with the stop.

1,303,632. HAND SLEIGH AND SLED. THOROUGH R. BROWN, Westfield, Mass. Filed June 21, 1915. Serial No. 35,244. 3 Claims. (Cl. 208-157.)

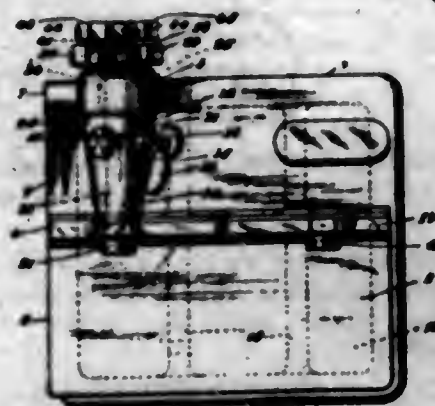


1. The combination in a vehicle having a pair of sleigh runners, of a steering member pivoted on the sleigh midway between and to the rear of the forward end of the runners, said steering member having a bearing with the track only to the rear of its pivot.

1,303,633. SINE-BAR FIXTURE. ELMER J. BRYANT, Woonsocket, R. I., assignor to The Taft-Peirce Manufacturing Company, Woonsocket, R. I., a Corporation of Rhode Island. Filed Nov. 21, 1918. Serial No. 263,458. 14 Claims. (Cl. 83-174.)

1. A sine bar fixture comprising a supporting member, a measuring bar pivotally mounted upon said supporting member, a pair of cylindrical buttons coöperating with

said measuring bar, one of said buttons having the same axis as the axis of rotation of said measuring bar, in combination with means to support said measuring bar



in predetermined angular positions, said means comprising an abutment, and opposed tangent screws coöperating with said abutment.

1,303,634. PUSH-BUTTON SWITCH. JOSEPH O. CAPIEX, Meriden, Conn., assignor to Connecticut Telephone & Electric Company, Inc., Meriden, Conn., a Corporation of Connecticut. Filed Dec. 27, 1918. Serial No. 268,520. 14 Claims. (Cl. 200—27.)



2. A push button switch, comprising a cup-shaped base, contacts within said base, a yielding push button working in the base and adapted to make engagement with said contacts, a second pair of contacts outside the base and a head on the push button outside the base and arranged to engage said second pair of contacts.

1,303,635. METHOD OF AND ARTICLE FOR MAKING PHOTOGRAPHIC POSITIVE-PRINTS. JOHN G. CARSTEN, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed July 14, 1914. Serial No. 851,009. 6 Claims. (Cl. 95—8.)



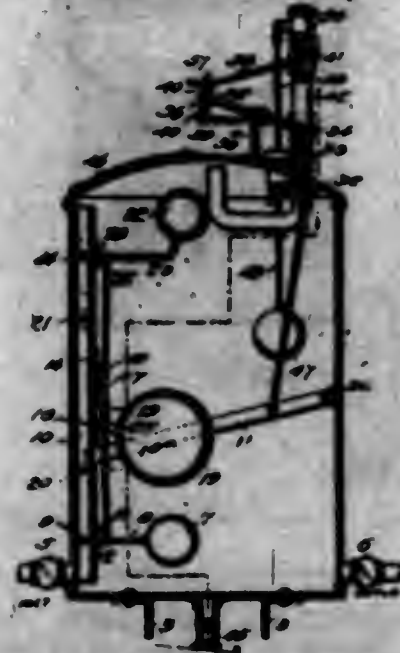
1. A sensitized element for use in photography, embodying a base or support, an insoluble light sensitive layer thereon and a superposed layer of soluble light sensitive material of relatively greater sensitiveness.

4. The method of making photographic prints consisting in exposing to the action of light in a camera, the outermost layer of a sensitized element embodying a support, a layer of insoluble light sensitive material and a superposed soluble layer of relatively more sensitive material, developing the image in said outermost layer while in position over the lower layer, exposing the lower layer to the action of light passing through the negative thus formed and while the latter is in position thereon, dissolving the negative and finally developing, fixing and washing the print formed in the lower layer.

1,303,636. LIFTING-TRAP. GEORGE RILEY CARTER, Oklahoma, Okla. Filed Jan. 25, 1918. Serial No. 213,828. 4 Claims. (Cl. 103—8.)

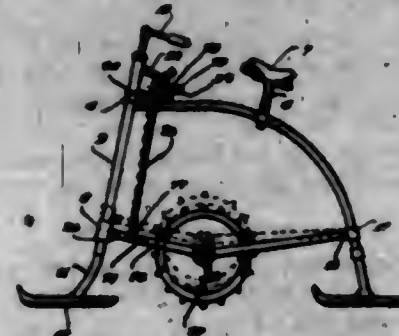
1. In a lifting trap, a tank having a fluid inlet, a pressure inlet having a normally open cut-off valve and a

normally closed pressure valve, a master float having a connection to the pressure valve for opening said valve when the tank is full, means for retarding the action of the master float until the tank is full, and means for



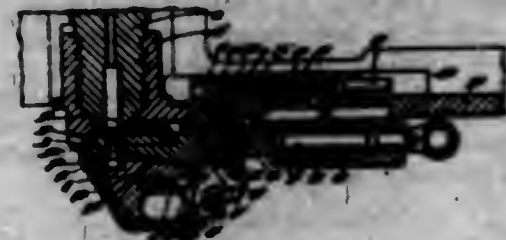
automatically closing the cut-off valve when the fluid level in the tank has receded to a predetermined point under pressure from the pressure inlet, to cause the evacuation of the remainder of the fluid by the expansion above the fluid.

1,303,637. TRI-RUNNER SLEIGH. ARCHIE E. COWAN, McKeesport, Pa. Filed July 28, 1918. Serial No. 246,254. 4 Claims. (Cl. 206—161.)



1. A sleigh comprising a steering post having a runner at its lower end, a pair of rearwardly extending spaced bars connected therewith and each having its lower end provided with a runner, a seat supported by said bars, a foot operated propelling wheel arranged between said post and bars, a support for said wheel, said support pivotally connected with said bars and slidably and pivotally connected with said post, and a lifting device for elevating said propelling wheel.

1,303,638. LOCK MECHANISM OF ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed June 21, 1917. Serial No. 176,167. 9 Claims. (Cl. 89—27.)



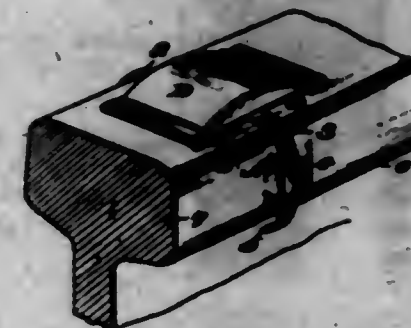
1. In firing mechanism for ordnance, the combination with a pivoted or rocking hammer, of a main spring and means whereby the end of said spring that urges the hammer forward to fire the gun, is caused to be displaced in the reverse direction by the momentum of the hammer

during its final forward movement so as to retract the hammer and bring the point of the firing pin carried thereby, within the front face of the lock frame.

1,303,639. PROCESS OF TREATING HYDROCARBONS. CHARLES R. DOWNS, CHESIDE, N. J., assignor to The Barrett Company, a Corporation of New Jersey. Filed July 26, 1918. Serial No. 246,852. 11 Claims. (Cl. 23—24.)

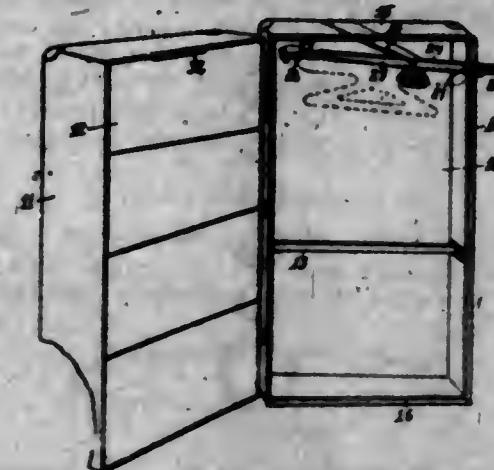
2. The herein described process which comprises removing phenanthrene from crude anthracene, dissolving the remaining constituents which are soluble in hydrocarbons, treating the solution with ultra violet light and recovering the precipitate.

1,303,640. SPRING HOLDING-CLIP FOR RAILWAY SIGNAL-TORPEDOES. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Dec. 15, 1916. Serial No. 137,122. 3 Claims. (Cl. 246—467.)



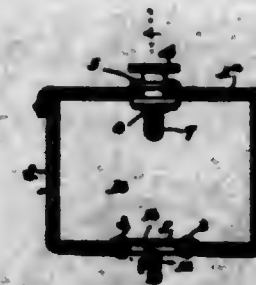
2. The combination with a railway signal torpedo, of a spring clip attached to the under side thereof and having approximately a heart-shape when in its normal contracted form, whereby when it is expanded it closely fits the top and sides of a rail-tread and its extremities extend thereunder, for the purpose described.

1,303,641. WARDROBE-TRUNK. HENRY H. DYER, Montclair, N. J. Filed Oct. 26, 1918. Serial No. 259,760. 7 Claims. (Cl. 100—12.)



1. In a wardrobe trunk, the combination with a storage compartment and a wardrobe compartment hinged thereto of a frame comprising arms adapted for supporting hangers in the neighborhood of their ends, said frame being movable in a rectilinear direction in and out of said wardrobe compartment at an angle substantially different from a right angle, whereby as it is moved outward it is also moved away from that side of the wardrobe compartment which is hinged to the storage compartment and toward the opposite side of the wardrobe compartment, said frame also being separately rotatable on a pivot.

1,303,642. LIQUID-FUEL TANK. CHARLES O. ELLERT, Brooklyn, N. Y. Filed Sept. 2, 1911. Serial No. 647,461. Renewed Oct. 10, 1918. Serial No. 257,000. 2 Claims. (Cl. 158—46.5.)



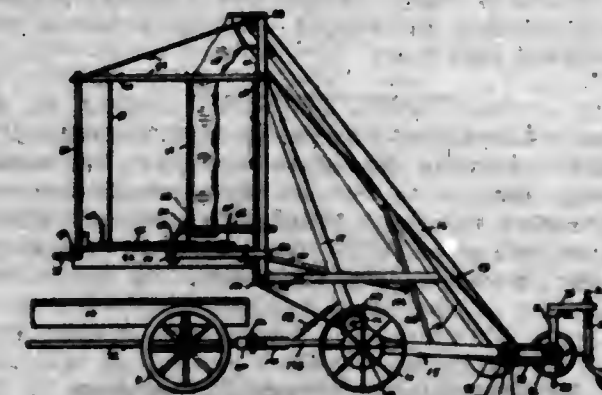
1. A tank or receptacle for storing fluids for power purposes provided with a wall construction adapted to engage with the forces of a violent combustion or explosion within the said tank in a manner to provide an exit for and guide or direct the violent expulsion of the products of said internal combustion or explosion to a predetermined point exterior to said tank, and provided with means within said tank for reinforcing said wall construction of said tank.

1,303,643. SURFACING-MACHINE FOR BOWLING-ALLEYS. LOUIS HUNT, Cleveland, Ohio. Filed Dec. 8, 1918. Serial No. 125,723. 10 Claims. (Cl. 51—12.)



1. In a machine of the character described, the combination of a movable supporting carriage, a pair of arms pivotally supported thereon and extending forwardly therefrom, a drum provided with an abrading surface rotatably supported by said arms, means for advancing said carriage and simultaneously rotating said drum, and means for adjusting said drum with respect to the surface to be abraded including members pivotally mounted on said arms, and adjustable shoes supported on said members and adapted to engage said surface.

1,303,644. EXTENSION HAY-LOADER. RUSSELL E. STERN, Storm Lake, Iowa. Filed Nov. 30, 1917. Serial No. 304,791. 6 Claims. (Cl. 192—14.)



1. In a device of the class described, a frame mounted on wheels, a distributing conveyor supported on said frame and designed to project over a wagon or the like, an elevating device on said frame adapted to discharge upon said distributing conveyor, means for reciprocating such conveyor forwardly and rearwardly and for permit-

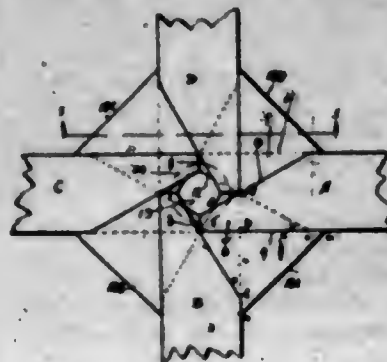
ting the rear end thereof to tilt during the rearward movement of such reciprocation, whereby the elevator will not interfere with the reciprocation of the conveyor.

1,303,645. ARTIFICIAL LEG. OTTO H. ENICKSON, Minneapolis, Minn. Filed Dec. 9, 1918. Serial No. 265,848. 4 Claims. (Cl. 2-3.)



1. In an artificial leg, the combination with a shank equipped with a foot at its lower end and provided in its sides near its upper end with longitudinal slots, of a lacer having upper hinge straps depending from its sides, lower hinge straps secured to the sides of said shank and pivotally connected to said upper hinge straps, a slip socket working in the upper end of said shank, and springs anchored to the sides of said shank in the vicinity of the upper portions of said slots and connected to said shank through these slots.

1,303,646. CHAIR-BASE. THOMAS W. FOOTE, Cleveland, Ohio. Filed Dec. 23, 1918. Serial No. 267,888. 7 Claims. (Cl. 20-22.)



1. A chair base, comprising legs having a plurality of oppositely disposed tenons on their inner ends and adapted to interengage over a portion of the area of said tenons, and a series of blocks formed with similarly disposed tenons, adapted to interengage with the tenons on said legs to form a solid joint.

1,303,647. FLOATING CRAFT OF REINFORCED CONCRETE. NICOLAY KNUDTEEN FOUEN, Christiania, Norway, assignor to Fougner American Steelconcrete Shipbuilding Company, Wilmington, Del., a Corporation of Delaware. Filed Jan. 24, 1917. Serial No. 144,183. 2 Claims. (Cl. 114-65.)



1. A reinforced concrete bottom for vessels, comprising an outer bottom provided at intervals with vertical mem-

bers projecting above the inner face thereof, a plurality of inverted U-shaped formless metal plates having a coating of plaster on one side and arranged on the outer bottom with their coated sides inward and forming a plurality of longitudinal compartments, the ends of adjacent plates being spaced apart and between which the vertical members of the outer bottom project, concrete on the plates and between the ends thereof, and longitudinal and transverse reinforcements embedded in the concrete.

1,303,648. VENTILATED URINAL-CLOSET COMBINATION-RANGE. NATHANIEL FROST, Bloomington, Ill. Filed Aug. 7, 1918. Serial No. 248,742. 2 Claims. (Cl. 4-23.)



1. In a device of the character described, a urinal trough having a flanged forward edge, a back plate depending above the center of the trough, a top plate secured so as to cover the trough rearwardly of the back plate, and a front apron secured to the forward flanged edge of the trough, the lower, free edges of said back plate and said apron terminating adjacent to one another in spaced relation.

1,303,649. CHAIN. WILLIAM J. GAGNON, Bridgeport, Conn., assignor to The Head Chain Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Feb. 16, 1918. Serial No. 217,718. 5 Claims. (Cl. 58-78.)

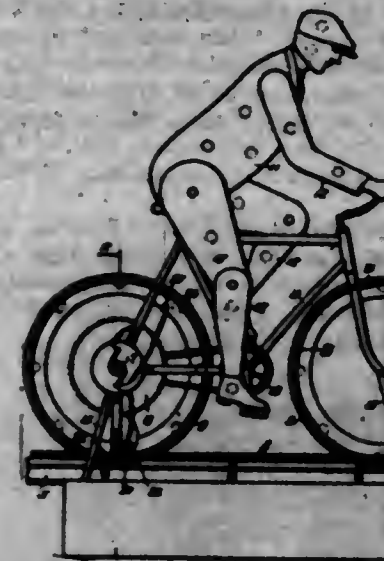


1. A chain comprising a continuous core element having spaced enlargements and hollow balls surrounding said enlargements and held in spaced relationship thereby to simulate an ordinary ball chain.

1,303,650. ADVERTISING DEVICE. CIBIAGO GARCILAN, Mexico, Mexico. Filed June 26, 1918. Serial No. 241,866. 4 Claims. (Cl. 104-4.)

1. In combination with a track, a wheeled object mounted to travel on the track, an electric conductor extending along the track, a contact member carried by the object engaging the conductor and constituting the

propelling means for said object, electric motive means on the object, and means for actuating the contact from the



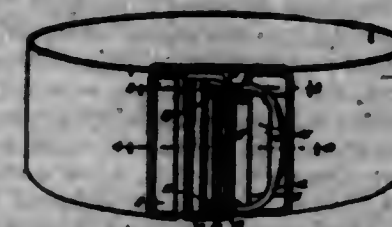
electromotive means whereby motion is imparted to the object on the track.

1,303,651. ANTISLIPPING ATTACHMENT FOR AUTOMOBILE WHEELS. FRANK E. GALL, Minneapolis, Minn. Filed Feb. 12, 1918. Serial No. 216,821. 1 Claim. (Cl. 182-2.)



An anti-slipping attachment for vehicle wheels comprising a rigid rail carrying member adapted to fit upon the tire with its length extending transversely thereof, a rigid member adapted to fit upon the felly with its length extending transversely thereof, said members having their ends provided with flanges offset toward each other, bolts pivotally attached to one flange of said rail carrying member, means for securing said bolts to the corresponding flange of the other member, a bolt pivotally attached to the other flange of said rail carrying member and adapted to enter a slot in the corresponding flange of the other member and a thumb nut adapted to secure said last mentioned bolt to said last mentioned flange.

1,303,652. CATCH FOR BELTS. SAMUEL BRENT GREEN, East Orange, N. J. Filed June 2, 1918. Serial No. 237,969. 4 Claims. (Cl. 24-163.)



4. A quick release catch comprising a base having spaced end sections, a connecting bar adapted to be secured to a belt and a brace having an arc-shaped groove therein merging into end hook-shaped posts, said groove and the hook-shaped posts forming a socket, a link adapted to be connected to a belt formed with a section capable of engaging said socket for the full length of said brace including the hook-shaped posts, and a release bar pivotally connected with said posts adjacent

the outer end thereof, said release bar having an extension at each end for moving said section of said link out of said socket and from the outer end of said posts for effecting a release.

1,303,653. GAS AND SPARK LEVER FOR THE CONTROL OF MOTOR-VEHICLE ENGINES. EUGENE GOLOVZ, Amistad, N. Mex. Filed Jan. 3, 1919. Serial No. 269,473. 7 Claims. (Cl. 74-39.)



1. The combination with controlling means substantially as described including oppositely disposed adjustable control levers, of an attachment secured to one of said levers and extending to a position adjacent to the other of said levers.

1,303,654. VALVE CONSTRUCTION FOR INTERNAL COMBUSTION ENGINES. HARVEY H. GOVA, Biddeford, Me., assignor of one-half to John F. Dean, Biddeford, Me. Filed May 15, 1916. Serial No. 97,458. Renewed Nov. 9, 1918. Serial No. 261,935. 4 Claims. (Cl. 123-59.)



1. An internal combustion engine having a plurality of cylinders, a hollow rotary valve extending adjacent at least two of said cylinders, a casing therefor in which said valve is adapted to rotate, means to rotate the valve in timed relation with the engine cylinders, said valve having an exhaust conduit extending longitudinally therethrough and adapted to register, at either end, with the exhaust of a cylinder, a central outlet from said exhaust conduit substantially midway of its length, heat insulating means surrounding a portion of the exhaust conduit adjacent the outlet and separating the hollow valve into a plurality of fuel supply portions, and supply ports from each of said fuel supply portions into the adjacent engine cylinders.

2. An internal combustion engine having a plurality of cylinders, a hollow rotary valve extending adjacent at least two of said cylinders, a casing therefor, in which said valve is adapted to rotate, means to rotate the valve in timed relation with the engine cylinders, said valve having an exhaust conduit extending longitudinally therethrough and adapted to register, at either end, with the exhaust of a cylinder, a central outlet from said exhaust conduit substantially midway of its length, heat insulating means surrounding a portion of the exhaust conduit adjacent the outlet and separating the hollow valve into a plurality of fuel supply portions, fuel supply openings from each end of said valve into said supply portions, a port from said fuel supply portion adapted to register with the single port in the adjacent cylinder in timed relation with the registering of the exhaust port therewith, an enlarged circumferential recess in the valve casing adjacent the central exhaust port and com-

pression members carried by the rotary valve at either side of said recess.

3. The combination with an internal combustion engine and its cylinders of a rotary valve and a casing therefor, exhaust ports therethrough, and a compression device adjacent an exhaust port consisting in a plurality of inherently expansible split rings rigidly united by a single squared cross-bar joining said rings at the split portion of each ring, the free length of the expansible ring members causing an edge of said cross-bar to be normally forced outwardly against the inner walls of said valve casing and the outer edge will constitute a carbon shearing edge to prevent the formation, and remove as formed, the carbon adjacent said exhaust port.

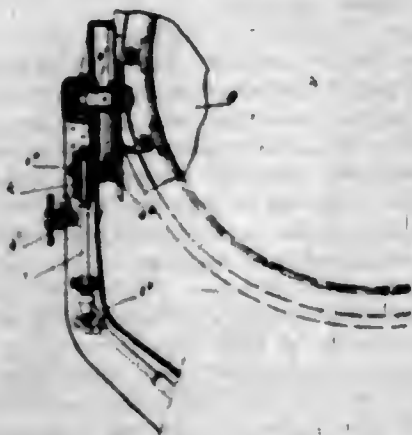
4. An internal combustion engine having a plurality of cylinders, a hollow rotary valve adjacent two or more of said cylinders, a casing for said valve, means to rotate the valve in timed relation with the engine, said rotary valve being adapted to receive, conduct and control the supply and exhaust from said cylinders, and having an exhaust pipe extending longitudinally within the hollow valve with means adjacent either end to receive the exhaust from a cylinder, together with an outlet from said exhaust pipe through said valve dividing the supply portion substantially midway of its length.

1,303,655. TELEPHONE SYSTEM. GEORGE GRASS, Nibelasse, near Berlin, Germany, assignor to Siemens & Halske A.-G., Berlin, Germany, a Corporation of Germany. Original application filed Oct. 15, 1918, Serial No. 795,285. Divided and this application filed Mar. 28, 1918, Serial No. 16,424. Renewed Aug. 21, 1918. Serial No. 250,893. 7 Claims. (Cl. 178-18.)



1. In a telephone system, lines originating calls, trunking apparatus, switches less numerous than said lines to connect said lines with said trunking apparatus, said switches comprising a locking device for retaining the adjusting member in a contacting position, mechanical means for bringing said locking device into locking position by the moving force for said adjusting member, and magnetic means for immediately operating said locking member when in locking position.

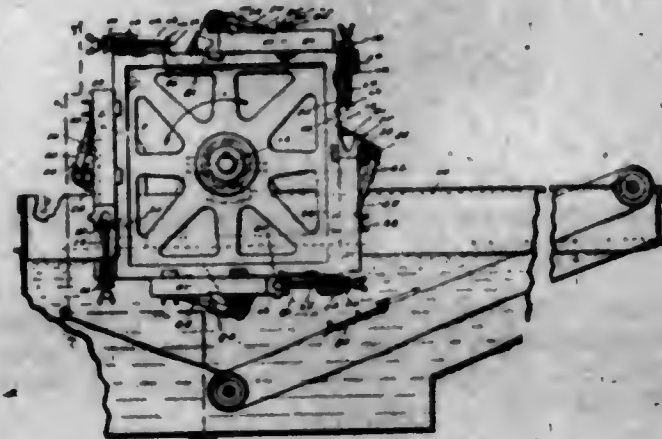
1,303,656. SEARCH-LIGHT APPARATUS. ELIE GRANAT, Paris, France, assignor of one-half to Bernard Barbier & Turenne, Paris, France, a Firm. Filed Dec. 22, 1917. Serial No. 208,492. 5 Claims. (Cl. 240-61.)



1. In searchlight apparatus, a stationary part, an angularly movable portion, mechanism for moving said mov-

able part to move the luminous rays about horizontal planes, and mechanism for moving the luminous rays vertically comprising an irreversible unit arranged upon the movable portion of the apparatus and a shaft for actuating said unit, said shaft being mounted to rotate in the stationary part of the apparatus about an axis coincident with the axis of said movable portion, so that horizontal adjustment does not affect the altitude of the luminous rays.

1,303,657. BENDING-MACHINE. ERNEST J. GURTEL and THOMAS B. JENKINS, Richmond, Ind., assignors to Jenkins Vulcan Spring Company, Richmond, Ind., a Corporation of Indiana. Filed Oct. 21, 1918. Serial No. 258,937. 9 Claims. (Cl. 206-8.)



1. A bending machine comprising a pattern member and a cooperating bending member, one movable toward and from the other by gravity, and a support for said two members movable about a horizontal axis, first to a position where the movable member will separate from the other member and then to a position where the movable member will approach the other member.

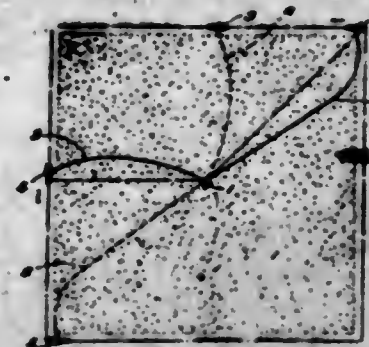
1,303,658. ACETYLENE-LAMP. AUGUS L. HANSEN, Chicago, Ill., assignor to Justite Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 31, 1918. Serial No. 262,148. 10 Claims. (Cl. 46-4.)



9. In an acetylene lamp, the combination with the carbide chamber and superimposed water reservoir, of a tube or casing secured at its upper end in the top of the water reservoir and extending downward through the bottom thereof and projecting into the carbide chamber, said tube being provided with one or more openings communicating with the interior of the water reservoir near the bottom of the latter, and being internally threaded below said openings, and being also provided with one or more openings below its internally threaded portion, a valve-seat carried by the lower end of said tube, a rod extending lengthwise through said tube and having an upper portion snugly fitting the interior of the tube above the upper openings therein and an externally threaded portion engaging the internally threaded portion of said tube, said rod being exposed to the carbide in the carbide chamber through the lower openings in the surrounding tube and being provided with a central bore extending upward from its lower end and communicating at its upper end, through the openings in the surrounding tube, with the interior of the water reservoir, and means external to the lamp for turning said

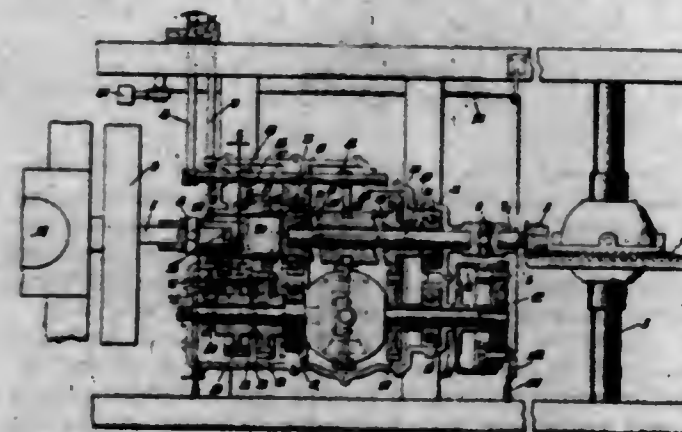
rod to cause its lower end to cooperate as a valve with the valve-seat carried by the lower end of the surrounding tube; substantially described.

1,303,659. APPARATUS FOR TREATING STANDING GRAIN. JOHANNES HANSON, Montevideo, Minn. Original application filed July 30, 1917, Serial No. 163,410. Divided and this application filed Nov. 25, 1918. Serial No. 264,040. 8 Claims. (Cl. 47-37.)



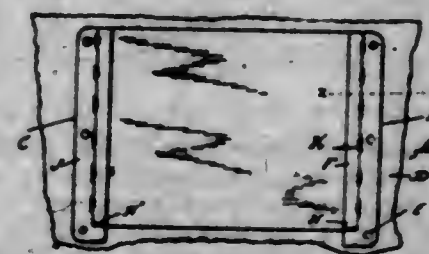
6. The combination with a line having wiping material secured thereto, of means for drawing said line across a field of standing grain, and means for supporting said line intermediate the ends thereof.

1,303,660. TRANSMISSION-GEARING. JOHN SANFORD HARGEN, Nyack, N. Y. Filed Mar. 20, 1915. Serial No. 15,710. 30 Claims. (Cl. 74-24.)



1. The combination of a driving shaft, a driven shaft, and means to transmit rotation from said driving shaft to said driven shaft comprising a differential gearing, and means to connect said differential gearing to said driving shaft comprising a main shaft block, and means to connect said main shaft block to said differential gearing.

1,303,661. UNIVERSAL CARD-HOLDER. FRED HANKE, Detroit, Mich. Filed May 3, 1917. Serial No. 166,001. 2 Claims. (Cl. 40-10.)

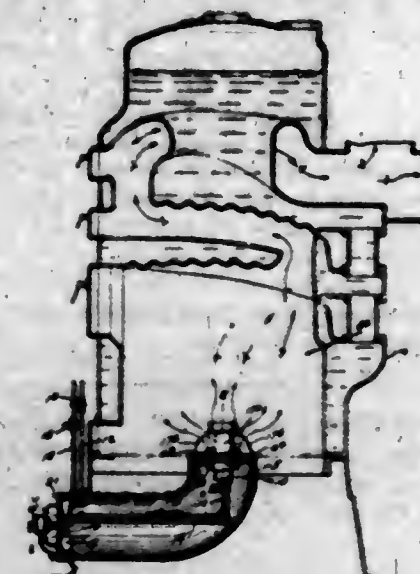


1. A card holder comprising a holder member having a main body portion adapted to lie substantially in the plane of the card, and an offset portion adapted to extend over an edge of the card, said body and offset portion being

262 O. G.-17

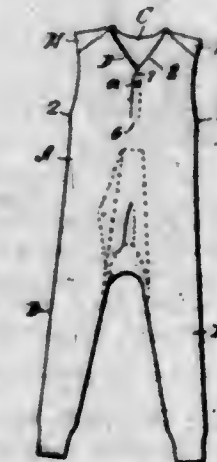
connected by a portion which is partly cut through to leave a substantially straight shoulder against which the edge of the card abuts.

1,303,662. HYDROCARBON-BURNER. HORACE H. HASTINGS, New York, N. Y. Filed Oct. 6, 1917. Serial No. 195,186. 6 Claims. (Cl. 158-91.)



1. In a burner of the character described, the combination with an air intake tube, of an oil pipe delivering at the delivery end of said air tube and having a nozzle cap at its delivery end, an air superheating chamber overlying said nozzle cap and receiving air from said air tube and delivering the same directly downward against said nozzle cap, and a gas delivery nozzle located within said nozzle cap and having connections for supplying gas thereto.

1,303,663. GARMENT. NATHAN HATCH, Albany, N. Y. Filed Nov. 4, 1918. Serial No. 261,186. 3 Claims. (Cl. 2-144.)

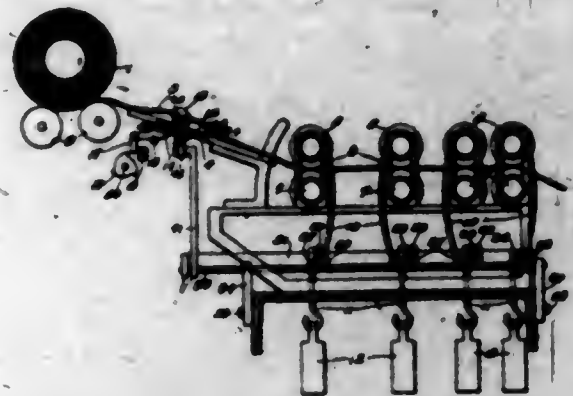


1. In a garment, a trunk portion, a single back flap and a pair of chest flaps comprising the chest covering, each of the said three flaps extending upwardly from the trunk portion, the upper corners of each flap forming four shoulder portions, the two shoulder portions of the back flap each extending respectively over the single shoulder portions of each of the two chest flaps, the shoulder portions of the back flap being secured respectively to the shoulder portions of each of the chest flaps at their respective outer edges.

1,303,664. STOP-MOTION FOR TEXTILE-MACHINES. JAMES HIGGINSON, New Bedford, Mass., assignor of one-half to Archibald S. Fuller, Newton, Mass. Filed Aug. 4, 1917. Serial No. 164,477. 8 Claims. (Cl. 16-25.)

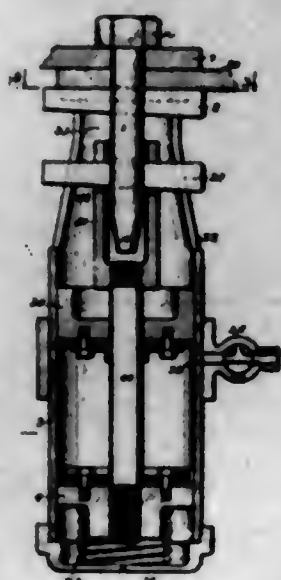
1. A stop-motion device for textile machines comprising a breakage or absent-material detector, a power release

device worked thereby, means for detecting displacement of a roll acting on the material under treatment, and an



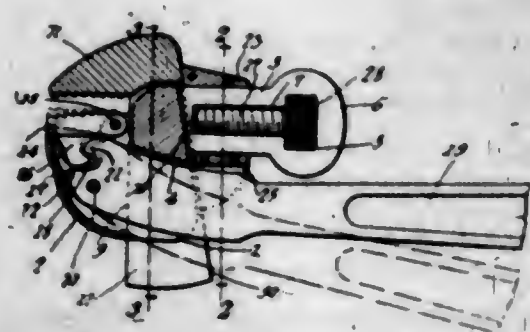
operating connection from said displacement detecting means to said breakage detector.

1,303,665. BOLTING-UP DEVICE. WILLIAM T. HOGAN, Seattle, Wash., assignor of one-half to Henry L. Reynolds, Seattle, Wash. Filed Sept. 26, 1918. Serial No. 255,877. 4 Claims. (Cl. 20-84.)



1. A bolting-up device for plates comprising a bolt having a key seat and a key therefor adapted to hold the plates when drawn together, and means for applying power through said bolt to draw the plates together so that the key may be inserted in said seat.

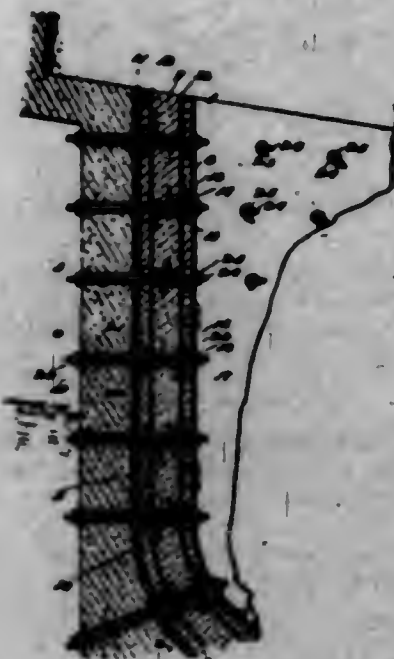
1,303,666. WRENCH. WILLIAM HOLMES, Williamsport, W. Va. Filed Feb. 3, 1919. Serial No. 274,000. 2 Claims. (Cl. 81-78.)



1. A wrench comprising a main member; an auxiliary jaw movably mounted on the main member; a main jaw slidable on the main member toward and away from the

auxiliary jaw; a lever fulcrumed on the main member and interengaged with the auxiliary jaw to swing the auxiliary jaw toward and away from the main member; a pressure block slidable on the main member and coacting with the main jaw to hold the same in adjusted positions with respect to the auxiliary jaw; and adjustable means connecting the main member and the pressure block to hold the pressure block in adjusted positions with respect to the main jaw.

1,303,667. CONSTRUCTION OF THE HULLS OF CONCRETE SHIPS. JULIUS H. HOLMSTADT, San Antonio, Tex. Filed Oct. 5, 1918. Serial No. 257,055. 10 Claims. (Cl. 114-65.)



1. In concrete construction, a wall having rod supporting members embedded therein, reinforcing rods engaging said members, reinforcing material bearing against the rod supporting members, and spacing elements disposed at the rod supporting members for spacing the reinforcing material inwardly from the opposite faces of said wall.

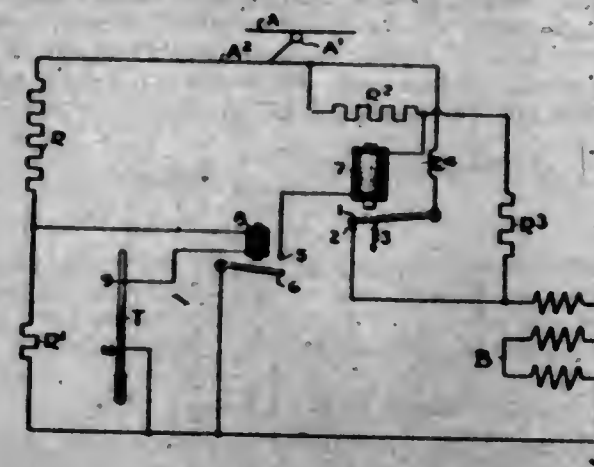
8. A concrete hull for ships including a wall having a reinforcing rib, anchoring brackets embedded in the material of which the rib is formed and provided with a diagonal truss rod, and vertically disposed reinforcing rods embedded in the rib and supported by the anchoring brackets.

1,303,668. TOY RAILWAY. FRANK J. HUMMEL, Pittsburgh, Pa. Filed Jan. 31, 1918. Serial No. 214,007. 8 Claims. (Cl. 246-81.)



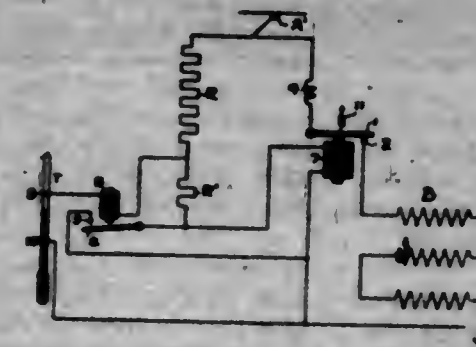
1. A toy railway and signaling system comprising a track rail and a third rail, a source of current and a relay constantly connected in series across said track rail and said third rail, a car arranged to travel on said track rail and having means for electrically bridging said track rail and said third rail whereby it completes the circuit for said relay and energizes the latter, and a way-side signal controlled by said relay so as to indicate stop or proceed according as said relay is energized or de-energized.

1,303,669. HEATER SYSTEM. LEE P. HYMAN, Albany, N. Y., assignor to Consolidated Car-Heating Company, Albany, N. Y., a Corporation of West Virginia. Filed May 21, 1918. Serial No. 235,700. 14 Claims. (Cl. 219-20.)



1. In a heating system, heating means, a spring normally maintaining the heating means in operation, an electrical device for cutting it out, a relay controlling the electrical device, and a thermostat controlling the relay.

1,303,670. HEATER SYSTEM. LEE P. HYMAN, Albany, N. Y., assignor to Consolidated Car-Heating Company, Albany, N. Y., a Corporation of West Virginia. Filed May 21, 1918. Serial No. 235,770. 9 Claims. (Cl. 219-20.)



1. In a heating system, a source of current, heaters, and three parallel circuits, one containing the heaters and the contacts of an electro-magnetic main switch held normally closed by current in the switch coil; another containing a high resistance and an operating coil for the main switch in series therewith; and a third containing a high resistance in series and a low resistance in shunt to the operating coil of a single-contact relay controlling the coil of the main switch, and a thermostat in series with and controlling the coil of the relay.

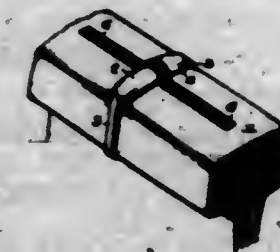
1,303,671. PROCESS FOR THE AMPLIFICATION OF LINSEED-OIL. JOSE ILLAS, Habana, Cuba. Filed Feb. 12, 1918. Serial No. 216,751. 2 Claims. (Cl. 124-56.)

2. A liquid mixture including 40% of linseed oil, 30% of petroleum, and 30% of colophony.

1,303,672. POLISHING AND FINISHING COMPOSITION. GEORGE HYOKICHI IWAMOTO, Los Angeles, Calif. Filed July 18, 1918. Serial No. 245,503. 3 Claims. (Cl. 124-24.)

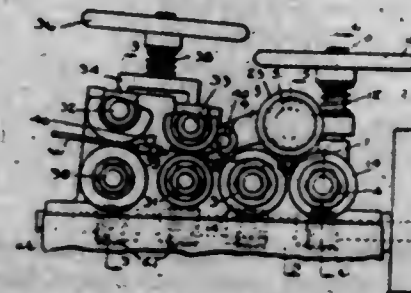
1. A composition of matter comprising raw linseed oil, five drams, petroleum distillate oil, eleven drams, oil of camphor, one scruple, commercial shellac, eight drams, substantially as and for the purposes set forth.

1,303,673. TRACK-TORPEDO. GEORGE BARR JACKSON, Guelph, Ontario, Canada. Filed Dec. 7, 1915. Serial No. 65,533. 7 Claims. (Cl. 246-487.)



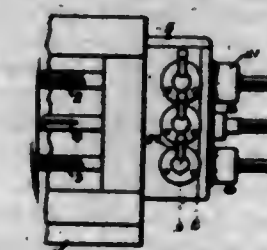
1. The combination with a track torpedo of the self-contained, rail-engaging, type, of a wheel-engaging lug comprising a strip of metal for disposal in advance of the torpedo and having a portion thereof secured to and wholly embracing the body of the torpedo.

1,303,674. MANUFACTURE OF FLEXIBLE METAL TUBING. EDWARD JAMES, Lakewood, Ohio. Original application filed Oct. 10, 1910. Serial No. 586,137. Divided and this application filed Aug. 10, 1917. Serial No. 185,444. 3 Claims. (Cl. 152-64.)



1. In a method of making an armored product of the character described, the steps which consist in coiling a wire about a conductor in spaced relation therewith, and coiling a second wire within such first named spaced wire and in yieldable engagement with said conductor.

1,303,675. PLANE FEED DEVICE. CHARLES GEORGE JOHANNESMEYER, Glendale, Ohio. Filed July 29, 1918. Serial No. 247,121. 6 Claims. (Cl. 74-54.)

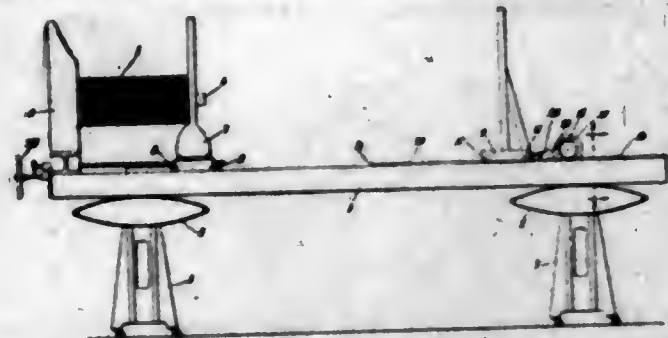


1. A feed device comprising, a shaft, a non-rotary spring-pressed sliding collar thereon, ratchet-teeth on the face of the collar, a pinion adapted for oscillation and fitted loosely with reference to the shaft and adapted for sliding adjustment, a collar carried by the pinion and having ratchet-teeth adapted for engagement with the teeth of the first-mentioned collar, a stop independent of the pinion to limit the movement of the collar under the influence of the spring, and means for adjusting the pinion endwise and for holding it against endwise displacement, combined substantially as set forth.

1,303,676. FOCUSING APPARATUS. HARRY C. JONES, Larchmont, N. Y. Filed June 28, 1915. Serial No. 26,085. 15 Claims. (Cl. 83-24.)

1. In an apparatus of the class described, the combination of a plate-holder, a lens-carrier, and a copy-holder, means for moving the copy-holder relatively toward and from the lens, and means operated with the copy-holder moving means simultaneously moving the lens relatively to the plate-holder to keep the apparatus in proper focus,

one of said moving means comprising two moving elements, one driving the part moved thereby during part of the



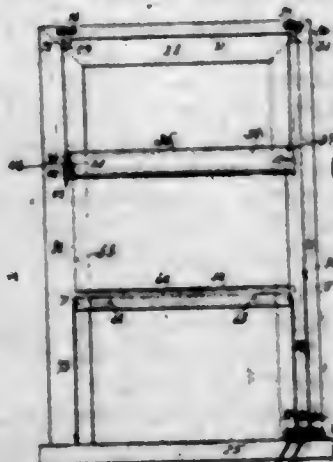
movement of the copy-holder and the other driving said part during a further movement of the copy-holder.

1,303,677. SASH-LOCK. JOHN A. JONES, Mansfield, Ohio. Filed Aug. 25, 1916. Serial No. 116,890. 1 Claim. (Cl. 16-30.)



In a sash lock, the combination with an upright rack bar adapted to be secured to the side rail of one sash; of a hollow casing having one flat side and one curved side and ears at its extremities adapted to be secured upon the top rail of the other sash, its top plate having a transverse opening, lugs projecting inward from its straight side, shoulders at the ends of its curved side, lugs depending from said top plate and from the mid-length of both sides, a washer mounted within the space bounded by said lugs and having an elongated opening, a disklike locking plate overlying said top plate and adapted to coact with the rack bar, a bolt whose upper end is fastened eccentrically through the disk and whose body is loosely mounted in the openings in said top plate and washer and is squared between these openings, a spring resting on said endmost lugs and bearing against one side of said square body, and another spring resting against said shoulders and bearing against the other side of said body, the whole substantially as described.

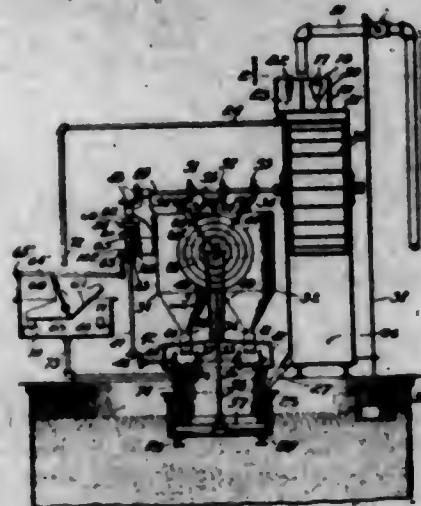
1,303,678. HOLLOW SLAT FOR WINDOW-SHADES. CARL JOSEPH, Bayonne, N. J., assignor of one-half to Frederick J. Kloes, Jersey City, N. J. Filed Apr. 6, 1915. Serial No. 19,428. 2 Claims. (Cl. 156-19.)



1. A shade slat comprising a hollow central portion, a hollow telescopic portion at each end of the central por-

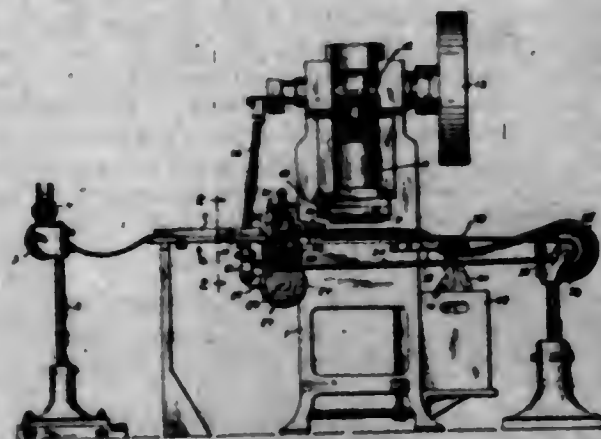
tion, each of the latter portions having a pulley journaled at its outer end, said slat supported in the pocket or beam of a shade and an adjusting cord passed over the pulleys to adjust the lower end of the shade.

1,303,679. WATER-SOFTENING APPARATUS. CASS L. KENNICOTT, Chicago Heights, Ill., assignor of one-half to The Permutit Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 17, 1914. Serial No. 867,119. 4 Claims. (Cl. 210-1.)



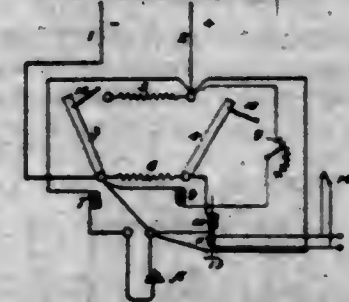
1. In a water-softening apparatus, and, in combination, means for supplying raw water, a dividing box into which said raw water discharges, means in said dividing box for separating the raw water supply into a main stream and a regulating stream having definite relation to each other, a water motor positioned to receive the discharge of said main stream, a tipping bucket positioned to receive the discharge of said regulating stream, hoppers for containing a supply of dry chemicals, agitating means within said hoppers, means for driving said agitating means from said water motor, mechanical feeding devices for feeding chemicals from said hoppers, means for driving said feeding devices from said water motor, and means operated by said tipping bucket for regulating the action of said driving means.

1,303,680. APPARATUS FOR CUTTING AND REMOVING BLANKS FROM MOVING WEBS. WILLIAM J. KANT, Brooklyn, N. Y., assignor to Revere Rubber Company, a Corporation of Rhode Island. Filed June 9, 1917. Serial No. 173,830. 4 Claims. (Cl. 164-22.)



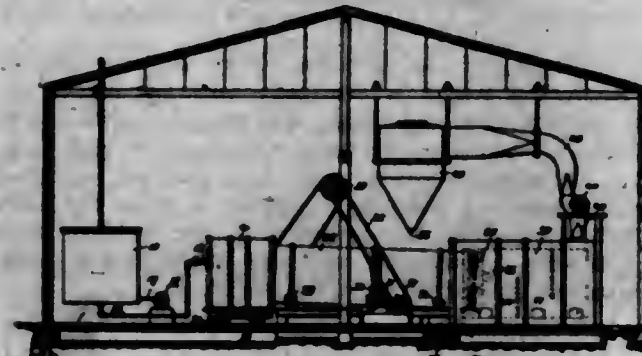
1. In apparatus of the kind described, in combination, a supply reel for a web, a takeup reel, and a feed roll intermediate the said reels, a reciprocatory member and a die supported thereby in advance of the feed roll, means for intermittently actuating the feed roll, operative connections between the reciprocatory member and the feed roll to lift the latter from the material during cutting of the die, and a plurality of fingers operable to press the blanks from the web.

1,303,681. ELECTRIC WELDING. OTIS ALLEN KENYON, New York, N. Y. Filed Jan. 9, 1918. Serial No. 211,062. 13 Claims. (Cl. 219-15.)



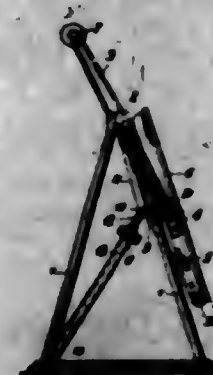
1. In series arc welding, a welding circuit, a starting resistance, a resistance shunt line, and electro-responsive means for shunting the current around the arc through the resistance shunt at a predetermined voltage across the arc.

1,303,682. MEANS FOR DEHYDRATING METAL SALTS. MARTIN J. KRAMER, Chicago, Ill., assignor to Cannon-Swenson Company, Inc., Chicago, Ill., a Corporation of Illinois. Filed Dec. 13, 1917. Serial No. 206,912. 2 Claims. (Cl. 23-22.)



1. A system within which to dehydrate solid matter contained in solution in a large volume of water, comprising a pressure tight tank within which to heat the solution; a furnace having a discharge orifice opening into a revoluble cylinder, said cylinder inclined downwardly from said furnace; means to revolve the cylinder; a sprayer in the mouth of said orifice to spray the solution into the hot gases of combustion to pass through said cylinder and an exhaust fan for drawing air and the resulting gases and vapors through said furnace and cylinder.

1,303,683. DRAWING-TABLE. EMILE RAYMOND KORSCHLIN, Amsterdam, Netherlands, assignor to Naamloose Vennootschap Weduwe J. Ahrend & Zoon's Industrieel Handels-Vereeniging, a Company of The Netherlands. Filed Feb. 4, 1918. Serial No. 215,244. 3 Claims. (Cl. 45-100.)

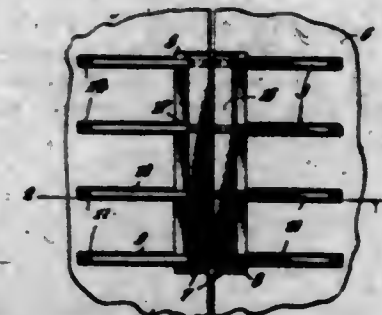


1. In a drawing table, a drawing board, an articulated parallelogram having two adjacent joints connected to said board, a fixed pivot forming the third joint and a movable pivot forming the fourth joint of the parallelo-

gram a counterweight connected to the side of the parallelogram uniting said board and fixed pivot, a sliding member carrying said movable pivot, and a friction device controlling the movements of said member.

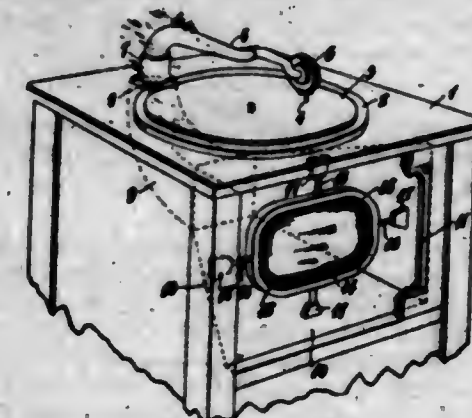
1,303,684. (WITHDRAWN.)

1,303,685. ELEVATOR ATTACHMENT. ARTHUR G. LEASE, Biddeford, Me. Filed Jan. 29, 1919. Serial No. 273,766. 8 Claims. (Cl. 187-98.)



1. In a device of the class described, the combination of an elevator car and a supporting structure, said car and structure having counter-sunk grooves formed therein, supporting bars pivotally mounted within said grooves, supporting plates fixed upon said bars, whereby said plates and bars normally fit flush with the surface of the elevator car and the supporting structure, although one or the other plates may swing when an article is in the path of movement thereof.

1,303,686. PHONOGRAPH. FRANK A. LEE, Cincinnati, Ohio, and FRANK G. ROSE, Dayton, Ky., assignors to The John Church Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 26, 1917. Serial No. 206,832. 4 Claims. (Cl. 181-27.)



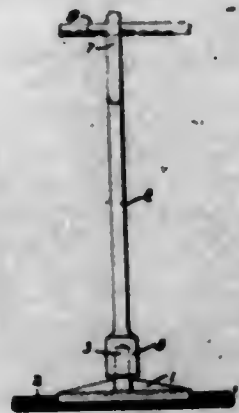
1. In a sound-producing instrument, a megaphone flaring forwardly, and a throat leading downwardly and forwardly into the rear end of said megaphone, an element rigidly mounted across the central part of the interior cross-section of said megaphone in upright position, and spaced away from the upper, lower and lateral walls of said megaphone, said megaphone being freely open from the space around the deflector to the outlet end of the megaphone, and said deflector being adapted to intercept sound-waves as they pass from said throat and reflect them back toward said throat, for the purposes set forth.

1,303,687. CONTAINER. CHARLES LEFFLER, Brooklyn, N. Y. Filed Aug. 16, 1917. Serial No. 186,506. 1 Claim. (Cl. 229-48.)

A blank for can bodies comprising a sheet of material having dovetail projections at each end, the projections at one end being adapted to interlock with those at the

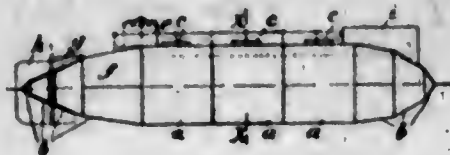
other end, a relatively thin interior sheet secured to the inner face of the material and extending beyond the ends of the dovetail projections at one end of the material and stopping short of said projections at the other end, and a relatively thin exterior sheet secured to the outer face of the material and extending beyond the dovetail projections at said other end of the material and stopping short of the projections at the opposite end of the material, the extending portions of the two sheets being adapted to be secured over the joint respectively interiorly and exteriorly thereof when the can body is formed.

1,303,688. TROLLEY-HANGER. JOHN LEISERLING, Springfield, Ill., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 21, 1915. Serial No. 51,854. 3 Claims. (Cl. 191-41.)



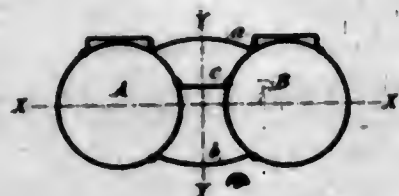
1. The combination with a messenger-cable and a trolley conductor, of a two-piece hanger suspended between the same comprising a readily-removable clamp for engaging the conductor and an elongated suspension member having an internally threaded portion at one end for attachment to the clamp and a portion for engaging the messenger-cable at the other end.

1,303,689. BARGE. EDOUARD ERNEST FERDINAND LEPARMENTIER, Dieppe, France. Filed Aug. 11, 1917. Serial No. 185,704. 3 Claims. (Cl. 114-56.)



1. A barge having a hull externally and internally cylindrical, with conical ends, and hollow stranding keels fastened exteriorly to the hull and containing ballast.

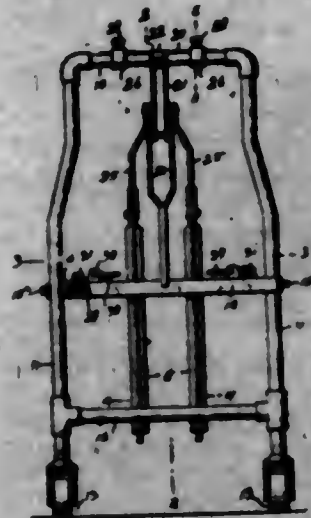
1,303,690. COMPOUND BARGE. EDOUARD ERNEST FERDINAND LEPARMENTIER, Dieppe, France. Filed Mar. 5, 1918. Serial No. 220,643. 6 Claims. (Cl. 114-61.)



1. A compound barge comprising a number of individual barges consisting of hulls which are cylindrical both internally and externally, and a framework con-

necting adjacent barges, the said framework also being internally and externally of cylindrical contour and comprising a water ballast and a storage compartment.

1,303,691. CARRIAGE FOR RADIATORS. CHARLES LE TEMPT and HENRY W. GREEN, Harrisburg, Ill. Filed Feb. 21, 1919. Serial No. 278,523. 14 Claims. (Cl. 254-8.)



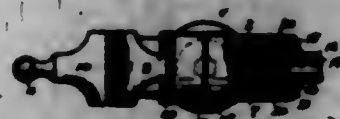
1. A carriage for the purpose described comprising a wheel supported frame, a vertically movable supporting member carried upon the frame, manually operable means for raising or lowering the supporting member and locking it in its raised position, a latch operatively mounted upon the frame and adapted to engage between the coils of a radiator to hold the radiator to the carriage, said latch including a manually rotatable shaft, and a latching projection extending from the shaft.

1,303,692. SACK-LIFTER. HENRY C. LINE, Stockton, Calif. Filed Sept. 10, 1917. Serial No. 190,550. 1 Claim. (Cl. 57-109.)



A sack lifter comprising a rectangular frame, the sides of which all lie in substantially the same plane, one side forming a hand hold, and a plurality of short prongs projecting substantially at right angles from the face of the side opposite the hand hold but forming V-shaped spaces between the hooks and the side of the frame thereabove, whereby the hooks will engage a sack to support the same when the lifter is advanced toward the sack and lifted with the frame thereof held in a substantially vertical plane.

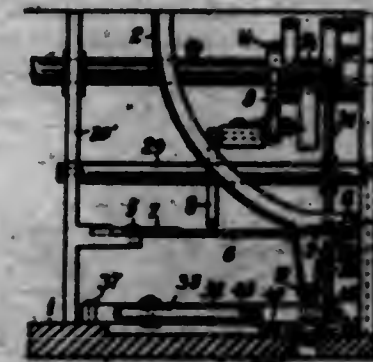
1,303,693. MACHINIST'S VISE. JOHN R. LONG, Akron, Ohio. Filed Aug. 10, 1918. Serial No. 240,340. 6 Claims. (Cl. 51-33.)



2. In a vise as described, a split body having a pair of jaws rotatably mounted therein, one of said jaws hav-

ing a round shank with a flat-sided opening in one end thereof, and an end cap frictionally engaged with said body having parallel projections occupying said shank opening and locking the shank and cap together.

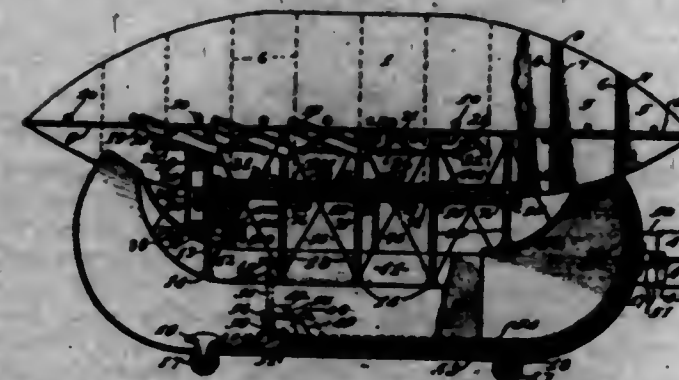
1,303,694. MACHINE FOR MANUFACTURING NAILS FROM UNFINISHED HORSESHOE-NAILS. OLA HANSEN LUND, Christiania, Norway, assignor to Christiania Traadstiftfabrik, Christiania, Norway. Filed Apr. 14, 1917. Serial No. 162,148. 11 Claims. (Cl. 10-64.)



1. In a machine of the character described, a conveyor having a substantially vertical upper portion, a substantially horizontal lower portion and an intermediate concave portion, a laterally movable support in the horizontal portion of said conveyor, a convex extension below and extending under said support to engage and turn the blanks during their passage through the conveyor, and a holder below said extension adapted to catch the nails.

2. In a machine of the character described, a conveyor for nail blanks, a holder arranged to receive the blanks from the conveyor, a header, an oscillatory carrier arranged to swing between the holder and header, means to open the holder to release a blank therefrom, and means to simultaneously close the carrier to catch the released blank.

1,303,695. AERIAL AND MARINE CRAFT. SILAS H. LYNN, Long Beach, Calif. Filed June 27, 1917. Serial No. 178,826. 5 Claims. (Cl. 244-6.)



4. In a craft of the character described, the combination with a car having a motor therein, a drive shaft extending transversely of said car, a plurality of propeller shafts operably connected with said drive shaft, a propeller disposed at an oblique angle to and adapted to be operated by each of said propeller shafts, a longitudinal shaft on each side of said car capable of operation for swinging said propellers bodily around the axis of their supports, and manually operable means for operating said longitudinal shafts.

1,303,696. OIL-CAN. JOHN F. MCGANSON, Modera, Manitoba, Canada. Filed Oct. 20, 1917. Serial No. 197,000. 1 Claim. (Cl. 221-59.)

An oil can having a depressible bottom, a cap on said can above said bottom, a spout on said cap, an air inlet tube on said cap extending within the can, means controlling the passage of air through said tube, a spring pressed

valve closing an end of said spout, a spring pressed rod engageable with said valve mounted to slide on said tube,



and a spring pressed plate hingedly connected with said rod and bearing upon the bottom of said can.

1,303,697. KITCHEN-CABINET. WILLARD F. McLAUGHLIN, Schaller, Iowa. Filed Dec. 12, 1917. Serial No. 206,832. 2 Claims. (Cl. 45-16.)

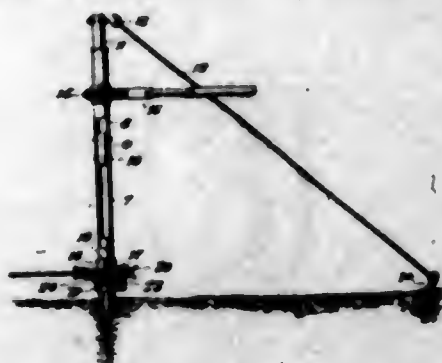


1. The combination with a cabinet having a receptacle removably mounted therein, a supporting structure connected with each side of said receptacle and with said cabinet, said structure comprising a longitudinally slotted bar secured at its opposite ends to the cabinet, a link having a headed stud slidably engaged with the slot of said bar, another link pivoted at one end to said bar near its lower end and pivotally connected intermediate of its ends with said first mentioned link, a link pivotally connected at one end with the outer end of said first mentioned link and at its other end with said receptacle, and a shorter link pivotally connected at one end with the link which is connected with the receptacle and with the link carried by the lower end of said bar.

1,303,698. AUTOMOBILE-EXTRICATOR. WILLIAM D. McLAUGHLIN, Port Huron, Mich., assignor of one-fourth to Peter Zimmerman, one-sixteenth to Charles H. Schumde, one-sixteenth to Otto R. Schumde, one-sixteenth to Max Rosenthal, one-eighth to Avery R. Burgess, and one-sixteenth to Thomas Hess, Port Huron, Mich. Filed Mar. 29, 1918. Serial No. 225,514. 3 Claims. (Cl. 254-104.)

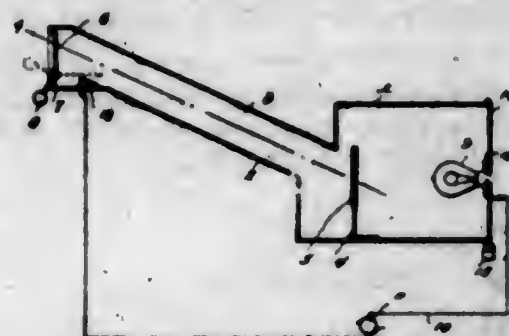
1. A device of the class described comprising an anchor plate adapted to be driven into the ground and having an upwardly extending spindle, a hollow shaft rotatably mounted upon said spindle, a cable drum secured to said shaft for rotation therewith, means for rotating said shaft, a ratchet surface on the drum, a support mounted on the

spindle of the anchor and notched and receiving the upper end of the anchor whereby it is held against rotation,



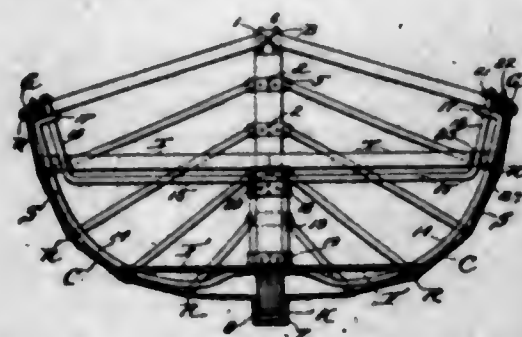
and a pawl mounted on the said support and engaging the ratchet surface of the drum.

1,303,699. INDICATOR. ROBERT PARK McMAHAN, Pittsburgh, Pa. Filed Jan. 6, 1919. Serial No. 269,913. 2 Claims. (Cl. 40—130.)



1. An indicator comprising a casing having a laterally extending sight passage, a display card arranged within the casing at one end of the sight passage, a door normally closing the other end of the sight passage and electric means rendered active upon opening of said door to view said card.

1,303,700. COLLAPSIBLE BOAT. ANGUS McNEIL, Gloucester, Mass. Filed June 8, 1918. Serial No. 238,993. 10 Claims. (Cl. 9—2.)

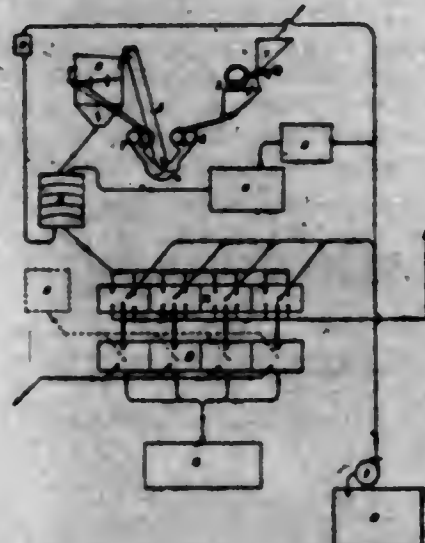


1. A collapsible boat comprising flexible sides, a bow-stem; a stern-post and arcuate rods for holding the sides in extended position, the bow-stem and stern-post having fore-and-aft openings and the ends of the rods being bent to extend into the openings.

1,303,701. METALLURGICAL PROCESS. CARLOS MALACH MALACH and CARLOS HENNER GILSON, Valparaiso, Chile, assignors to Sociedad Metalurgica Chilena Cuprum, Valparaiso, Chile, a Limited Liability Company of Chile. Filed Nov. 7, 1916. Serial No. 130,106. 4 Claims. (Cl. 75—18.)

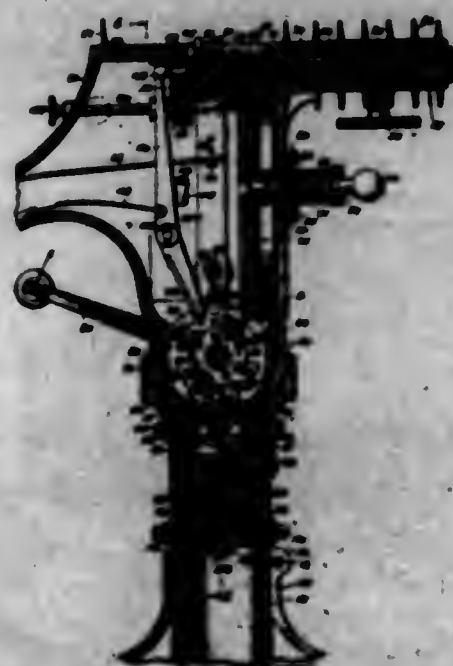
1. A metallurgical process which consists in roasting sulfid ores, introducing nitrates in solution into the roasting zone wherein the roasting of the ore is somewhat advanced to form sulfates of the metals present in the ore, leaching the sulfates formed, and precipitating said leached metals from the solution.

4. A metallurgical process which consists in roasting sulfid ores to form sulfur dioxide, introducing moisture containing an oxidizing agent in solution into the roasting zone, wherein the roasting of the ore is somewhat ad-



vanced, to transform the sulfur dioxide into sulfuric acid which will react with the roasted ore to form sulfates, leaching the resulting sulfates, and precipitating the leached metals from the solution.

1,303,702. MACHINE-GUN FOR SHOOTING GALLERIES. WILLIAM FREDERICK MANGELS, Brooklyn, N. Y. Filed Apr. 2, 1918. Serial No. 228,222. 15 Claims. (Cl. 89—13.)

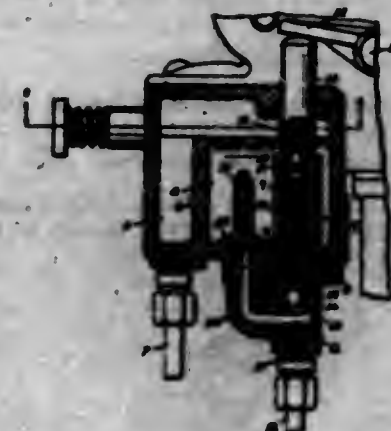


1. In a machine gun, a barrel having a bore, a revolvable detachable magazine provided with bores arranged in a circle and adapted to register successively with the bore of the barrel, the said magazine bores being adapted to be filled with cartridges, a breech block having a firing pin adapted to fire the cartridge uppermost at the time in the magazine, and manually controlled means intermittently rotating the said magazine, moving the said breech block against the said magazine opposite the barrel at the time the magazine is at rest, and actuating the said firing pin at the time the breech block is in position against the magazine.

8. In a machine gun, a breech block mounted to slide and provided at one side with an incline, a bar mounted to slide at an angle to the sliding movement of the breech block, the bar having an incline engaging the said breech block incline to move the breech block forwardly, and a revolvable cam wheel engaging the said bar to impart an intermittent motion to the same.

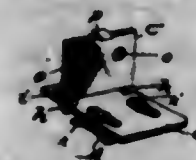
15. In a machine gun, a breech block, a spring-pressed firing pin mounted in the breech block, a spring-pressed hammer adapted to engage the said firing pin, a revolvable cam wheel provided with spaced cams adapted to engage the said hammer to intermittently actuate the same, a manually controlled throw-out member adapted to engage the hammer to move the latter into inactive position, and locking means for locking the said throw-out member when in either an active or inactive position.

1,303,703. CHARGE-FORMING DEVICE FOR INTERNAL COMBUSTION ENGINES. HENRY MANTHEY, Lansing, Mich., assignor to The "New-Way" Motor Company, Lansing, Mich. Filed Jan. 12, 1918. Serial No. 211,657. 8 Claims. (Cl. 123—127.)



6. In a structure of the class described, the combination of a fuel reservoir having an overflow compartment and a drain opening outside of said compartment, a fuel passage, a drain passage connecting said drain opening with said inlet passage, a valve for said drain connection, and an overflow pipe connected to said overflow compartment.

1,303,704. SAFETY-LOCK FOR RIBBONS, BRACELETS, BELTS, AND OTHER SIMILAR ARTICLES. ISRAEL MARMORSTEIN and HENRY STONE, New York, N. Y. Filed Feb. 24, 1919. Serial No. 278,605. 1 Claim. (Cl. 24—171.)



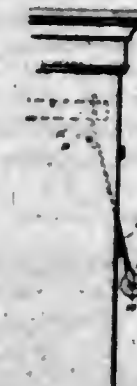
A slide lock of the class described comprising a slide with two slit openings one on each side of a central bar carrying two headed studs, a hinged securing piece formed of two plates one of which plates is pierced with locking slots to receive and confine the said studs and the other hinged plate with openings adapted to receive and hold the heads of said studs in their locked position, substantially as and for the purposes shown and described.

1,303,705. ROCK-DRILL. WILHELM MAUSS, Johannesburg, Transvaal, South Africa. Filed Nov. 6, 1915. Serial No. 59,983. 7 Claims. (Cl. 121—11.)



7. In a rock drill channeling machine, or coal cutter, the combination with the cylinder and piston, of means controlling the period of inlet to the front cylinder chamber and means responsive to the cessation of feeding the front cylinder for producing compression in the rear cylinder chamber.

1,303,706. FIRE-ESCAPE. AMASA G. MILLER, Bristol, Ind. Filed Apr. 17, 1917. Serial No. 162,664. Renewed Aug. 28, 1918. Serial No. 251,839. 1 Claim. (Cl. 237—22.)



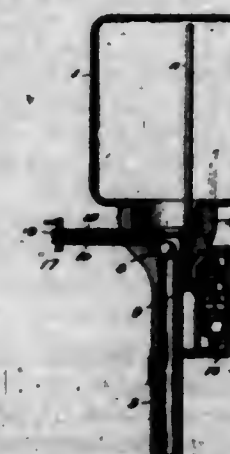
A fire escape comprising a housing, a shaft extending through the housing, handles loose upon the shaft upon opposite sides of the housing, one of the handles having a slot formed therein, a brake pivotally mounted in the slot and having an inner arm for engaging the shaft and an outer actuating arm, and a line wound about the shaft and extending out of the housing.

1,303,707. RAILWAY AND LIKE MECHANICAL SIGNALING DEVICE. DANIEL BARRY MILLER, Clydebank, Scotland. Filed Apr. 23, 1918. Serial No. 230,309. 1 Claim. (Cl. 246—311.)



A mechanical signal including a lever, a bar, and a second lever, the bar being mounted in such a manner that it is capable of rocking and having the lower ends of the levers secured one to each end thereof, respectively, one of said levers being adapted to be positioned beside a track with its upper end projecting above said track, a roller secured to such upper end, and a pair of springs having one of their ends secured one to each side of such first named lever to hold the same in an upright position.

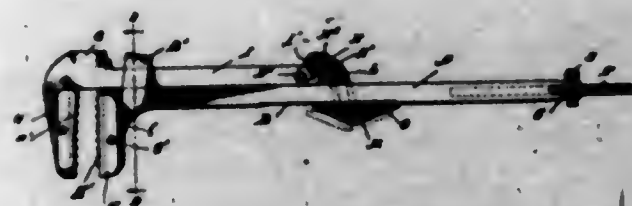
1,303,708. COMPUTING-PUMP. RALPH D. MORFITT, Lexington, N. C. Filed Sept. 6, 1916. Serial No. 118,696. 1 Claim. (Cl. 221—99.)



A computing pump comprising a container formed of transparent material and having graduations thereon, a supply pipe communicating with the bottom of the con-

tainer, means for creating a vacuum within the container, an enlargement formed in the upper end of the supply pipe to provide a chamber of greater diameter than the bore of the supply pipe, the shoulder formed at the juncture of said bore and chamber defining a valve seat, a ball valve normally positioned upon said seat and lifted therefrom by the vacuum, a discharge valve communicating with the interior of said chamber, and a pipe extending across the top of the valve chamber above the ball valve and communicating with the discharge valve for destroying the vacuum and permitting the valve to seat.

1,303,709. WRENCH. FREDRICK A. MOORE, Towanda, Kans. Filed Mar. 15, 1917. Serial No. 155,921. Renewed Nov. 13, 1918. Serial No. 262,402. 1 Claim. (Cl. 81—134.)



A wrench having two jaws with shank portions of different lengths and having sliding contact with each other, one of said shank portions having a shoulder at its end and the other provided with serrations, a stirrup-shaped member pivoted to the shouldered shank portion and provided with a cross piece extending over the shoulder, a pin projecting from the cross piece and engaging a hole in the shoulder, a coiled spring mounted upon the pin and bearing intermediate the cross piece and the shoulder, a serrated dog pivotally mounted between the arms of stirrup-shaped member and projecting upon either side thereof, and adapted to engage said serrations upon the shank portion of the jaw.

1,303,710. PAPER CAP FOR MILK-BOTTLES. ANDREW R. MUNRO, Medicine Lake, Mont. Filed May 16, 1918. Serial No. 234,918. 1 Claim. (Cl. 215—14.)



A bottle closure comprising a flat disk-like member to fit within the bottle mouth, an outer disk of a size to fit over the bottle mouth and to extend over and completely cover said lip, spacing disks between said members, and a wire bent midway its ends to form a loop and twisted together at one side of said loop, then bent laterally outward to form arms for engaging the outer face of the outer disk, said arms being bent at right angles and passed through the disks and clamped against the inner face of the inner disk with the loop extended outwardly to form a handle.

1,303,711. GEARING FOR SPRING-MOTOR FANS. PASQUALE MUZZILLO, Brooklyn, N. Y. Filed Jan. 19, 1918. Serial No. 212,822. 1 Claim. (Cl. 74—58.)

A motor of the character described including driven gears arranged substantially side by side, a sliding gear wheel, the driven gears being disposed in the path of movement of the sliding shaft to permit the gear wheel on said shaft to be brought into single intermeshing en-

gagement with said driven gears, and yieldable means operating against the shaft to hold the gear wheel thereof



In operative relation to said driven gears, as and for the purpose specified.

1,303,712. BALL-BEARING. JOHN NEWMANN, Brooklyn, N. Y. Filed Aug. 3, 1918. Serial No. 248,867. 11 Claims. (Cl. 64—53.)



2. In a ball bearing, the combination with outer and inner shells having annular non-interrupted grooves forming races, of a cage for the balls composed of two inter-engaging rings each formed with perforations, the perforations of one of the rings being in form of full circles and those of the other ring being semicircular and open toward one edge of the said ring, and having spherically shaped rims or flanges surrounding said perforations.

1,303,713. PROJECTILE. TAUNJEINO NOMOTO, Seattle, Wash. Filed June 9, 1917. Serial No. 173,883. 5 Claims. (Cl. 102—24.)



1. A projectile having a casing with hinged wall sections forming a chamber, means for automatically opening said sections, and means for locking the sections closed and adapted to automatically release said sections when the resistance of air upon the flying projectile is overcome.

1,303,714. SWIVEL-JOINT. DANIEL O'BRIEN, Palestine, Tex. Filed June 4, 1918. Serial No. 233,300. 1 Claim. (Cl. 285—120.)

A swivel joint for coupling an element to a sleeve, and means including a collar on the inner end of said element within the sleeve, a follower fitting the sleeve and having threaded connection therewith, an annular flange on said

follower at its inner end and extending radially inward, to be slidable on said element outward of said collar, an expansion spring in said sleeve to press said collar outwardly in opposition to the flanged inner end of the



follower, and a packing within said follower; together with means at the opposite end of said sleeve to connect the same with a pipe against which means the adjacent end of the spring abuts.

1,303,715. NUT-LOCK. GEORGE H. OUTLAW, Vaughn, N. Mex. Filed June 30, 1917. Serial No. 175,963. 1 Claim. (Cl. 151—18.)



In combination with a bolt and an element through which the bolt passes, said element having an annular depression upon its outer face surrounding the bolt, and the inner wall of the said depression being formed with spaced shoulders and angular walls connecting the shoulders, a nut threaded upon the bolt and having its inner face provided with an annular depression surrounding the bore thereof, and the inner wall of the said depression having a notch, a split spring ring of helical formation having one of its ends outturned to provide a tooth to engage with one of the shoulders of the referred to element, when the said split ring is arranged between the element and the nut, said ring having its opposite end provided with an outturned portion forming a head designed to be engaged in the notch of the nut, and the end of the said head being beveled to the end of the ring upon which the head is formed, as and for the purpose set forth.

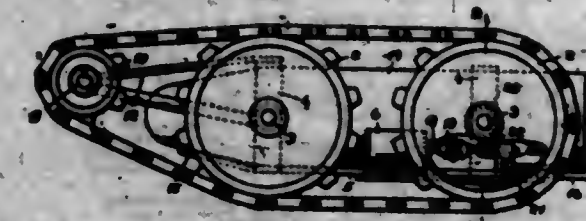
1,303,716. SOLDERING-IRON. RAYMOND C. PARENT, Crawfordsville, Ind. Filed Dec. 27, 1918. Serial No. 268,527. 7 Claims. (Cl. 159—27.)



1. A self-heating implement for the purposes set forth comprising a reservoir-handle, a yoke connected thereto

and having openings in its sides, a burner secured within the yoke and accessible through openings therein for adjusting the needle-valve, feed pipes extending from the reservoir-handle to the burner, a fiber packing in the lower end of the reservoir into which the feed pipe extends, and a leather disk on top of the packing through which the liquid fuel permeates to said packing.

1,303,717. LAND-TORPEDO. GEORGE A. PARKER, Brockton, Mass. Filed Aug. 28, 1918. Serial No. 251,428. 2 Claims. (Cl. 180—9.)



1. In a land torpedo, forward and rear load supporting wheels having shafts, nose wheels elevated from the ground, all of said wheels of the form of sprocket wheels, tractor sprocket chains passing over the wheels at each side of the machine, a torpedo carrier suspended from the shafts of the forward and rear wheels, and a driving engine mounted upon said carrier.

1,303,718. STEAM-BOILER. THOMAS T. PARKER, Brooklyn, N. Y. Filed June 21, 1918. Serial No. 241,105. 2 Claims. (Cl. 122—428.)

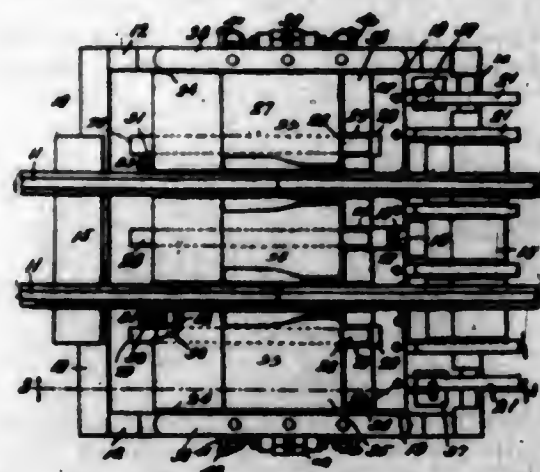


1. The combination with a vertical fire-tube boiler, of a unitary double-walled cylindrical feed-water structure mounted therein in concentric relation to the boiler shell, said structure comprising a basal annulus surrounding the tubes adjacent their lower ends, and two spaced-apart concentric walls rising from said annulus and extending above the normal level of the boiler water, the inner wall having an overflow above such level, and means whereby the outer wall of said structure is maintained in spaced relation to the boiler shell to provide a water space which encircles the concentric feed-water chamber and communicates at its lower end with the circulating boiler water, whereby both walls of the structure present wide circumferential areas to the influence of the hot boiler water.

1,303,719. RAILROAD-TRACK GUARD. CHARLES H. PATRICK, Soddy, Tenn., assignor of one-third to John J. Clift, Soddy, Tenn. Filed Aug. 6, 1918. Serial No. 248,568. 1 Claim. (Cl. 20—19.)

In a track guard, a movable platform extending across a railroad track below the same, a plurality of parallel sills forming a part of said platform, a rocking shaft ex-

tending across and below the track and having a series of depressions therein forming seats for said sills to permit the platform sliding freely across the shaft, a rocking beam also extending across and below the track at the opposite end of the platform to which said platform is hinged eccentrically of the axis of the beam, counter balancing means connected to said beam for holding the plat-



form normally in horizontal position, and a gate forming a part of said beam also normally maintained below the track, the parts being so arranged that when unduly weighted the hinged end of the platform will be depressed, the platform simultaneously moved horizontally in the line of the track, and the gate be swung upwardly across the track.

1,303,720. COMBINED HAIR BRUSH AND COMB. CHARLES G. PELTIER, Ontonagon, Mich. Filed Apr. 3, 1918. Serial No. 226,482. 2 Claims. (Cl. 132-35.)



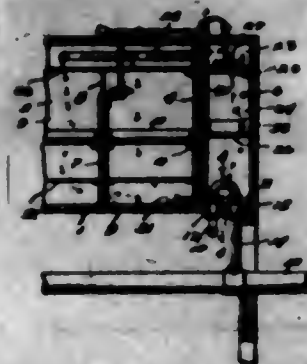
2. In combination with a brush, resilient comb holding means on the back of the brush arranged at right angles thereto and having side walls which gradually decrease in width from the outer to the inner ends thereof so that their inner ends are of a width approximately equaling that of the transverse walls thereof, a comb having pivots at its ends mounted in the outer end of the comb holding means and adapted to be turned thereon to either projected or withdrawn position, the side walls of the comb holding means serving to engage and hold the comb in either of such positions.

1,303,721. CRUTCH-HANDLE. ADÉLARD FLOUVEY, Woonsocket, R. I. Filed Aug. 29, 1918. Serial No. 251,894. 2 Claims. (Cl. 135-51.)



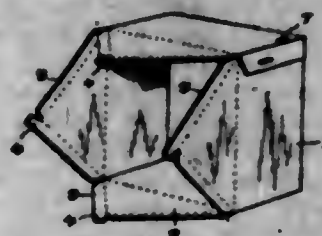
2. The combination with a crutch having a pair of standards spaced from each other, of an elongated support bridging the space between said standards, a pair of flanges carried by said support, a pair of wings carried by said flanges, a ferrule carried by each of said wings, a hand grip having its ends retained within said ferrules, ears carried by said flanges, the standards of said crutch being adapted to enter between said ears and flanges, and means for retaining said standards between said ears and flanges.

1,303,722. HEATING, VENTILATING, AND HUMIDIFYING SYSTEM FOR INCUBATORS. ALFRED THURSON POPE, Louisville, Ky., assignor of one-half to CURRAN POPE, Louisville, Ky. Filed Apr. 27, 1917. Serial No. 165,024. 8 Claims. (Cl. 119-42.)



1. In an incubator, an egg chamber, an air chamber having communication with the atmosphere through openings and having communication with the egg chamber through distributing means located adjacent to the top of the egg chamber, the egg chamber receiving air only from the air chamber, ducts, independent of the heating means, establishing communication between the bottom of the egg chamber and the atmosphere, a heating device located in the air chamber adjacent to the openings therein and active only to heat the air in the air chamber, and means for regulating the transfer of heat from the air chamber to the egg chamber and means within the air chamber for supplying moisture to the incoming air.

1,303,723. PAPER RECEPTACLE. ALVIN G. PORTER, Auburn, Wash. Filed Jan. 10, 1919. Serial No. 270,554. 1 Claim. (Cl. 229-43.)



A receptacle of the class described made from a single sheet of material and having its bottom composed of triangular-shaped extensions of the sides, each extension being scored adjacent its free edges to form flaps and one flap having a cut-out portion therein at the apex of said extension so as to provide an extended portion on the other flap, and means for securing said flaps and extended portions together.

1,303,724. HEALTH FOOD. SUSAN STEVENS RAYNE, Washington, D. C. Filed June 20, 1918. Serial No. 241,024. 1 Claim. (Cl. 99-11.)

A food product for making bread consisting of corn meal, wheat shorts in equal proportions and forming the bulk of the product, a smaller proportion of peanut flour to supply oil to the product, and sesna meal of considerably less proportion than the proportion of peanut flour which acts as a medicinal laxative to stimulate the bowels.

1,303,725. SHOCK-ABSORBER. JOHN J. RHINE, Pittsburgh, Pa. Filed Sept. 11, 1917. Serial No. 190,865. Renewed Apr. 5, 1919. Serial No. 287,926. 1 Claim. (Cl. 121-20.)

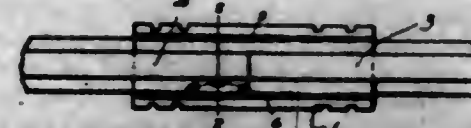
A shock absorber for a reciprocating pneumatic tool comprising an air conveying pipe connected directly to the tool and having an abutment formed thereon, a sleeve in which said abutment and major portion of said pipe is slidably mounted, springs encircling the pipe and engaging the abutment, caps threaded on the ends of the

sleeve and engaging the spring for regulating the tension thereof and to slidably support said pipe and screws



mounted in the caps and adapted to engage the sleeve for holding the caps in an adjusted position.

1,303,726. SLOT ANGLE-BAR. EARNEST B. RICE, Grand Saline, Tex. Filed May 11, 1918. Serial No. 233,898. 2 Claims. (Cl. 238-205.)



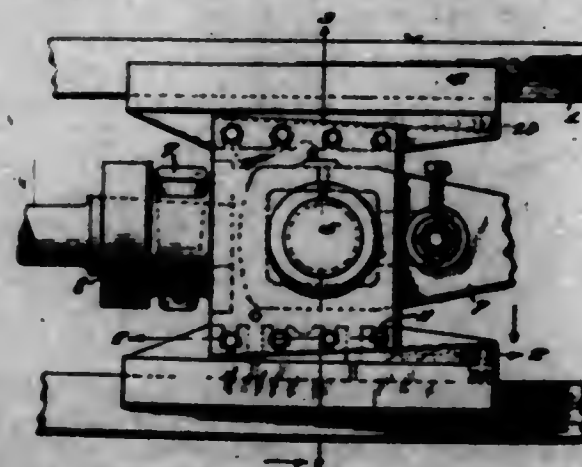
1. In a device of the class described, the combination, of a pair of rails, a U-shaped locking member arranged to lock the rails together, of a chair arranged to slidably receive the rails and the U-shaped locking member, and a vertically sliding key detachably carried by the chair intermediate the ends thereof and arranged to engage the U-shaped locking member to prevent relative movement between the rails and chair.

1,303,727. PROCESS FOR MAKING SHEAPNELL-SHELLS. WILLIAM D. RICE, Conneaut, Ohio. Filed Sept. 22, 1917. Serial No. 192,703. 2 Claims. (Cl. 148-12.)



1. An improved method of constructing shells, which consists in casting a shell of steel with a body of varying or irregular thickness, re-heating the shell to the required degree, subjecting it to compression, carburizing the irregular surface to a suitable depth, and finally machining or otherwise removing the irregular surface to give it uniformity, thereby removing the thickened areas and the portions thereof which are hardened, and leaving the intervening hardened areas.

1,303,728. CROSS-HEAD FOR ENGINES. THOMAS R. GATCHOFF, Baltimore, Md. Filed Dec. 9, 1918. Serial No. 265,954. 5 Claims. (Cl. 74-84.)



1. An adjustable cross head having sides spaced apart, the inner faces of said sides having beveled portions, gibs

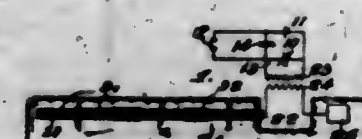
having recesses upon their opposite faces and transverse grooves upon their inner faces, the adjacent walls of the recesses being beveled conforming to and engaging the beveled portions of said sides, bolts passing through registering apertures in said sides and grooves, and wedging members movable intermediate the sides and outer walls of said recesses in the gibs.

1,303,729. WIRELESS SIGNALING SYSTEM. JAMES HARRIS ROOPE, Hyattsville, Md. Filed Jan. 10, 1919. Serial No. 270,556. 4 Claims. (Cl. 250-32.)



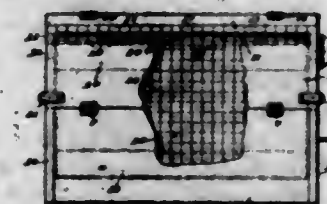
1. The combination with a vessel, of a radio conductor extending longitudinally thereof but insulated therefrom and from the water except at its ends which make electrical connection with the vessel, an electrical connection between said ends of the radio conductor through said vessel, and electromagnetic signaling instruments associated with said radio conductor at a point between its ends.

1,303,730. RADIOSIGNALING SYSTEM. JAMES HARRIS ROOPE, Hyattsville, Md. Filed Jan. 11, 1919. Serial No. 270,669. 5 Claims. (Cl. 250-32.)



1. A radio signaling system comprising an antenna extending horizontally substantially parallel to the surface of the earth and insulated therefrom, a metallic covering comprising sections insulated from each other and inclosing said antenna throughout its length but insulated therefrom, and signal instruments associated with said antenna.

1,303,731. RECORD-CABINET. JOHN A. SANFORD and MARK E. SANFORD, Little Gensee, N. Y. Filed Feb. 14, 1919. Serial No. 277,001. 3 Claims. (Cl. 281-2.)

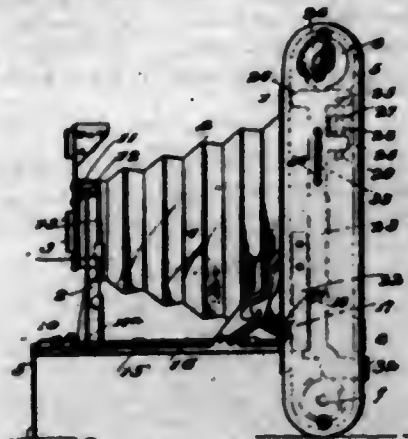


1. A device of the character described comprising a casing having its top and front open, covers hinged upon said casing and disposable to cover said top and front, the free edges of said covers being spaced apart whereby to provide an opening, a roller removably journaled in the ends of said casing and supporting an endless record sheet disposed thereabout, said roller serving as a platen whereby said sheet may be inscribed upon through said opening, and a relatively heavy idle roller engaged within and supported by the endless record sheet.

1,303,732. FILM-INDICATOR. CHARLES J. SIBBALD and CHARLES T. A. SIBBALD, Troy, N. Y. Filed Mar. 29, 1918. Serial No. 225,482. 10 Claims. (Cl. 95-31.)

1. In combination, a camera including a shutter operating device, a film roll, and an opening formed in the camera to normally expose to view a film in rear of the

shutter, an indicator, spring actuated means for moving the indicator opposite the opening, a latch means operated by the shutter operating device to actuate the latch and



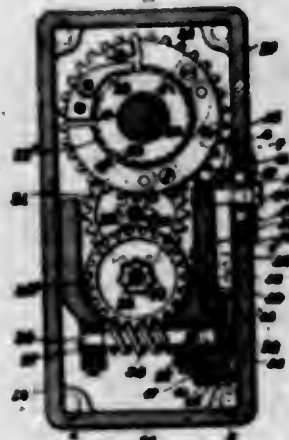
to release the indicator, and means including a cam actuated when the film roll is operated to reset the indicator.

1,303,733. PRINTING-BORDER. LLOYD SMITH, Yorkville, Ill. Filed Feb. 28, 1919. Serial No. 279,722. 2 Claims. (Cl. 101-404.)



1. In a printer's border, rules having end extensions provided with vertical grooves and end posts, of less height than the rules, and angled corner pieces, vertically slotted and reduced in thickness at their lower corners to receive said extensions and posts.

1,303,734. LIFTING-JACK. JOSEPH B. SMITH, Coaticook, Quebec, Canada. Filed Feb. 15, 1919. Serial No. 278,299. 7 Claims. (Cl. 74-18.)



1. The combination of an operating shaft; a ratchet revoluble with said shaft; a gear loosely mounted on said shaft; a pawl on said gear engaging said ratchet; a worm; driving mechanism for said worm actuated by said gear; a fixed member provided with a cylindrical chamber; a cylindrical disk rotated by said worm; a brake member coacting with said disk; manually actuated means for controlling said brake member; and weight actuated members carried by said disk and adapted to be moved into frictional contact with the wall of said chamber when said disk is rotated at a predetermined speed.

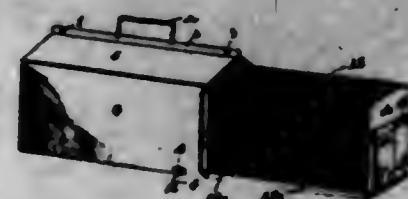
2. The combination of an operating shaft; a ratchet revoluble with said shaft; a gear loosely mounted on said shaft; a pawl on said gear engaging said ratchet; a worm; driving mechanism for said worm actuated by said gear; a fixed member provided with a cylindrical chamber; a cylindrical disk rotated by said worm; a pivoted brake member coacting with said disk; manually actuated means for controlling said brake member; and weight actuated members carried by said disk and adapted to be moved into frictional contact with the wall of said chamber when said disk is rotated at a predetermined speed.

1,303,735. CHECK-LINE COUPLING. PINCKNEY F. SOMERS, Stony Point, N. C. Filed July 6, 1918. Serial No. 243,619. 1 Claim. (Cl. 54-36.)



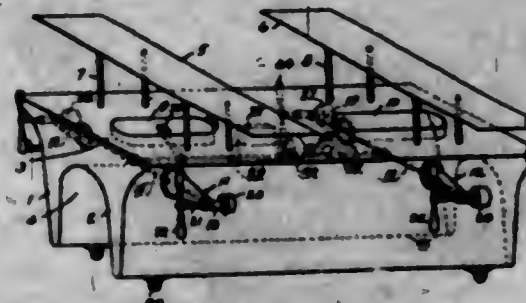
A check line coupler consisting of a frame, the end pieces of which are provided with aligned bosses on opposite sides thereof, one end piece having two pairs of bosses about equidistant from the ends thereof, and the other end piece having a single pair of aligned bosses about midway between the ends thereof, said bosses being longitudinally apertured, in combination with shanks extending through the respective bosses and swiveled therein, said shanks having terrets at their outer ends for connection, respectively, with a pair of check lines and a driving rein.

1,303,736. COOP. PAUL J. SPRINGER, Gaston, Ind., assignor, by direct and mesne assignments, to The Cyclone Manufacturing Company, Urbana, Ind. Filed Jan. 28, 1914. Serial No. 814,944. 3 Claims. (Cl. 119-19.)



5. In a brood coop, a pair of telescopic sections, one of said sections being formed of screening, the other section having solid side and top walls and an end, flanges formed on said side walls, a floor having marginal flanges to slidably engage the flanges on the side walls, said flanges forming guideways for said screen section and drains for the floor.

1,303,737. AEROPLANE. JOHN A. SPRINGER, Long Beach, Calif. Filed May 20, 1918. Serial No. 235,783. 3 Claims. (Cl. 244-2.)



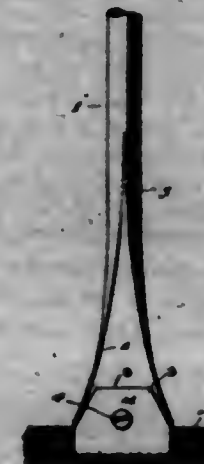
1. In an aeroplane, two straight parallel V-shaped floats, a deck built integral with the tops of the floats and connecting the floats together and forming an arch-shaped passage between the floats below the deck, posts extending upwardly from the deck, and lifting planes mounted upon the posts.

1,303,738. PROJECTILE FOR USE AGAINST SUBMARINES AND SUBMERGED MINES. ANSWER JACOBSON STONE, New London, Conn. Filed July 3, 1917. Serial No. 178,378. 1 Claim. (Cl. 102-26.)



A projectile of the character described, comprising a cylindrical body portion and a cylindrical cap of hard steel secured to the head thereof, the said cap being cupped and provided with a dented cutting edge, and being also provided with passages opening rearward and outward from said cup-shaped portion, substantially as described.

1,303,739. LIGHTNING-ROD. JOHN E. SWENSON, Cresco, Iowa, and FRANK E. STEHLIK, Oak Park, Ill. Filed Jan. 4, 1917. Serial No. 140,553. 3 Claims. (Cl. 287-54.)



1. A lightning rod including a single integral entity comprising a standard provided with a transversely curved flared portion, and a bent flattened portion, the end of the flattened portion being disposed between the edges of the transversely curved flared portion.

1,303,740. METALLIC JOINT. WALTER ELMER TAYLOR, Avalon, Pa. Filed Aug. 30, 1918. Serial No. 252,050. 1 Claim. (Cl. 285-111.)

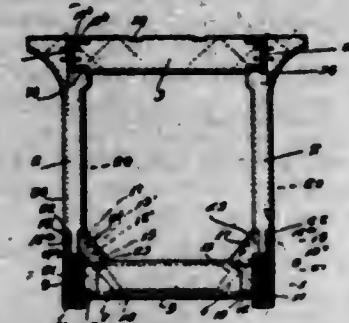


A joint member having screw threads to engage an iron pipe and the tapering end of a lead pipe and constructed to have a dish shaped portion to receive a sealing material after the member has connected the pipes together.

1,303,741. REINFORCED-CONCRETE BRIDGE CONSTRUCTION. WILLIAM M. THOMAS, Los Angeles, Calif. Filed Oct. 20, 1913. Serial No. 796,160. Renewed Aug. 3, 1918. Serial No. 248,400. 3 Claims. (Cl. 72-54.)

1. In combination, main arch ribs provided with upwardly extending and transversely extending reinforcing

rods, spandrel posts having their lower ends resting on the main arch ribs and recessed at their inner and outer faces adjacent the upper faces of the main arch ribs, reinforcing rods in the posts connected in the outer recesses to the upwardly extending rods of the main arch ribs, other reinforcing rods in the posts extending obliquely downwardly and inwardly from the inner recesses, a strut extending transversely between the main arch ribs and having its ends spaced apart from the side faces of said ribs, reinforcing rods in the strut projecting from the ends thereof and connected in the spaces to the transversely extending rods of the posts, other reinforcing rods in the strut projecting obliquely upward and outward from the ends thereof and connected in the spaces to the downwardly and inwardly projecting ends of the rods of the posts, and cement bonds filling in the recesses and filling in the spaces between the ribs and ends of the strut.



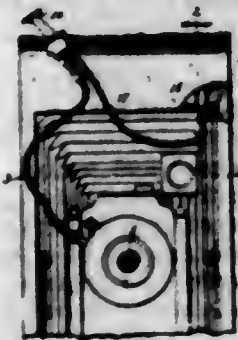
2. In combination, main arch ribs provided with upwardly extending and transversely extending reinforcing rods, the transversely extending rods having loops, spandrel posts having their lower ends resting on the main arch ribs and recessed at their inner and outer faces adjacent the upper faces of the main arch ribs, reinforcing rods in the posts connected in the outer recesses to the upwardly extending rods of the main arch ribs, other reinforcing rods in the posts extending obliquely downwardly and inwardly from the inner recesses, a strut extending transversely between the main arch ribs and having its ends spaced apart from the side faces of said ribs, reinforcing rods in the strut projecting from the ends thereof and connected in the spaces by hooks to the loops of the transversely extending rods of the posts, other reinforcing rods in the strut projecting obliquely upward and outward from the ends thereof and connected in the spaces to the downwardly and inwardly projecting ends of the rods of the posts, and cement bonds filling in the recesses and filling in the spaces between the ribs and ends of the strut.

3. In combination, spandrel posts having shoulders and having outstanding skewbacks at their upper ends, there being recesses in the shoulders, a girder extending transversely between the skewbacks and resting on the shoulders and having its ends spaced apart from the inner faces of the skewbacks, the ends of the girder being provided with recesses in its upper and lower faces, reinforcing rods extending upward from the shoulders into the lower recesses, reinforcing rods extending transversely from the inner faces of the skewbacks, reinforcing rods in the girder extending through the upper recesses thereof and connected in said recesses to the transversely extending rods of the skewbacks, other reinforcing rods in the girder projecting obliquely downward and outward and seated in the recesses of the shoulders, and cement bonds filling in the recesses and filling in the spaces between the skewbacks and ends of the girder.

1,303,742. DOUBLE-EXPOSURE PREVENTER. WILLIAM H. TOUCHETTE, Burlington, Vt., assignor of one-half to Foster E. Clement, Burlington, Vt. Filed Sept. 6, 1918. Serial No. 252,892. 5 Claims. (Cl. 95-31.)

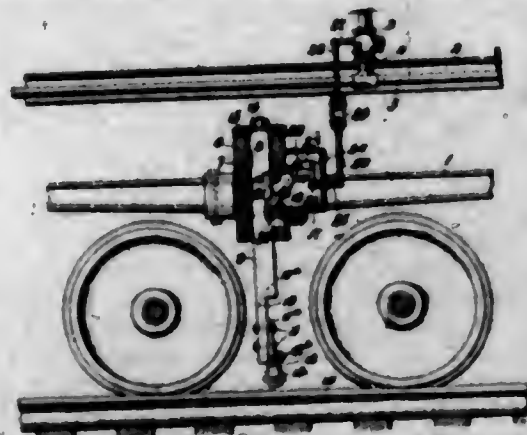
1. In a camera, the combination of a film-winding device, a member having a frictional engagement with the shaft of the device to move therewith and to permit the device to be moved independently of the member, a shut-

ter-actuating means, a member movable with the said means to move the first-mentioned member, a lock operated by the first mentioned member to move it to locking position to prevent a second operation of the last-



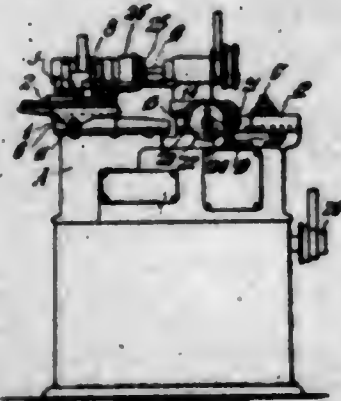
mentioned member after the shutter-actuating means has been operated and released, and means for automatically restoring the lock and the first mentioned member when the winding mechanism has been actuated.

1,303,743. AUTOMATIC CONTROLLER FOR AIR-BRAKE EMERGENCY-VALVES. GEORGE FRANKLIN VAN METER, Indianapolis, Ind. Filed Oct. 19, 1918. Serial No. 258,502. 5 Claims. (Cl. 240-170.)



1. An automatic controller for air-brake emergency valves comprising the combination of a main-pipe, a branch pipe, an emergency valve connected to said branch-pipe, an arm connected to said valve, a car truck, a casing mounted on said truck, a slidable plunger mounted within the casing provided with a recessed portion and a cylindrical member secured to its lower end, a rocking lever pivoted within the casing provided with a roller at its lower end adapted to be seated within said recessed portion, said rocking lever imparting movement to an adjustable rod connected to the emergency valve for opening the said valve.

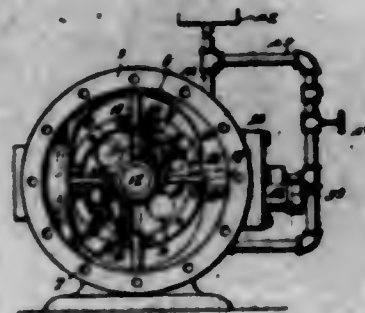
1,303,744. GRINDING-MACHINE. CHARLES E. VAN NORMAN, Springfield, Mass. Filed Nov. 13, 1915. Serial No. 61,369. 8 Claims. (Cl. 51-4.)



1. A grinding machine, comprising, a main frame, two separate slides mounted thereon, a tool-holding spindle

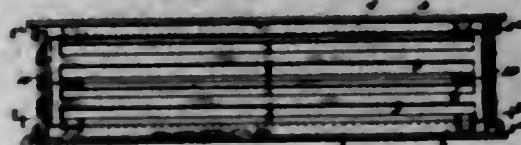
on one slide and a work-carrying head on the other, slow-acting cross-feeding mechanism for the tool-carrying slide, and quick-acting means to move the work-carrying slide to bring the work and the tool into offset relation.

1,303,745. ROTARY ENGINE. ROBERT R. VOGAN, Birmingham, Ala. Filed Aug. 27, 1918. Serial No. 251,650. 3 Claims. (Cl. 60-44.)



1. In a rotary engine, the combination of a stationary casing, having a rotor chamber of elliptical formation, providing a substantially crescent shaped suction and compression chamber, and a similarly shaped expansion chamber, said chambers being diametrically opposed, a cylindrical rotor working in said casing and contacting at diametrically opposite points with the inner wall of said casing intermediate said crescent shaped chambers, radially movable blades carried by said rotor and working in contact with the inner peripheral wall of said casing, and means for yieldingly pressing said blades outwardly, said means comprising spring pressed arms having a common axis of movement and engaging said blades.

1,303,746. COLLAPSIBLE POULTRY-CRATE. FRED WALTHER, Omaha, Nebr. Filed May 14, 1917. Serial No. 168,426. 3 Claims. (Cl. 217-47.)



1. A collapsible crate comprising a bottom wall, a top wall, opposed walls interposed between the bottom wall and the top wall and each made up of sections hinged together to fold inwardly and hinged to the bottom and top walls to swing thereon, and other opposed walls disposed at right angles to the said interposed walls and interposed between the bottom wall and the top wall; the second named interposed walls being formed of larynx members pivotally connected together and to the bottom and top walls.

1,303,747. DIVIDERS. CLINTON E. WALTON, Livingston, Mont. Filed Sept. 21, 1917. Serial No. 192,537. Renewed Apr. 4, 1919. Serial No. 287,545. 2 Claims. (Cl. 33-154.)

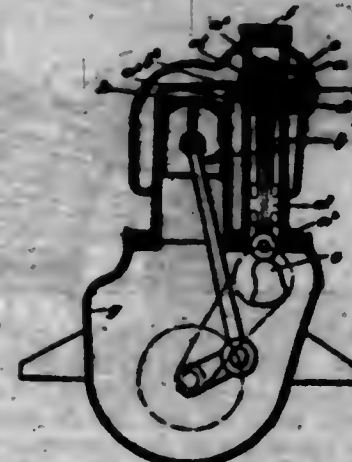
1. The herein described dividers comprising a pair of arms pivotally connected at one end and having legs detachably connected with their other ends respectively, one arm having a threaded socket in its inner face and the other having a slot opposite the socket, a threaded stud screwed into said socket and having its inner end bifurcated, a screw passing loosely through said slot and pivoted at its inner end within the bifurcation of said stud, said screw being flattened along opposite sides and graduated and marked with numerals, a block pivoted to the second-named arm opposite its slot and itself having an opening through which the screw passes loosely, the outer end of the block being rounded and provided

with vernier graduations, and a nut threaded on the screw outside said block and provided with a mark to coact with the graduations on the block.



2. The herein described dividers comprising a pair of arms pivotally connected at one end and carrying legs at their other ends, a spring normally spreading said arms, a stud on the inner face of one arm, the opposite arm having a slot in line with the stud, a screw passing loosely through said slot and connected at its inner end to the stud, its opposite side being flattened and marked with graduations and figures, a vernier block having its inner end bifurcated and the arms of the bifurcation passing astride the last-named arm and pivoted thereto, the block having a longitudinal opening in line with the slot in said arm and its outer end marked with graduations and numerals, and a nut threaded on the screw outside said block and provided with a mark to coact with the graduations on the block.

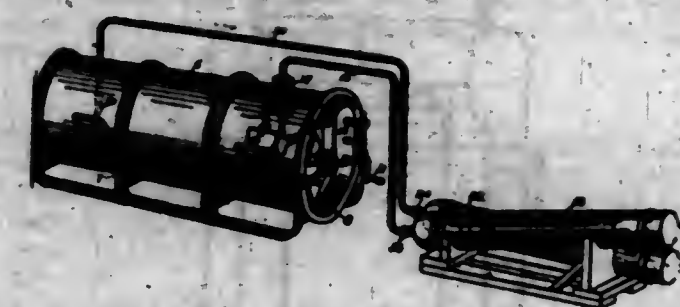
1,303,748. VALVE-GEAR FOR INTERNAL-COMBUSTION ENGINES. ACHILLE LEON FRANÇOIS WATTEL, Sèvres, France. Filed Apr. 13, 1918. Serial No. 238,493. 2 Claims. (Cl. 123-75.)



1. Valve mechanism for internal combustion engines comprising a cylindrical valve chamber provided with a closed top, and an open bottom, with inlet and exhaust ducts and with a port opening into the piston chamber of the engine, said valve chamber being also provided with an annular groove registering with said port, a piston valve provided with a pair of annular grooves separated by a central annular rib, and with a longitudinally perforated valve stem, a roller carried by the lower end of said valve stem, and a flap valve opening upward carried by the upper end of said valve stem and closing the opening there-through as the valve moves upward, and a rotary cam engaging said roller, substantially as described.

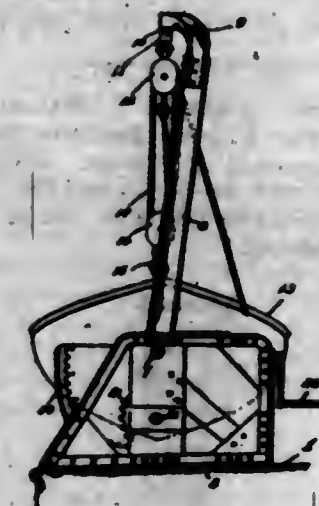
262 O. G.—18

1,303,749. SMOKE APPARATUS. THEODORE S. WILKINSON, Washington, D. C., assignor to the Government of the United States. Filed Mar. 29, 1918. Serial No. 225,526. 16 Claims. (Cl. 23-3.)



1. In an apparatus for producing smoke clouds, in combination, a smoke chamber having air injecting means at one end and fluid ejecting nozzles in front of said means.

1,303,750. BOAT-DAVIT. WILLIAM J. WILKINSON, Oakland, and BERNARD HUBERTSON, San Francisco, Calif. Filed May 8, 1918. Serial No. 237,152. 12 Claims. (Cl. 9-22.)



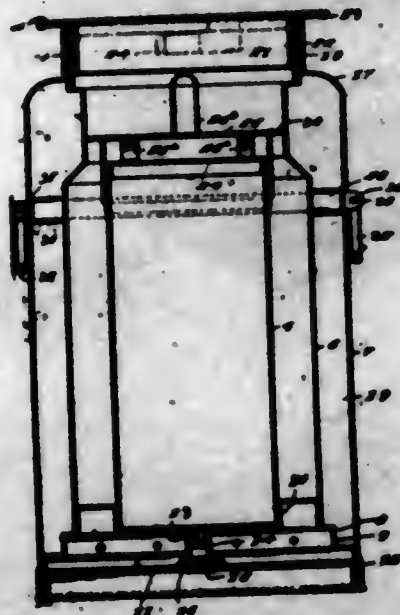
2. A davit comprising a stand, a boom pivotally mounted in said stand intermediate its ends, a curved head on the outer end of said boom adapted to suspend a boat, a toothed segmental gear attached to the inner end of said boom, said gear being eccentric with the axis of said boom, a revolvably mounted toothed eccentric gear adapted to co-operate with said segmental gear, and means for rotating said last mentioned gear.

3. A davit comprising a pivotally mounted boom, a segmental toothed gear attached to said boom, an operating gear co-operating with said segmental gear, said gears having a varying pitch line so that said boom moves through different angular distances for a given angular movement of the operating gear, and means for rotating said operating gear.

1,303,751. ICE-CREAM CAN. GEORGE A. WILSON, Chase Mills, N. Y., assignor of fifty-one one-hundredths to Francis R. Martin, Louisville, N. Y., and Fred J. Flanagan, Norfolk, N. Y. Filed May 11, 1916. Serial No. 96,882. Renewed Feb. 26, 1919. Serial No. 279,416. 3 Claims. (Cl. 220-138.)

1. An ice cream can including a casing having spaced walls, a partition connecting the lower ends of the walls and having a plurality of openings, said partition provided with a central depressed portion forming a seat, a cream containing can supported upon said seat, a bottom substantially U-shaped in cross section secured to the lower edge of the partition and outer wall of the casing, a tubular member secured to the depressed portion of the

partition centrally thereof, a sleeve projecting through the bottom and in alignment with the tubular member of the



bottom of the partition, a plug removably fitted in the sleeve, and means for closing the upper end of the casing.

1,303,752. WINDOW. FRANCIS A. WINSLOW, Chicago, Ill., assignor to The Winslow Brothers Company, Chicago, Ill., a Corporation of Illinois. Original application filed Apr. 15, 1912, Serial No. 690,722. Divided and this application filed May 29, 1914. Serial No. 841,718. 4 Claims. (Cl. 189-65.)



1. In combination, a window frame, an upright channel member on each side of the frame, a pair of swinging sashes mounted therein and having a channel member on each side thereof arranged to interlock with said upright channel members, said sashes swinging in opposite directions about their own respective pivots, the bottom of the upper sash being in the form of a channel member and the top of the lower sash being in the form of a channel member, said channel members being arranged so that their flanges interlock when the window is closed, the flanges of each channel contacting with the opposite channel to form a plurality of tight weather joints at such time.

1,303,753. COMPOSITE BOARD. JOHN P. WAGNER, Newark, Del. Filed Feb. 26, 1916. Serial No. 80,710. 4 Claims. (Cl. 154-45.9.)

1. A composite product composed of laminations of fibrous material, each lamination being saturated throughout with approximate uniformity, with a phenolic conden-

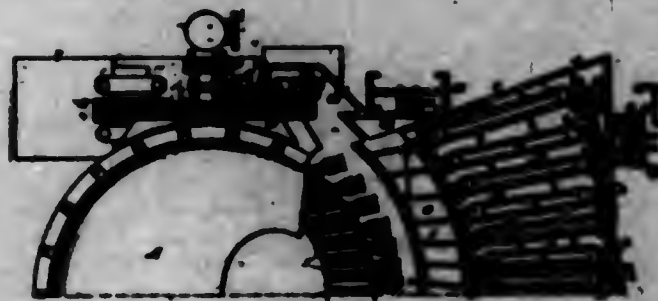
sation product, and the whole being subjected to sufficient pressure and heat to form an approximately homogeneous product.

1,303,754. AUTOMOBILE-SIGNAL. EDSON C. ARSON and HARRY E. KNIM, Glenwillard, Pa. Filed Mar. 20, 1918. Serial No. 323,000. 1 Claim. (Cl. 40-67.)



An automobile direction signal comprising a casing including a spacing member forming the top, back and bottom walls of the casing, parallel side plates secured upon said spacing member, clamping members extending from said spacing member and engageable upon a wind shield, said casing extending vertically and having its outer edge open, a shaft journaled transversely through the upper portion of said casing and having its portion within the casing angular in cross section, a signal arm secured upon the angular portion of said shaft and normally disposed in a vertical position within said casing in substantially conforming relation thereto, and a normally horizontally disposed handle secured upon the projecting end of said shaft and extending within convenient reach of an operator, depression of said handle resulting in upward swinging movement of said signal arm to protrude beyond said casing, said swinging arm returning by gravity to its initial position when pressure upon said handle is released.

1,303,755. AUTOMATIC TWYER-CLEANER FOR METALLURGICAL CONVERTERS. CHARLES J. ARCH, Douglas, Ariz., assignor of one-fifth to Vicko S. Mimica, one-fifth to Steve J. Angius, one-fifth to Jack N. Marevich, and one-fifth to Steve M. Perasich, Douglas, Ariz. Filed Mar. 22, 1917. Serial No. 150,558. 24 Claims. (Cl. 266-42.)



4. The combination of a converter, a cleaning device for the twyers thereof, clutch jaws on the device, yieldingly mounted clutch blocks on the converter, abutments positioned at opposite sides of the clutch blocks, whereby movement of the converter in one direction or the other engages the blocks with the abutments and effects the release of the blocks from the jaws, automatic latches for holding the blocks in released position, and means for releasing the catches as the converter returns to a predetermined point where the blocks engage between the jaws.

1,303,756. TAPE ATTACHMENT. MARCUS H. BALLOU, Pittsburgh, Pa. Filed Jan. 12, 1918. Serial No. 211,612. 1 Claim. (Cl. 33-137.)

In combination with a tape and a ring connected to the end of the tape, an attachment for said tape comprising a substantially rectangular oblong body stamped to have a plurality of holes, a finger extending laterally of the body for detachable engagement with said ring, members extending laterally of the body for the purpose set forth

and a penetrating tong extending approximately in alignment with the end of the tape and a pin cooperating with



the holes in the body for accomplishing an adjustable connection between said ring and body.

1,303,757. COLLAPSIBLE BAG OR SACK. HENRY P. BUNN, Chicago, Ill. Filed Aug. 5, 1918. Serial No. 348,300. 11 Claims. (Cl. 150-40.)



1. A collapsible bag or sack comprising a casing formed of flexible material provided with reinforcing members, said sides being extended toward one another at the top of the bag or sack, but not meeting one another, whereby an opening is formed, and a top hinged to the inside of the bag or casing and arranged to swing into position to open or close said opening, said top being also made of flexible material and provided with reinforcing strips.

1,303,758. MARINE BOILER. JOHN E. BELL, Brooklyn, N. Y. Filed Mar. 1, 1918. Serial No. 219,924. 5 Claims. (Cl. 122-510.)



1. A marine boiler comprising a bank of straight tubes, continuous headers joined thereby, and a casing surrounding the tubes and headers rigidly secured to the headers.

2. A marine boiler comprising a bank of straight tubes, continuous box like headers joined thereby, and a covering or casing surrounding the tubes and headers and rigidly secured to the headers.

3. A marine boiler comprising a bank of straight tubes, continuous headers joined thereby, a casing surrounding the tubes and headers and rigidly secured to the headers, and supports for the boiler formed by lugs secured to the headers near their lower ends, and cradles attached to the metal casing in which said lugs rest.

4. A marine boiler comprising a bank of tubes, continuous headers joined thereby and arranged above the furnace, a metal casing surrounding the furnace, a metal

casing surrounding the tubes and rigidly secured to the headers, and supported upon or by the furnace casing, and heat insulating linings for both casings.

5. A marine boiler comprising a bank of tubes, headers joined thereby and arranged above the furnace, a metal casing surrounding the furnace connected at its four corners by lugs to the headers.

1,303,759. RUBBER COMPOSITION AND METHOD OF MAKING THE SAME. JOHN M. BUNN, Boston, Mass., assignor to Boston Woven Hose & Rubber Co., Boston, Mass., a Corporation of Massachusetts. Filed Sept. 1, 1916. Serial No. 118,047. 5 Claims. (Cl. 106-23.)

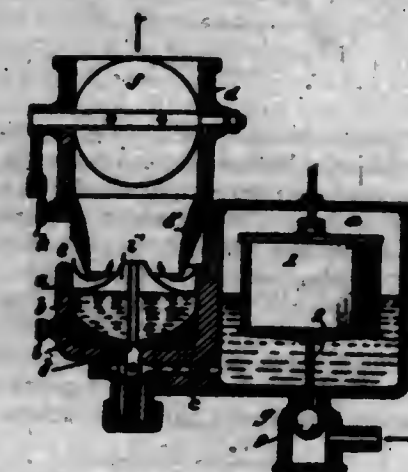
4. A rubber product comprising a mixture of rubber and chemically treated cotton in powdered form and free or substantially free from the tensile strength possessed by untreated cotton.

1,303,760. KILN. DAVID R. BORN, Oglesby, Tex. Filed Sept. 8, 1918. Serial No. 258,304. 3 Claims. (Cl. 25-184.)



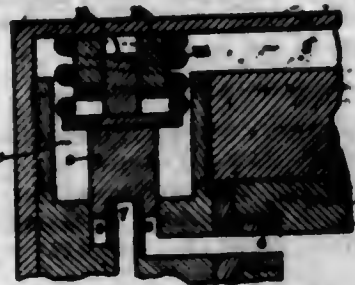
1. A kiln comprising a central wall and an outer wall surrounding said central wall and spaced therefrom forming a space around said central wall, means for dividing said space into a series of burning chambers, a floor for said chambers having pluralities of openings therein, a smoke tunnel surrounding said outer wall, a series of tunnels or flues connecting the openings in said floor with said surrounding tunnel, and means for creating a draft in said surrounding tunnel.

1,303,761. CARBURETOR FOR INTERNAL-COMBUSTION ENGINES. JOSEPH BOUTILLER, Neuilly-sur-Seine, France. Filed Dec. 21, 1914. Serial No. 878,423. 3 Claims. (Cl. 261-66.)



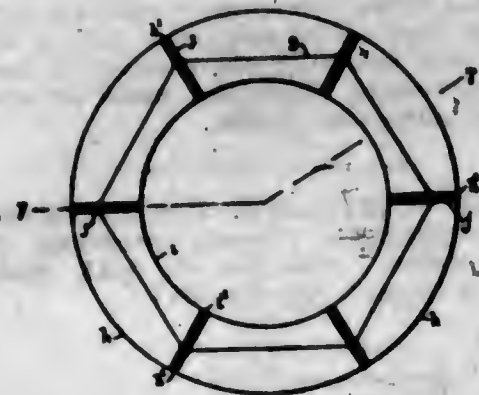
1. In a carburetor for internal combustion engines, a relatively deep vessel open to the atmosphere, means supplying said vessel with liquid fuel and tending to maintain a substantially constant level therein, said vessel being of such depth as not to be emptied by the suction of the engine, and a duct leading to the intake of the engine and terminating at its inlet end within the vessel and closely adjacent the level which said first-named means tends to maintain, said duct at its inlet end having a longitudinally adjustable section to vary the distance between the same and said level, the surface of the fuel in said vessel coacting with the inlet end of said duct to control the admission of air to said duct.

1,303,762. MIXING-VALVE. ROBERT DANIEL BRADFORD, London, England. Filed Dec. 30, 1914. Serial No. 879,795. 2 Claims. (Cl. 251-147.)



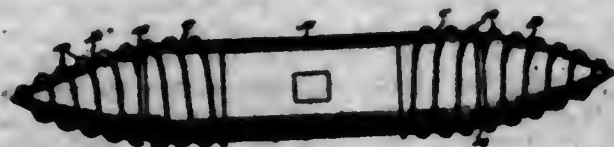
1. A mixing valve comprising in combination a valve seat, a central opening therein, a mixing passage opening surrounding said valve seat and said central opening, an inlet duct terminating in said central opening, an outlet duct from said mixing passage, a rotatable axially movable valve having a recessed seat and adapted to enter and close the mixing passage opening until said axially out therefrom and to be opened directly by the pressure of fluid in said inlet duct, means for guiding the said valve axially and a chamber inclosing said valve and having a duct opening therein for communicating with an exterior supply of fluid under pressure, substantially as described.

1,303,763. COMBINATION PACKING AND VALVE. ROBERT DANIEL BRADFORD, London, England. Filed Dec. 30, 1914. Serial No. 879,796. 2 Claims. (Cl. 288-1.)



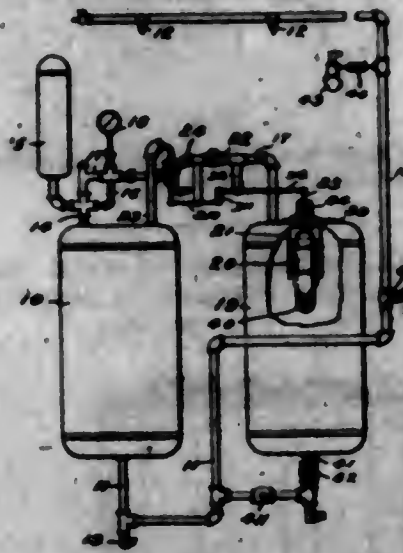
1. A combination packing and valve consisting of a sheet of hard material bent to a form having a continuous expandable and contractible peripheral surface parallel to the axis of said packing and valve and adapted to contact with a wall to be packed and having corrugations increasing in depth from the contact surface to an inexpandable part of the bent sheet adapted to be held fast relatively to said wall to be packed and the said contact surface being in part at the edges of inclined approximately radial folds of the said bent sheet and in part portions of a side of said bent sheet, substantially as described.

1,303,764. ARMORED WAR APPARATUS. PRENTICE C. BROADWAY, Asheville, N. C. Filed Apr. 18, 1918. Serial No. 229,342. 13 Claims. (Cl. 180-7.)



1. An armored war apparatus comprising a hull having terrain-engaging traction means and a prow provided with boring means.

1,303,765. AUTOMATIC FIRE-EXTINGUISHING APPARATUS. EDWARD R. BRADTON, Washington, D. C., assignor, by mesne assignments, to Sypho-Chemical Sprinkler Corporation, New York, N. Y., a Corporation of New York. Filed Aug. 12, 1914. Serial No. 859,445. 8 Claims. (Cl. 100-24.)



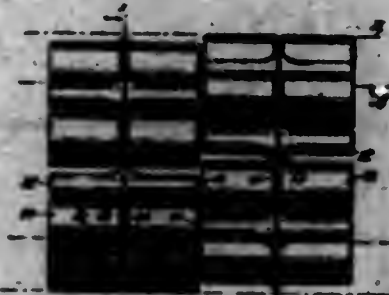
1. In fire apparatus, the combination of a holder for an extinguishing fluid having a normally closed outlet, means for maintaining such fluid under pressure tending to cause its efflux, a metal bellows whose interior is exposed to such pressure, consisting of a cylindrical shell with crimped side walls, one end of the shell being closed and the other open, means for clamping the edge of the open end of the shell comprising a cap with a sleeve extending within the shell, and which is perforated to communicate with the interior of the shell, and an external device adapted to be actuated by said bellows and connected with the closed end of the shell.

1,303,766. HEADLIGHT. HERBERT WALDO BROWN, Ashland, Ohio. Filed Mar. 25, 1918. Serial No. 234,597. 18 Claims. (Cl. 240-41.)



18. A headlight structure for vehicles provided with two closely associated reflectors and light-giving elements individual thereto, and border-covering means for the reflectors, one causing the emitted beam of light from the respective reflector to be of full circular cross section and the other causing the beam of light emitted from the corresponding reflector to be of less than half a circle in cross section with the upper edge of the border-covering means for said reflector limiting the top of the beam to the height of the optical axis of the light giving element and reflector containing it and having that side of the beam toward an approaching vehicle fixedly limited to a less height than said optical axis, whereby the lateral spread of the second beam of light is correspondingly lessened on the side toward an approaching vehicle.

1,303,767. ROLLER-BEARING. WILLIAM D. BURNS, Amenia, N. Y. Filed Nov. 27, 1918. Serial No. 264,411. 2 Claims. (Cl. 64-61.)



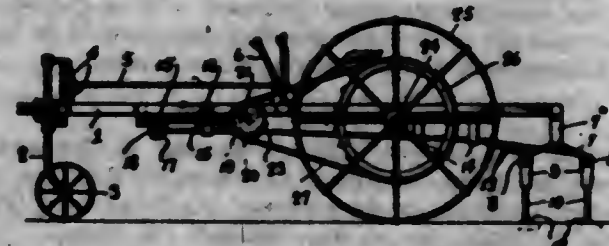
2. In a roller bearing, two annular series of bearing rollers disposed end to end in staggered relation and each reduced at one end to present a spindle rigid therewith, the adjacent ends of the rollers of the respective series presenting overlapping surfaces, the rollers in the respective series being reversed so that the spindles of one series extend between the rollers of the other series, and spacing rollers loose on said spindles, said spacing rollers being of less diameter than the bodies of the bearing rollers and each having approximately central thereof at the periphery tapered annular portions, and the bodies of the bearing rollers having corresponding annular grooves in which said annular portions of the spacing rollers engage.

1,303,768. THERMOSTATIC CONTROL MEANS FOR MOTORS. LEON CAMMEN, New York, N. Y. Original application filed Jan. 21, 1918, Serial No. 212,100. Divided and this application filed July 1, 1918. Serial No. 242,577. 3 Claims. (Cl. 123-174.)



1. The combination with an internal combustion motor having a circulatory cooling system including a radiator, of an alternate return duct in communication with said radiator, means for heating said return duct, means to direct fluid flow from said radiator either into cooling relation with said motor or to divert said fluid flow to said return duct, and means controlled by the temperature of said motor to actuate said flow directing and diverting means.

1,303,769. HARROW. BENJAMIN H. CAMPBELL, Chicago, Ill. Filed Oct. 7, 1918. Serial No. 257,237. 3 Claims. (Cl. 97-25.)



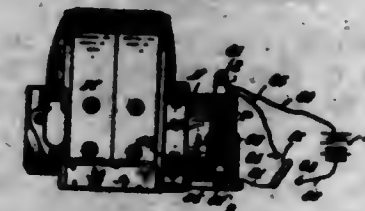
1. A harrow comprising a wheel mounted frame, brackets pivoted between their ends thereon, bars pivotedly connected with the arms of the brackets, soil engaging elements carried by the bars, rods mounted at intermediate points in their length to swing horizontally upon the frame and having their rear arms pivotally connected with the bars, and means operated from one supporting wheel of the harrow and connected to the forward arms of the rods for swinging said rods.

1,303,770. TURN-BUTTON FASTENER. FRED SUMNER CARR, Cambridge, Mass., assignor to Carr Fastener Company, Cambridge, Mass., a Corporation of Maine. Filed Oct. 5, 1918. Serial No. 257,049. 5 Claims. (Cl. 24-221.)



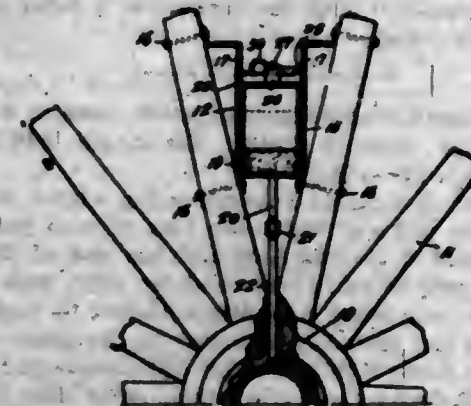
1. A turn-button fastener comprising a shank having an attaching base, a head divided into separable sections which are yieldingly pressed toward each other, the opposed edges of said sections having coinciding recesses forming an expansible bearing, a button having a stud journaled in said bearing, and yieldingly confined thereby in different angular positions, the inner end of the stud being upset to form a bur, and a washer engaged with said bur and constituting a continuous annular wear-sustaining stud-enlargement confining the stud in the bearing, said washer having a diameter greater than that of the bur, and sufficient to compensate for the separation of the head sections from each other by the stud.

1,303,771. IGNITION DEVICE. MELVIN M. CARTER, Lowell, Mass. Filed June 25, 1917. Serial No. 176,782. 4 Claims. (Cl. 123-149.)



4. The combination of an electrical generator having a revolvable armature with a primary winding and a secondary winding which is electrically connected with spark producing means, an interrupter, a battery, a commutator revolvable with the armature, and electrical connections whereby the battery current passes through the commutator by which it is transformed into an alternating current synchronous with the current produced in the generator when the armature is revolved, which current passes through the interrupter and through the primary winding of the armature, with a manually operable switch and a bridge connection whereby the battery may be cut out and the primary circuit closed through the commutator.

1,303,772. LUBRICATING DEVICE. CARLOS CLARK, Ouray, Utah. Filed Nov. 26, 1918. Serial No. 264,162. 6 Claims. (Cl. 64-28.)



1. A lubricating device comprising a receptacle provided with an open top and an outlet opening in the

bottom, a cover for said receptacle, a follower carried by the under side of said cover and extending within the receptacle, uprights positioned upon each side of the receptacle and means carried by the cover and engageable with the uprights for adjusting the follower.

1,303,773. CANDY-MOLD. ISAAC COMB, Brooklyn, N. Y., assignor to Eye Brand Confectionery, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Jan. 29, 1919. Serial No. 273,804. 6 Claims. (Cl. 107-19.)



2. A mold comprising a pair of longitudinal sections, means for coordinating the sections in respective operative position; and means arranged alternately on the pocket faces of the sections to form mold pockets between the sections, said means each forming one end wall of a pocket, whereby when the sections are laterally separated the cast may be shifted endwise of the mold as well as laterally therefrom.

1,303,774. DEVICE FOR PRINTING BLUE-PRINTS. CHRISTOPHER C. COOPER, Roby, Tex. Filed Jan. 30, 1919. Serial No. 274,049. 3 Claims. (Cl. 95-77.)

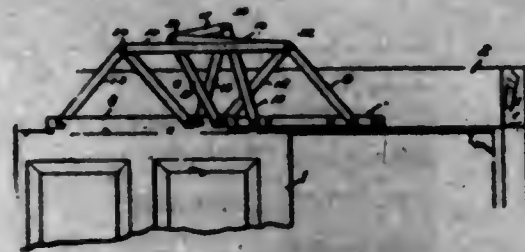


1. A printing device of the character described including a support having a curved and smooth outer surface, a stationary sheet engaging clamp at one end of the curved surface of the support, and another sheet engaging clamp adjustably connected with the support at a point opposite the stationary clamp.

1,303,775. DOOR-HANGER. JULIAN E. COMBIN, Alameda, Calif. Filed June 6, 1918. Serial No. 233,790. 5 Claims. (Cl. 16-156.)

1. A hanger comprising in combination with a door and its frame, two pairs of links, one link of each pair being pivotally attached to said door and one end of the other link of each pair to said frame, and the outer ends of said links of each pair being pivotally attached to each other, a connecting bar pivotally attached to the outer ends of said pairs of links, a third pair of links connected to said door and said frame and having their outer ends pivotally connected, a pair of links pivotally connected at one end and having the opposite end of one of the links pivotally attached to the pivot of one of said first mentioned pairs

of links and having the opposite end of the other link pivotally attached to the pivot point of said third pair of



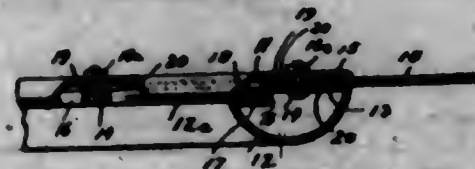
links, and a link pivotally attached to the pivot point of said last mentioned links and to said frame.

1,303,776. ELECTRIC REGULATION. JOHN L. CHRYSLER, Auburn, N. Y. Filed May 17, 1918. Serial No. 26,725. 11 Claims. (Cl. 171-231.)



1. The combination with a dynamo and a prime mover, of power transmitting means connecting the same and means for regulating said dynamo and simultaneously affecting said transmitting means.

1,303,777. LIGHT FOR VEHICLE CURTAINS. SAMUEL DAY, Bridgeton, N. J. Filed Feb. 9, 1919. Serial No. 275,253. 2 Claims. (Cl. 21-220.)



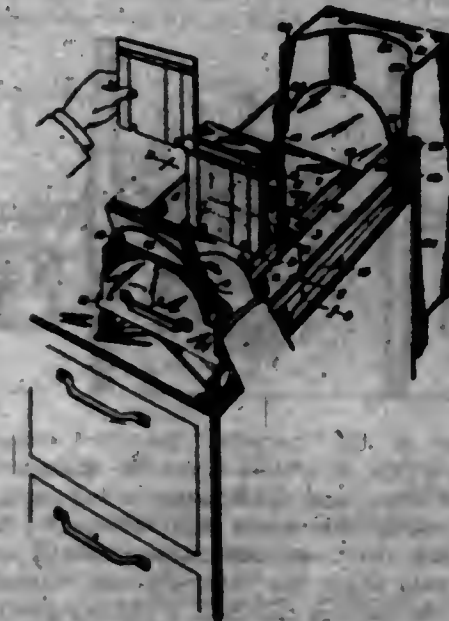
1. The combination of a vehicle curtain having a hole, a frame comprising inner and outer members engaging opposite sides of the marginal portion of the curtain about said hole, each of said members having a continuous, flat, curtain engaging wall, one member being hollow and having an offset portion forming a pane-receiving groove and support, and the other member having a yieldable lip that engages the side of the pane opposite said groove, and fastening devices connecting the inner wall of the hollow member and the inner frame member and situated in holes in said inner wall and said inner frame member.

1,303,778. FILING-CABINET. WALTER W. DISMUKES, Nashville, Tenn., assignor to Brandon Printing Co., Nashville, Tenn., a Corporation of Tennessee. Filed June 5, 1917. Serial No. 173,006. 9 Claims. (Cl. 129-16.)

1. A leaf or card cabinet or tray comprising a receiving section having a bottom inclining downwardly from the front end of the tray toward the rear for the purpose of presenting the top edges of the leaves successively one below the other to facilitate manipulation, and laterally adjustable means extending longitudinally of the bottom for engaging the cards.

7. In a ledger leaf or the like cabinet, a box section having a movable follower block with a tiltable plate and

means on the block for supporting the plate in various angles, an adjustable rest in the front end of the box, and



means for supporting it in clamping position against a row of sheets of the like in the box.

1,303,779. MINERAL-OIL SULFONIC ACID AND PROCESS OF MAKING. ROSSAR E. DIVINA, Cincinnati, Ohio, assignor to The Twitchell Process Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 16, 1917. Serial No. 162,457. 9 Claims. (Cl. 23-24.)

1. The steps in the process of making sulfonic acids from sludge formed by sulfonating a portion of the contents of a mineral oil, comprising combining the sulfonic acids of the sludge with an alkali earth metal forming sulfonates soluble in water, treating the sulfonates with a mineral acid forming a precipitate insoluble in water and free sulfonic acids and separating the liquid sulfonic acids from the precipitate.

2. The steps in the process of making sulfonic acids comprising mixing the sludge formed by sulfonating a portion of the contents of a mineral oil with water and dissolving the sulfonic contents, separating the solution from the oil, separating the sulfuric from the sulfonic acids in solution, and separating the sulfonic acids from the solution.

5. The herein described process of making sulfonic acids from dark colored sludges obtainable by sulfonating a portion of the contents of mineral oils, which consists in forming a solution of the sulfonic contents of the sludge, adding to the solution a neutralizing material which will form an insoluble sulfate with the sulfuric acid and water soluble sulfonates with the sulfonic acids, separating the sulfate from the sulfonate solution, adding to the solution a reagent which salts out the sulfonates, forming a water solution of the sulfonates, adding an acid which precipitates out the base of the sulfonates and separating the precipitate from the sulfonic acids.

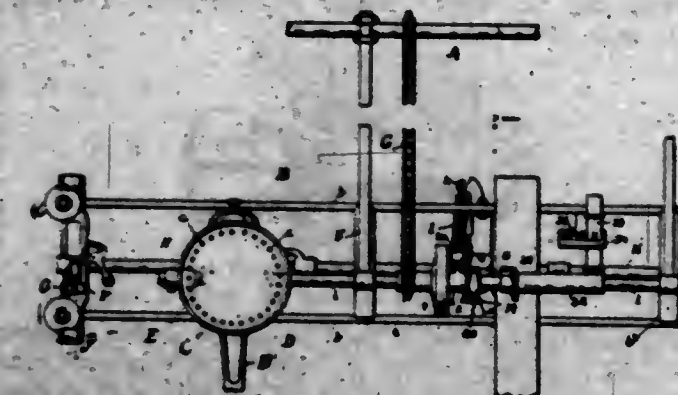
7. The sulfonic acids formed from mineral oil sludge consisting of a saponifying body, more soluble in water than in ether, forming water soluble salts with calcium and characterized by its detergent properties when combined with either an alkali or an alkali earth metal.

9. The sulfonic acids recovered from a water solution of the soluble portions of a sludge formed by sulfonating a portion of the contents of an oil of petroleic origin, characterized by being readily soluble in an equal volume of water, not readily salted out of a concentrated solution, less soluble in oil than in water, more soluble in water than in ether, and having the property of splitting fats and fatty oils into glycerin and fatty acids.

1,303,780. PLANTER. HARRY L. DOUGLAS, Rock Island, Ill., assignor to Deere & Mansur Company, Moline, Ill., a Corporation of Illinois. Filed Dec. 1, 1906. Serial No. 445,325. 5 Claims. (Cl. 111-36.)

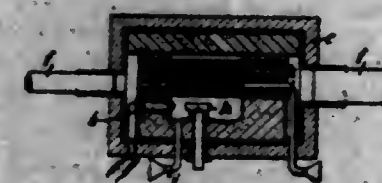
1. In a two-row planter, the combination with the two seed dropping plates, and a common seed shaft directly

seared to both plates, of a continuously operating mechanism including the ratchet wheel, a clutch comprising a sleeve carrying two pawls and mounted loosely on said shaft, one of said pawls adapted to be thrown into engagement with said ratchet independently of the shaft to



be moved a predetermined distance, and the second pawl adapted to be thrown into driving connection with the said shaft and dropping plates; and a sliding head having inclined approaches to lift the pawl out of engagement with the seed dropping plate operating mechanism.

1,303,781. MOTIVE-POWER ENGINE. CHARLES DOHER, Douglas, Watford, England. Filed Aug. 26, 1918. Serial No. 251,517. 2 Claims. (Cl. 69-11.)



1. The combination with a motor, of an air compressor, a compressed air engine, pipes leading the air from the air compressor to the air engine, and a furnace surrounding the air pipes, said furnace comprising a box, a lining of insulating material, an inlet compartment, an outlet compartment, and a heating compartment, open ended air tubes connecting the inlet and outlet compartments, and a burner in the heating compartment.

1,303,782. LIQUID SHELLAC AND PROCESS OF MAKING SAME. THOMAS H. DUGAN, Jersey City, N. J. Filed Oct. 15, 1918. Serial No. 258,250. 3 Claims. (Cl. 124-26.)

2. The herein described liquid coating composition comprising the ingredients stated in the proportions of approximately:

Shellac	2 lbs.
Water	1 gal.
Borax	1 lb.
Alkali metal bichromate	13 ozs.

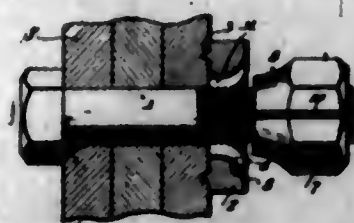
1,303,783. MARGIN-RELEASE. ALFRED O. H. EBBERT, Woodstock, Ill., assignor to Woodstock Typewriter Company, Woodstock, Ill., a Corporation of Illinois. Filed May 20, 1918. Serial No. 235,620. 14 Claims. (Cl. 197-63.)



1. The combination with a margin stop having a movable part, and a bar on which it is mounted, of a pivoted rack, means for moving the rack, and means forming

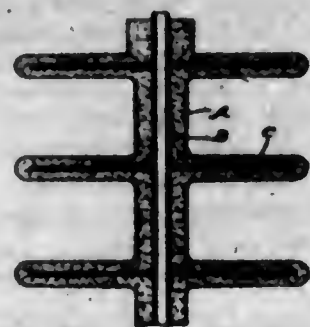
a connection between the stop and the rack for moving the said part of the stop when the rack is rotated on its pivot.

1,303,784. NUT-LOCK. WALTER E. EMBRY, Peoria, Ill. Filed Mar. 2, 1918. Serial No. 220,018. 1 Claim. (Cl. 151-19.)



The combination with a bolt, of locking means therefor including a washer having an opening of a greater area than the cross sectional diameter of the bolt, said washer, upon the inner face thereof having prongs and having its outer face provided with a rounded depression communicating with the opening and providing a convex surface, ribs disposed in radial planes formed on the concave surface and on the wall of the opening, and conforming to the shape of both of said surfaces, a split nut for the bolt and washer, said nut having its inner end provided with a conical extension which is concave and which is of a slightly different contour than the walls provided in the bore of the washer, said concave surface of the nut having a notch at the end thereof designed to receive one of the ribs of the washer when the nut is screwed on the bolt and the slitted portion thereof compressed by contacting engagement between the bore of the washer and the concave extension of the nut.

1,303,785. METHOD OF FORMING CORES FOR HOLLOW CASTINGS. ALEXANDER W. FINLAYSON, Detroit, Mich. Filed Sept. 28, 1917. Serial No. 192,636. 1 Claim. (Cl. 22-192.)



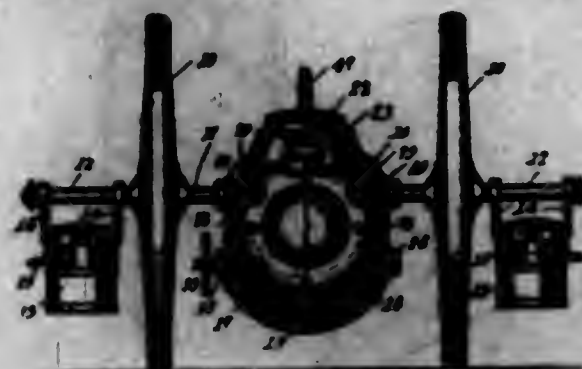
The method of forming cores for hollow castings, comprising the molding of the core about a perforated centrally-arranged vent tube, covering the surface of the core with an inflammable fluid, and igniting the fluid to dry the surface portion of the core.

1,303,786. DYNAMOMETER. JAMES E. FOUCH, Los Angeles, Calif. Filed Sept. 28, 1918. Serial No. 256,065. 3 Claims. (Cl. 265-68.)



1. A dynamometer connecting a tractor and trailer element, said dynamometer comprising in combination measuring mechanism, an indicator fixedly mounted on one of said elements, means for communicating motion from said mechanism to said indicator and permitting variation in the position of said mechanism and said indicator.

1,303,787. TOX. EDWARD FRITZ, Poughkeepsie, N. Y. Filed Aug. 29, 1918. Serial No. 251,931. 10 Claims. (Cl. 46-48.)



1. A device of the character described comprising a shaft having a pair of wheels connected therewith, a casing suspended from said shaft, said casing being adapted to receive a roll of detonating caps, means for imparting rotation to said shaft, automatically operated mechanism operated by said shaft for intermittently exploding portions of said detonating cap roll, a cannon pivotally connected within said casing, and means for intermittently moving said cannon immediately prior to the explosion of a portion of said roll, the movement of said cannon being dependent for its operation upon the rotation of said shaft.

1,303,788. TOOL. WILLIAM FRANCIS GANNON, Parkman, Wyo. Filed June 18, 1918. Serial No. 240,572. 3 Claims. (Cl. 140-121.)

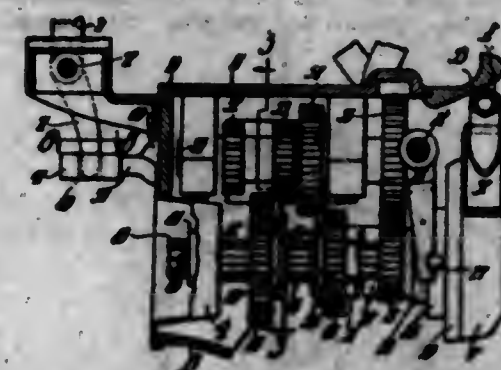


2. A tool of the character specified, comprising a pair of handle members pivotally connected at one end, one of said members having a claw extension beyond the pivotal connection, and both of the said members having a pair of cooperating jaws at each side thereof, the outermost jaws having rounded recesses for receiving the wire to permit the wire to turn and slip, that handle member not having the claw being provided with notches for the purpose specified.

1,303,789. TRANSMISSION. LEON C. GERMANN, Conway, Mass. Filed Dec. 2, 1918. Serial No. 264,980. 6 Claims. (Cl. 74-58.)

3. A transmission unit, comprising, a casing open at the bottom and adapted to be substituted for the member covering the rear portion of the crank case of an existing automobile, removable cover plates on the top and both sides of said casing, a driving group of mechanism having at one end means for attachment to the power plant of the automobile, a driven group of mechanism supported at one end by a telescopic engagement with the driving group and having means at its other end for connection to the drive shaft of the automobile, a counter shaft driven from the driving group and supported by the

top cover plate, driving gears fixed on the counter shaft, a reverse idler meshing with one of said gears and supported by one of the side cover plates, said driven group including slidable gears to mesh with certain of the gears



on the counter shaft and one of which is adapted to mesh with the reverse idler gear shifting mechanism carried by the other side cover plate, and a lever on the casing to operate said mechanism.

1,303,790. DRILLING APPARATUS. GEORGE H. GILMAN, Claremont, N. H., assignor to Claremont Machinery Company, Claremont, N. H., a Corporation of Massachusetts. Filed Jan. 8, 1914. Serial No. 810,463. 4 Claims. (Cl. 255-52.)



1. An earth boring or rock drilling apparatus including a two-part support, a transversely disposed tool pivotally mounted thereon, and resilient mechanical means operatively connected between the parts of said support for varying the effective height thereof as the tool is moved longitudinally.

1,303,791. SIDE-CAR ATTACHMENT TO MOTOR-BICYCLES. JAMES GOULDING, Surrey Hills, Victoria, Australia. Filed Aug. 12, 1918. Serial No. 240,458. 7 Claims. (Cl. 206-45.)



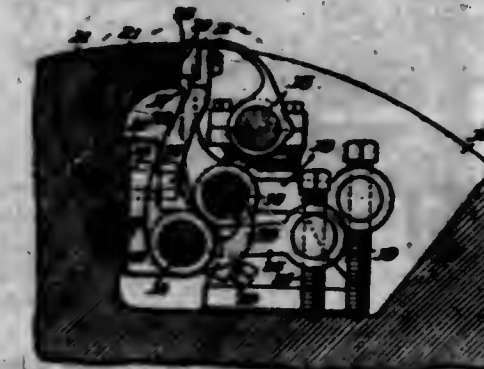
1. In a side-car attachment for motor bicycles, a side car chassis connected to the frame of the bicycle, a semi-elliptic spring on the chassis, and a wheel axle pivotally connected at its inner end to the bicycle frame and connected at its outer end to the center of the spring.

1,303,792. HAMMER. BILL HAMILTON, Carrolton, Ala. Filed June 14, 1918. Serial No. 240,000. 2 Claims. (Cl. 78-33.)



1. A device of the class described comprising a support, a hammer having its handle pivoted to said support, a lever, means for pivotally supporting the same intermediate its ends, a link connecting one end of said lever with said handle, and extending substantially at right angles to said lever, a foot pedal at the other end of said lever and a coil spring connecting said link with the lever.

1,303,793. GRIPPER-PAD ADJUSTMENT. CARL HENDERSON, Oak Park, and BURT D. BREYERS, Evanston, Ill., assignors to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1917. Serial No. 166,204. 16 Claims. (Cl. 101-412.)



1. The combination with a printing press cylinder, the grippers, the gripper pads, and pad supports, of means to adjustably position the gripper pads radially of the cylinder, said means comprising a radially acting member bearing on the pad and also upon its support, and means to clamp the pad and support together in adjusted position.

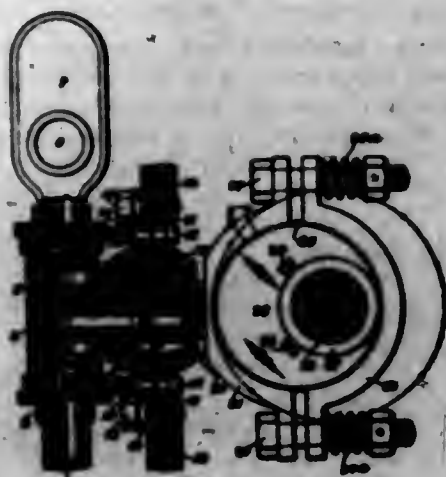
1,303,794. CASH-ADJUSTER. DANIEL W. EBYLMAN, Oshkosh, Wis., assignor of one-half to Otto C. Schoenfeld, Oshkosh, Wis. Filed Dec. 10, 1917. Serial No. 206,478. 2 Claims. (Cl. 16-22.)



1. A cash adjuster comprising an extensible member and means for connecting one end thereof detachably to the frame of the bicycle.

the window frame, a supporting member to which the other end of said extensible member is connected, said supporting member having lateral lugs extending transversely of said member and projecting oppositely from the longitudinal center line thereof, an attaching plate in a plane transverse to the aforementioned center line and adapted to be secured to the sash, said plate having an outwardly bulged body portion forming a shallow socket at the reverse side of the plate, said portion being formed with an opening and a notch in the edge of said opening, said supporting member passing through said opening and having its lugs received in said shallow socket, said notch permitting removal of said supporting member when said extensible member is turned transversely sufficiently to permit withdrawal of one of said lugs through said notch.

1,303,795. PUMP. GEORGE C. HICKS, JR., Connersville, Ind. Filed Apr. 29, 1918. Serial No. 231,416. 3 Claims. (Cl. 103-75.)



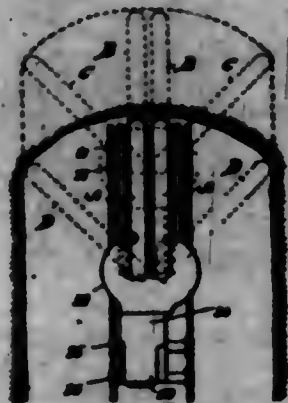
1. A pump comprising a pair of juxtaposed plates having concave inner surfaces forming, in combination, a spherical socket, an oscillatory ball retained by said socket, a sleeve projected through said ball, a piston disposed within said sleeve, means for reciprocating said piston, and devices for automatically constricting said socket to compensate for the wear occasioned by oscillation of said ball.

1,303,796. HAT. VACHEL O. HINTON, Bartlesville, Okla. Filed Jan. 16, 1919. Serial No. 271,405. 4 Claims. (Cl. 2-108.)



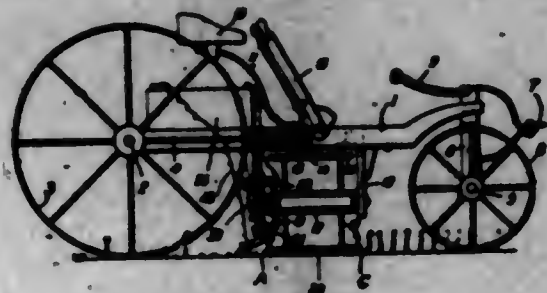
1. A hat comprising a skeleton frame consisting of a series of radially arranged ribs consisting of upright portions, crown portions extending upwardly and inwardly from the upright portions, and rim portions extending outwardly from the lower ends of the upright portions; a ring connected to the ribs at a suitable height, one or more rings connected to the upright portions below the first-named ring and adjustable as to size, a rim ring adjustable as to size connecting the outer ends of the portions extending outward from the lower ends of the upright portions of the ribs, and a cover fitting over the frame and said rings and fastened to the rim ring.

1,303,797. MINING MACHINE. MORRIS P. HOLMES, Claremont, N. H., assignor to Sullivan Machinery Company, Claremont, N. H., a Corporation of Massachusetts. Continuation in part of application Serial No. 833,782, filed Apr. 22, 1914. This application filed Aug. 31, 1914. Serial No. 359,280. 24 Claims. (Cl. 262-29.)



1. In a mining machine, a support movable toward and from the work, and a pair of cutting devices on said support and movable between a separated position and a position of adjacent parallelism in which the cuts made thereby are substantially joined.

1,303,798. COTTON-CHOPPER. HENRY T. JAMES, Abbott, Tex. Filed Oct. 7, 1918. Serial No. 257,163. 18 Claims. (Cl. 97-46.)



1. In a cotton chopper, the combination, of a normally stationary chopping element, normally inactive electrical means for operating said element, means operable upon engagement with a cotton plant to permit exciting of said electrical means for operating said chopping element, and mechanical means for continuing, for a predetermined interval, the operation of said chopping element after said electrical means again becomes inactive.

1,303,799. MANUFACTURE OF IRON AND STEEL. GEORGE ARTHUR JARVIS, Wellington, England. Filed Sept. 19, 1917. Serial No. 192,096. 3 Claims. (Cl. 75-49.)

1. The process of preparing iron and steel turnings for re-melting, which consists in crushing the said material to powder and incorporating with such powder a mixture of tar and lime, as set forth.

1,303,800. LOCKING DEVICE FOR AUTOMOBILES. MARTIN A. JENNINGS, Glenvil, Nebr. Filed July 28, 1918. Serial No. 246,897. 1 Claim. (Cl. 70-132.)

A device for locking emergency brakes of transmission, gears in neutral, consisting of a hollow tapering lever having a slot in the wall thereof, an apertured disk fastened within the lever, a rod movable through said disk, a pawl pivoted within the lever at one side of the longitudinal center of the latter and extending through said slot and to which pawl said rod is pivoted, a curved ratchet segment engaged by said pawl, the upper portion of the

rod being of enlarged cylindrical shape and guided in an aperture in the top of the lever, the circumference of the cylindrical portion being notched, a disk movable within the lever, and a spring interposed between the disks adapted



ed to hold the movable one against a shoulder upon the rod said lever having a laterally extending chambered portion, a lock therein having a bolt designed to engage a notch in the rod above the shouldered portion thereof.

1,303,801. VALVE. OWEN MARSHALL JONES, New York, N. Y. Filed Sept. 9, 1918. Serial No. 253,263. 15 Claims. (Cl. 137-4.)

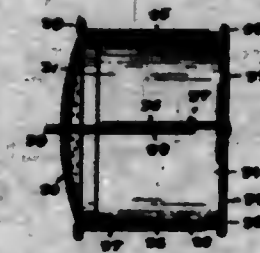


1. In a valve, the combination of a casing or body having an inlet and an outlet, a valve chamber, a valve in the valve chamber opening toward the inlet, a valve seat extending into the valve chamber with the surface of the face of the valve seat located transversely to the common axis of the casing, a discharge chamber on the opposite side of the valve seat from the valve chamber, two piston chambers located above and in direct line with the discharge chamber, two pistons each of a diameter greater than the diameter of the valve operable within their respective chambers, the said chambers and the said valve and the said valve seat are located in the order mentioned and in a direct line on a common axis, a spindle on which the said valve and the said two pistons are rigidly mounted in their respective positions, a by-pass connecting the two end chambers in the casing, and means for opening or closing the valve at will as may be desired and for holding the valve open or closed, as and for the purpose set forth.

1,303,802. VENTILATOR. JOSEPH WM. KANSKY, Meola, Saskatchewan, Canada. Filed Oct. 28, 1918. Serial No. 259,897. 1 Claim. (Cl. 94-31.)

A ventilator comprising a pair of telescopically engaged cylindrical sections closed at their outer ends, an annular flange formed on the outer end of each of said sections, the closed end of one section being provided with a plurality of perforations and the closed end of the other section being provided with spaced openings, a damper

plate disposed upon the inner face of said second named closed end and provided with openings, adapted to register with said first named openings, said damper plate being rotatable in respect to the associated end wall, a bar disposed longitudinally within said sections secured at one end upon the center of said damper plate and formed an-



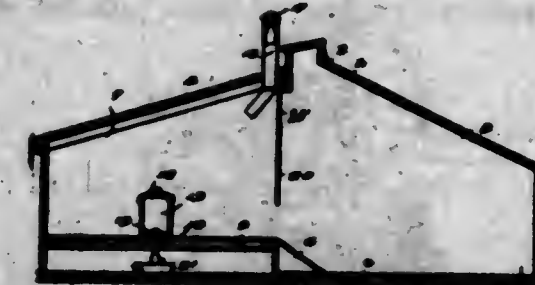
gular in cross section, a rod slidable through said first named end wall and provided exteriorly thereof with a handle, and a loop formed on the inner end of said rod and slidably engaging said bar, whereby operative engagement between said rod and bar for rotation of the plate will be maintained.

1,303,803. BICYCLE HAND-GRIP. JOSEPH A. KENNEDY, Kiona, Wash. Filed May 4, 1917. Serial No. 166,417. 3 Claims. (Cl. 208-126.)



1. In a hand grip structure, an outer casing constructed of resilient material having one end closed, a spiral spring positioned within said casing, said spring being constructed of tapered wire coiled to form the spring and having its heavier end positioned inwardly from the closed end of the casing.

1,303,804. BROODER. CHARLES KOHL, Sheboygan, Wis. Filed Apr. 28, 1918. Serial No. 230,341. 1 Claim. (Cl. 119-32.)

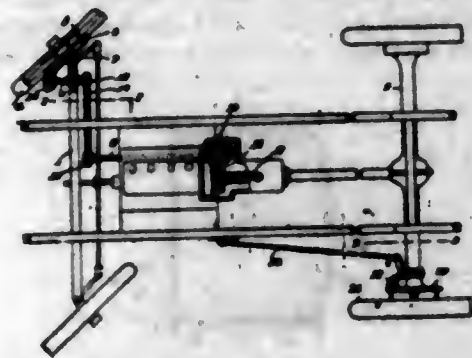


In a brooder, a plurality of chambers therein, one of said chambers having a secondary double walled flooring therein supported in spaced relation to the main flooring of the same, parallel strips arranged between the walls of said secondary flooring to provide ways therein, said ways communicating with vent openings formed in adjacent portions of the brooder, portions of the secondary flooring having openings formed therein, heating means positioned below the flooring adjacent said openings, a fluid containing tank arranged on the secondary flooring above said openings, and ventilating means intermediate the end walls of the brooder capable of directly communicating with either of said chambers.

1,303,805. AUTOMOBILE-TURNING DEVICE. JOHN KOLMAN, Woodland, Me. Filed July 22, 1918. Serial No. 244,075. 3 Claims. (Cl. 180-1.)

1. A mechanism for turning an automobile having two rear driven wheels connected by a differential, compris-

ing means for locking one of the rear wheels against rotation, a gear wheel carried by one of the front wheels of



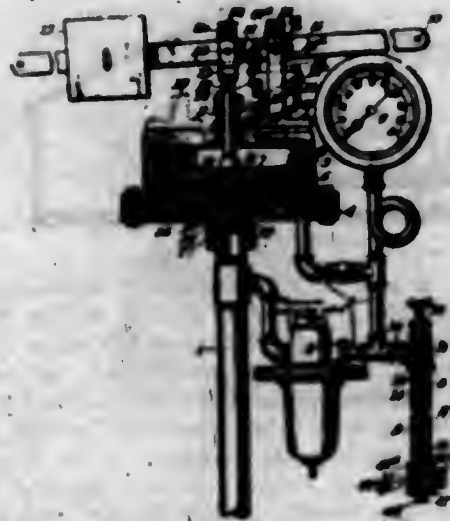
the machine, and a second gear driven by the motor and disposed to mesh with the first mentioned gear when the front wheels are turned at an angle to the front axle.

1,303,806. AUTOMATIC SAFETY TRAIN DEVICE. CARL JENSEN KROG, Greenmount, Queensland, Australia, assignor to Krog Railway Safeguards Limited, Greenmount, Australia. Filed Feb. 21, 1916. Serial No. 79,715. 4 Claims. (Cl. 246-97.)



1. A track mechanism including an obstacle, a rod connected to shift said obstacle to operative and inoperative positions, a plunger for moving said rod in one direction, and spring means for returning the rod in the opposite direction, substantially as described.

1,303,807. PRESSURE-REGULATOR. JOHN M. LANSON, Chicago, Ill., assignor to National Regulator Company, Chicago, Ill., a Corporation of Illinois. Filed June 2, 1916. Serial No. 101,237. 11 Claims. (Cl. 236-6.)



1. In a device of the class described, an operating lever, a source of pressure adapted to actuate same, a diaphragm casing, a plurality of diaphragms within said casing, a stem mounted on said diaphragms and connected with said lever, means for admitting pressure within said diaphragms, means for admitting pressure within said diaphragm casing outside of said diaphragms, a reducing valve interposed between said source of pressure and the diaphragm casing, and means for relieving the pressure within said diaphragm casing.

1,303,808. GAME OF SKILL. ARS L. LANDIS, Nashville, and WILLIAM DUBLAY BOY, Bellevue, Tenn.; said Boy assignor to said Landis. Filed Aug. 22, 1918. Serial No. 251,014. 1 Claim. (Cl. 46-64.)



A game apparatus comprising a board divided into fifty circular playing areas of the same color, said areas being arranged in diagonal columns with communicating passageways for movement of pieces from one circle or playing area to another circle or playing area; said areas being numbered consecutively from 1 to 50 from opposite sides of the board in both directions and arranged in horizontal rows and vertical columns with the circles or playing areas separated by intervening spaces, two of said areas, one in each of the last opposite rows being of greater strategic importance than other playing areas; said areas being of contrasting color to the intervening spaces; the pieces adapted to be played in connection with said board consisting of two sets in contrasting colors of 20 pieces to each set of different numerical values with certain of said pieces capable of acquiring greater value when moved and played to occupy either of the five circles in the last opposite row of playing areas and the one piece in each set of the highest value occupying, in original arrangement of pieces, the important and strategic playing area and having the power of winning the game when maneuvered to occupy the original station of the adversary's piece of highest value.

1,303,809. PORTABLE SAWING MECHANISM. ALBERT OLOF MALCHUS LÖNNER, Stockholm, Sweden. Filed Dec. 5, 1918. Serial No. 265,464. 5 Claims. (Cl. 143-17.)



1. A portable sawing mechanism comprising a pair of rods, check extensions on said rods, a pivot connecting the checks of one rod to those of the other, rollers carried by each end of said rods and mounted on said pivot, said check extensions forming housings for said rollers, a flexible saw running over said rollers, and longitudinal housings pivoted on said rods, the saw running between said rods and said housings.

1,303,810. CULTIVATOR ATTACHMENT. CORNELIUS VAN GUNN, Abba, Iowa. Filed Nov. 16, 1918. Serial No. 262,220. 1 Claim. (Cl. 97-12.)

An attachment of the class described comprising a wheel including a hub and rim sections secured to the hub, adjacent rim sections being spaced apart, fenders

extending within the spaces between the rim sections, each of said fenders having its open face outwardly directed and having its walls perforated, a sleeve secured to each of the fenders at substantially the axial center



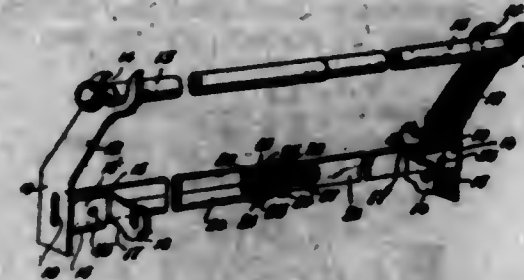
of its base, an elongated support radiating from the hub of the wheel and extending through the sleeve, and means carried by the sleeve for securing the fender in adjusted positions on the support.

1,303,811. CASH-CARRIER. GEORGE A. ANDERSON, Littleton, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of Massachusetts. Filed July 22, 1914. Serial No. 352,466. 4 Claims. (Cl. 186-32.)



1. A carrier for dispatch apparatus comprising a receptacle having a cover hinged thereto, a bent sheet metal latch mounted upon the inner side of said cover and having a body portion disposed substantially flatwise against said inner side of said cover, and a cover locking part offset from said body portion and out of parallelism with the latch to constitute means to press papers or bills in said receptacle, which might otherwise be mutilated by movements of the latch, away from the portion of said cover locking part which has the greatest movement and which would thereby most tend to mutilate said papers.

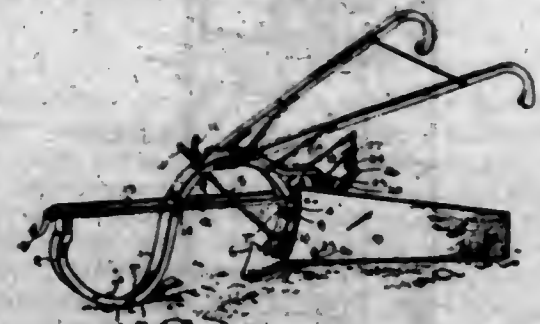
1,303,812. CURTAIN-ROD AND SHADE-ROLLER HANGER. GEORGE ANDERSON, Weyerhaeuser, Wis. Filed Jan. 21, 1917. Serial No. 145,704. 1 Claim. (Cl. 156-23.)



A shade and curtain rod support comprising a pair of plates having means to engage the sides of a window frame, and means for clamping said plates in adjusted positions on the window frame comprising a flattened tube secured to one plate and carrying a clamping lever at its extremity opposite of said plate, and a bar secured to the other plate in telescopic relation to said flattened tube having a series of transverse slots, said lever having a nose extending at a slight angle to the lever to engage

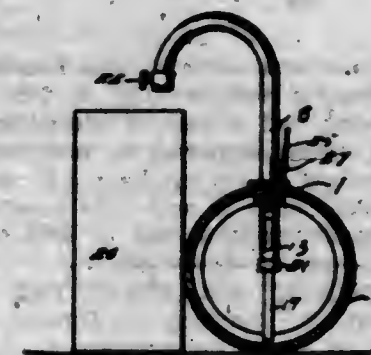
in said slots and force the bar into said tube, said lever adapted to lie in longitudinal engagement with said bar to hold said nose in engagement with a side of one of said slots to lock the tube and bar in adjusted position.

1,303,813. PLOW. MAX H. FRANKFURT, Paris, Tex. Filed Jan. 25, 1919. Serial No. 273,110. 5 Claims. (Cl. 97-10.)



4. In an implement of the class described, the combination of a substantially S shape plow beam, the forward curved portion of which is adapted to ride on the surface of the earth, a pivoted plow point at the rear end of the beam extending below the horizontal plane of the bottom of the curved portion, means for adjusting the plow point, wings extending rearwardly and outwardly from the rear of the beam, an extension projecting rearwardly from the beam, and braces connecting the extension and the wings.

1,303,814. LIQUID-CONVEYER. ERNEST WILLARD CRANE, Buena Vista, Fla., assignor of one-half to Charles H. Cooper, Buena Vista, Fla. Filed June 5, 1917. Serial No. 172,956. 1 Claim. (Cl. 221-74.)

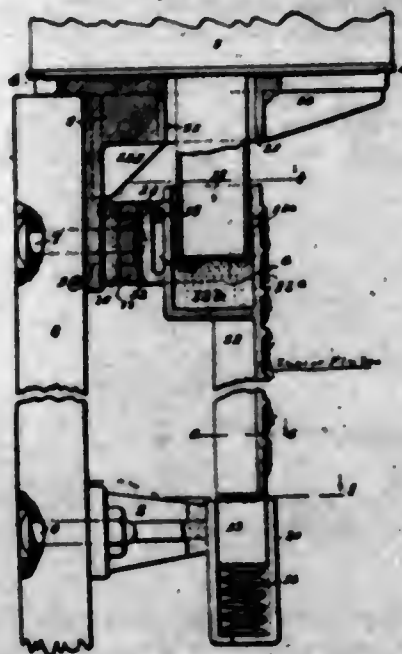


A liquid conveyer of the class described including a bung adapted to be secured in a bung hole and provided with a liquid passage enlarged at the upper end to form a recess, a goose neck outer discharge pipe having a flange on the lower end thereof positioned in the recess, a locking ring threaded into the recess and arranged to swivelly hold the goose neck in position, a valve carried by the outer end of the goose neck, an intake tube carried by the lower end of the bung, and means carried by the bung for admitting fluid pressure to the interior of the barrel for forcing the liquid out through tubes and liquid passage.

1,303,815. HOG-OILER. HARRY J. CHINER, Fort Madison, Iowa, assignor to Edwin Urfer, Fort Madison, Iowa. Filed Dec. 3, 1918. Serial No. 265,123. 2 Claims. (Cl. 119-157.)

1. In a hog oiler, a receptacle for the oil, a rubbing bar, a guide for the lower end of said bar, a well on the upper end of each bar, a guide for the upper end of said bar, the said bar being vertically movable a limited dis-

tance, a duct from the said receptacle projected into the said well with its discharge end submerged in the con-



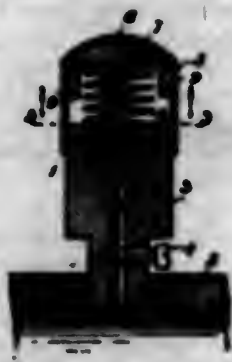
tents of the well, the said well having an outflow port that discharges on the rubbing bar.

1,303,516. SHOCK-ABSORBER. EUGENE FULLER, Providence, R. I., assignor of one-half to Benjamin F. Tefft, Jr., Arctic, R. I. Filed Aug. 13, 1918. Serial No. 249,662. 2 Claims. (Cl. 267-19.)



1. The combination with a vehicle axle housing, a main vehicle spring disposed substantially in line with the axle of said housing and a pair of spaced-apart longitudinally-disposed beams supported by said main spring, of a pair of radially-disposed auxiliary coil springs connected at their lower ends to said axle housing, and at each of their opposite ends to one of said beams.

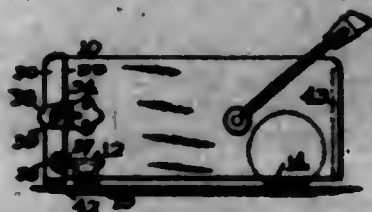
1,303,517. AUTOMATIC AIR-VALVE FOR GAS-ENGINE MANIFOLDS. ARNOLD C. HUGILL, Fordham, N. Y., assignor, by mesne assignments, to Alliance Co. Inc., Boston, Mass., a Corporation of Delaware. Filed June 20, 1918. Serial No. 240,911. 1 Claim. (Cl. 251-148.)



In a device of the class described, a perforated plug adapted to be secured to a manifold or similar means and means in said plug for regulating the size of the perforation therein, a spring, a cap with a concave top mounted on said plug and a vent opening in said top, a spring pressed valve plug which has a convex top and is adapted to rest on said spring and to press against and

at the interior of the cap, and lugs which extend far enough from the valve plug to engage the plug and protect the spring, said parts being so arranged and disposed that the valve plug slides freely in the plug and normally closes the vent therein, and that the valve plug may move under atmospheric pressure through the vent and permit air to pass through the device.

1,303,518. PNEUMATIC CARPET-SWEEPER. VICTOR J. JOHNSON and ERIC G. THOMSON, Worcester, Mass., assignors, by mesne assignments, to The Torrington Company, Torrington, Conn., a Corporation of Maine. Filed June 10, 1911, Serial No. 682,411. Renewed June 9, 1916, Serial No. 102,708. 7 Claims. Cl. 15-60.)



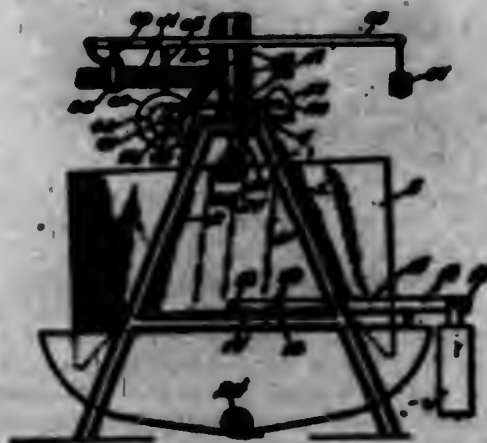
6. In a pneumatic carpet cleaner, the combination with a casing having a dust bag compartment at the top thereof, of a plurality of pneumatics arranged along the bottom of the casing, each having an individual leaf fixed immovably to the bottom of the dust bag compartment, and a movable leaf, a nozzle communicating with said compartment, and means for operating the pneumatics.

1,303,519. PNEUMATIC DUST-COLLECTOR. VICTOR J. JOHNSON and ERIC G. THOMSON, Worcester, Mass., assignors, by mesne assignments, to The Torrington Company, Torrington, Conn., a Corporation of Maine. Original application filed June 10, 1911, Serial No. 682,411. Renewed June 9, 1916, Serial No. 102,708. Divided and this application filed May 1, 1917. Serial No. 165,791. 4 Claims. (Cl. 163-38.)



1. In a pneumatic carpet cleaner, the combination with a casing having a permanently closed top, of a dust bag compartment located just under said top, the casing having an opening in a vertical margin thereof through which the dust bag can be removed.

1,303,520. LIQUID-MEASURING DEVICE. ALFRED A. LAWAUX, New Orleans, La. Filed Dec. 12, 1916. Serial No. 136,480. 20 Claims. (Cl. 73-28.)



1. In a liquid measuring device, the combination of a tilting vessel having compartments on opposite sides of

its center provided with discharge outlets at their outer ends, and foam preventing and retarding devices disposed within said compartments.

1,303,521. MACHINE FOR WINDING UP STRIPS OF STICKY MATERIAL. ROBERT MCLENNATHAN, Cuyahoga Falls, Ohio, assignor to Kelly-Springfield Tire Company, New York, N. Y., a Corporation. Filed Oct. 2, 1918. Serial No. 268,538. 3 Claims. (Cl. 242-39.)



2. An apparatus of the character described a supply spool, a take up spool supported by two stationarily held revolving drums, a stationary supporting table intervening between the said supply spool and said take up spool, means to drive said drums and rotate said take up spool, a cloth conveyor passing from said supply spool over said table to said take up spool and adapted to carry said take up strips of sticky material on said take up spool and in a manner that will rotate said supply spool, means for holding said take up spool and contents parallel with said driving drums in an automatically, adjustable manner and means for holding said cloth conveyor at proper tension substantially as described.

1,303,522. STABILIZING AND STEERING GEAR FOR VEHICLES USING CHAIN TRACKS. PHILIP WARWICK BOSSON and FRANCIS JAMES BERTHELOT, Lincoln, England. Filed Nov. 15, 1917. Serial No. 202,250. 4 Claims. (Cl. 21-202.)



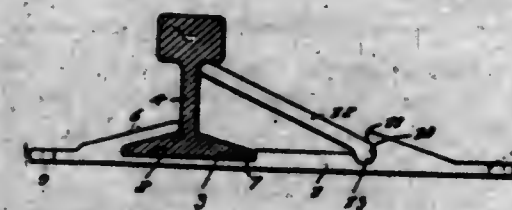
1. Stabilizing and steering means for vehicles using chain tracks, comprising in combination, a frame pivoted to the main frame of the machine about a horizontal axis, a steering wheel pivoted in said frame, springs adapted to press said steering wheel down on the road, and hand-operated means adapted to raise said frame, as set forth.

1,303,523. LATCH-OPENER FOR KNITTING-MACHINES. ROBERT W. SCOTT, Boston, Mass., assignor, by mesne assignments, to Scott & Williams, Incorporated, a Corporation of Massachusetts. Original application filed Feb. 3, 1912, Serial No. 746,070. Divided and this application filed June 18, 1914. Serial No. 845,945. 5 Claims. (Cl. 66-21.)



2. A knitting machine having needles with shanks and latches resting at an angle thereto when closed, knitting cams for said needles including an advancing cam, in combination with a brush having radial tufts rotating on an axis and inclined to the path of movement of said needle at said cam at a greater angle than the angle between said shanks and latches.

1,303,524. RAIL BRACE AND FASTENER. MASONIC BENICAL, Negaunee, Mich. Filed July 10, 1916. Serial No. 110,126. 1 Claim. (Cl. 238-2.)



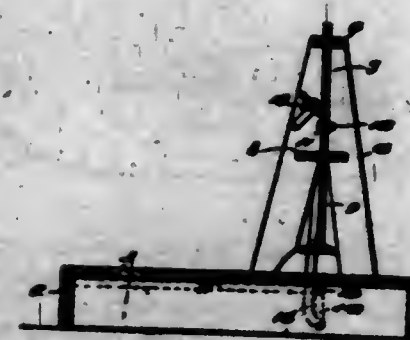
The combination with a railroad rail, of a rail brace and fastener comprising a flat plate having a transversely extending recess formed therein to receive the rail base flanges, a flange formed on the plate near one end thereof and arranged to overlap the recess and engage one of the base flanges of the rail, said plate being provided at a point spaced outwardly from said recess with a transversely extending groove, an inclined brace having its lower end enlarged and bent downwardly and positioned in said groove and having its upper end positioned in engagement with the underside of the head of the rail, and an upwardly extending inclined ledge formed on the plate adjacent to the groove for engagement with the upper side of the brace to prevent its lower end from moving accidentally out of the groove.

1,303,525. AUTOMOBILE SWITCH-LOCK. JOHN H. SHAW, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 29, 1918. Serial No. 264,572. 24 Claims. (Cl. 70-46.)



1. A cylinder lock having a case and projections extending from each end of said case, said projections constructed to be received in sockets formed in spaced supporting plates or the like, and thereby retain said lock in operative position between said plates or the like.

1,303,526. PRESS. JACOB E. SINGMASTER, Sebastopol, Calif. Filed Jan. 22, 1918. Serial No. 218,151. 2 Claims. (Cl. 100-57.)

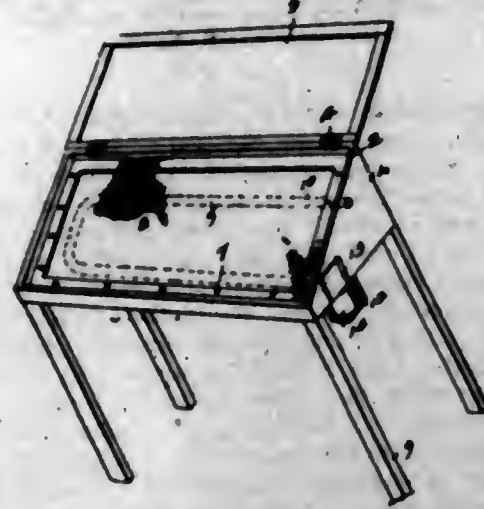


1. A device of the class described including a stationary platform, an upright frame, a cross head carried by said frame, a rock shaft positioned beneath the platform, projecting cranks on said shaft, rods connecting said cranks and cross head, and the lower ends of said rods connected with the cranks being bent laterally for the purpose set forth.

2. A device of the class described including a stationary platform, an upright frame disposed adjacent one end of the same, a cross head slidable vertically in said frame above the platform, a plunger carried by said cross head, a rock shaft positioned beneath the platform, a

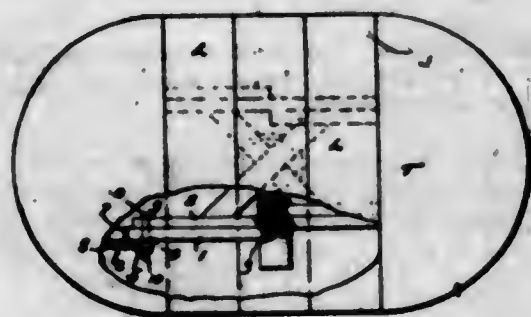
lever to rock the same, cranks projecting from said shaft, connecting bars between the cross head and cranks, said bars having their lower ends bent laterally, and a latch carried by the same adapted to hold the cross head in raised position.

1,303,827. SEED-TESTER. GEORGE SMIT, Parkersburg, Iowa. Filed Mar. 27, 1917. Serial No. 157,777. 1 Claim. (Cl. 47-30.)



A seed tester comprising an earth receiving receptacle of a rectangular configuration, the upper edges of the end walls of which are inclined from the rear wall to the relatively short front wall, inwardly extending and apertured offset marginal flanges formed on the upper edges of the walls of the receptacle, a wire mesh grating secured to the apertured offset portions of the flanges, a transparent cover hinged to the flange on the rear wall and removably supported by all of these flanges at the inner portions thereof, heat contributing means passing into the receptacle and arranged parallel to the cover and legs connected to the receptacle and depending therefrom.

1,303,828. EXTENSION-TABLE LOCK. ELIZABETH W. THORNTON, West Philadelphia, Pa. Filed Nov. 19, 1918. Serial No. 263,163. 1 Claim. (Cl. 45-9.)

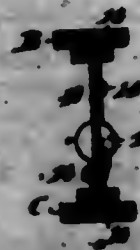


The combination with leaf supporting slides having registering apertures therein; of a removable plug for insertion through said apertures with an enlargement on its outer end to form a stop for limiting its insertion and an enlarged bearing surface, a leaf spring secured intermediately of its ends to said slide with one end outwardly bowed and positioned to overlap the head of said plug and the other end bowed outwardly and its terminal engaging the slide, and a knob on the outer face of said plug engaging head.

1,303,829. STOCK FOR SPIRIT-LEVELS. GUSTAVE A. VOGLT, New Britain, Conn. Filed Aug. 11, 1917. Serial No. 185,780. 3 Claims. (Cl. 22-203.)

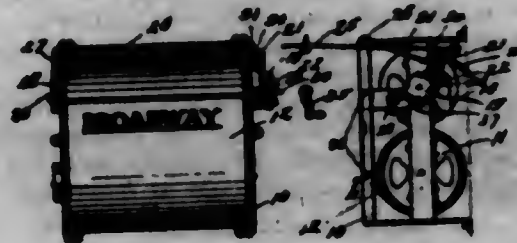
1. In an instrument of the character described, a stock of an I-beam cross section consisting of a steel plate hav-

ing perforations at the longitudinal edges thereof, and aluminum bars constituting flanges for the stock cast



about the perforated edges of said plate, whereby said edges are embedded within the said bars.

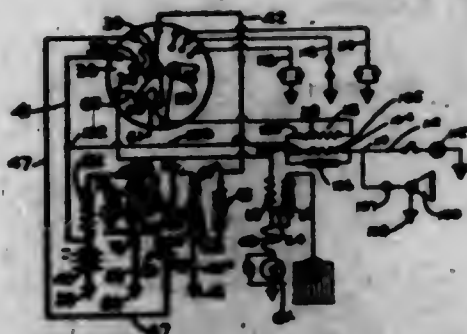
1,303,830. STATION-INDICATOR. JACOB CASPER KRECHHOFF, St. Louis, Mo., assignor of one-half to Bernhard H. Cronacher, St. Louis, Mo. Filed Aug. 8, 1917. Serial No. 185,211. 2 Claims. (Cl. 40-91.)



1. A station indicator including a casing, web carrying rollers mounted in the casing, a yoke movably mounted on the casing, ratchet wheels carried by the ends of one of said rollers, a lever loosely mounted on one end of said roller, the ends of the yoke being extended into parallel relation, one of said ends engaging one of said ratchet wheels, a spring bearing on the last-named end, the other end being dissected laterally, and a cam bar carried by the lever and engaging with the laterally directed end for raising and depressing said yoke.

2. In a station indicator, web carrying reels, one of said reels being provided with ratchet wheels on the ends thereof, a detent engaging with one of said ratchet wheels, means on the other end of the reel engaging and turning the other ratchet wheel, and means on said engaging means for raising and depressing the detent into and out of engagement with the ratchet wheel.

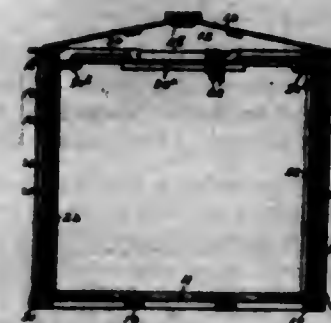
1,303,831. ENGINE STARTING SYSTEM. CHARLES F. KETTERING and WILLIAM A. CHRYST, Dayton, Ohio, assignors to The Dayton Engineering Laboratories Company, a Corporation of Ohio. Filed Oct. 11, 1915. Serial No. 55,160. 7 Claims. (Cl. 171-315.)



1. In an engine starting system, the combination with an engine, of a starting device therefor, including a dynamo electric machine having a motor field and armature circuit, and an independent generator armature circuit and a generator field circuit connected across part of the

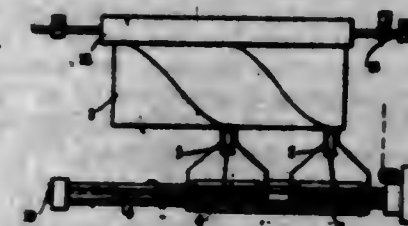
armature circuit to regulate the output of the machine, when operating as a generator; an accumulator having circuit connections with said machine; and controlling means operable to break the motor field and armature circuits when the machine is operating as a generator, and to establish the generator field and armature circuits with the accumulator for charging purposes, and operable to establish the motor field and armature circuits, and to break the generator armature circuit and establish the generator field circuit directly across a portion of the motor circuit when the machine is operating as a motor.

1,303,832. GRAIN-DOOR FOR CARS. VALENTINE W. MILLER, Fonda, Iowa. Filed Oct. 15, 1917. Serial No. 196,637. 1 Claim. (Cl. 20-32.)



A grain-car door, comprising jamb members formed with vertical grooves, angle bars on said jamb members formed with transverse notches, separate door sections mounted for vertical sliding movement between said jamb members and formed with headed studs adapted to travel in said grooves, and angle plates fixed to and overlying end portions of said door sections and formed with transverse notches overlapping at times the notches in the angle bars.

1,303,833. CARDING. JUAN SAUS, Barcelona, Spain. Filed Apr. 24, 1916. Serial No. 93,294. 5 Claims. (Cl. 19-2.)



1. In a machine for carding fibers of different lengths, in combination, a main carding cylinder, a pair of longitudinally reciprocating feed guides, means for reciprocating each guide substantially a distance equal to half the length of the cylinder, a point-covered cylinder, means for longitudinally reciprocating said point-covered cylinder, a lap of uniform quality being produced by this dual reciprocation, means whereby said lap is formed into ribbons, pressure rollers whereby each such ribbon is stretched, and rubbers whereby each ribbon is rubbed or twisted before winding.

1,303,834. LICENSE-TAG FOR VEHICLES. LYNNARD A. WARD and WILLIAM D. CHASE, Brooklyn, N. Y. Filed Apr. 7, 1916. Serial No. 89,674. 1 Claim. (Cl. 40-63.)

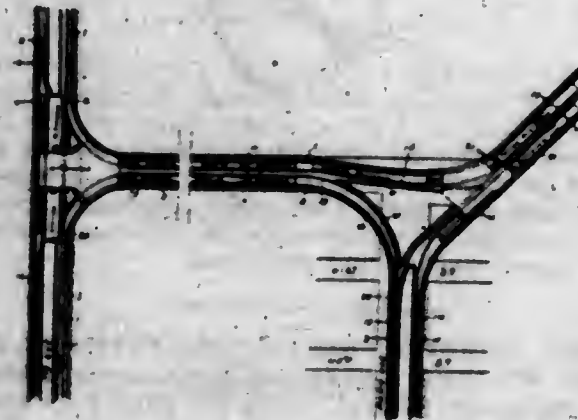
In a license tag for automobiles and the like, the combination of a base member bearing the automobile identifi-

cation number, a member removably attached thereto bearing the date or period of renewal of the license, and means



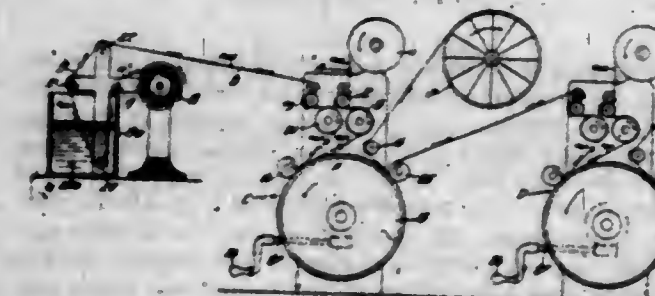
for holding and sealing a license owner's identification card between the said two members.

1,303,835. TRACK SYSTEM. FREDERICK C. WEBER, New York, N. Y. Filed Aug. 21, 1918. Serial No. 250,783. 13 Claims. (Cl. 104-28.)



1. In a track system, the combination of two pairs of parallel trunk lines of tracks, the lines of each pair designed for trains in opposite directions respectively, with a pair of cross lines mutually connecting corresponding tracks of each pair of the trunk lines.

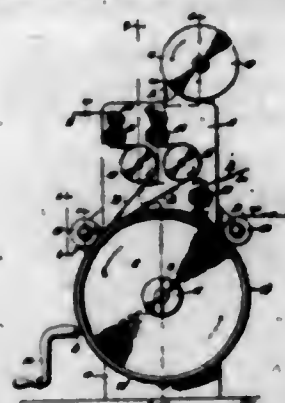
1,303,836. ART OF COLORING CINEMATOGRAPHIC FILMS. ALVIN WICKOFF and MAX HANDSCHIEGL, Los Angeles, Calif., assignors to Famous Players-Lasky Corporation, a Corporation of New York. Filed Nov. 20, 1916. Serial No. 132,350. 2 Claims. (Cl. 101-149.)



1. The process of coloring cinematographic films, consisting of coating a positive print upon those portions of its views it is desired to color with matter impervious to light and taking a negative print therefrom, immersing such negative print in a chemical solution to render impervious to liquid all portions of the views exposed to the light in printing, the subsequent immersion of such treated negative print in the coloring matter and the adhesion of such coloring matter to the portions thereof not rendered impervious thereto and the drying of such coloring matter thereon, the immersion of the positive print to be colored in a solution for the moistening and softening of the gelatinous surface thereon, subjecting the gelatinous surface of such positive print while moist to a pressurable contact with the gelatinous surface of the negative print car-

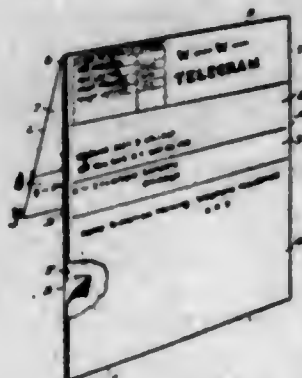
rying coloring matter, the views upon the positive print being made to register with the corresponding views upon the color carrying negative while in contact, substantially as and for the purpose herein set forth.

1,303,837. MACHINE FOR AND ART OF COLORING CINEMATOGRAPHIC FILMS. ALVIN WICKOFF and MAX HANDSCHIEL, Los Angeles, Calif., assignors to Famous Players-Lasky Corporation, a Corporation of New York. Filed Nov. 20, 1916. Serial No. 132,351. 19 Claims. (Cl. 101—149.)



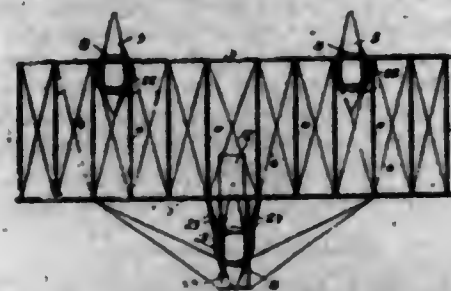
1. In a machine for transferring coloring matter from one film to another by pressurable contact, a revoluble toothed drum and distinct adjustably retardable means to exert a longitudinal tension upon the films separately to bring them to register upon said drum.

1,303,838. COMBINED BLANK FOR LETTER OR MESSAGE WRITING. AMERICUS F. CALLAHAN, Chicago, Ill. Filed Sept. 9, 1918. Serial No. 253,271. 3 Claims. (Cl. 282—28.)



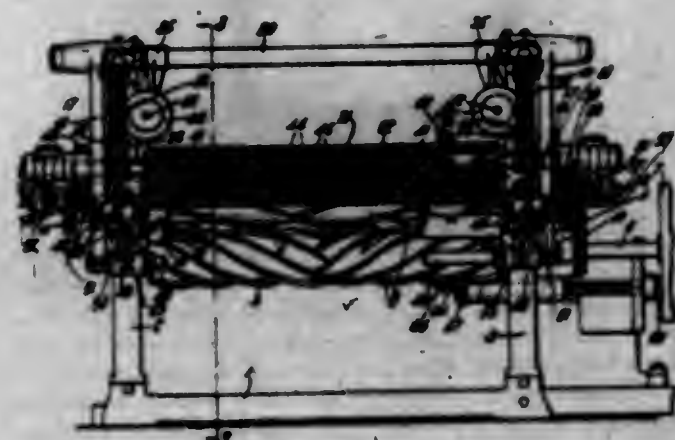
1. A combined blank for letter or message writing embodying three sheets or sections, (1) a sheet or section for the original writing, (2) a sheet or section of substantially the same size as the original and connected therewith at one edge only to fold in rear of the original and adapted to receive by transfer a duplicate of matter written on the original, (3) an external sheet or section connected at one edge with one edge of the original to fold rearwardly over a free edge of the second sheet and confine the latter during the writing of the message, said original and external sheets having on opposite faces thereof, before folding, heading data and narrow address panels located below the heading data in position to register when said sheets are folded one behind the other, correspondingly located narrow address panels, and said original sheet or section having below the address panel a panel for the writing forming the message, and a narrow strip of transfer material located in rear of the second sheet and in register with the narrow address panel of the external sheet, whereby writing on the face of the original sheet may be duplicated by transfer on the second sheet and the address only duplicated on the address panel of the external sheet, the latter sheet when folded forwardly being adapted to inclose the original sheet and to expose the address reproduced thereon by transfer.

1,303,839. SAILING-CRAFT. ISAAC HENDERSON, Vancouver, British Columbia, Canada. Filed Mar. 22, 1917. Serial No. 156,708. 7 Claims. (Cl. 114—39.)



1. A sailing craft of the character described including a plurality of hulls connected together by a skeleton framework in which the majority of the fore and aft and vertical rigid members serve as masts and sail-spreading spars, substantially as set forth herein.

1,303,840. LEATHER-WORKING MACHINE. JOHN W. O'DONNELL, Salem, Mass., assignor, by mesne assignments, to The Carleton Ruhe Company. Filed Apr. 5, 1917. Serial No. 160,032. 19 Claims. (Cl. 149—16.)



6. A machine of the character described having, in combination, a work supporting member provided with a yielding periphery, means for feeding the work over said work supporting member, a work member provided with peripheral helical blades adapted to engage the work upon the opposite face thereof from said work supporting member, said blades being of substantially 74° pitch, a second work member also provided with peripheral helical blades adapted to engage the work upon the opposite face thereof from said work supporting member, the helices of said second work member being of substantially 42° pitch, and means for rotating said work members at different speeds and in opposition to said feeding means.

1,303,841. NON-SKID CUSHION SUCTION-HEEL. CLARENCE E. SINGMUND, Akron, Ohio, assignor of one-half to Worthington Hoyt, Cleveland Heights, Ohio. Filed Jan. 31, 1919. Serial No. 274,284. 1 Claim. (Cl. 36—35.)



An elastic lift for boots or shoes comprising a body of resilient material conforming in general outlines to the heel, the heel engaging face of the lift being concave and adapted to be compressed in snug engagement with the heel for effecting a vacuum cup action, fastening means

extending through the lift and engaging the heel, the road engaging face of the lift provided with a central zone which when the lift is unattached to the heel projects downwardly beyond the remaining portions of the lift, the balance of the road-engaging face of the lift being fashioned with steps extending throughout the entire face, whereby when said lift is attached to the heel, said steps provide a series of teeth triangular in cross section extending over the entire surface of the lift with the exception of the central zone.

1,303,842. POST-CARD. SHIRLEY EUGENE STOUT, Mitchell, S. D. Filed Jan. 5, 1916. Serial No. 70,428. 1 Claim. (Cl. 274—42.)



A post card comprising a relatively thick body portion having a central opening and an annular recess formed in one face about said opening, sound-record receiving material filling said recess and flush with the upper surface of the card, said sound-record receiving material having a radial depression located some distance from its center, and a guide disk having a central opening registering with the opening of the card, a radial projection on said disk and close to the periphery thereof, said projection engaging the aforesaid radial depression in the record receiving material, the guide plate embedded in the said record material and locked against relative movement with respect to the recording material by the interlocked relation of the radial depression and projection, whereby the guide plate will be held against accidental displacement.

REISSUES.

14,645. SAFETY-GOGGLES. HERMAN J. BRENNER, Chicago, Ill., assignor to Robert Malcom, Chicago, Ill. Filed Feb. 3, 1919. Serial No. 274,816. Original No. 1,207,849, dated Dec. 12, 1916, Serial No. 109,220, filed July 14, 1916. 5 Claims. (Cl. 88—41.)



1. A pair of goggles consisting of nonmetallic frames having openings for lens frames cut therein and forming expansible open rings, and lens frames having lenses therein, said lens frames being arranged to be held in said open rings.

14,646. COMBINATION TIMER, DISTRIBUTER, AND INDUCTION-COIL APPARATUS. JOSEPH H. LEHMAN, Hasbrouck Heights, N. J. Filed Feb. 4, 1919. Serial No. 275,038. Original No. 1,142,973, dated June 15, 1915, Serial No. 735,207, filed Dec. 6, 1912. 13 Claims. (Cl. 123—108.)

1. The combination with the primary and secondary windings of an induction coil, of a shaft rotatably mounted

therein and serving as the electro-magnetic core of the induction coil and a circuit making and breaking device for



one of said windings and including a movable part adapted to be operated by the rotation of said shaft.

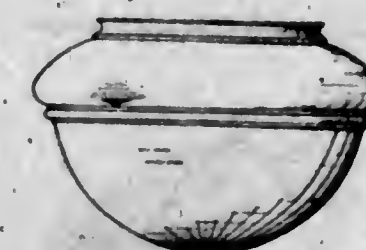
14,647. RAIL-BONDING. GUSTAV A. MERKT, Worcester, Mass., assignor to The American Steel and Wire Company of New Jersey, Hoboken, N. J., a Corporation of New Jersey. Filed Feb. 15, 1917. Serial No. 148,704. Original No. 1,154,264, dated Sept. 21, 1915, Serial No. 689,202, filed Apr. 8, 1912. 4 Claims. (Cl. 173—278.)



3. A rail bond for electrically bonding the adjacent ends of steel rails, said bond being of separate strands of metal of greater conductivity than steel and having a terminal comprising the combination of a plate of ferrous metal having a forward face adapted to be united by welding to a face of the rail and an additional body welded on another face of said body of ferrous metal and on the end of the bond and being also of metal of greater conductivity than steel.

DESIGNS.

53,290. LIGHTING-FIXTURE BOWL. HARRY C. ADAM, St. Louis, Mo. Filed Nov. 29, 1918. Serial No. 264,741. Term of patent 14 years.



The ornamental design for a lighting-fixture bowl, as shown.

53,281. BANNER, FLAG, PENNANT, SIGN, EMBLEM, OR ARTICLE OF A SIMILAR NATURE. LOUIS ANNIN AMES, New York, N. Y., assignor to Anna & Co., New York, N. Y., a Corporation of New York. Filed Dec. 10, 1918. Serial No. 266,126. Term of patent 3½ years.



The ornamental design for a banner, flag, pennant, sign, emblem or article of a similar nature as shown and described.

53,282. COMBINATION MIRROR, RAZOR-STROP, AND MATCH-IGNITER. HERBERT J. ARMSTRONG, Atlantic City, N. J. Filed Jan. 2, 1919. Serial No. 269,355. Term of patent 3½ years.



The ornamental design for a combination mirror, razor strop, and match igniter, as shown.

53,283. LAMP-SHADE. ALBERT BOHRINGER, Meriden, Conn., assignor to Edward Miller & Co., Meriden, Conn., a Corporation of Connecticut. Filed Mar. 6, 1919. Serial No. 281,099. Term of patent 3½ years.



The design for a lamp shade substantially as shown.

53,284. PEDUSTAL. ALBERT BOHRINGER, Meriden, Conn., assignor to Edward Miller & Co., Meriden, Conn., a Corporation of Connecticut. Filed Mar. 6, 1919. Serial No. 281,100. Term of patent 3½ years.



The ornamental design for a pedestal substantially as shown.

53,285. PRINTED SILK. JAMES H. BUNTING, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Mar. 17, 1919. Serial No. 283,209. Term of patent 3½ years.



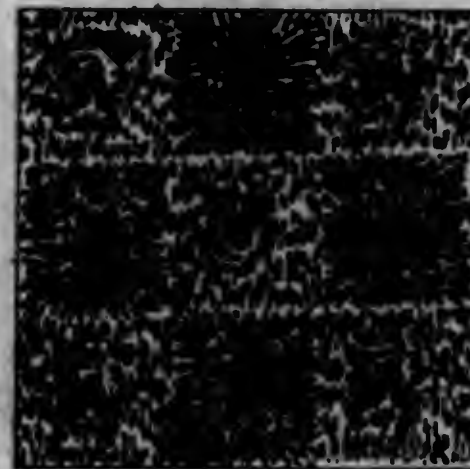
The ornamental design for printed silk, as shown.

53,286. PRINTED SILK. JAMES H. BUNTING, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Mar. 17, 1919. Serial No. 283,271. Term of patent 3½ years.



The ornamental design for printed silk, as shown.

53,287. PRINTED SILK. JAMES H. BUNTING, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Mar. 19, 1919. Serial No. 283,674. Term of patent 3½ years.



The ornamental design for printed silk, as shown.

53,288. PEAK-CAP. RICHARD CARSWELL, Brooklyn, N. Y. Filed Dec. 30, 1918. Serial No. 268,992. Term of patent 14 years.



The ornamental design for a peak cap as shown.

53,289. COTTON LACE. GEORGE H. CLARK, River Point, R. I. Filed Oct. 30, 1918. Serial No. 260,370. Term of patent 3½ years.



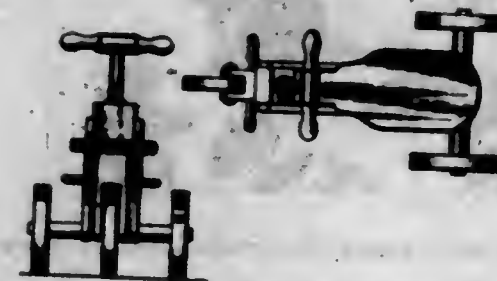
The ornamental design for cotton lace, as shown.

53,290. PIN, BADGE, CHARM, OR ARTICLE OF SIMILAR NATURE. GENEVA CLAY, Doylestown, Pa. Filed Mar. 8, 1919. Serial No. 281,556. Term of patent 3½ years.



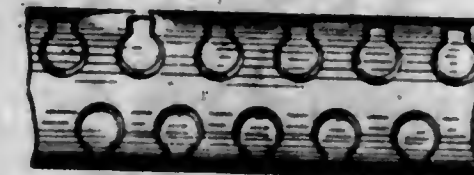
The ornamental design for a pin, badge, charm, or article of similar nature, as shown.

53,291. TOY VEHICLE. SAMUEL L. COLES, St. Louis county, Mo. Filed Mar. 15, 1918. Serial No. 222,743. Term of patent 7 years.



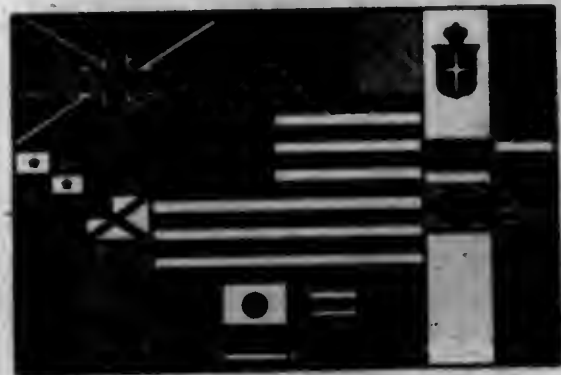
The ornamental design for a toy vehicle, as shown.

53,292. TIRE. ERNEST H. COOPER, Kansas City, Mo. Filed Jan. 25, 1919. Serial No. 273,163. Term of patent 14 years.



The ornamental design for a tire, as shown.

53,293. FLAG. HENRY CREANGE, New York, N. Y., assignor to Cheney Brothers, South Manchester, Conn., a Corporation of Connecticut. Filed Dec. 2, 1918. Serial No. 265,186. Term of patent 3½ years.



The ornamental design for a flag, as shown.

53,294. PRINTED SILK. ADOLPH EISEL, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Mar. 17, 1919. Serial No. 283,272. Term of patent 3½ years.



The ornamental design for printed silk, as shown.

53,295. PRINTED SILK. ADOLPH EISEL, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Mar. 19, 1919. Serial No. 283,675. Term of patent 3½ years.



The ornamental design for printed silk, as shown.

53,296. SPOON, FORK, OR SIMILAR ARTICLE. JAMES E. FRASER, New York, N. Y., assignor to Joseph Fahys & Company, New York, N. Y., a Corporation of New York. Filed Feb. 15, 1919. Serial No. 277,373. Term of patent 14 years.



The ornamental design for a spoon, fork or similar article as shown.

53,297. BADGE. FRED GIBSENHAUS, Muscatine, Iowa. Filed Jan. 29, 1919. Serial No. 273,921. Term of patent 3½ years.



The ornamental design for a badge as shown.

53,298. FLAG, PENNANT, SIGN, EMBLEM, OR ARTICLE OF A SIMILAR NATURE. ADOLPH GRAMLICH, New York, N. Y. Filed Sept. 16, 1918. Serial No. 254,965. Term of patent 3½ years.



The ornamental design for a flag, pennant, sign, emblem, or article of a similar nature as shown.

53,299. HANDLE. FREDERICK E. GREENE, Mount Vernon, N. Y., assignor to The Mount Vernon Company, Silvermiths, Inc., Mount Vernon, N. Y., a Corporation of New York. Filed Feb. 20, 1919. Serial No. 278,300. Term of patent 3½ years.



The ornamental design for a handle substantially as shown.

53,300. AUTOMOBILE-TRIMMING AND THE LIKE. FREDERICK E. GREENE, Mount Vernon, N. Y., assignor to The Mount Vernon Company, Silvermiths, Inc., Mount Vernon, N. Y., a Corporation of New York. Filed Feb. 20, 1919. Serial No. 278,301. Term of patent 3½ years.



The ornamental design for an automobile trimming and the like, substantially as shown.

53,301. RECORD TABLET, PLATE, FRAME, OR THE LIKE. SARAH F. HAMMONS, Chicago, Ill. Filed Jan. 25, 1919. Serial No. 272,160. Term of patent 3½ years.



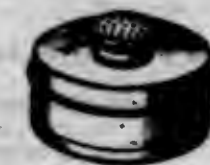
The ornamental design for a record tablet, plate, frame, or the like, substantially as shown.

53,302. SUPPORTING-PLATE FOR A HOSE-SUPPORTER. CHARLES JOSEPH HAUSON, New York, N. Y. Filed Dec. 28, 1918. Serial No. 268,772. Term of patent 14 years.



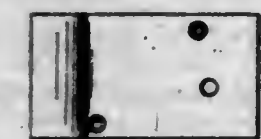
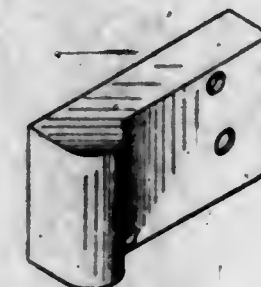
The ornamental design for a supporting plate for a hose supporter as shown.

53,303. POWDER-CONTAINER. EDMUND HOFFMAN, Brooklyn, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 19, 1915. Serial No. 9,450. Term of patent 14 years.



The ornamental design for a powder container, as shown and described.

53,304. LOCK-CASING. CHARLES KEMP, New York, N. Y. Filed Dec. 9, 1918. Serial No. 266,003. Term of patent 7 years.



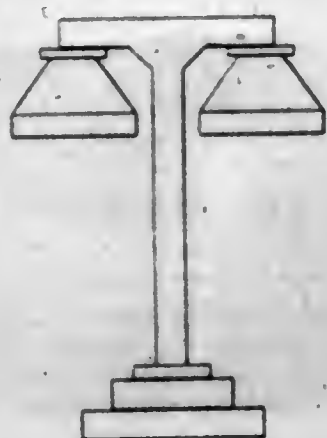
The ornamental design for a lock casing, as shown.

53,305. PLATE OR SIMILAR ARTICLE. CHARLES KLENN, Englewood, N. J., assignor to The Palm Brothers Company, New York, N. Y. Filed Feb. 21, 1919. Serial No. 278,531. Term of patent 3½ years.



The ornamental design for a plate or similar article, as shown.

53,306. LAMP. EMILE A. LAURENT, Denver, Colo. Filed May 6, 1918. Serial No. 232,950. Term of patent 14 years.



The ornamental design for a lamp as shown.

53,307. CANDELABRUM. SETH HOWARD LEAVENWORTH, Rochester, N. Y., assignor to The Van Bergh Silver Plate Company, Rochester, N. Y. Filed Feb. 20, 1919. Serial No. 278,305. Term of patent 7 years.



The ornamental design for a candelabrum, as shown.

53,308. CANDELABRUM. SETH HOWARD LEAVENWORTH, Rochester, N. Y., assignor to The Van Bergh Silver Plate Company, Rochester, N. Y. Filed Feb. 20, 1919. Serial No. 278,306. Term of patent 7 years.



The ornamental design for a candelabrum, as shown.

53,309. BERLIN KETTLE. WALTER LUTTRINGHAUS, Maywood, Ill. Filed Feb. 10, 1917. Serial No. 147,964. Term of patent 14 years.



The ornamental design for a Berlin kettle as shown.

53,310. PANEL FOR A LAMP OR A SIMILAR ARTICLE. ANGUS S. MACDONALD, Great Neck Station, and JOHN MULLER, Flushing, N. Y., assignors to The Smead & Co. Iron Works, Jersey, N. J., a Corporation of New Jersey. Filed Mar. 6, 1919. Serial No. 281,097. Term of patent 7 years.



The ornamental design for a panel for a lamp or a similar article as shown and described.

53,311. BADGE. LOUIS MARKOWITZ, New York, N. Y. Filed Nov. 14, 1918. Serial No. 262,009. Term of patent 7 years.



The ornamental design for a badge substantially as shown.

53,312. BADGE. OSCAR D. MAY, Oak Park, and JOHN H. MALONE, Chicago, Ill. Filed Jan. 29, 1919. Serial No. 273,923. Term of patent 7 years.



The ornamental design for a badge, as shown.

53,313. CONTINUOUS-WEB MEN'S HOSE-SUPPORTER. CLIFFORD L. MEYER, Bellevue borough, Pa. Filed June 27, 1917. Serial No. 177,402. Term of patent 14 years.



The ornamental design for a continuous web men's hose supporter, as shown.

53,314. TONE-ARM. WILLIAM J. McNAMARA, Cleveland, Ohio, assignor to The Empire Photo Parts Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 27, 1918. Serial No. 219,519. Term of patent 14 years.



The ornamental design for a tone arm, as shown.

53,315. TRAY, DISH, PLATE, PLATTER, BOWL, COMPOTE, BASKET, OR ANALOGOUS ARTICLE OF HOLLOW WARE. HAROLD EDWARD NOCK and GEORGE F. PARKER, Newburyport, Mass., assignors to Towle Manufacturing Company, Newburyport, Mass., a Corporation of Massachusetts. Filed May 13, 1918. Serial No. 234,331. Term of patent 7 years.



The ornamental design for a tray, dish, plate, platter, bowl, compote, basket or analogous article of hollow ware, as shown and described.

53,316. AUTOMOBILE-TIRE. WILLIAM O'NEIL, Akron, Ohio, assignor to The General Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Nov. 9, 1917. Serial No. 201,180. Term of patent 14 years.



The ornamental design for an automobile tire, as shown.

53,317. ARTICLE OF MANUFACTURE. JOHN S. POST, Newark, N. J. Filed Dec. 17, 1918. Serial No. 267,220. Term of patent 14 years.



The ornamental design for an article of manufacture as shown.

53,318. CONTAINER. WALTER RYER, Milwaukee, Wis. Filed Jan. 29, 1919. Serial No. 273,922. Term of patent 7 years.



The ornamental design for a container, as shown.

53,319. GOBLET OR SIMILAR ARTICLE. FRANK SCHNEIDER, Buffalo, N. Y. Filed Feb. 17, 1919. Serial No. 277,060. Term of patent 7 years.



The ornamental design for a goblet or similar article, as shown.

53,320. DECORATIVE PAPER. GEORGE E. SHAWMUR, Yonkers, N. Y., assignor, by mesne assignments, to Henri Rigaud, trading as V. Rigaud, New York, N. Y. Filed Mar. 10, 1919. Serial No. 281,563. Term of patent 14 years.



The design for a decorative paper as shown.

53,321. BADGE OR BUTTON. LEWIS D. STARK and JOHN E. SHEPPARD, Detroit, Mich. Filed Jan. 27, 1919. Serial No. 273,492. Term of patent 7 years.



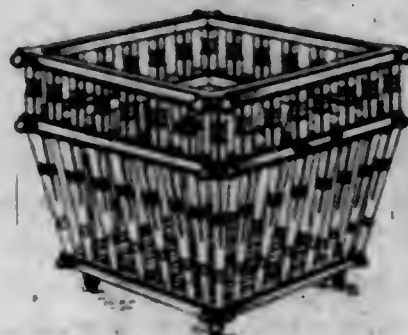
The ornamental design for a badge or button substantially as shown.

53,322. BADGE OR BUTTON. LEWIS D. STARK and JOHN E. SHEPPARD, Detroit, Mich. Filed Jan. 27, 1919. Serial No. 273,493. Term of patent 7 years.



The ornamental design for a badge or button substantially as shown.

53,323. CLOTHES-BASKET. JOSEPH SWACZES, Riverside, N. J. Filed Jan. 8, 1919. Serial No. 270,216. Term of patent 3 1/2 years.



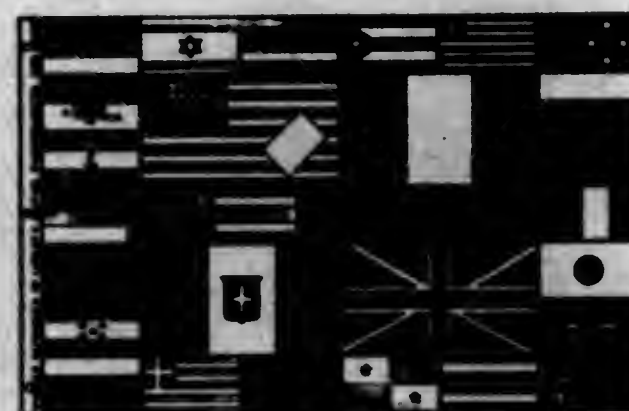
The ornamental design for a clothes basket as shown.

53,324. BOTTLE. HARRY VAUGHN, Jamaica, N. Y. Filed Oct. 6, 1917. Serial No. 195,201. Term of patent 14 years.



The ornamental design for a bottle as shown.

53,325. FLAG. FREDERICK A. WATERHOUSE, New Haven, Conn. Filed Feb. 18, 1919. Serial No. 277,885. Term of patent 3 1/2 years.



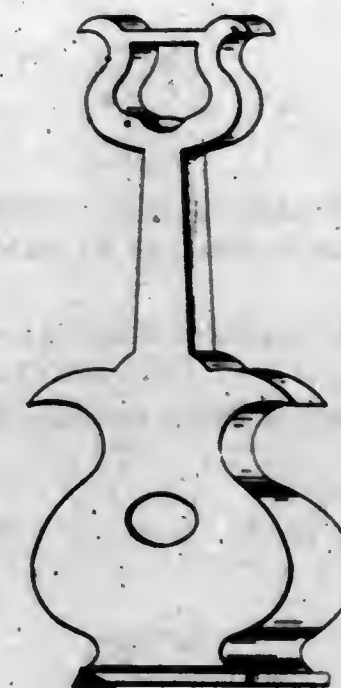
The ornamental design for a flag, as shown.

53,326. BUTTON OR EMBLEM. GEORGE S. WHEAT, New York, N. Y. Filed Dec. 14, 1918. Serial No. 266,824. Term of patent 3 1/2 years.



The ornamental design for a button or emblem, as shown.

53,327. MUSICAL-INSTRUMENT CASE. FRANK ZAMCKNIK, Washington, D. C. Filed Mar. 19, 1919. Serial No. 283,680. Term of patent 14 years.



The ornamental design for a musical instrument case, as shown.

TRADE-MARKS

OFFICIAL GAZETTE, MAY 13, 1919.

[PUBLISHED MAY 17, 1919.]

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 91,840. (CLASS 2. RECEPTACLES.) ABRAHAM L. HOLTMAN, Philadelphia, Pa. Filed Dec. 30, 1915.

DRIBRUSH

Consists of the word "Dribrush."
Particular description of goods.—A Holder or Case for Shaving-Brushes.
Claims use since about Sept. 1, 1914.

Ser. No. 92,615. (CLASS 2. RECEPTACLES.) CHESTER T. FREZZY, Detroit, Mich. Filed Feb. 4, 1916.

Letter-Pack It

The trade-mark consists of the words "Letter-Pack-It," as shown.
Particular description of goods.—Mailing-Envelope Provided with Separate Receptacles for Use in Mailing Merchandise.
Claims use since about Apr. 15, 1914.

Ser. No. 93,449. (CLASS 35. CLOTHING.) EDWARD HINSWFIELD, St. Louis, Mo. Filed July 18, 1916.

Srink Nomo

No claim being made for the word "Srink" apart from the mark shown in the drawing.
Particular description of goods.—Dress-Shirts.
Claims use since Feb. 1, 1916.

Ser. No. 101,090. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. F. LALLA Co., Chicago, Ill. Filed Feb. 1, 1917.

Blackstone

No claim is made to the word "Blackstone" apart from the mark as shown.
Particular description of goods.—Canned Fruits, Canned Vegetables, and Canned Salmon.
Claims use since Apr. 8, 1916.

Ser. No. 106,800. (CLASS 9. EXPLOSIVES, FIRE-ARMS, EQUIPMENTS, AND PROJECTILES.) G. R. MCANES POWDER & OIL COMPANY, Pittsburgh, Pa. Filed Sept. 21, 1917.

Cronite


Particular description of goods.—Permissible Explosives—Namely, Ammonium-Nitrate Explosives, Hydrated Explosives, Organic Nitrate Explosives, and Certain Nitroglycerin Explosives Containing an Excess of Free Water or Carbon.
Claims use since June, 1913.

Ser. No. 106,641. (CLASS 3. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEO SWAPISO & Co., Inc., Minneapolis, Minn. Filed Oct. 8, 1917.



Particular description of goods.—Poison for Squirrels, Prairie-Dogs, and Gophers.
Claims use since on or about Nov. 15, 1915.

Ser. No. 107,271. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) LEE S. SMITH & SON MANUFACTURING COMPANY, Pittsburgh, Pa. Filed Nov. 9, 1917.



Smith's
Certified
Enamel

The panel shown on the drawing is the color of red and no claim is made to the words "Smith's Certified Enamel" apart from the mark shown on the drawing.
Particular description of goods.—Dental Enamel.
Claims use since Oct. 15, 1917.

Ser. No. 107,412. (CLASS 10. FERTILIZERS.) THE MOLASSINE COMPANY LIMITED, Greenwich, England. Filed Nov. 16, 1917.

✓ HUMATISED

Particular description of goods.—Chemical Fertilizers.
Claims use since the 8th day of March, 1916.

Ser. No. 108,061. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN B. WENNA, South Bend, Ind. Filed Dec. 20, 1917.

ISABAR

Particular description of goods.—Candy.
Claims use since 1914.

Ser. No. 108,099. (CLASS 48. MALT BEVERAGES, EXTRACTS, AND LIQUORS.) INOQUOIS BAWING COMPANY, Buffalo, N. Y. Filed Dec. 22, 1917.



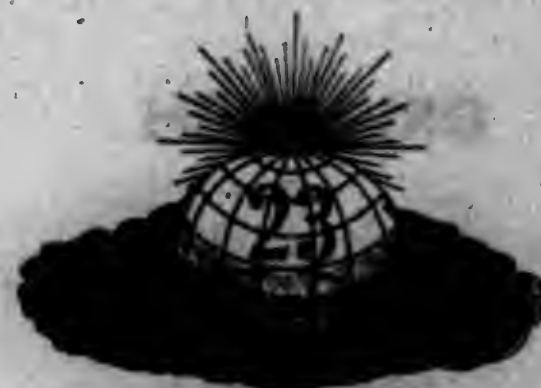
Particular description of goods.—A Non-Alcoholic Cereal Beverage Containing Malt, but Less Than One-Half of One Per Cent. of Alcohol and Sold as a Soft Drink.
Claims use since July 18, 1917.

Ser. No. 108,261. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THOMPSON PIANO MANUFACTURING CO., Steger, Ill. Filed Jan. 8, 1918.



The picture being fanciful.
Particular description of goods.—Furniture-Polish.
Claims use since Nov. 1, 1917.

Ser. No. 108,261. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE NATIONAL PRODUCTS CO., Mansfield, Ohio. Filed Jan. 8, 1918.



Particular description of goods.—A Cleansing Compound for Removing Soil, Dirt, and Grease from Clothing.
Claims use since Jan. 16, 1917.

Ser. No. 108,546. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FRED. MOUNTFORD (BIRMINGHAM) LTD., Lifford near Birmingham, England. Filed Jan. 19, 1918.

FRENO

Particular description of goods.—Milling-Machines, Vertical-Drilling Machines, Tapping-Machines, Screw-Cutting Machines, Lathes, Planers, and Taper Pins for All Machinery.
Claims use since May 1, 1907.

Ser. No. 108,228. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN F. LANNON, Providence, R. I. Filed Feb. 28, 1918.

SUPERB

Particular description of goods.—Wheat-Flour.
Claims use since Jan. 5, 1904.

[Vol. 283. No. 2.]

Ser. No. 108,740. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HENRY BLISWETT & SON, INC., Somerville, Mass. Filed Mar. 23, 1918.

2 IN 1

Particular description of goods.—Bread.
Claims use since Mar. 18, 1918.

Ser. No. 108,741. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HENRY BLISWETT & SON, INC., Somerville, Mass. Filed Mar. 23, 1918.

FIFTY-FIFTY

The words "Fifty Fifty."
Particular description of goods.—Bread.
Claims use since Mar. 18, 1918.

Ser. No. 110,097. (CLASS 37. PAPER AND STATIONERY.) JAMES MILN, Toronto, Ontario, Canada. Filed Apr. 10, 1918.



Particular description of goods.—Etchable Coated Paper and Coated Relief Overlay-Paper, Both for Use in Printing.
Claims use since the 1st day of April, 1915.

Ser. No. 110,972. (CLASS 8. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BENN WINDT, New York, N. Y. Filed May 17, 1918.

WINTOL

Particular description of goods.—Proprietary Medicines, as follows: Liquid Tonics Consisting of Beef, Wheat, Malt, and Iron with Hypophosphates; Cough Medicines; Tonic and Nerve Pills.
Claims use since Oct. 21, 1915.

Ser. No. 111,215. (CLASS 37. PAPER AND STATIONERY.) JIFFY PEN COMPANY, Sioux City, Iowa. Filed May 27, 1918.

Jiffy

Particular description of goods.—Fountain-Pens.
Claims use since Oct. 1, 1918.

[Vol. 283. No. 2.]

Ser. No. 111,362. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) HERCULES POWDER COMPANY, Wilmington, Del. Filed June 4, 1918.

HERCULOID

Particular description of goods.—Pyroxylin Plastics in the Form of Rods, Tubes, Sheets, Slabs, &c.
Claims use since May, 1917.

Ser. No. 111,362. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN MINON KNORR, Stockton, Calif. Filed June 8, 1918.

4 PULL

Particular description of goods.—Tractors.
Claims use since May 27, 1918.

Ser. No. 111,667. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) E. GAL, SOCIEDAD EN COMANDITA, Madrid, Spain. Filed June 19, 1918.



No claim is made to the words "Jabon Flores De Talavera-Gal, Madrid" apart from the trade-mark shown in the drawing, the design being printed in various shades of blue.

Particular description of goods.—Soaps.
Claims use since Mar. 27, 1917.

Ser. No. 111,806. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) BURNALL CORPORATION, Chicago, Ill. Filed June 26, 1918.

BURNALL

Particular description of goods.—A Mechanical Device Consisting of a Cored Cast-Iron Casting Beveled at One End, with Drilled Holes in the Beveled Part. In the Hollow of the Casting are Baffle-Walls to Divert and Hold Back the Oxygen Which Passes Through the Casting so That it May Become Thoroughly Heated Before Being Expelled, and to Which is Attached a Cast-Iron Perforated Cap and Bar Serving as a Protection to the Air-Intake Hole, to be Used in Furnaces and Stoves for Conserving and Reducing the Fuel Consumption.
Claims use since Oct. 17, 1914.

[Vol. 283. No. 2.]

Ser. No. 112,018. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARMOUR GRAIN COMPANY, Jersey City, N. J., and Chicago, Ill. Filed July 10, 1918.



Particular description of goods.—Stock Feed.
Claims use since Dec. 1, 1917.

Ser. No. 112,175. (CLASS 27. PAPER AND STATIONERY.) RUSSELL & RUSSELL, Baltimore, Md. Filed July 16, 1918.

R & R

Particular description of goods.—Writing-Papers.
Claims use since about June 1, 1917.

Ser. No. 112,180. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HERMAN PASTUSAN, Spokane, Wash. Filed July 17, 1918.



The trade-mark consists of the head of a negro and the words "Clever Sam," the word "Clever" above and the word "Sam" below the head.

Particular description of goods.—A Cleaning-Powder Compound for Removing Soil, Grease, and Dirt from Wall-Paper, Calcimine, Carpets, and Fabrics.
Claims use since Apr. 1, 1918.

Ser. No. 112,246. (CLASS 27. HOROLOGICAL INSTRUMENTS.) NELSON H. BROWN, Boston, Mass. Filed July 22, 1918.

COURIER

Particular description of goods.—Watches, Clocks, and Movements Thereof.
Claims use since Sept. 20, 1915.

Ser. No. 112,303. (CLASS 39. CLOTHING.) JELICO CLOTHING MANUFACTURING CO., Jellico, Tenn. Filed July 29, 1918.



Particular description of goods.—Overalls.
Claims use since July 1, 1915.

Ser. No. 112,444. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ROUSSEAU, WILLIAMS & CO., Boston, Mass. Filed July 31, 1918.



Particular description of goods.—Special Cotton Fabrics—Namely, Cretonnes, Art-Denim, Khaki, Marquisette, Printed Duck, Drills, Bunting, and Ticking—But Not Including Bleached Cotton Fabrics.
Claims use since the 1st day of January, 1913.

Ser. No. 112,614. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) O. W. RICHARDSON & COMPANY, Chicago, Ill. Filed Aug. 21, 1918.

Rich-Tex

Particular description of goods.—Rugs, Carpets, and Runners Made of Wool, Cotton, Jute, and Grass; Portières, Art-Drumery Material, Cretonnes, Couch-Covers, Rope Portières, Rope Valances; Bedspreads Made of Cotton, Wool, and Silk; Window-Shades Made of Oiled Linen; Curtains Made of Muslin, Lace, and Net; Lace Panels for Vestibule-Doors Made of Lace and Net.
Claims use since August, 1917.

Ser. No. 112,910. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) FEDERAL SNAP FASTENER CORPORATION, New York, N. Y. Filed Aug. 28, 1918.



Particular description of goods.—Snap-Fasteners and Placket-Fasteners.
Claims use since Aug. 12, 1918.

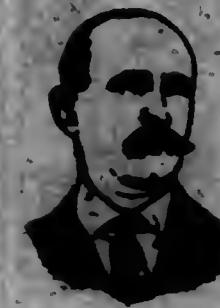
Ser. No. 113,189. (CLASS 39. CLOTHING.) EDMONDS SHOE COMPANY, Milwaukee, Wis. Filed Sept. 16, 1918.



The word "Edmonds" appearing in the trade-mark is a facsimile of the signature of W. A. Edmonds.
Particular description of goods.—Leather Shoes.
Claims use since May, 1918.

[Vol. 202. No. 2.]

Ser. No. 113,192. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STEPHEN KOCH, New Brunswick, N. J. Filed Sept. 10, 1918.



W W W
Wm Wm Wm

The trade-mark showing my portrait, no claim being made to the word "Wound" apart from the mark as shown.

Particular description of goods.—A Healing-Salve.
Claims use since May 1, 1918.

Ser. No. 113,257. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) LILLIAN R. SINE, New York and Fire Island Beach, N. Y. Filed Sept. 25, 1918.



Particular description of goods.—Dried and Prepared Sea-Grass for Mattress and Upholstery Purposes.
Claims use since January, 1917.

Ser. No. 113,410. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) UTICA STRAW & MOHAWK VALLEY COTTON MILLS, Utica, N. Y. Filed Sept. 25, 1918. Under ten-year proviso.



Particular description of goods.—Shirts, Shackets, Pillow-Cases, and Cotton Piece Goods.
Claims use since Feb. 21, 1909.

202 O. G.—30

[Vol. 202. No. 2.]

Ser. No. 113,504. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEATTLE GRAIN COMPANY, Seattle, Wash. Filed Sept. 30, 1918.



Particular description of goods.—Self-Rising Flour.
Claims use since Apr. 16, 1917.

Ser. No. 113,627. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE F-R-X MANUFACTURING COMPANY, Norwalk, Ohio. Filed Oct. 9, 1918.

FRX

Particular description of goods.—Mechanical Fire-Extinguishers.
Claims use since on or about Sept. 1, 1918.

Ser. No. 113,655. (CLASS 39. CLOTHING.) ADOLPH MAYER, New York, N. Y. Filed Oct. 10, 1918.

LIDS FOR KIDS

Comprising the words "Lids For Kids."
Particular description of goods.—Children's Hats.
Claims use since about 1910.

Ser. No. 113,661. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NITRATE ACQUICINE COMPANY, New York, N. Y. Filed Oct. 10, 1918.



The word "Brand" is disclaimed apart from the mark shown in the drawing.
Particular description of goods.—Crude Colors for Coloring Foods and Textiles and Dyestuffs.
Claims use since July 1, 1918.

Ser. No. 113,703. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) NELLIE F. BARNES, Peoria, Ill. Filed Oct. 12, 1918.



Particular description of goods.—A Liquid Cleansing Compound for Cleaning Painted and Enamelled Surfaces and the Like, Bath-Tubs, and other Porcelain Ware, Glazed and Unglazed Porcelain and China, Linoleum, and Oil-Cloth.

Claims use since about the first day of September, 1918.

Ser. No. 113,907. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) W. R. GRACE & Co., New York, N. Y., and San Francisco, Calif. Filed Oct. 26, 1918.



Particular description of goods.—Textile Fabrics Consisting of Cotton Piece Goods.

Claims use since Sept. 1, 1918.

Ser. No. 113,900. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) W. R. GRACE & Co., New York, N. Y., and San Francisco, Calif. Filed Oct. 26, 1918.



The female figure shown in the drawing is fanciful.
Particular description of goods.—Textile Fabrics Consisting of Cotton Piece Goods.

Claims use since Sept. 1, 1918.

Ser. No. 113,901. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) W. R. GRACE & Co., New York, N. Y., and San Francisco, Calif. Filed Oct. 26, 1918.



Particular description of goods.—Textile Fabrics Consisting of Cotton Piece Goods.

Claims use since Sept. 1, 1918.

Ser. No. 113,908. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) W. R. GRACE & Co., New York, N. Y., and San Francisco, Calif. Filed Oct. 26, 1918.



Particular description of goods.—Textile Fabrics Consisting of Cotton Piece Goods.

Claims use since Sept. 1, 1918.

Ser. No. 113,909. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) G. W. HUMM COMPANY, San Francisco, Calif. Filed Oct. 31, 1918.

GLEN UNA

Particular description of goods.—Canned Fruits—Namely, Canned Peaches, Canned Apricots, Canned Pears, Canned Green Gage-Plums, Canned Egg-Plums, and Dried Fruits.

Claims use since the year 1899.

Ser. No. 114,149. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS F. CRAWFORD, Pleasantville, N. J. Filed Nov. 12, 1918.

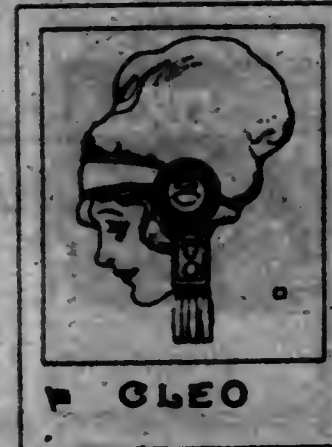


Particular description of goods.—Liquid Dental Preparation for Relief of Pyorrhea or Rigg's Disease, Eruptions of the Gums, Bleeding or Receding Gums, Used as a Mouth-Wash or Locally Applied.

Claims use since on or about Oct. 22, 1918.

[Vol. 298. No. 2.]

Ser. No. 114,102. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) W. R. GRACE & Co., New York, N. Y., and San Francisco, Calif. Filed Nov. 14, 1918.



Particular description of goods.—Textile Fabrics Consisting of Cotton Piece Goods.

Claims use since Oct. 1, 1918.

Ser. No. 114,300. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) THE SOUTHERN COTTON OIL COMPANY, Jersey City and Bayonne, N. J.; New York, N. Y.; Gretna, La.; Savannah, Ga.; Chicago, Ill. Filed Nov. 22, 1918.

SCOCO

The trade-mark consists of the word "Scoco" as shown in the accompanying drawing.

Particular description of goods.—A Shortening Composed of Fatty Oleaginous or Unctuous Food Substances.

Claims use since about November, 1911.

Ser. No. 114,638. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) QUINCY & CHERRY, Inc., Boston, Mass. Filed Dec. 12, 1918.

Red Don

The lining being for shading only.

Particular description of goods.—Candy.

Claims use since January, 1916.

Ser. No. 114,649. (CLASS 10. PAINTS AND PAINTING MATERIALS.) RHO WING LING OIL COMPANY, Newark, N. J. Filed Dec. 14, 1918.



Particular description of goods.—Lubricating Oil.

Claims use since Sept. 27, 1912.

[Vol. 298. No. 2.]

Ser. No. 114,688. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) JOHN BARNES BIRK, Harrow, England. Filed Dec. 17, 1918.



No claim apart from the mark shown in the drawing being made to the words "Birk's" "Junket Powder," "Barnet in Dry Powder," "Manufactured by Edward Birk & Son, Harrow, England," "Devonshire," "Junket," and "Bund."

Particular description of goods.—Powders for Making Junket.

Claims use since July 2, 1918.

Ser. No. 114,717. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FURNESS PRODUCTS CORPORATION, Brooklyn, N. Y. Filed Dec. 18, 1918.

PURISOL

Particular description of goods.—Toliet, Castile, and Laundry Soap and Metal-Polish.

Claims use since July 1, 1917.

Ser. No. 114,740. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) HAWAIIA PHOTOGRAPH CO., Chicago, Ill. Filed Dec. 20, 1918.



Particular description of goods.—Talking-Machines—Namely, Phonographs.

Claims use since December, 1916.

Ser. No. 114,788. (CLASS 15. OILS AND GREASES.) MAGNOLIA PETROLEUM COMPANY, Dallas, Tex. Filed Dec. 26, 1918.



Particular description of goods.—Lubricating Oil.

Claims use since Oct. 15, 1912.

Ser. No. 114,949. (CLASS 28. JEWELRY AND PRECIOUS METAL WARE.) JACK J. FULANOWSKI, Brooklyn, N. Y. Filed Jan. 2, 1919.

Felco

Particular description of goods.—Precious and Imitation Precious Stones, Both Set and Unset.
Claims use since Dec. 21, 1915.

Ser. No. 114,974. (CLASS 30. CLOTHING.) KORN & BARR, New York, N. Y. Filed Jan. 3, 1919.

ESKIMOLA

Consisting of the word "Eskimola."
Particular description of goods.—Women's Wraps Made from Dressed Skins—viz., Coats, Scarfs and Muffs, Jackets, Capes, Collarets, and Dolmans.
Claims use since Dec. 2, 1918.

Ser. No. 115,032. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WAPLES-PLATTEN GROCER COMPANY, Denison, Tex. Filed Jan. 7, 1919.

NAVSUM

Particular description of goods.—Coffee.
Claims use since 1917.

Ser. No. 115,084. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WAPLES-PLATTEN GROCER COMPANY, Denison, Tex. Filed Jan. 7, 1919.

PEACHO

Particular description of goods.—Canned Goods—Namely, Apricots, White Cherries, Peas, Oysters, Yellow Free Peaches, Strawberries, Black Cherries, Grapes, White Heath Peaches, Green Gage Plums, Blackberries, Corn, Pears, Sliced Yellow Cling-Peaches, Salmon.
Claims use since 1906.

Ser. No. 115,177. (CLASS 30. PRINTS AND PUBLICATIONS.) THE JEWISH AGRICULTURAL AND INDUSTRIAL AID SOCIETY, New York, N. Y. Filed Jan. 14, 1919.

**הַיִּשִּׁי הַפֶּלֶא
הַיִּשִּׁי הַפֶּלֶא
THE JEWISH FARMER**

The Hebrew characters forming a part of the mark when translated read "The Jewish Farmer."
Particular description of goods.—Monthly Periodical Magazine.
Claims use since April, 1908.

Ser. No. 115,199. (CLASS 42. KNITTED, WHITTED, AND TEXTILE FABRICS.) NUNEN, HANSEN & CO., New York, N. Y. Filed Jan. 14, 1919.



Particular description of goods.—Woven Cotton Piece Goods.
Claims use since May, 1917.

Ser. No. 115,230. (CLASS 30. CLOTHING.) HESS RUBBER COMPANY, Watertown, Mass. Filed Jan. 16, 1919.



No claim being made for the words "Rubber Company" and "Boston" apart from the mark shown.
Particular description of goods.—Rubber Boots and Shoes, Rubber Overboots, and Rubber-Sole Canvas Shoes.
Claims use since Dec. 19, 1904.

Ser. No. 115,274. (CLASS 30. CLOTHING.) THE AMERICAN HOSIERY COMPANY, New Britain, Conn. Filed Jan. 18, 1919.

ATHO
Body Clothing

No claim being made to the words "Body Clothing" apart from the mark shown on the drawing.
Particular description of goods.—Undershirts, Undershirts, and Union-Suits Made of Knitted Fabric.
Claims use since Dec. 18, 1918.

Ser. No. 115,285. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HARTFORD CANNING COMPANY, Hartford, Wis. Filed Jan. 16, 1919.

HALLMARK

Particular description of goods.—Canned Vegetables.
Claims use since Dec. 28, 1918.

Ser. No. 115,302. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MILLARD GUM VENDING CORPORATION, New York, N. Y. Filed Jan. 18, 1919.



Applicant does not claim herein as a technical trademark the name "Millard's."
Particular description of goods.—Chewing-Gum, and Confectionery in the Form of Sugar Pellets, Sometimes Known as "Cachous."
Claims use since about June 17, 1918.

Ser. No. 115,304. (CLASS 30. CLOTHING.) SINDLE, STERN & CO., INC., New York, N. Y. Filed Jan. 18, 1919.

ST-600

The applicant disclaims his exclusive right to use the word "Brand" apart from the mark as shown on the drawing.
Particular description of goods.—Men's and Boys' Suits and Overcoats.
Claims use since Jan. 15, 1919.

Ser. No. 115,397. (CLASS 30. CLOTHING.) SINDLE, STERN & CO., INC., New York, N. Y. Filed Jan. 18, 1919.

ATTABOY

The applicant disclaims his exclusive right to use the word "Brand" apart from the mark as shown on the drawing.
Particular description of goods.—Men's and Boys' Suits and Overcoats.
Claims use since Jan. 15, 1919.

Ser. No. 115,398. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BAYER COMPANY, INC., New York, N. Y. Filed Jan. 20, 1919.

ASPIR-VIM

Particular description of goods.—An Analgesic Tonic.
Claims use since about Dec. 20, 1918.

Ser. No. 115,310. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BAYER COMPANY, INC., New York, N. Y. Filed Jan. 20, 1919.

ASPIR-LAX

Particular description of goods.—A Laxative and Analgesic.
Claims use since about Dec. 20, 1918.

Ser. No. 115,323. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THEODORE WILLIAM OPPERMAN, St. Louis, Mo. Filed Jan. 20, 1919.

O-D

Particular description of goods.—Pharmaceutical Preparations—Namely, Pharmaceutical Preparations Used in the Treatment of Bowel and Intestinal Disorders and Diseases.
Claims use since Jan. 3, 1919.

Ser. No. 115,365. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. J. BRACH & SONS, Chicago, Ill. Filed Jan. 22, 1919.

BUTTER-AIDS

Particular description of goods.—Hard Candies.
Claims use since Dec. 1, 1918.

Ser. No. 115,447. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HERMAN BOSKER, New York, N. Y. Filed Jan. 27, 1919.

ELTOX

Particular description of goods.—A Reconstructive Tonic.
Claims use since Nov. 14, 1918.

Ser. No. 115,449. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE DENING COMPANY, Salem, Ohio. Filed Jan. 27, 1919.

MARVEL

Particular description of goods.—Water-Pumping Outfit, Comprising a Tank, a Pump, Motor for the Pump, an Automatic Controlling Device, and a Base Carrying Said Parts.
Claims use since about Dec. 2, 1918.

Ser. No. 115,021. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LEHNER, WHITMAN & Co., INC., New York, N. Y. Filed Feb. 4, 1919.



Particular description of goods.—Face Goods—viz., a Fabric Made with a Cotton Warp and a Filling of Wool or Alpaca or Mohair, Singly or Combined.
Claims use since Dec. 10, 1918.

Ser. No. 115,025. (CLASS 39. CLOTHING.) MATTHEW BROTHERS, Philadelphia, Pa. Filed Feb. 4, 1919.

Gansborough

Particular description of goods.—Ladies' Hosiery.
Claims use since April, 1913.

Ser. No. 115,072. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) COUNTRY CLUB SODA COMPANY, Springfield, Mass. Filed Feb. 7, 1919.

Country Club

Particular description of goods.—Birch-Beer, Root-Beer, Lemon-Soda, Cream-Soda, and Orange-Soda, Artificially Flavored, and Ginger-Ale.
Claims use since March, 1901.

Ser. No. 115,078. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE NUSOLE COMPANY, Colorado Springs, Colo. Filed Feb. 7, 1919.



The lining on the drawing being for the purpose of shading only and no claim being made to the representation of the articles.

Particular description of goods.—A Waterproofing Composition for Shoe-Soles.
Claims use since Sept. 1, 1918.

Ser. No. 115,888. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE STAMPEO COMPANY, St. Paul, Minn. Filed Feb. 15, 1919.

SWEETHOUR

Particular description of goods.—Candy.
Claims use since Jan. 2, 1919.

Ser. No. 115,913. (CLASS 39. CLOTHING.) GANNETT-KANTON Co., Kansas City, Mo. Filed Feb. 17, 1919.

GK

Particular description of goods.—Hosiery and Knitted Underwear for Men and Women and Work and Dress Shirts for Men.

Claims use since Sept. 1, 1911.

Ser. No. 115,909. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WALTHAM GRINDING WHEEL COMPANY, Waltham, Mass. Filed Feb. 17, 1919. Under ten-year proviso.



Particular description of goods.—Grinding-Wheels.
Claims use since on or about Jan. 1, 1909.

Ser. No. 115,943. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) SANKS FRIDGEMAN Co., INC., New York, N. Y. Filed Feb. 17, 1919.

IMPIE

Particular description of goods.—Dolls, (Rubber, Pyroxylin, Blague, Plaster Composition, Wood-Pulp, and other Material); Doll-Clothes, Doll Furniture; Christmas, Holiday, and Table Favors; Rattles, Balls, (Rubber, Pyroxylin, and Paper); Roly-Polies, Floating Toys, and Mechanical Toys.

Claims use since Jan. 1, 1919.

Ser. No. 115,967. (CLASS 37. PAPER AND STATIONERY.) AMERICAN LEAD PENCIL COMPANY, New York, N. Y. Filed Feb. 19, 1919. Under ten-year proviso.

UNIVERSAL

The trade-mark consists in the word "Universal."
Particular description of goods.—Lead-Pencils; Crayon-Chalk; Drawing and Writing Crayons; and Drawing-Pencils.

Claims use since the last day of January, 1912.

Ser. No. 115,968. (CLASS 37. PAPER AND STATIONERY.) AMERICAN LEAD PENCIL COMPANY, New York, N. Y. Filed Feb. 19, 1919.

PNEUMATIC

The trade-mark consists in the word "Pneumatic."
Particular description of goods.—Pneumatics.
Claims use since the last day of December, 1908.

[Vol. 302. No. 2.]

Ser. No. 116,012. (CLASS 14. OILS AND GREASES.) SINGLAI REFINING COMPANY, Chicago, Ill. Filed Feb. 19, 1919.

GARNET

Particular description of goods.—Refined, Semi-refined, and Unrefined Oils, Waxes and Greases, All Made from Petroleum, Both with and without Admixture of Animal, Vegetable, or Mineral Oil or Oils, for Illuminating, Burning, Power, Fuel, and Lubricating Purposes.
Claims use since about the year 1915.

Ser. No. 116,014. (CLASS 9. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY J. SMITH, Utica, N. Y. Filed Feb. 19, 1919.

HEXPO

Particular description of goods.—Insecticides and Fungicides.
Claims use since July 1, 1918.

Ser. No. 116,024. (CLASS 9. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BETHUN DIXON, St. Louis, Mo. Filed Feb. 20, 1919.

MAMO

Particular description of goods.—Hair-Tonic.
Claims use since June 1, 1918.

Ser. No. 116,034. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MILLS & GINN CORPORATION, New York, N. Y. Filed Feb. 20, 1919.

RAINBOW

Particular description of goods.—Ribbons in the Piece.
Claims use since October, 1917.

Ser. No. 116,038. (CLASS 9. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PENINSULAR CHEMICAL Co., Detroit, Mich. Filed Feb. 20, 1919.

VARITY CLUB

Particular description of goods.—Dentifrice and Toilet Powder.
Claims use since Feb. 10, 1919.

[Vol. 302. No. 2.]

Ser. No. 116,040. (CLASS 39. PRINTS AND PUBLICATIONS.) LA ROY M. SMITH, Chicago, Ill. Filed Feb. 20, 1919.

Seed Trade Bulletin

Particular description of goods.—An Annual Publication.
Claims use since December, 1917.

Ser. No. 116,054. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RUSSELL B. KINSMAN, Orange, N. J. Filed Feb. 21, 1919.



Particular description of goods.—Food Products—viz., Maple-Sugar.
Claims use since Nov. 25, 1918.

Ser. No. 116,058. (CLASS 9. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEOI CORPORATION (THE AMOLIN COMPANY DIVISION), Ledl, N. J. Filed Feb. 21, 1919.

Amolin

Particular description of goods.—Toilet Powder.
Claims use since about Jan. 1, 1903.

Ser. No. 116,058. (CLASS 9. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN PAPPENHAY, Houston, Tex. Filed Feb. 21, 1919.

PINE-O-PINE

Particular description of goods.—Antiseptic and Disinfectants for General Use Put Up in Liquid Form.
Claims use since June 1, 1918.

Ser. No. 116,061. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COMMERCIAL GROVES COMPANY OF FLORIDA, Orlando, Fla. Filed Feb. 24, 1919.

Evans

Particular description of goods.—Orange Preserves and Grape-Fruit Preserves, and Grape-Fruit Marmalade.
Claims use since Sept. 1, 1918.

[Vol. 302. No. 2.]

Ser. No. 116,090. (CLASS 39. CLOTHING.) **BERTHE MAY**, Inc., New York, N. Y. Filed Feb. 24, 1919.

Berthe May

Consisting of the facsimile signature of the founder of our business.
Particular description of goods.—Corsets.
Claims use since Jan. 1, 1912.

Ser. No. 116,100. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) **McFARLAN MOTOR COMPANY**, Connersville, Ind. Filed Feb. 24, 1919.



No claim is made in this application to the exclusive use of the word "McFarlan" aside from the mark as shown.
Particular description of goods.—Automobiles and Automobile Trucks.
Claims use since Sept. 27, 1918.

Ser. No. 116,113. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) **FREDERICK STEARNS & COMPANY**, Detroit, Mich. Filed Feb. 24, 1919.

Nux-I-Tone

Particular description of goods.—A Strengthening Tonic Useful in Anemic and Run-Down Conditions.
Claims use since August, 1917.

Ser. No. 116,150. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) **HILLS BROS.**, San Francisco, Calif. Filed Feb. 26, 1919.

HILVILLA

Particular description of goods.—Tea.
Claims use since March, 1908.

Ser. No. 116,155. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) **PENINSULAR CHEMICAL CO.**, Detroit, Mich. Filed Feb. 27, 1919.

AGE OF AGES

Particular description of goods.—Dentifrice and Talcum Powder.
Claims use since Feb. 8, 1918.

Ser. No. 116,210. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) **STROBMAN, GILBERT & CO. INC.**, New Haven, Conn. Filed Feb. 28, 1919.

COUNTRY LIFE

Particular description of goods.—Candy.
Claims use since September, 1919.

Ser. No. 116,237. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) **REPUBLIC RUBBER CORPORATION**, Youngstown, Ohio. Filed Mar. 1, 1919.

REPUBLIC

Particular description of goods.—So-Called Rubber Tires, Rubber-Tire Casings, and Inner Tubes.
Claims use since the year 1901.

Ser. No. 116,262. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) **GEYSER CEREAL CO.**, Oakland, Calif. Filed Mar. 8, 1919.

GEYSER



Particular description of goods.—A Cereal Food Drink.
Claims use since Jan. 16, 1919.

Ser. No. 116,274. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) **PIKE MEDICINE COMPANY**, Winston-Salem, N. C. Filed Mar. 8, 1919.



Particular description of goods.—Pike's Liver and Stomach Remedy.
Claims use since July 1, 1918.

[Vol. 202. No. 2.]

Ser. No. 116,278. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) **CHARLES C. SCHOLZ**, Ottoville, Minn. Filed Mar. 8, 1919.

escholzing

The trade-mark as written is applicant's facsimile signature.
Particular description of goods.—A Preparation for Dandruff and Scalp Treatment.
Claims use since Feb. 1, 1919.

Ser. No. 116,297. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) **STRATON D. KYNAVRA**, Washington, D. C. Filed Mar. 4, 1919.

KALYPSO

Particular description of goods.—A Preparation That Destroys Dandruff, Stops Falling Out of Hair, and Relieves Itching of the Scalp.
Claims use since Jan. 1, 1919.

Ser. No. 116,303. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) **TOWN MANUFACTURING CO. INC.**, Brooklyn, N. Y. Filed Mar. 4, 1919.

FUROL.

Particular description of goods.—Dyes.
Claims use since Aug. 10, 1918.

Ser. No. 116,310. (CLASS 17. TOBACCO PRODUCTS.) **STROBMAN, GILBERT & CO. INC.**, New Haven, Conn. Filed Mar. 5, 1919.

Heritage

Particular description of goods.—Cigars.
Claims use since 1901.

Ser. No. 116,311. (CLASS 17. TOBACCO PRODUCTS.) **STROBMAN, GILBERT & CO. INC.**, New Haven, Conn. Filed Mar. 5, 1919. Under ten-year proviso.

Notre Dame

Particular description of goods.—Cigars.
Claims use since 1904.

[Vol. 202. No. 2.]

Ser. No. 116,316. (CLASS 17. TOBACCO PRODUCTS.) **STROBMAN, GILBERT & CO. INC.**, New Haven, Conn. Filed Mar. 5, 1919. Under ten-year proviso.

EAST ROCK

Particular description of goods.—Cigars.
Claims use since 1887.

Ser. No. 116,334. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) **GENERAL CHEMICAL COMPANY**, New York, N. Y. Filed Mar. 6, 1919.



The picture of the man shown in the drawing being fanciful.
Particular description of goods.—Cattle-Dip.
Claims use since about Jan. 1, 1919.

Ser. No. 116,340. (CLASS 39. CLOTHING.) **PAUL BROTHMAN, Inc.**, Philadelphia, Pa. Filed Mar. 6, 1919.

BONAIR

Particular description of goods.—Women's, Misses', and Nurses' Comfort-Shoes, Made Wholly or in Part of Leather and Cloth.
Claims use since Feb. 19, 1919.

Ser. No. 116,350. (CLASS 28. PRINTS AND PUBLICATIONS.) **ROPECO PAST COMPANY**, New York, N. Y. Filed Mar. 6, 1919.

ROPECO MAGAZINE

Consisting of the words "The Ropeco Magazine."
Particular description of goods.—A Monthly Magazine.
Claims use since October, 1918.

Ser. No. 116,408. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) **WM. CUNEO CUSHMAN**, New York, N. Y. Filed Mar. 8, 1919.

CHOCOLISHUS

Particular description of goods.—A Chocolate Syrup Made from Cocoa and Cane-Sugar.
Claims use since Jan. 27, 1919.

Ser. No. 116,400. (CLASS 35. CLOTHING.) **CAMCO**
HIGHT CAMP, Jackson, Mich. Filed Mar. 8, 1919.

CAMCO

Consisting of the word "Camco."
Particular description of goods.—Corsets.
Claims use since Jan. 5, 1919.

Ser. No. 116,420. (CLASS 35. CLOTHING.) **MANNIS**
SOLOMON CO. INC., New York, N. Y. Filed Mar. 8, 1919.

PATRICIAN

Particular description of goods.—Ladies' and Misses' Dresses for Outer Wear, Made from Cotton Goods; Cotton and Silk, Wool and Silk, Silk, Gingham, Lawn, and Woolen Fabrics.
Claims use since Oct. 16, 1918.

Ser. No. 116,431. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.)
WALTER K. TICHENOR, New York, N. Y. Filed Mar. 8, 1919.

Oro-Dent

Particular description of goods.—A Tooth-Paste.
Claims use since Oct. 1, 1918.

Ser. No. 116,470. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) **A. S. ROSENTHAL CO.**
New York, N. Y. Filed Mar. 11, 1919.

ASTUDIO

Particular description of goods.—Piece Goods Composed Entirely of Silk.
Claims use since Feb. 13, 1919.

Ser. No. 116,511. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) **G. AMSINCK & CO., INC.**, San Francisco, Calif. Filed Mar. 13, 1919.

Luz

Particular description of goods.—Coffee.
Claims use since Dec. 23, 1918.

Ser. No. 116,597. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.)
ELK-KEM COMPANY, Chicago, Ill. Filed Mar. 13, 1919.

Elk-Kem

Particular description of goods.—A Photographic Chemical, a Developing Solution Used for Bringing Out Blacks and Whites on Paper Films and Plates.
Claims use since Jan. 7, 1919.

Ser. No. 116,600. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) **FRANCIS ELIZABETH HOLLADAY**, New Orleans, La. Filed Mar. 13, 1919.

Ho-mar-ma

Particular description of goods.—Marmalade.
Claims use since Jan. 1, 1918.

Ser. No. 116,688. (CLASS 35. CLOTHING.) **BURTON**
BROS. & CO., New York, N. Y. Filed Mar. 17, 1919.

100%

Particular description of goods.—Petticoats.
Claims use since about Feb. 1, 1919.

Ser. No. 116,641. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) **AUGUST A. BUSCH, JR.**, St. Louis, Mo. Filed Mar. 17, 1919.



Particular description of goods.—A Natural Spring Table-Water.
Claims use since July, 1917.

[Vol. 303. No. 2.]

Ser. No. 116,671. (CLASS 18. OILS AND GREASES.)
SINGLARM REFINING COMPANY, Chicago, Ill. Filed Mar. 17, 1919.

CORDYNO

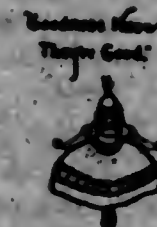
Particular description of goods.—Refined, Semirefined, and Unrefined Oils Made from Petroleum, Both With and Without Admixture of Animal, Vegetable, or Mineral Oils, for Illuminating, Burning, Power, Fuel, and Lubricating Purposes.
Claims use since Feb. 26, 1919.

Ser. No. 116,700. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.)
COMMON SENSE MANUFACTURING CO., INC., Buffalo, N. Y. Filed Mar. 19, 1919.



No claim being made for the words "Exterminator Kills Rats, Mice, Roaches and Bed Bugs."
Particular description of goods.—Preparation for Destroying Rats, Mice, Roaches, Bedbugs, and other Vermin and Insects.
Claims use since about 1901.

Ser. No. 116,707. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) **BLAKE CANDY COMPANY, INC.**, New Orleans, La. Filed Mar. 19, 1919.



No claim being made to the words "Goodness Knows They're Good" except in association with the mark shown.
Particular description of goods.—Candy.
Claims use since Jan. 1, 1918.

[Vol. 303. No. 2.]

Ser. No. 116,719. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) **MICHIGAN PARFAY CO.**, Detroit, Mich. Filed Mar. 19, 1919.

PARCO

Particular description of goods.—Non-Alcoholic, Non-Cereal, Maltless Beverages Sold as Soft Drinks and Syrups for Making the Same.
Claims use since Aug. 1, 1917.

Ser. No. 116,722. (CLASS 35. CLOTHING.) **J. A. MIENZ, INC.**, New York, N. Y. Filed Mar. 19, 1919.

PAN-TA-SI

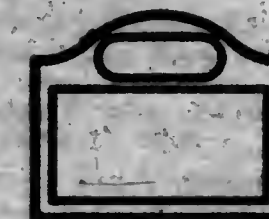
Particular description of goods.—Women's and Misses' Garments for Outer Wear Made of Silk and Silk and Cotton Fabrics—Namely, Dresses, Suits, Shirt-Waists, Skirts, Coats, Nightgowns, Pajamas, and Petticoats; Women's and Misses' Underwear Made of Silk and Silk and Cotton Fabrics—Namely, Vests, Union-Suits, Chemise, Bloomers, Camisoles, Drawers, Combination-Garments, and Corset-Covers.
Claims use since October, 1917.

Ser. No. 116,732. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) **ORANGE DEW CO., INC.**, New York, N. Y. Filed Mar. 19, 1919.

ORANGE DEW

No claim being made to the word "Orange."
Particular description of goods.—Non-Alcoholic, Non-Cereal, Maltless Beverages, Sold as Soft Drinks and Syrups for Making the Same.
Claims use since Dec. 1, 1918.

Ser. No. 116,748. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) **INTERNATIONAL CORK COMPANY**, Brooklyn, N. Y. Filed Mar. 20, 1919.



Particular description of goods.—Cork Stoppers.
Claims use since January, 1919.

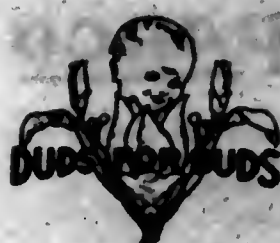
Ser. No. 116,803. (CLASS 38. MEASURING AND SCIENTIFIC APPLIANCES.) **YARNALL-WARING COMPANY**, Philadelphia, Pa. Filed Mar. 24, 1919.

YARWAY

Particular description of goods.—Recording-Meters for Liquids, Such as Water, Oil, and Acid.
Claims use since May 10, 1918.

[Vol. 303. No. 2.]

Ser. No. 110,885. (CLASS 29. CLOTHING.) LEON A. KELLNER & BRO., New York, N. Y. Filed Mar. 25, 1919.



Particular description of goods.—Babies' Dresses and Hats.
Claims use since Feb. 20, 1919.

Ser. No. 110,906. (CLASS 31. FILTERS AND REFRIGERATORS.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Mar. 25, 1919.

WONDER

Particular description of goods.—Ice-Cream Freezers.
Claims use since Dec. 20, 1894.

[Vol. 202. No. 2.]

Ser. No. 110,911. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ANDERSON B. STEVENS, Atlanta, Ga. Filed Mar. 25, 1919.



Particular description of goods.—Dolls.
Claims use since Mar. 10, 1919.

Ser. No. 110,922. (CLASS 23. JEWELRY AND PRECIOUS METAL WARE.) PARKS BROS. & COMPANY, INC., Providence, R. I. Filed Mar. 26, 1919.

JIFFY

Particular description of goods.—Cuff-Buttons.
Claims use since the latter part of the year 1915.

TRADE-MARK REGISTRATIONS GRANTED

MAY 13, 1919.

125,321. MARINE PAINTS. AMERICAN MARINE PAINT COMPANY, San Francisco, Calif.
Filed September 20, 1918. Serial No. 112,404. PUBLISHED JANUARY 23, 1919.

125,322. ELIMINATIVE TONIC FOR USE IN FEBRILE CONDITIONS DUE TO THE TOXINS OF INFECTION OR CONTAGION. AMERICAN PHARMACEUTICAL CO., Sturgis, Mich.
Filed December 21, 1918. Serial No. 114,804. PUBLISHED FEBRUARY 11, 1919.

125,323. CERTAIN NAMED NON-ALCOHOLIC NON-INTOXICATING BEVERAGES. ARBUTHNOT BEVERAGES COMPANY, Iron Mountain, Mich.
Filed December 27, 1918. Serial No. 114,824. PUBLISHED FEBRUARY 11, 1919.

125,324. MEDICINAL PREPARATIONS TO BE USED IN TREATMENT OF THE LIVER AND BLOOD. THE ATREXIA MEDICAL COMPANY, Watertown, N. Y.
Filed January 2, 1919. Serial No. 114,942. PUBLISHED FEBRUARY 11, 1919.

125,325. PISTON-RINGS. AUTOMOTIVE SPECIALTIES CO. INC., New York, N. Y., assignor to Grady Mfg. Corporation, New York, N. Y., a Corporation of New York.
Filed August 2, 1918. Serial No. 112,485. PUBLISHED JANUARY 21, 1919.

125,326. CANDY. GEORGE S. HALL, Dayton, Ohio.
Filed August 20, 1918. Serial No. 112,802. PUBLISHED JANUARY 23, 1919.

125,327. COTTON PIECE GOODS. M. C. D. BOSSON & SONS, New York, N. Y.
Filed December 12, 1918. Serial No. 114,905. PUBLISHED JANUARY 23, 1919.

125,328. BACK-SCRATCHERS. THE CELLULOID COMPANY, Newark, N. J., and New York, N. Y.
Filed November 20, 1918. Serial No. 114,878. PUBLISHED JANUARY 14, 1919.

125,329. CHEMICAL COMPOSITION FOR DESTROYING INSECTS. COMMERCIAL CHEMICAL CO., Memphis, Tenn.
Filed December 12, 1918. Serial No. 114,803. PUBLISHED FEBRUARY 11, 1919.

125,330. FRESH TOMATOES. P. W. COFFERSMITH & CO., Chicago, Ill.
Filed June 17, 1918. Serial No. 111,600. PUBLISHED JANUARY 14, 1919.

125,331. SMELLING-SALTS. THE CROWN PERFUMERY COMPANY, New York, N. Y.
Filed January 2, 1919. Serial No. 114,971. PUBLISHED FEBRUARY 11, 1919.

125,332. FRESH, SALTED, SMOKED, PICKLED, AND CANNED FISH. DAVIS BROS. FISHING, INC., Gloucester, Mass.
Filed September 25, 1918. Serial No. 112,466. PUBLISHED JANUARY 23, 1919.

125,333. EFFERVESCENT GRANULAR, A MAGNESIA PREPARATION USED AS A LAXATIVE AND FOR THE RELIEF OF INDIGESTION. JOSEPH DI SANTO, Duluth, Minn.
Filed December 21, 1918. Serial No. 114,899. PUBLISHED FEBRUARY 11, 1919.

125,334. ITALIAN-TYPE AND OTHER CHEESE. BROS. BROS., Philadelphia, Pa.
Filed August 20, 1918. Serial No. 112,800. PUBLISHED JANUARY 23, 1919.

125,335. BREAD. FEDERAL SYSTEM OF BAKING COMPANY, Oakland, Calif.
Filed November 5, 1918. Serial No. 114,055. PUBLISHED JANUARY 23, 1919.

125,336. CREAMERY-BUTTER. HARRY A. GORDMANER, Minneapolis, Minn.
Filed April 11, 1918. Serial No. 110,110. PUBLISHED JANUARY 23, 1919.

125,337. TEXTILE FABRICS CONSISTING OF COTTON PIECE GOODS. W. E. GRACE & CO., New York, N. Y., and San Francisco, Calif.
Filed November 14, 1918. Serial No. 114,163. PUBLISHED JANUARY 21, 1919.

125,338. BUTTER. THE GRIPIN CREAMERY, ICE AND PRODUCE CO., Harrisonville, Mo.
Filed October 21, 1918. Serial No. 112,908. PUBLISHED JANUARY 23, 1919.

125,339. COFFEE. HAAS, BARUCH & CO., Los Angeles, Calif.
Filed December 12, 1917. Serial No. 107,942. PUBLISHED FEBRUARY 5, 1919.

125,340. CERTAIN NAMED PAINTS AND PAINTERS' MATERIALS. THE HAZARD LEAD WORKS, INC., Hazardville, Conn.
Filed November 15, 1918. Serial No. 114,182. PUBLISHED JANUARY 23, 1919.

125,341. WHEAT-FLOUR AND RYE-FLOUR. HECKER-JONES-JEWELL MILLING COMPANY, New York, N. Y.
Filed May 22, 1917. Serial No. 104,010. PUBLISHED AUGUST 20, 1918.

125,342. COTTON PIECE GOODS. OTTO H. HINCK, New York, N. Y.
Filed December 12, 1918. Serial No. 114,614. PUBLISHED JANUARY 23, 1919.

125,343. STEAM-COOKED OATMEAL AND STEAM-COOKED ROLLED OATS. THE H-O COMPANY, Buffalo, N. Y.
Filed June 12, 1918. Serial No. 111,520. PUBLISHED JANUARY 23, 1919.

125,344. VENTILATORS OF THE ROTARY TYPE FOR BUILDINGS. THE KAIN AND AUNGER COMPANY, Cleveland, Ohio.
Filed December 7, 1918. Serial No. 114,541. PUBLISHED JANUARY 14, 1919.

125,345. COTTON PIECE GOODS. LANCASTER MILLS, Clinton, Mass.
Filed November 27, 1918. Serial No. 114,400. PUBLISHED JANUARY 23, 1919.

125,346. CORNMEAL, BARLEY-FLOUR, CORN-FLOUR. LAWRENCEBROS. ROLLER MILLS CO., Lawrenceburg, Ind.
Filed October 18, 1918. Serial No. 112,791. PUBLISHED JANUARY 23, 1919.

125,347. BEDSPREADS. THE LEONARD HENRY COMPANY, Inc., New York, N. Y.
Filed November 20, 1918. Serial No. 114,876. PUBLISHED JANUARY 23, 1919.

125,348. WHEAT-FLOUR. LEWISTON MILLING CO., LTD., Lewiston, Idaho, and Astoria, Wash.
Filed September 25, 1918. Serial No. 112,305. PUBLISHED JANUARY 23, 1919.

- 125,340. PERFUMERY IN LIQUID FORM AND PERFUMERY IN POWDER FORM. LORISSON COMPANY, New York, N. Y.
Filed December 28, 1918. Serial No. 114,888. PUBLISHED FEBRUARY 11, 1919.
- 125,350. FOOT-POWDER. MACMILLAN CHEMICAL CO., Falls City, Neb.
Filed December 31, 1918. Serial No. 114,910. PUBLISHED FEBRUARY 11, 1919.
- 125,351. PEANUT-BUTTER. MARSTON AND MARTIN, Los Angeles, Calif.
Filed December 2, 1918. Serial No. 114,467. PUBLISHED JANUARY 28, 1919.
- 125,352. PREPARATION FOR TREATMENT OF THE HAIR AND SCALP. PAULINE E. MEADOWS, Birmingham, Ala.
Filed December 14, 1918. Serial No. 114,647. PUBLISHED FEBRUARY 4, 1919.
- 125,353. TIN FURNACE-PIPES. F. MEYER & SONS CO., Peoria, Ill.
Filed November 28, 1918. Serial No. 114,345. PUBLISHED JANUARY 14, 1919.
- 125,354. EDIBLE OIL—NAMESLY, COTTON-SEED OIL MIXED WITH OLIVE OIL. MICROTHINCO'S OIL CO., New York, N. Y.
Filed October 1, 1918. Serial No. 113,508. PUBLISHED JANUARY 28, 1919.
- 125,355. COTTON PIECE GOODS. NOCKESS MILLS, Fitchburg, Mass.
Filed November 27, 1918. Serial No. 114,494. PUBLISHED JANUARY 28, 1919.
- 125,356. PREPARATION FOR USE IN PROMOTING THE GROWTH OF HAIR. MAMIE FRASER, Blackfield, W. Va.
Filed January 4, 1919. Serial No. 114,992. PUBLISHED FEBRUARY 11, 1919.
- 125,357. PIANOS AND PIANO-PLAYERS. PRUSS PIANO CO., New York, N. Y.
Filed May 7, 1918. Serial No. 110,786. PUBLISHED JANUARY 14, 1919.
- 125,358. COTTON PIECE GOODS. PEPPERELL MANUFACTURING COMPANY, Boston, Mass.
Filed November 19, 1918. Serial No. 114,344. PUBLISHED JANUARY 14, 1919.
- 125,359. CANDY. QUIMBY & CHERRY, INC., Boston, Mass.
Filed December 12, 1918. Serial No. 114,937. PUBLISHED JANUARY 28, 1919.
- 125,360. VEGETABLE-SEED. CHARLES CLEMENT RAIN, Springfield, Mass.
Filed December 5, 1918. Serial No. 114,508. PUBLISHED JANUARY 21, 1919.
- 125,361. CERTAIN NAMED ALIMENTARY PASTE PRODUCTS. RAVARINO & FRASCHI IMPORTERS & MFG. CO., St. Louis, Mo.
Filed September 5, 1918. Serial No. 113,085. PUBLISHED JANUARY 28, 1919.
- 125,362. LIMESTONE-ROCK CHICKEN FEED. ROCK-FIELD PRODUCTS COMPANY, Milwaukee, Wis.
Filed October 8, 1918. Serial No. 113,626. PUBLISHED DECEMBER 24, 1918.
- 125,363. WOVEN MACHINERY-SHUTS. THE BURGESS MFG. CO., Middletown, Conn.
Filed October 12, 1918. Serial No. 113,702. PUBLISHED JANUARY 21, 1919.
- 125,364. PETROLEUM PRODUCTS—NAMESLY, GASOLINE, KEROSENE, LUBRICATING OILS AND GREASES. CHARLES E. SHATTUCK, Lima, Ohio.
Filed May 2, 1917. Serial No. 108,514. PUBLISHED JANUARY 28, 1919.
- 125,365. CLEANING AND POLISHING POWDER FOR METAL AND GLASSWARE. MART E. SWANSON, Rockville Center, N. Y.
Filed July 23, 1918. Serial No. 112,888. PUBLISHED OCTOBER 8, 1918.
- 125,366. POULTRY FEED AND STOCK FEED. SUMMONS & HENNES, Cincinnati, Ohio.
Filed October 23, 1918. Serial No. 113,934. PUBLISHED JANUARY 28, 1919.
- 125,367. ANTISEPTIC. SPRINGHOUSE CORPORATION, New York, N. Y.
Filed November 21, 1918. Serial No. 114,379. PUBLISHED FEBRUARY 11, 1919.
- 125,368. AWNINGS. STIX, BARR & FULLER DRY GOODS CO., St. Louis, Mo.
Filed December 18, 1918. Serial No. 114,708. PUBLISHED JANUARY 21, 1919.
- 125,369. EGG SUBSTITUTE. THE SUTHERLAND PRODUCTIONS CO., Milwaukee, Wis.
Filed April 5, 1918. Serial No. 110,634. PUBLISHED JANUARY 28, 1919.
- 125,370. WHEAT-FLOUR. W. F. TANNER-GROSS & COMPANY, INC., New York, N. Y.
Filed September 25, 1918. Serial No. 113,400. PUBLISHED DECEMBER 8, 1918.
- 125,371. BREAD. WARD BAKING COMPANY, New York, N. Y.
Filed October 18, 1918. Serial No. 112,799. PUBLISHED JANUARY 28, 1919.
- 125,372. CAKES. WARD BAKING COMPANY, New York, N. Y.
Filed October 12, 1918. Serial No. 112,797. PUBLISHED JANUARY 28, 1919.
- 125,373. CAKES. WARD BAKING COMPANY, New York, N. Y.
Filed October 12, 1918. Serial No. 112,798. PUBLISHED JANUARY 28, 1919.
- 125,374. PRINTING-PAPER. S. D. WARREN COMPANY, Boston, Mass.
Filed September 9, 1918. Serial No. 112,008. PUBLISHED JANUARY 21, 1919.
- 125,375. PRINTING-PAPER. S. D. WARREN COMPANY, Boston, Mass.
Filed September 9, 1918. Serial No. 112,009. PUBLISHED JANUARY 21, 1919.
- 125,376. OLIO-MARGARIN. WISCONSIN BUTTERING CO., Milwaukee, Wis.
Filed May 6, 1918. Serial No. 110,738. PUBLISHED JANUARY 28, 1919.
- 125,377. DRESSING FOR LEATHER AND FOR SHOES AND OTHER ARTICLES MADE FROM LEATHER. CHAS. A. SEAN, Chicago, Ill.
Filed May 29, 1918. Serial No. 111,364. PUBLISHED JANUARY 14, 1919.

LABELS

REGISTERED MAY 13, 1919.

- 21,225.—Title: "CHOCOLATE FRUIT." (For Chocolate Candy.) CURTIS CANDY CO., Chicago, Ill. Filed April 7, 1919.
- 21,226.—Title: "KANDY KAKE." (For Candy.) CURTIS CANDY CO., Chicago, Ill. Filed April 7, 1919.
- 21,227.—Title: "HONEY COMB CHIP." (For Honey-comb-Chip Candy.) CURTIS CANDY CO., Chicago, Ill. Filed April 7, 1919.
- 21,228.—Title: "JACK-O-LANTERN." (For Chocolate Fruit Slice Candy.) CURTIS CANDY CO., Chicago, Ill. Filed April 7, 1919.
- 21,229.—Title: "POLAR BAR." (For Candy-Bars.) CURTIS CANDY CO., Chicago, Ill. Filed April 7, 1919.
- 21,230.—Title: "MAPLE NUT BAR." (For Nut-Bar Candy.) CURTIS CANDY CO., Chicago, Ill. Filed April 7, 1919.
- 21,231.—Title: "BIG-BITE CHOCOLATE." (For Chocolate Candy.) CURTIS CANDY CO., Chicago, Ill. Filed April 7, 1919.
- 21,232.—Title: "MARSH-O-NUT DIPP." (For Candy.) CURTIS CANDY CO., Chicago, Ill. Filed April 7, 1919.
- 21,233.—Title: "CURTIS PEANUT BAR." (For Peanut Candy.) CURTIS CANDY CO., Chicago, Ill. Filed April 7, 1919.
- 21,234.—Title: "JOLLY JACKS PEANUT BAR." (For Chocolate Candy.) CURTIS CANDY CO., Chicago, Ill. Filed April 7, 1919.

DECISIONS

OF THE COMMISSIONER OF PATENTS AND OF UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS

U. S. Circuit Court of Appeals—Sixth Circuit.
HUEBNER-TOLEDO BREWERIES Co. v. MATHEWS
GRAVITY CARRIER Co.
Decided October 2, 1911.
[283 Fed. Rep. 485.]

1. **PATENTS—INVENTION—ADAPTATION OF OLD DEVICES.**
To adapt an old and familiar device to another structure equally old and well known is not to exercise the inventive faculty, but to apply the skill of the mechanic.
2. **SAME—SAME—IMPROVED RESULT.**
A mere carrying forward of the original idea, a change in form, an improvement in degree, without substantial change in either means or result, is not invention.
3. **SAME—SAME—COMBINATION OF OLD ELEMENTS.**
The selection and putting together of the most desirable parts of different machines in the same or kindred arts, making a new machine, but in which each part operates in the same way as it operated before and effects the same result, cannot be invention.
4. **SAME—SAME—COMMERCIAL SUCCESS.**
Commercial success is never a safe criterion of invention, except in cases of doubtful validity of the patent.
5. **SAME—VALIDITY—GRAVITY-CARRIER.**
The Mathews and Lister patent, No. 800,917, and the Mathews patent, No. 978,408, each for improvements in gravity-carriers, are both void for lack of invention in view of the prior art.

APPEAL from the District Court of the United States, for the Western Division of the Northern District of Ohio; John M. Killitz, Judge.

Suit in equity by the Mathews Gravity Carrier Company against the Huebner-Toledo Breweries Company. Decree for complainant, and defendant appeals. Reversed.

Mr. Russell Willes, Mr. George A. Crittton, and Mr. Wm. H. Dyrenforth for the appellant.

Mr. A. C. Paul and Mr. Wilber Owen for the appellee.

Before WARRINGTON, KNAPPEN, and DENISON, Circuit Judges.

WARRINGTON, *Ch. J.*:

This suit is based upon alleged infringement of two patents; it is met in the answer, not only by denial, but particularly by allegation that the claims of these grants are—

wholly and entirely void, as not involving anything more than ordinary mechanical skill over what is common knowledge in the art,

and a great many prior patents are referred to. The patents in suit are (1) No. 800,917, issued June

222 O. G.—21

[Vol. 283,

16, 1908, to Mathews and Lister, assignors to Mathews Gravity Carrier Company, and (2) No. 978,408, issued December 18, 1910, to Mathews, assignor to the same company. That company was a Minnesota corporation, and its rights, so far as this suit is concerned, have passed to the appellee, a Pennsylvania corporation. The patents were each in terms granted for "improvements in gravity carriers," and will be mentioned hereafter, in the order of their dates, as the first patent and the second patent. Claims 2, 4, 5, 6, 7, 8, and 9 of the first, and all the claims of the second, patent are in issue; and both patents, as respects the claims in issue, were held valid and infringed by the court below. The cause was referred for an accounting and damages, and perpetual injunction was issued. By consent the master reported that appellant had purchased from a company named (though not a party to the suit), and had used in its business, "material found by the court in its decree to be an infringement," and stated the amount of appellee's loss of profits thereon. The Breweries Company appeals.

We may as well say at the outset that, if the patents are valid, they are, at least as to some of the claims in issue, infringed. The important feature of the case is found in the issue of validity. This issue in the end is one of fact. It is whether the disclosures of the patents, when compared with the prior art, amount to anything more than the natural developments of the skilled mechanic. The first patent relates, in the language of the specification—to carriers designed particularly for transporting brick and similar articles of comparatively small dimensions by gravity.

Generally speaking, the carrier comprises two parallel side rails, with a series of transverse metal tubular rollers having ball-bearings at their ends and having rods extending through their longitudinal centers, and also through the side rails, where they are held by means of lock-nuts; the rollers so mounted rotating freely on their respective rods or axles. The carriers are constructed in sections of lengths suitable for removal from one place to another, and the sections are provided with projecting ends adapted to fasten one section to another, and so to form a continuous carrier of such length, along such courses, and at such a grade as the convenience of the user may require. Another feature of this patent is that the rollers are provided with flanges or rims at the ends, on which packages of

greater width than the length of the rollers may be placed and transported. The specification states: Side guards or other frictional interference with packages moving on the carrier are dispensed with; the packages follow "the line of least resistance" and travel "in the direction of rotation of the wheels," and may thus be moved from one point to another along the roller surface of the carrier, when maintained at a slight grade. The character and details of the structure will be readily understood by reference to the following drawings which accompany the Letters Patent:

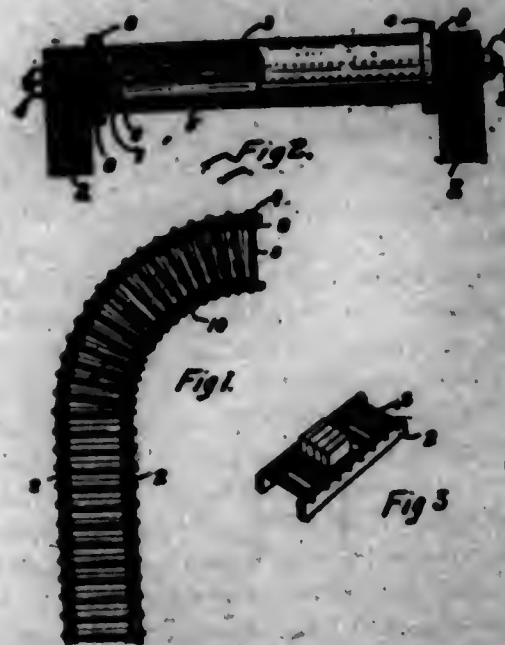


Fig. 1 is a plan view of a brick carrier embodying our invention. Fig. 2 is a transverse sectional view, one end of a roller being broken away to illustrate the bearing for the same. Fig. 3 is a perspective view showing a portion of a carrier and the bricks thereon.

It will be observed that the rods with threaded terminals not only pass through the rolls (including the ball-bearing appliances), but also through the side rails, upon the outside of which they are fastened by lock-nuts 4. This seems to have rendered it inconvenient to remove a single rod with its accompanying roller, since it required removal of one of the side rails entirely. It was sought to overcome this by the second patent. The chief difference between the two patents is thus stated by counsel for appellee:

The second patent differs from the first principally in the provision of convenient means for removing a single rod with its accompanying roll without in any way disturbing the adjustment of any other roll. This is accomplished by having the side rails provided with slots or notches in the upper edges, with the rods detachably mounted in such notches, thus making it possible to immediately remove any roll from the carrier without disturbing the other rolls.

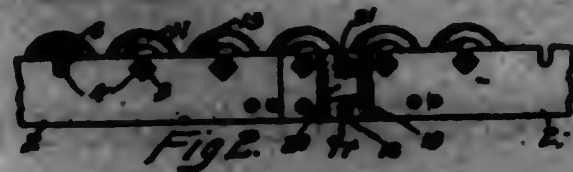
Although claim 1 is not in issue, yet the flanged rollers displayed in the drawings will be explained by that claim.

A gravity carrier comprising side rails, rods connecting said rails at intervals, metal rollers having flanged ends and ways and balls fitting therein, cones mounted on said rods and having bearing surfaces, and between which surfaces and said ways said balls are arranged.

And as further explanatory of the elements comprised in the patented device we think it sufficient for present purposes to add a claim that is in issue:

2. A gravity carrier comprising side rails and means connecting them at intervals, and rollers having antifriction bearings at their ends upon said connecting means and forming a way over which comparatively small articles such as brick may be transported, said rollers being of substantially uniform diameter between their ends and extending above the tops of said rails, substantially as described.

The means so provided in the second patent may be seen in Fig. 2 of the drawings accompanying the Letters Patent. It follows:



In the drawing, 2 represents the side rails of the carrier, composed preferably of flat steel bars. These bars are provided at intervals in their upper edges with vertical slots or notches 3 adapted to receive rods 4 having threaded ends and provided with lock-nuts 5 and 6, the former on the outside of the bars and the latter between them. Any roller can be easily removed from the carrier by loosening the lock-nuts 5.

We may mention one or two other changes that were made in the device of the second patent. One involves the sectional coupling. It is said in the specification of the first patent that the sections are made of any suitable length and "coupled together at their ends;" while in the second patent it is stated that various forms of coupling devices may be provided, but preference is given to— a tongue 10 on the end of each rail 2 bent outwardly to offset it from the plane of the rail and adapted to fit between a plate 20 and the end of the abutting rail.

These parts may be riveted or bolted together. Another change was made through the use of additional braces. Apparently three within each section are disposed at right angles with the side rails and fastened to them, and between these braces are two sets of diagonally-crossing braces; the object being to hold the sides of the carrier in "parallel relation with one another." Claims 1 and 4 are copied in the margin further to illustrate the second patent.

Appellee offered in the court below one section of the Mathews gravity-carrier as an exhibit. This exhibit, as we understand, and additional sections of the carrier, were displayed and operated as a unitary structure at the hearing in our court. The exhibit seems to comprise the main features of the two patented devices in suit, except in two or three respects: The rollers have no flanges, but are disposed so that their upper plane is above that of the side rails; thus flanges are rendered unnecessary for transporting "articles of greater length than the width of the carrier;" the flanges were distinct features of the first patent, and of the specification and drawings of the second patent, though they appear to have been given up in the structure exhibited. Further, this exhibit omits lock-nuts 4 of the first and 5 and 6 of the second patent, and also the threads upon the end portions of the cross-rods passing through the rollers of both patents. The notches of the second patent, it is true, are pre-

1. A gravity carrier having side rails composed of flat metal bars having slots or notches in their upper edges, rods detachably mounted in said slots and connecting said rails, and rollers having antifriction bearings on said rods, substantially as described.

2. A gravity carrier comprising side rails, diagonally arranged brace bars connecting said rails, cross rods also connecting said rails, the upper edges of said rails being provided with vertical slots or notches and rollers detachably mounted in said notches.

[Vol. 302. No. 2.]

curved in the side rails of the exhibit; but instead of lock-nuts 5 a metal bar, extending throughout the length of a section and having slots disposed therein so as to engage the ends of the cross-rods, is bolted to the outer and upper surface of each side rail. Lock-nuts 6 are replaced in function by (a) notches cut into the cross-rods near their ends so as to fit into and be held fast by the notches of the side rails, and (b) tubular portions of the ball-bearing devices surrounding the cross-rods and extending from the ends of the rollers almost to the side rails; the purpose seems to be to hold the rails in "parallel relation with one another" and also free from the ends of the rollers. This substitution of a slotted metal bar and notched cross-rods apparently has the further purpose of facilitating the separate removal of rollers. Whether we have or not rightly interpreted the objects of these differences between the patents in suit and the exhibit, the changes serve to characterize methods of progress which may well be considered in trying under the facts of this case to distinguish between skill and invention. We come now to an inquiry into the state of the art prior to the dates of the patents in suit.

(1) *Gravity-carriers old.*—In point of equivalence more of the present elements, whether considered singly or in combination, are perhaps to be found in Alvey's gravity-conveyor, patented in 1902, No. 714,482, than in any other prior patent. Alvey stated in his specification:

My invention relates to conveyers for the purpose of transferring goods from place to place—such as boxes, barrels, and packages—the movement of the packages or other articles being ordinarily effected by gravity; but it is to be understood that the invention is not confined necessarily to a conveyor on which the articles are moved by that force alone. The invention has for its objects to enable goods to be transferred from one point to another, as in a warehouse, expeditiously and with a minimum of hand labor and to allow of the apparatus being adjusted to receive goods at different points, and to deliver them at different points as may be required, expeditiously and with certainty.

Among the drawings accompanying the Letters Patent are the following:

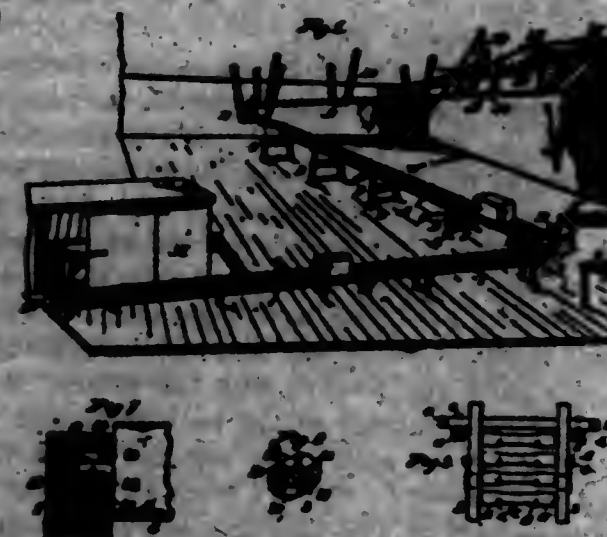


Fig. 1 is a perspective view showing a conveyor of portable character embodying my invention set up in a

[Vol. 302. No. 2.]

warehouse for the transfer of goods from one point to another. Fig. 2 is a plan view of a portion of the roller bearing. Fig. 3 is a sectional view of the roller bearing. Each of the straight sections A comprises side pieces 1, of wood or other suitable material, united at suitable points by transverse connecting members or the rods 2. These side pieces have formed in them or attached to them bearings 3 for the shafts or journals 4 of the transverse rollers C. The latter are spaced apart, but are sufficiently close together to enable the goods to be conveyed to pass from one roller to the next without falling through. The curved sections B are constructed on similar principles, but with inner and outer curved side pieces 5 and 6, the rollers C of said curved sections being arranged on lines radial to the center of the curve on which the section is constructed.

It is highly important that the rollers should revolve freely under packages of relatively light weight, to which end the rollers must not be too heavy or have too much inertia. On the other hand, they must be strong enough to carry heavy weights when required. I have constructed the rollers, after much experimentation, of a material which meets both these requirements. They are made from a pulp of hard fiber of relatively light specific gravity, known as "lanthorn." They are thus also seamless, without grain, and not liable to crack.

As illustrative of the combinations and essential elements involved, two of the claims are copied in the margin.

Alvey further developed the gravity-carrier art through his patent of May 23, 1905, No. 790,776, under an application filed September 5, 1904. He introduced a spiral gravity-conveyor adapted to carry all kinds of articles usually stored in warehouses, from any of the upper floors to the basement or shipping-room, and to discharge packages at any of the intermediate floors. The spiral conveyor is adjusted to and supported by a vertical post extending through such floors of the building as may be desired, with suitable openings through which to maintain the conveyor and carry packages; in order to distribute packages at intermediate floors, gravity-switches are removably connected with the spiral portions of the conveyor; provision is made for carrying articles to the spiral parts by gravity-conveyers, which, as also the switches, are similar in form to the structures above shown in Alvey's patent of 1902, No. 714,482. Alvey went still farther in 1905, under an application of September 5, 1904, through his patent, No. 790,811. There he provided for lifting, instead of lowering, packages from floor to floor. The conveyor is maintained at an ascending grade and driven by power. It is to be observed of both of Alvey's later structures that the carriers are divided into sections with angle-iron side rails.

Some fourteen years before the issue of Alvey's first patent, Pusey secured a patent, No. 387,738, upon a structure called an "artificial toboggan or coasting hill," which is instructive in the gravity-carrier art. The specification states:

The trackway consists of a series of rollers journaled transversely in a suitable framework.

1. In a portable conveyor, the combination of a plurality of sections provided with transverse rollers, and supports for said sections, the upper part of each support being hinged to the conveyor-section and the lower part of each support being adjustable on said upper part.

2. In a gravity conveyor, the combination of a series of separately and freely rotatable rollers, and means for supporting the same to form an inclined way, said rollers being constructed with shoulders 10 and intermediate recessed portions, and adapted to automatically maintain packages in the middle of said way, substantially as set forth.

[Vol. 302. No. 2.]

The simplicity of the structure will be seen by reference alone to some of the accompanying drawings:

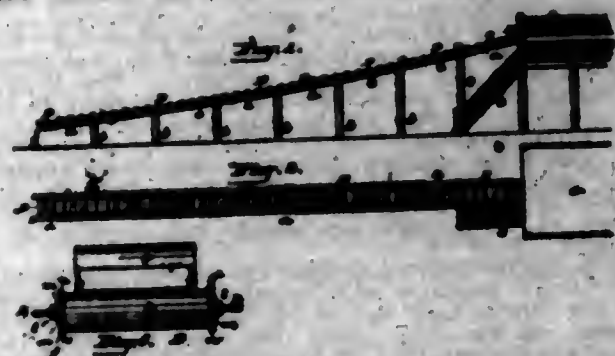


Fig. 1 is a side elevation. Fig. 2 is a plan. Fig. 3 is an elevation of roller detached, with end view of the toboggan thereon. . . . Figs. 1 and 2, represents longitudinal frames or stringers supported by a trestlework or posts, b, and provided with bearings c, for the journals of the series of wide transverse rollers d.

The cylindrical portions of the rollers are made of waterproofed paper or strawboard, or similar light and strong material. The patentee states in his specification:

I am aware of the fact that roller trackways for sleds are old, . . . in which trackway were inserted rollers or balls for the runners of the sleds to descend upon; and I do not therefore claim broadly, as new, an inclined trackway with rollers therein.

The patentee's idea of the scope of invention open to him is important and is sufficiently explained by claim 1 copied in the margin.*

In 1885 Hinds and Mace received a patent on a portable chute, No. 312,403, saying in their specification:

The invention relates to inclined slideways, and is specially adapted to transfer tiles, bricks, or similar articles from the drying shed to the kiln, or from the kiln to the yard. The slideway is made in sections, each of which has its face composed of rollers having bearings in the sides of the sections.

Palmer obtained a patent in 1888, No. 376,240, on an elevator, which may properly be regarded as a distributing contrivance; it was designed for carrying goods or other materials up or down in a warehouse, store, manufactory, or other similar place of business, and automatically delivering them at different floors or stations, and there depositing them upon an "inclined series of rollers" disposed transversely between parallel side rails, whence they were moved by gravity to the place desired; the particular use illustrated by the drawings related to the manufacture and handling of bricks.

(2) *Metal side rails and rollers.*—It will be noticed that none of the prior patents thus far considered in terms calls for metal rollers; but it is to be remembered that the last two Alvey patents mentioned call for metal side rails. Assuming that a change of material, say from wood to metal, was important in a frictional sense or otherwise, there were kindred power-driven conveyers which expressly provided for metal rollers; and we think such conveyers may fairly be treated as part of the prior art

* An artificial coasting course or toboggan slide, consisting of the combination of the inclined longitudinal frames or stringers, the supporting frame or trestlework, and the series of rollers journaled in and between said stringers, adjacent to and out of contact with each other, substantially as and for the purpose set forth.

[Vol. 362.

in question. They are certainly of a closely analogous art. Holman provided for the use of metal rollers in 1895 in his power-driven railway-track layer, Patent No. 315,084. He fastened to the outer sides of cars a sectional tramway, comprising parallel side rails, called "parallel bars," with transverse metal rollers journaled in the bars. The rollers were used to convey ties and rails from the cars to points in front of the train in the line of the proposed railway construction. Again, in Hanna's carrying-roll, patented October 28, 1902, No. 712,061, we find a design for metal tubular rollers of uniform diameter, with integral journal portions, which are intended as carriers of belts for "elevators, conveyers, and similar classes of machinery." The patentee made no provision for side rails or other familiar bearings upon which to operate his rollers as carriers; nor was such omission unusual. See, for instance, the carriage with rollers in the brick and tile machine of McKenzie, patented in 1878, No. 208,284, and in Aiken's feed-table for rolling-mills, patented in 1890, No. 439,925. Further, Alvey emphasized in the portion of his specification above quoted the importance of rollers that would revolve freely under packages of relatively light weight and yet be strong enough to carry heavy weights when required; and he says that "after much experimentation" he adopted a material for rollers called "leatheroid," which was "seamless, without grain, and not liable to crack." Pusey had pointed out years before, that rollers might be made of "suitable light material," saying that the—

case with which the inertia and friction of the rollers are overcome . . . of course depends mainly upon the weight—

of the rollers. He preferred "compact water-proofed paper or strawboard," and as we have seen used such rollers in his gravity-toboggan. The experience of Alvey and that of Pusey as expressed by each in his specification, and more particularly the use made of the metal rollers as above stated, were manifestly suggestive of the adoption of metal rollers for gravity-carriers. (*Wright v. Tobacco Co.*, 252 Fed., 146; — C. C. A., —, decided by this court August 3, 1918.)

(3) *Stationary axles with revoluble rollers.*—Appellee points out a difference between the patents in suit and the gravity-conveyers of the prior art as respects the relations between the axles and rollers of the two sets of structures. True, as we have seen, the axles of the former are stationary and the rollers with ball-bearings revolve upon them; while the rollers of the latter have rigid and axially-connected journals which are mounted on bearings in the side rails and revolve with the rollers. Apart from the ball-bearings of the patents in suit, considered later, the plan of an exterior roller (composed of "sleeves") distinct from an interior part axially carried by side bearings was shown, for instance, by McKenzie in 1878 in his brick and tile

* Alvey's roller metal journals and metal bearings with oil-retaining chamber 23 to lubricate them, are another important feature to be observed. They are illustrated in Figs. 7 and 8 of his drawings, *supra*.

No. 3.]

machine before pointed out. Holman, above mentioned, provided metal rollers with annular flanges at their ends; but he also stated in his specification that he—

proposed to make these rollers hollow, and of metal, and to mount such construction of roller on a stationary axle which passes through the closed ends of the roller, whereby the bearing is entirely at the ends of the roller.

Perhaps the commonest examples of this latter construction are found in the ordinary road-wagon, having rigid axles and spindles with hubs turning upon the spindles, and in the idle wheel to which a belt is shifted when not in use for transmission of power, while the bicycle furnishes a complete illustration, as for instance, the Douglas bicycle, patented in 1892, No. 469,627.

(4) *Sectional carriers.*—In view of what has been pointed out it is scarcely necessary to allude to this feature of the patents in suit. We have seen that Alvey's patent, No. 714,432, divides the carrier into sections with "firm connection of the various sections end to end," the connecting parts being described in the specification and shown in the drawings; this in substance is true of Alvey's patent, No. 790,776, of the Hinds and Mace patent, and also of the Spence portable conveyer, Patent No. 779,189. We do not stop to consider the horizontal and diagonal braces of the sections, because such bracing is familiar in structures of every-day use, such as the ordinary step-ladder, trestle, or scaffold.

(5) *Notched frames.*—It is contended that the patentee of the second patent in suit—

introduced for the first time the feature of the slotted side rails whereby any through shaft and roller could be removed separately.

This is to overlook Winter's provision of the same character in his skid for moving rails, patented September 19, 1905, under application of 1904, No. 799,699. The rollers are there mounted in open slots and, as his specification states—

may be easily removed when broken or worn out and replaced by others. Such slots or notches were old when Winter adopted them. The drawings of the McKenzie patent of 1878, before cited, plainly show notches in the upper edges of the side bars in which the rollers were journaled, though the patentee does not seem to have thought it worth while even to mention the notches in his specification or claims. However, the notches must be regarded as "described" in a "printed publication" within the meaning of the patent act (*Keene v. New Idea Spreader Co.*, 231 Fed., 701, 706; 145 C. C. A., 537, and citations, C. C. A., 6); this is true of the drawings of Aiken's and Spence's patents, *supra*. Apart from Winter, these patentees do not state, though it is manifest, that the notches shown were designed in part to admit of separate removals of rollers. Further, the convenience of open slots with parallel sides adjusted to corresponding sides cut upon stationary axles near their ends was in practical purpose shown in the Douglas patent; indeed, in the respects mentioned the slots and axles of the gravity-carrier exhibit offered in evidence closely resemble the slots and axle of the Douglas bicycle.

[Vol. 362.

(6) *Ball-bearings.*—The ball-bearings of the patents in suit and the carrier produced in court differ in some details, but in essential respects they are all like those commonly used in bicycles; in fact, these carrier-rollers with their ball-bearings are clear equivalents of the hubs and ball-bearings of the ordinary bicycle. This is sufficiently shown by the following patents: Testor in 1891 for "ball bearing," No. 453,664; Douglas, *supra*; Sturges in 1897 for a bicycle training device, No. 581,835; Svensson in 1897 for antifriction journal-bearings, No. 580,994; and it appears in Testor's specification, besides being well known, that bicycle ball-bearings were old in 1891. The analogy to appellee's designs for ball-bearing rollers found in the Sturges bicycle training device is very persuasive. This device comprises three rollers mounted transversely between uprights fastened to the longer sides of a rectangular adjustable frame; the rollers are provided with axles passing through and beyond their longitudinal centers and journaled in the uprights. A sprocket-chain connects the middle and forward rollers, and the three rollers are so disposed upon the frame as to engage the wheels of a bicycle and to enable the rider to operate it the same as if riding on a road; and although the body of the bicycle remains stationary, its wheels revolve upon the rollers. The specification states:

The rollers are journaled on their respective axles by means of suitable ball bearings.

The ball-bearings are not otherwise described except as they are shown in Fig. 4 of the drawings. They appear to be of the usual bicycle type and to be operated similarly to those of the appellee's carrier. It is to be noticed, however, that the Sturges ball-bearing device is for the most part extended beyond instead of being countersunk into the ends of the roller; the cups seem to be integral parts of the roller, while the cones are threaded upon the ends of the axle, and opposed annular rings are provided in the cups and cones for ball races or containers. Although the material of which the rollers are composed is not shown and is not very important, yet apparently it is metal.

We have thus been at pains to point out earlier devices as means for testing the issue of fact concerning the validity of the patents in suit; and we are unable to find in these patents any advance over the prior art except in degree. The idea of a gravity-carrier was not new. In one form or other such carriers had been designed, patented and, inferentially at least, put into use. Alvey had designed them for purposes precisely similar to those of the patents in suit. Even the kinds of business which Alvey's carriers and those of appellee were intended to aid, the emplacements of the carriers and their modes of operation, the results to be attained, all are practically the same. The marked resemblances in matters of equivalency between the two sets of devices cannot escape attention. In a word, the devices themselves, the new and the old, as they are shown

No. 2.]

in the drawings and in the descriptions of the patentees, speak in terms amounting to a demonstration.

We understand it to be admitted, it certainly is true, that every element of the claims in suit is old. What has been done here is to adapt and substitute some old and familiar devices in place of certain parts of the earlier gravity-carriers, particularly Alvey's. This involved for the most part simply a change in the material of parts comprised in the earlier carriers; and these substituted devices practically perform, not only the same functions as had been performed by the replaced parts, but also the same functions as they themselves had performed in devices of the prior art. It may not be amiss to show again where some of the important substituted parts may be found in the prior art: Appellee's metal roller was described by Holman, in 1885, and the rigid axle (with whatever incidental support the axle furnishes to the side rails) and ball-bearings were shown by Sturgis, and the perfectly plain equivalency of the bicycle-hub with its ball-bearings and rigid axle should also be borne in mind; the notches or slots of the side rails and the facilities they afford for separate removal and replacement of rollers were shown and explained by Winter and Douglas; as to the metal side rails, it is necessary only to recall those of Alvey's last two patents; the remaining parts of appellee's devices are negligible; and after all the old and the new carriers in precisely the same way transport packages by gravity.

(1) It must, of course, be conceded that patentable novelty may exist in a combination of old elements; but here the combination claims in suit are lacking in the usual and essential tests of invention. No new function of elements or new method of operation is evolved, and the result achieved is exactly the same as the old one. The settled rule under such facts is that to adapt an old and familiar device to another structure equally old and well known is not to exercise the inventive faculty; it is to apply the skill of the mechanic. (*Aron v. Manhattan Railway Co.*, 132 U. S. 84, 88; 10 Sup. Ct. 24; 33 L. Ed. 273; *Peters v. Active Mfg. Co.*, 129 U. S. 530, 537; 9 Sup. Ct. 369; 32 L. Ed. 738; *Crescent Brewing Co. v. Gottfried*, 128 U. S. 158, 160; 9 Sup. Ct. 38; 32 L. Ed. 360; *Penn. Railroad v. Locomotive Truck Co.*, 110 U. S. 400, 404; 4 Sup. Ct. 220; 28 L. Ed. 222; *Weir Frog Co. v. Porter*, 208 Fed. 670, 676; 124 C. C. A. 470, C. C. A. 6; *Frederick R. Stearns & Co. v. Russell*, 85 Fed. 218, 226; 29 C. C. A. 121, C. C. A. 6; *Indiana Novelty Mfg. Co. v. Crocker Chair Co.*, 103 Fed. 496, 502; 43 C. C. A. 287, C. C. A. 7.)

(2) It may further be conceded that appellee's carriers are better than the Alvey carriers or any others of the prior art; this, too, is unavailing. It is met by the old rule that a mere carrying forward of the original idea, a change in form, an improvement in degree, without substantial change in either means or result, is not invention. (*Railroad Supply Co. v. Maria Iron Co.*, 244 U. S. 285, 288; 37 Sup. Ct. 508; 61 L. Ed. 1136; *Wagner v. Meccano Limited*, 248 Fed. 695, 698; 183 C. C. A. 573, C. C. A. 6, and citations.) Superiority is not enough. (*Grinnell Washing Machine Co. v. Johnson Co.*, 247 U. S. 496; 38 Sup. Ct. 547; 63 L. Ed. —.) It can scarcely be doubted that the defects if any in the Alvey structures might have been remedied by the skilled mechanic. (*Keece v. New Idea Spreader Co.*, 231 Fed. 701, 710; 145 C. C. A. 509, C. C. A. 8.) This derives emphasis from the changes made in appellee's carrier, as we have pointed them out in the exhibit produced in court.

(3) It is said that appellee's carrier is not anticipated by any single patent; but it is not necessary to show complete anticipation in a single patent. The selection and putting together of the most desirable parts of different machines in the name of kindred art, making a new machine, but in which each part operates in the same way as it operated before and effects the same result, cannot be invention; such combinations are in the nature of things the evolutions of the mechanic's aptitude rather than the creations of the inventor's faculty. (*Thompson v. Bollesetter*, 114 U. S. 1, 11; 5 Sup. Ct. 1042; 29 L. Ed. 76; *Luton v. Whittier*, 251 Fed. 580; — C. C. A. —, decided by this court May 7, 1918; *Emile Mfg. Co. v. Ashland Mfg. Co.*, 235 Fed. 886, 895; 149 C. C. A. 305, C. C. A. 6; *Kelly v. Olson*, 89 Fed. 297, 308; 33 C. C. A. 205, C. C. A. 7; *Keece v. New Idea Spreader Co.*, supra, 231 Fed. at pages 708, 709; 145 C. C. A. 509.)

(4) Assuming, as counsel claim, that large sales have been made of the carriers in issue, still commercial success is never a safe criterion, except in cases of doubtful validity of the patent; such success cannot aid claims that are clearly without patentable novelty. (*Olne v. Timken*, 155 U. S. 141, 155; 15 Sup. Ct. 49; 39 L. Ed. 100; *Grinnell Washing Machine Co. v. Johnson Co.*, supra; *Keece v. New Idea Spreader Co.*, supra, 231 Fed. at page 710; 145 C. C. A. 509.)

(5) We conclude that the claims in issue under the first patent in suit and all the claims of the second one are null and void for want of invention; the decree is accordingly reversed, and the cause remanded, with direction to dismiss the bill; and appellant will recover costs, except such as arise from one-half the copies of Letters Patent introduced by it, sixty in all, and embodied in the record.

[Vol. 923. No. 2.]

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 923—No. 2.

TUESDAY, MAY 20, 1919.

Price—\$5 per year.

[PUBLISHED MAY 20, 1919.]

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.	Page.
ISSUE OF MAY 20, 1919.....	319
INTERFERENCE NOTICE.....	319
ADVERSE DECISIONS IN INTERFERENCE.....	319
DISCLAIMERS.....	319
INTERFERENCE DEFINED.....	319
APPLICATIONS UNDER EXAMINATION.....	320
PATENTS GRANTED.....	321
RENEWALS.....	321
DECEASED.....	321
TRADE-MARKS—REGISTRATION APPLIED FOR.....	321
TRADE-MARK REGISTRATIONS GRANTED.....	321
TRADE-MARK REGISTRATIONS RENEWED.....	321
LABELS.....	321
PRINTS.....	321
DECISIONS OF THE U. S. COURTS.....	321
J. E. Baker Co. v. Kennedy Rollstators Co. et al.....	321
ADJUDICATED PATENTS.....	321
CHANGES IN CLASSIFICATION.....	321

Issue of May 20, 1919.

Patents.....	624—No. 1,303,843 to No. 1,304,526, inclusive.
Designs.....	2—No. 1,303,843 to No. 1,304,526, inclusive.
Trade-Marks.....	178—No. 1,303,843 to No. 1,304,526, inclusive.
Labels.....	42—No. 1,303,843 to No. 1,304,526, inclusive.
Prints.....	18—No. 1,303,843 to No. 1,304,526, inclusive.
Reissues.....	8—No. 1,303,843 to No. 1,304,526, inclusive.
Total.....	946

Don't try to argue with Benjamin Franklin.
He said:

"Beware of small expenses; a small leak
will sink a great ship."

Just buy another W. S. S.

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 8, 1919.

F. S. Draper, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Stern Brothers & Co., Kansas and John Street, New York, N. Y., for registration of a trade-mark and trade-mark registered December 11, 1903, No. 10,770, to F. S. Draper, Attleboro, Mass., and a notice of such declaration sent to said Draper at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said F. S. Draper, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITTENHAD,
First Assistant Commissioner.

Adverse Decisions in Interference.

PATENT No. 1,344,909.

On April 12, 1919, a decision was rendered that James M. Skinner was not the first inventor of the subject-matter covered by claim 2 of his Patent No. 1,344,909, subject, "Filling device for battery-cells," and no appeal having been taken within the time allowed such decision has become final.

Disclaimer.

1,275,016.—Charles L. Goodrum, New York, N. Y.
TELEPHONE-EXCHANGE SYSTEM. Patent dated August 6, 1918. Disclaimer filed May 10, 1919, by the patentee, the assignee, The Western Electric Company, Incorporated, consenting.

Enters this disclaimer—

"To claims 1 and 2 of said Letters Patent, which are in the following words, to wit:

"1. In a telephone system, an automatic switch, a group of lines terminating in contacts of said switch, means for driving said automatic switch over the contacts of said group, means for causing said switch to stop upon a set of electrically distinguished contacts, a pawl normally in engagement with said ratchet for holding said switch in its actuated position, and mechanical means operated when said automatic switch reaches a predetermined position for withdrawing said pawl from said ratchet to allow said switch to return to its normal position whereupon it is again driven over the contacts of said group.

"2. In a telephone system, an automatic switch, a group of lines terminating in a row of contacts of said switch, means for driving said automatic switch over the entire row of said terminals, a ratchet, a pawl normally in engagement with said ratchet for preventing the re-actuation of said switch, means for causing said switch to stop upon a set of electrically distinguished contacts, and mechanical means operated when said automatic switch reaches the end of said row to withdraw said pawl from said ratchet to allow said switch to return to the beginning of said row, whereupon said switch is again driven over said row."

Interference Defined.

RULE 93. An interference is a proceeding instituted for the purpose of determining the question of priority of invention between two or more parties claiming substantially the same patentable invention. In order to ascertain whether any question of priority arises the Commissioner may call upon any junior applicant to state in writing the date when he conceived the invention under consideration. All statements filed in compliance with this rule will be returned to the parties filing them. In case the applicant makes no reply within the time specified, not less than ten days, the Commissioner will proceed upon the assumption that the said date is the date of the oath attached to the application. The fact that one of the parties has already obtained a patent will not prevent an interference, for, although the Commissioner has no power to cancel a patent, he may grant another patent for the same invention to a person who proves to be the prior inventor.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 16, 1919.

Room No.	Divisions and subjects of invention.	Oldest new application and date when by applicant receiving office action.		No. of applications awaiting action.
		Nov.	Amended.	
314	1. Closure Operators; Feeder; Gates; Harrows and Diggers; Flows; Planting; Seeding; Unloading; Trains; and Pumps.	Mar. 24	Apr. 4	200
126	2. Bakers; Cakes; Cakes, Breads, and Sweets; Dairy; Paper Film and Binders; Medicines; Preservatives; Preserving; Presses; Tents, Canopies, Umbrellas, and Cane; Tobacco.	Jan. 3	Feb. 10	179
175	2. Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Framing; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Mar. 20	Dec. 17	161
304	4. Conveyers; Elevators; Engraving; Heating; Material or Article Handling; Pneumatic Dispatch; Pressing and Pulling Implements; Railway Mail Delivery; Shoe-Making; Traversing; Washing.	Jan. 3	Apr. 15	200
167	4. Book-Making; Books, Bibles and Leaves; Navigation; Jewels; Manufacturing; Music; Painted Matter; Tying; Cards or Stacks.	Mar. 6	Jan. 10	165
315	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Substances Preparation.	Jan. 10	Feb. 8	204
312	7. Educational Appliances; Games and Toys; Optical; Velocipeds.	Mar. 20	Apr. 1	273
131	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Bedroom Furniture; Scaffolds.	Mar. 20	Apr. 8	185
221	9. Air and Gas Pumps; Hydraulic Motors; Injectors and Ejectors; Motors, Fluid; Motors, Fluid-Circuit; Pumps.	Nov. 27	Feb. 20	205
205	10. Carriages and Wagons; Motor Vehicles.	Feb. 21	Apr. 11	205
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Bysles, and Silver Setting; Buttons; Leather Manufacture; Milling and Smoothing; Spring Devices; Wings and Whip Apparatus.	Feb. 24	May 3	204
228	12. Journal-Berms, Pulleys, and Shocks; Machine Elements.	Dec. 4	Nov. 9	204
209	12. Ammunition and Explosive Charge Making; Balls, Hail, Mus, Shot, and Snow Shot; Bullet Making; Chains, Staps, and Cartridge Mags; Bullets; Cartridges; Cartridges and Projectiles; Gun Cores, Milling, and Finishing; Metal Devices; Metal Fusing and Welding; Metal Making; Metal Tools and Implements, Making; Metal Working; Needles and Pin Making; Nut and Bolt Locks; Turning.	Dec. 20	Apr. 6	371
320	14. Compound Tools; Cutting and Punching Sheets and Bars; Furniture; Metal-Bending; Pressing; Liquids; Sheet-Metal Work, Making; Tools; Wire Fabric and Structures; Wire-Working.	Jan. 3	Feb. 20	474
308	15. Bread, Pastry, and Confection Making; Cakes; Fats; Oils; Lard; Pastry and Confection Manufacture; Paper-Making and Paper Libraries; Plastic Block and Earthenware Apparatus; Plates.	Jan. 3	Feb. 20	474
113	16. Radiant Energy; Telegraphy; Telephony.	Dec. 27	Jan. 2	205
207	17. Label Printing and Paper Handling; Organography; Paper Manufacture; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Folding or Delivering; Type Setting.	Mar. 14	Apr. 6	205
220	18. Fluid-Pressure Regulators; Liquid Heaters and Vaporizers; Power Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engines Valves.	Dec. 11	Mar. 1	201
295	19. Dampers, Automatics; Furnaces; Heating Systems; Boilers and Furnaces; Domestic Cooking Vessels.	Mar. 21	Feb. 20	273
170	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Lamps and Lenses; Saws; Underclothes.	Apr. 6	Apr. 6	205
313	21. Brakes and Gears; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Nov. 6	Feb. 15	205
300	22. Aerostatics; Firearms; Ordnance.	Feb. 3	Apr. 10	279
217	23. Acoustics; Cam-Handling; Horology; Recordors; Registers; Sound Recording and Reproducing; Time-Counting; Telescopy.	Mar. 13	Mar. 25	245
144	24. Apparel; Apparel Accessories; Garment Supporters; Sewing Machines.	Sept. 25	Jan. 20	273
315	25. Agriculture; Butchering; Centralized Bowl Separators; Mills; Thrashing; Vegetable Cutters and Crushers; Gas Separation.	Mar. 20	Apr. 14	164
105	26. Electricity, Generation; Motive Power; Prime Mover and Dynamo Plants.	Nov. 6	Jan. 6	200
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Feb. 27	Mar. 20	205
205	28. Internal-Combustion Engines.	Mar. 10	Mar. 4	145
147	29. Boring and Drilling; Checks or Sectors; Coopering; Fire-Engines; Lathes; Rod Joints or Couplings; Wheelwrights' Machines; Wooden Building; Wood-Boys; Wood-Turning; Wood-Working; Wood-Working Tools.	Jan. 3	Feb. 10	205
100	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Printing Machines.	Mar. 6	Apr. 25	273
173	31. Alcohols; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Gels; Sugar and Salt.	Feb. 15	Feb. 10	210
270	32. Gas and Liquid Contact Apparatus; Heat Exchanger; Refrigeration.	Nov. 9	Mar. 10	277
70	33. Bridges; Hydraulic and Earth Engineering; Machinery and Concrete Structures; Metallic Building Structures; Paving; Roads and Pavements; Roofs.	Jan. 20	Feb. 14	274
204	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Switches and Signals; Railway Ties and Fasteners; Railway Wheels and Axles; Truck-Benders; Vehicle-Fenders.	Feb. 15	Feb. 24	212
57	35. Buckles, Buttons, Cuffs, Etc.; Card, Pattern, and Sign Exhibiting; Goggles; Tents.	Apr. 9	Apr. 20	200
204	36. Drivers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring.	Apr. 7	Apr. 5	145
197	37. Electric Lamps; Electricity; Circuit Breakers and Cables; Gas; Gas Appliances.	Jan. 14	Jan. 10	200
270	38. Ammunition; Builders' Hardware; Fishing and Trapping; Mining; Quarrying, and Ice-Harvesting; Stationery; Book-Working; Webs.	Apr. 14	Apr. 14	141
200	39. Joint Fasteners; Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Valved Pipe Joints or Couplings; Valves; Water Distribution.	Dec. 20	Dec. 6	215
273	40. Bagnets; Bottles and Jars; Chest-Controlled Apparatus; Cloth, Leather, and Rubber Housekeeping; Deposit and Collection Housekeeping; Metallic Milling and Shaping; Painting and Artistic Carvers; Paper Receptacles; Special Receptacles and Packages; Webs.	Mar. 20	Mar. 20	204
126	41. Bridges; Drift-Appliances; Resistant Tires and Wheels.	Feb. 6	Mar. 2	241
114	42. Electricity; Conductors; Electricity Transmission to Vehicles; Electricity Conductors; Electric Heating.	Jan. 4	Jan. 15	204
322	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Scaffolds; Surgery; Water Purification.	Apr. 3	Apr. 25	110
200	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boots and Shoes; Ships.	Mar. 6	Apr. 1	205
370	45. Cutlery; Lubricants; Motors; Railway Brakes.	Feb. 13	Mar. 9	200

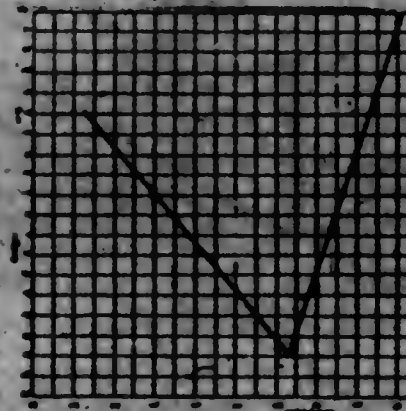
Oldest new case, Sept. 25; oldest amended, Nov. 9.
Total number of applications awaiting action.....

140	TRADE-MARKS, DESIGNS, LABELS AND PRINTS				
	Trade-Marks.....	Apr. 15	May 3	1898	
	Designs.....	Apr. 21	Apr. 21	1898	
	Labels and Prints.....	Apr. 14	Apr. 30	1898	

PATENTS

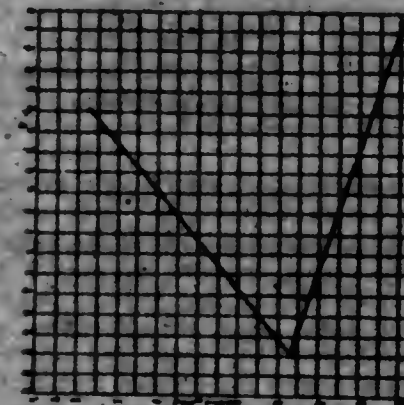
GRANTED MAY 20, 1919.

1,200,542. ELECTRIC BATTERY. GEORGE NINCLAY-
VICH ANTONOFF, London, England. Filed Aug. 12, 1918.
Serial No. 240,552. 3 Claims. (Cl. 204—38.)



2. An electric cell having an anode principally composed of zinc; a depolarizer mixture subjected to a pressure in the region of the critical pressure giving an internal resistance to the cell about a minimum value, provided with means for maintaining the internal resistance at about that value, said means being independent of the mechanical strength of the zinc anode.

1,202,344. ELECTRIC BATTERY. GEORGE NIKOLAYEVICH ANTONOV, London, England. Filed Aug. 12, 1918. Serial No. 249,553. 9 Claims. (Cl. 304—38.)



7. A depolarizer for an electric cell consisting of a mixture containing manganese dioxide, carbon and a body fulfilling the following requirements:—(a) having little or no action on manganese dioxide; (b) little or no action on zinc; (c) its ammonia and zinc salts must be freely soluble in the battery solution; said depolarizer being subjected to a pressure in the region of the critical pressure giving an internal resistance to the cell about a minimum value.

1,200,845. OIL-CAN. WILLIAM E. BLANK, Wellsburg.
W. Va. Filed Mar. 1, 1919. Serial No. 200,011. 4
Claims. (Cl. 221—47.)

1. A lubricator of the character described comprising a container having a bottom wall provided with a centrally located adjustable stud having its outer end carrying a knob and its inner end extended into the interior of the

container and carrying a pivoted latch, a spring member engaged with the latch to normally urge the latch into operative position, a piston spring-pressed within the container and carrying a pin provided with a head adapted to be engaged by the said latch when the piston is in lower-



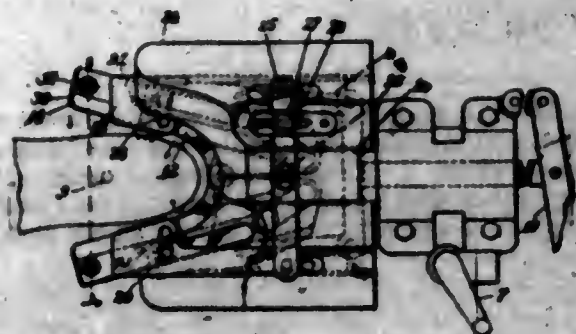
most position, the said latch being disposed at one side of the knob whereby a turn given to the said knob on the stud will disengage the latch from the head to permit the spring pressed piston to be released for movement through the said container.

1,203,248. SQUARE. AUGUSTUS BLAUVELT, Paterson,
N. J. Filed Oct. 30, 1917. Serial No. 190,290. 1 Claim.
(Cl. 83—117.)



In a square a stock having an arc-shaped slot in one end, a pivot bolt secured in said stock at the center of said arc-shaped slot, and a hook shaped bracket and a spring secured to the same end of the stock, the spring at its free end having a part cut out to form a hook thereon in combination with a blade pivoted on said pivot bolt and having its end formed with recesses adapted to interlock with the hook formed on said bracket and spring, said blade carrying a bolt passing through the slot in the stock to hold the stock and blade in relative angular relation, as set forth and described.

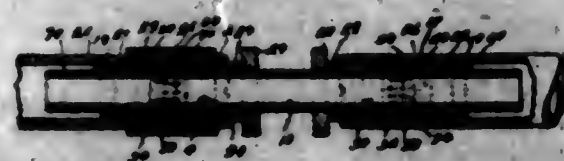
1,303,847. END-WIPER MECHANISM FOR LASTING-MACHINES. MATTHIAS BROCK, Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed June 28, 1915. Serial No. 86,786. 26 Claims. (Cl. 12-14.)



1. In a machine of the class described, the combination with wipers which are adapted for use in shaping an end portion of a shoe upper to the end portion of a last and are adjustable in length to a plurality of working positions, of means for operating the wipers.

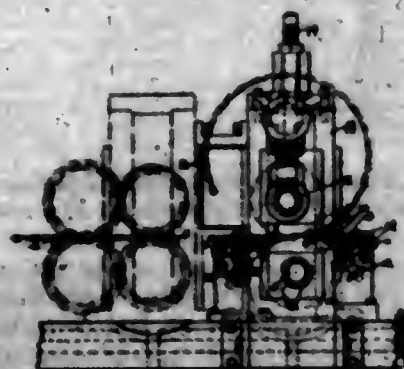
17. A wiper comprising a wiper member, a plate forming a portion of the acting face of the wiper, and means for adjusting said plate perpendicularly to the plane of the acting face of the wiper member.

1,303,848. PIPE-COUPLING. JACOB L. BROCHART, Trenton, Mo. Filed Oct. 4, 1918. Serial No. 254,880. 8 Claims. (Cl. 285-162.)



1. In an emergency coupling, the combination with the adjacent ends of a broken pipe, of a pipe section exteriorly threaded throughout its length, a lock collar on each end of said section, a band surrounding said section and spaced from the collar, and an expansible packing between the band and the collar, a jamming sleeve threaded on the section, a ring interposed between the sleeve and the band, said ring having expansible means adapted to expand to bite into the interior wall of one of said ends, when the jamming sleeve is turned home.

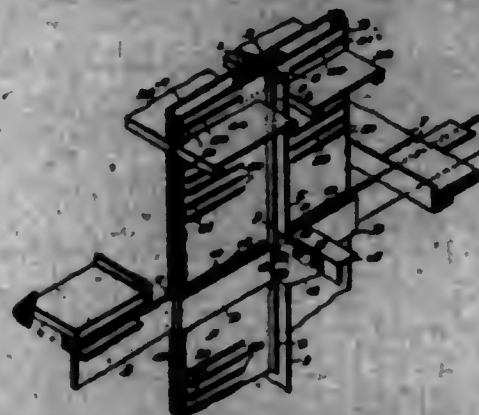
1,303,849. MACHINE FOR FORMING TRANSPLIT RIMS. RICHARD S. BRYANT, deceased, Cleveland, Ohio, by Otto H. Jobekl, special administrator, Cleveland, Ohio, assignor, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 10, 1916. Serial No. 78,867. 4 Claims. (Cl. 153-54.)



1. In a machine for forming trans-split rims, the combination of cooperative forming rolls for bending the un-

formed stock; an initial guide roll mounted in advance of said cooperative forming rolls, two rods adjustably mounted in blocks on said machine, a stub shaft mounted in the ends of said two rods and a guide roller on said shaft at the rear of said forming rolls.

1,303,850. METALLIC STRUCTURE. RAYMOND G. DULOCK and HARRY E. LEAVY, Jamestown, N. Y., assignors to The Art Metal Construction Co., Inc., Jamestown, N. Y., a Corporation of Massachusetts. Filed Dec. 1, 1916. Serial No. 134,427. 9 Claims. (Cl. 45-84.)



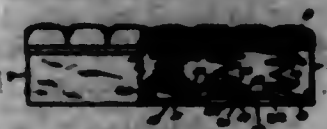
2. A metal structure comprising a pair of angle bars disposed back to back with corresponding flange members thereof in endwise alignment and the other corresponding flange members extending in opposite directions from the aligned flange members, and a pair of U-shaped members, each of said U-shaped members embracing the other flange member of one of the angle bars, and having the extremities of its sides connected to the respective angle bars.

1,303,851. POULTRY-DISINFECTOR. GROSCH CARLSON, New York, N. Y. Filed Sept. 11, 1918. Serial No. 253,621. 9 Claims. (Cl. 119-159.)



1. A poultry disinfecter comprising a casing, a balanced low platform across which a hen may walk, extending both inside and outside of the casing, an ascending walk at the side of the casing opposite the outside part of said platform by which the hen may walk to the top of the casing and jump down upon the platform, a pneumatic sprayer mounted inside the casing and directed outwardly at the body of a hen on the outside part of the platform, and connections from the inside part of the platform by which the hen's weight may cause the actuation of the sprayer.

1,303,852. SEAT-CUSHION. OSCAR L. CHASE, Seattle, Wash. Filed Feb. 17, 1919. Serial No. 277,672. 3 Claims. (Cl. 188-28.)



1. The combination with a spring cushion having a closed compartment that is provided with a valve opening of a flap valve adapted to close said opening, a tension spring to normally hold said valve in an open position said spring being arranged to permit said valve to close

In response to the outward passage of an excess quantity of air through said opening, and means for varying the tension of said spring.

1,303,853. FLEXIBLE COUPLING. CHARLES HASKELL CLARK, New York, N. Y. Filed May 22, 1915. Serial No. 29,728. 4 Claims. (Cl. 64-96.)



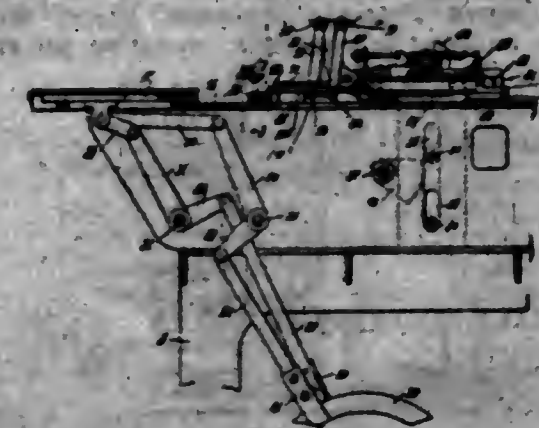
1. A flexible coupling comprising two adjacent sprocket-wheels mounted, respectively, on the members to be coupled, a chain encircling said sprocket-wheels, an annular casing surrounding said chain and a lining of soft material in said casing contacting with said loop of chain.

1,303,854. VEHICLE. EARL W. CLARK, Sharon, Pa. Filed Mar. 21, 1913. Serial No. 755,907. 3 Claims. (Cl. 214-65.)



1. In combination, a vehicle comprising a chassis, a body adapted to be supported by the chassis, and detachable therefrom, means for supporting the body independently of the chassis comprising a plurality of adjustable supporting legs, said body having sockets and the said legs having laterally projecting arms extending into the sockets, said sockets permitting an endwise movement of said arms, and a turning movement by which the legs may be swung from a lower vertical position to a position alongside of the body.

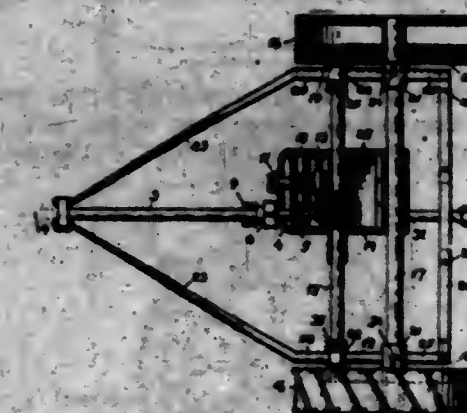
1,303,855. MACHINE FOR MAKING CIGARS. ALLEN J. COLWELL, Providence, R. I., assignor to Colwell Cigar Machine Company, Incorporated, a Corporation of Delaware. Filed Mar. 1, 1919. Serial No. 290,614. 5 Claims. (Cl. 131-39.)



1. In a machine of the type set forth, the combination with a run, of a reciprocating shearing plunger mounted

upon the run to advance tobacco strips, vertically reciprocating plates mounted upon the sides of the run, arms carried by the plates, a horizontally reciprocating plate depending from the arms in front of the plunger, a lip on the plate disposed at right angles to the plate in the path of the strips, means for maintaining the plate in constant parallelism with the bed, means for reciprocating the plunger, and a driving shaft actuating the plunger reciprocating means for operating the first mentioned plates.

1,303,856. TRACTOR ATTACHMENT FOR MOTOR-CARS. RALPH F. CRAWFORD, Monticello, N. Y. Filed Aug. 26, 1918. Serial No. 251,424. 2 Claims. (Cl. 180-16.)



1. A tractor attachment for automobiles, consisting of a longitudinal drive shaft adapted for coupling to the longitudinal drive shaft of the car, a stub shaft having a universal joint connection with said first-named shaft, a transverse jack shaft having driving connection with said stub shaft and pinions at each end thereof, tractor wheels having each an internal gear in mesh with one of said pinions, an axle for said wheels, lateral frame members having bearings wherein the axle and the jack shaft are journaled and forward extensions having connection with said longitudinal shaft, and a boxing having bearings for the axle, the jack shaft and the stub shaft.

1,303,857. BEET-HARVESTER. ALBERT CRUMS, Bakersfield, Calif. Filed June 25, 1918. Serial No. 241,845. 2 Claims. (Cl. 55-107.)

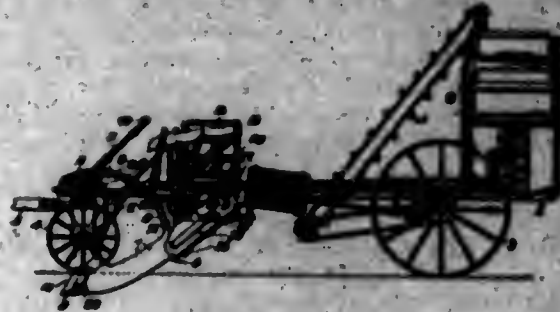


1. In a beet harvester, the combination with a truck, a frame pivotally mounted upon the truck, a knife carried by said frame, a series of pivotal bars, stub shafts carried thereby, notched disks fixed one to each of said stub shafts, means for driving the latter, and lever actuated means for simultaneously raising and lowering said bars and frame.

1,303,858. BEET-HARVESTER. JAMES CULTON, Denver, Colo. Filed July 17, 1917. Serial No. 181,075. 12 Claims. (Cl. 55-51.)

2. In a beet-harvester, the combination with a wheel-supported carriage and a beet-tapping cutter, of an appliance including means for cutting a strip of soil out of

the ground over which the carriage is moved, and adapted to advance said strip by the movement of the carriage to



bring the beets growing therein, into contact with the cutter.

1,303,850. METHOD OF MANUFACTURING WHEEL-TREADS. THOMAS G. DADS, Fort Smith, Ark. Filed Jan. 8, 1917. Serial No. 141,300. 6 Claims. (Cl. 187-1.)



1. The method of manufacturing wheel treads, consisting of combining individual blocks to form a ring, clamping the blocks from their outer periphery to compress the same against each other, and attaching the blocks individually to a wheel rim.

1,303,860. LENS APPARATUS AND SIMILAR APPARATUS. GUSTAF DALÉN, Lidingsö, Stockholm, Sweden, assignor to American Gasaccumulator Company, Elizabeth, N. J., a Corporation of New Jersey. Filed Feb. 4, 1918. Serial No. 6,181. 18 Claims. (Cl. 9-2.2.)



1. In combination, a seating body, a device thereon to be held in a substantially vertical or upright position, a pendulum suspended from a point in or in proximity to the center of the rocking and swinging movements of said seating body whereby said pendulum does not respond to or follow such rocking and swinging movements, and means intermediate the said pendulum and the said device whereby the latter is held in substantially vertical or upright position.

1,303,861. GRINDING AND POLISHING MACHINE. CHARLES DACHMANN, Brooklyn, N. Y. Filed July 28, 1916. Serial No. 110,372. 7 Claims. (Cl. 51-4.)



1. A printing cylinder polishing machine comprising a frame, means for supporting thereon a printing cylinder to be polished, means for rotating said cylinder, a carriage mounted on said frame, means for reciprocating said carriage parallel with the axis of said cylinder, a tilting frame pivoted on said carriage, a rotary polishing stone supported on said tilting frame in position to engage said cylinder, and means for rotating said polishing stone.

1,303,862. STORAGE STRUCTURE. FRANCIS M. DAVIS, Chicago, Ill. Filed Feb. 8, 1918. Serial No. 215,804. 6 Claims. (Cl. 62-30.)



1. A storage structure comprising an impervious inner wall and a porous evaporating outer wall spaced apart to provide a space between the same, moisture-carrying material in said space, a plurality of troughs disposed in the upper portion of said space, means for supplying a liquid to said troughs, and devices for controlling the quantity of liquid supplied to each trough.

1,303,863. ELECTRIC PERFORATING AND RECORDING MACHINE. GEORGE HOWLERT DAVIS, West Orange, N. J. Filed July 10, 1914. Serial No. 890,375. 10 Claims. (Cl. 104-112.)



1. In a device of the class described, the combination of a perforating machine, and a piano action wippen, also

trical means for controlling said perforating machine, and circuit closing means parts of which are carried by and movable with the said piano action wippen for operating said electrical means.

1,303,864. HOLDER. WILLIAM J. DAVIS, Chicago, Ill. Filed Aug. 6, 1917. Serial No. 164,552. 36 Claims. (Cl. 137-31.)



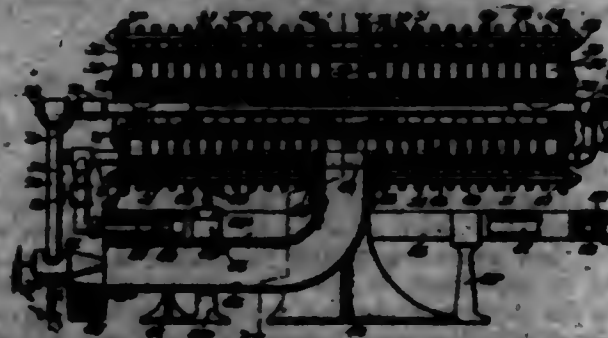
1. In a device of the class described, the combination with a temperature-retaining said holder, of a plurality of holding tanks therein, and connections whereby said tanks can be successively filled absolutely full, then hermetically sealed and held so sealed for the desired interval of time while other tanks are being filled and emptied, and finally emptied, substantially as described.

1,303,865. PNEUMATIC TIRE. WILLIAM DE ROOF, New York, N. Y. Filed Sept. 10, 1918. Serial No. 253,822. 3 Claims. (Cl. 152-17.)



2. As a new article of manufacture, a pneumatic tire embodying a plurality of plies of leather, metallic plates interposed between the plies, interfitting metallic tread members positioned circumferentially of the tire, and means connecting the metallic tread members to the plates for holding said tread members in position circumferentially of the tire.

1,303,866. HYDROCARBON-BURNER. FENNER V. DEWILDE, Pottstown, Pa. Filed Oct. 19, 1917. Serial No. 197,494. 23 Claims. (Cl. 150-55.)



1. A hydrocarbon burner embodying a sectional body portion, said body portion embodying individual co-operating units, each of the units being provided with

means whereby, when the units are assembled, two chambers will be formed, one encompassing the other, and means for detachably securing the units together, there being gas outlet openings leading from the outer chamber.

1,303,867. HEELING-MACHINE. CHARLES CHRISTIE RAYON, Brockton, Mass., assignor, by means assignment, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 13, 1916. Serial No. 71,800. 3 Claims. (Cl. 1-30.)



1. In a heeling machine, a detachable tool carrying plate having a series of drivers arranged in a horseshoe-shaped figure and a series of longer awls correspondingly arranged in the plate within the outline of the drivers.

1,303,868. SHOE-LACE. ALBERT EKLUND, Pendleton, Ore. Filed Dec. 21, 1918. Serial No. 267,826. 2 Claims. (Cl. 24-140.)



2. As a new article of manufacture, a button for a shoe lace comprising a substantially flat disk having a central opening through which an end portion of a shoe lace is adapted to be directed, said disk being also provided at its marginal portion with a tongue disposed inwardly across the disk and about which an end portion of the lace is adapted to be wrapped, said disk being also provided with an entrance slit in communication with the opening, said slit being open at both ends, said slit being radially disposed relative to the opening and substantially at right angles to the tongue.

1,303,869. HHEEL-LIFT. GILBERT B. BLITHOPE, Chicago, Ill., assignor of one-fourth to Norman D. Fraser, Chicago, Ill. Filed Oct. 24, 1918. Serial No. 250,547. 3 Claims. (Cl. 26-35.)



1. A heel lift, comprising a resilient body having a flat central part provided with a fastener embedded in and substantially coextensive in area therewith, and a marginal outer part inclined upward around said central part on all sides, the edge of said outer part lying in a plane except in front where its edge is centrally bowed therebelow.

1,303,870. **AUTOMOBILE.** ROLAND S. FENN, Chicago, Ill., assignor to Woods Motor Vehicle Company, Chicago, Ill., a Corporation of Illinois. Filed June 26, 1915. Serial No. 26,593. 2 Claims. (Cl. 171-315.)



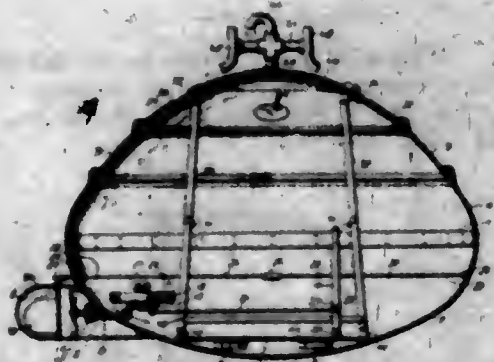
2. In a motor vehicle, the combination with an electric dynamo having a shunt field coil, a brake lever for the vehicle and means controlled thereby for closing the armature circuit of said dynamo when the brake lever is in its non-braking position, a hand operated switch for closing the shunt field circuit of said dynamo, and electromagnetic means actuating to release said brake lever mechanism from its braking position only after the shunt field circuit has been closed whereby the field circuit of the dynamo will always be closed in advance of the armature circuit.

1,303,871. **RUBBER SOLE FOR TURN-SHOES.** GEORGE F. FRAUMON, Wollaston, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed July 30, 1917. Serial No. 133,517. 17 Claims. (Cl. 30-22.)



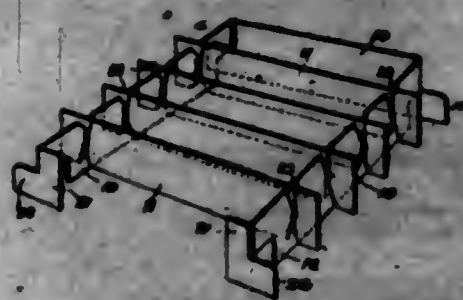
1. As an article of manufacture, a sole for turn shoes consisting of a rubber compound body having a layer of shrou material attached by vulcanization to the upper side of the rubber body with a free edge projecting above laterally adjacent surfaces of the sole and constituting a sewing rib for the sole.

1,303,872. **LIFE-SAVING APPARATUS.** MARTIN FIELD and HARRY A. SCHLINK, Chicago, Ill. Filed Sept. 25, 1918. Serial No. 255,630. 7 Claims. (Cl. 9-4.)



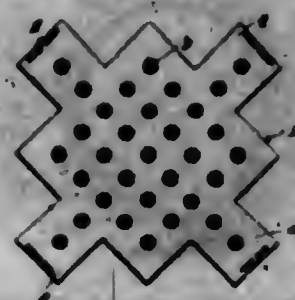
2. A life saving appliance comprising a suitable hull, a housing or deck therefor consisting of a plurality of inter-fitting collapsible sections the lower edge of the lowermost section coacting with the upper edge of said hull, hinged foldable braces adapted to support said sections in extended position, and means for locking said braces in position.

1,303,873. **CONTAINER-CRATE.** HANCOCK T. POSE, East Orange, N. J., assignor to National Circuit Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 7, 1916. Serial No. 119,794. 5 Claims. (Cl. 217-31.)



1. A separator of the character described, having two upright side sections laterally spaced apart and provided between their ends with notches to receive one or more cross strips, and each side section being provided at each end thereof with an integral portion adapted to be bent into a position substantially at right-angles to the body of the section and having an integral flap cut from the body of the section and adapted to project from that side of said section opposite to the side from which said integral portion extends, the lower edges of said flaps and integral portions being in the same plane with the lower edges of said side sections.

1,303,874. **GAME APPARATUS.** HENRY O. FORTUNE, Norfolk, Va. Filed July 18, 1918. Serial No. 245,521. 1 Claim. (Cl. 48-21.)



An amusement device of the class described comprising a rectangular board having smaller rectangular extensions at the side edges midway the ends thereof, twenty-five spots arranged on said board positioned in rows, those of each row aligning with each other, and two spots arranged in each extension, all of said spots indicating positions for the playing pieces, and fourteen playing pieces for each player to be placed on the spots at his side of the board and moved in any direction except diagonally.

1,303,875. **FOLDING BED.** BENJAMIN F. FOWLER, Minneapolis, Minn. Filed Aug. 7, 1915. Serial No. 44,230. 3 Claims. (Cl. 5-18.)

1. The combination, with a wall having a closet in the rear thereof and provided with an opening for access to said closet, of a track mounted in said closet above said opening and extending across the same, a casing suspended on said track to move from a concealed position within the closet to a position opposite said opening, said casing being seated against the frame of said opening on the inside of the closet when positioned opposite said opening and forming a comparatively close joint with said frame, and a bed mounted in said casing to swing outwardly and downwardly through said opening to a

horizontal position, said bed being wholly concealed when said casing is withdrawn from the position opposite said



opening and the underside of said bed being fashioned to represent a door for said closet when said casing is moved to a position to close said opening.

1,303,876. **ELECTRIC SWITCH.** ARTHUR H. FRANCIS, Cleveland, Ohio. Filed Oct. 2, 1917. Serial No. 194,393. 1 Claim. (Cl. 175-304.)



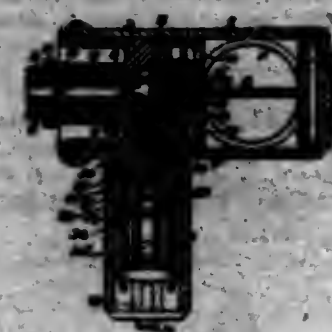
The combination with a steering post having a nut at the top thereof, of a switch comprising a shell shaped to fit around and inclose said nut, a block resting on the nut and confined thereto by the shell, contacts supported by the block, and a push button mounted on the top of the shell and arranged to close the contacts.

1,303,877. **PROJECTILE.** PIERRE J. FRANCOIS, Quebec, Quebec, Canada. Filed July 1, 1918. Serial No. 197,062. 11 Claims. (Cl. 102-2.)



6. A projectile comprising a body, a plurality of cartridges arranged in said body and adapted to be fired therefrom, means normally tending to fire said cartridges, and combustible means for controlling the operation of the firing means.

1,303,878. **FUEL SHUT-OFF MECHANISM FOR AUTOMOBILES.** JOHN E. FUCHS, Stamford, Conn. Filed July 21, 1918. Serial No. 247,581. 3 Claims. (Cl. 281-4.)



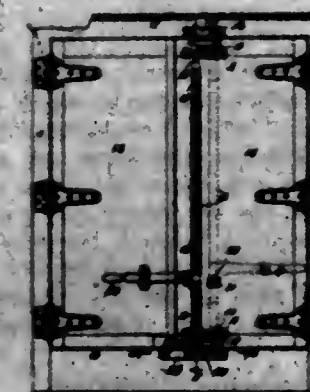
3. Fuel controlling means connected with the manifold of an internal explosive engine comprising a housing projecting from the manifold and integral therewith, a plug secured in the mouth of the housing, a fuel shut-off valve registering with the interior of the manifold, mechanism located in the housing for operating the valve to open and closed positions, said valve operating mechanism and plug having air passages adapted to communicate with the interior of the manifold only when the valve is closed, and means for locking the valve operating mechanism when the valve is in an open or closed position.

1,303,879. **CARD-HOLDER FOR TYPE-WRITING MACHINES.** CARL GAMMELSON, Syracuse, N. Y., assignor to L. C. Smith & Bros. Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed May 10, 1918. Serial No. 768,662. 3 Claims. (Cl. 197-135.)



1. In a typewriting machine, the combination with a platen, a card holder, having inner and outer guides to receive and retain the ends of the card, and end and bottom guides to properly locate the card in the holder, and means for moving said guides tangentially to the platen.

1,303,880. **DOOR-OPERATING MECHANISM FOR REFRIGERATOR-CAR DOORS.** WILLIAM A. GEIGER, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Jan. 8, 1918. Serial No. 210,954. 3 Claims. (Cl. 268-9.)



1. In a refrigerator car having a pivoted, outwardly swinging side door, the combination with a rotatable operating shaft for opening and closing said door, of a lever carried by the car below the door opening, with which the lower end of said shaft is adapted to cooperate

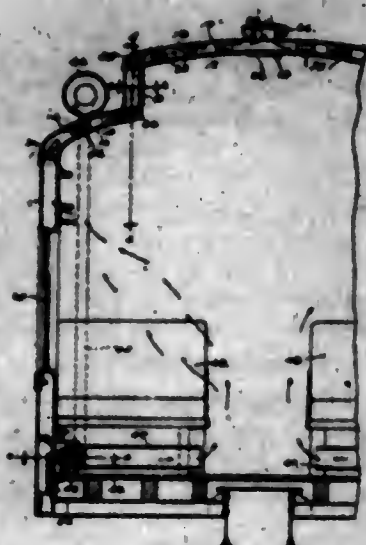
to effect the closing and opening movements of the door, and cam means on said keeper cooperating with the lower end of said shaft for elevating the shaft simultaneously with its opening rotative movement to thereby raise the lower end of the shaft sufficiently to clear an adjacent platform and permit the door to swing thereover.

1,308,881. ARTIFICIAL TOOTH. THOMAS F. GLENN, Ardmore, Pa., assignor to The E. S. White Dental Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 15, 1916. Serial No. 131,307. 1 Claim. (Cl. 32-8.)



A tooth having in its lingual face, a recess whose lateral walls are disposed substantially normal to said lingual face, and whose incisively disposed wall is undercut to form a transversely directed pocket.

1,308,882. RAILWAY-CAR AND HEATING AND VENTILATING SYSTEM THEREFOR. ROSSER H. GOLTZ, Chicago, Ill. Filed Mar. 1, 1915. Serial No. 11,904. 6 Claims. (Cl. 95-23.)



1. In combination, a railway car having the usual seats arranged on opposite sides so as to leave an aisle, the roof structure of which comprises inner and outer metal sheathings thereby providing an air circulation space therebetween, said space being in communication with the interior of the car above the seats and having outlets to the atmosphere through the roof of the car, a heating apparatus comprising air trunks located along the side walls and floor of the car, discharge pipes extending under the seats to the aisle, and radiators in said air trunks.

1,308,883. PISTON-ROD PACKING. IRVING H. GOLTZMAN, New York, N. Y. Filed Mar. 30, 1918. Serial No. 18,000. Renewed Nov. 15, 1918. Serial No. 262,730. 1 Claim. (Cl. 200-24.)

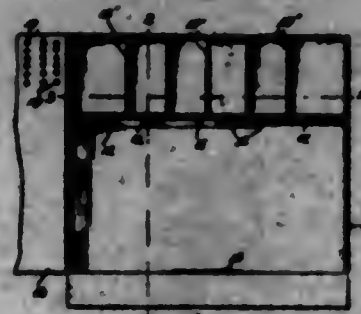
The combination with one sectional packing-ring having sockets in its face, of a spring pressed pin fitted in each

socket, and another sectional packing-ring having corresponding sockets to receive parts of said pins, the other



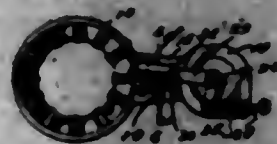
parts of the pins being arranged at the same time in the sockets in the first packing-ring, for retaining the packing-rings in position to break joints.

1,308,884. SANITARY TOOTH-BRUSH HOLDER. CHARLES F. GOODNOW, JR., South Sudbury, Mass. Filed Nov. 27, 1916. Serial No. 132,657. 1 Claim. (Cl. 167-2.)



A sanitary tooth-holding box having a transverse partition provided with inwardly enlarged, spaced, transverse slots opening through the edge of the partition at the front of the box, the enlarged portions of the slots being adapted to receive and support the heads of tooth brushes with their brushes above and covering the remaining portions of the slots, a disinfectant compartment in the bottom of the box and a closure for the front of the box, the bottom of the box and the disinfectant compartment having openings therethrough to insure rising of disinfecting fumes through the slots directly to the brushes.

1,308,885. FRUIT-PICKER. EMIL C. GOUVER, South Saginaw, Mich. Filed June 26, 1917. Serial No. 177,613. Renewed Mar. 31, 1919. Serial No. 290,552. 2 Claims. (Cl. 56-66.)



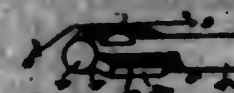
1. A fruit picker comprising a handle, a frame supported thereby and having a sleeve for receiving the upper end of said handle, said frame including a pair of ring members having a contracted portion therebetween, a stationary cutting blade mounted in said contracted portion, a lever pivoted to said handle and having one arm thereof shaped to provide a cutting blade, operating means for said lever causing the cutting blade thereof to cooperate with said stationary blade to cover the stems of fruit, and a flexible conveyor tube supported by one of said ring members.

1,308,886. FILLING-AND-EXTRACTING-MECHANISM FOR LOOMS. HENRY H. GOVE, Blackford, Mo., assignor of one-half to Howard R. Whitehead, Saco, Me. Filed Feb. 20, 1917. Serial No. 140,767. 10 Claims. (Cl. 130-26.)



1. A filling thread-extracting mechanism for looms, comprising a rotatable drum, thread-engaging fingers mounted thereon, and a thread-supporting barrel at one end of said drum.

1,308,887. SMALL-ARM. JAMES DEL GANCO, New Haven, Conn. Filed Feb. 11, 1919. Serial No. 270,900. 1 Claim. (Cl. 42-1.)



A barrel for firearms having a bore, one end of said bore being closed and adapted to stop a wad from the cartridge, escape ports communicating between the bore of the barrel and the atmosphere adjacent the closed end of the barrel, and guards in registration with the outer ends of the escape ports whereby the flash from the explosion will be limited in length as it passes through the escape ports.

1,308,888. WRIST-WATCH. FRANKMACK G. GROSS, Cincinnati, Ohio, assignor to The D. Gross Watch Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 20, 1918. Serial No. 257,100. 1 Claim. (Cl. 50-105.)

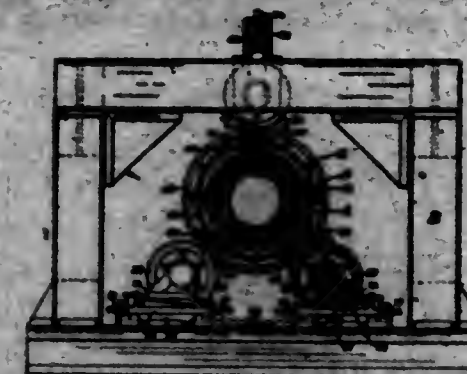


A waterproof military wrist watch comprising an outer case having a flange with a notch and an aperture at diametrically opposite points, an inner case with a winding stem and diametrically opposite the stem a hook adapted detachably to engage the aperture of the flange, and a seal having a crystal therein, adapted hermetically to seal the outer case and to retain the inner case therein.

1,308,889. HOLLOW-CONCRETE-POLE-MAKING APPARATUS. JULIUS J. GOSWELDA, JR., Chicago, Ill., assignor to Masony Concrete Products Corporation, Chicago, Ill., a Corporation of Virginia. Filed June 13, 1918. Serial No. 260,646. 40 Claims. (Cl. 25-30.)

30. In an apparatus for making reinforced concrete poles and the like, the combination of a mold adapted to receive a skeleton reinforcement in the interior thereof, and means for supporting the skeleton in the mold com-

prising a plurality of spacing members carried on the skeleton and adapted to engage the interior of the mold at



spaced intervals and to lie intermediate the skeleton and the mold.

1,308,890. FUNNEL. FLOYD H. GUSTAFSON, Mead, Nebr. Filed July 30, 1917. Serial No. 133,572. 1 Claim. (Cl. 220-32.)



The combination with a funnel comprising a body part and spout, of a horizontal valve plate secured at the juncture of the body part and spout and having a central opening, said plate being of the same diametrical size as the portion of the body part to which it is secured whereby the plate spans the opening to the funnel, a bridging strip spanning said central opening and provided with a central aperture, a valve rod passing through said central aperture in the bridging strip and having its lower end extending into said spout, and a valve disk secured to the lower end of said rod for engagement with the underside of said valve plate for closing the central opening therein.

1,308,891. GAS FOR CUTTING AND WELDING PURPOSES. JOHN HARRIS, Lakewood, Ohio. Filed June 7, 1917. Serial No. 173,904. 1 Claim. (Cl. 48-197.)

A gas for the purposes described comprising a mixture of hydrogen and acetylene with substantially pure oxygen, the acetylene constituting approximately ten (10) per cent. by volume of the hydrogen.

1,308,892. PROCESS OF WELDING. JOHN HARRIS, Lakewood, Ohio. Filed May 17, 1918. Serial No. 236,173. 5 Claims. (Cl. 148-12.)

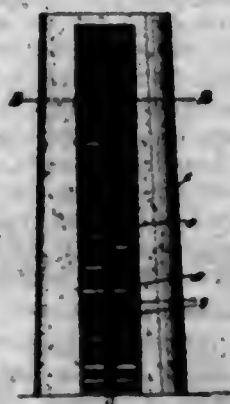
2. The process of welding metals which consists in directing thereagainst a cone produced at the end of a blow-pipe tip by the combustion of a mixture of hydrogen, substantially pure oxygen, and a gaseous fluid capable of imparting visibility to such cone, said fluid having a flame temperature higher than that of hydrogen and producing with the other gaseous constituents and the oxygen from the atmosphere a flame envelop for such cone that will protect the welded metal from oxidation.

1,908,902. AIR-PRESSURE REGULATOR FOR PNEUMATIC TIRES. GEORGE W. HASKING and HENRY H. KILLORE, Lovell, Okla. Filed Dec. 1, 1916. Serial No. 124,401. 2 Claims. (Cl. 132-11.)



1. A device for regulating the air pressure of pneumatic tires, comprising a shell, means for fastening said shell to a tire valve casing, an air pressure operated plunger head movable back and forth in said shell and forming in conjunction therewith an air pressure chamber, a valve unseating member carried by said plunger head, a pump barrel forming an extension of said shell, a closure for the outer end of said pump barrel formed with an air passage extending therethrough, an inwardly opening check valve controlling said air passage, an air compressing piston working in said barrel, a tubular plunger open at both ends and having said plunger head and piston mounted thereon at opposite ends thereof, a secondary check valve controlling the passage through said tubular plunger, and yieldable means for returning said plunger head to the initial end of its working stroke.

1,908,904. FENCE-POST. BOWEN B. HAUSM, San Francisco, Calif. Filed Oct. 2, 1916. Serial No. 123,541. Renewed Oct. 4, 1918. Serial No. 250,918. 2 Claims. (Cl. 254-50.)

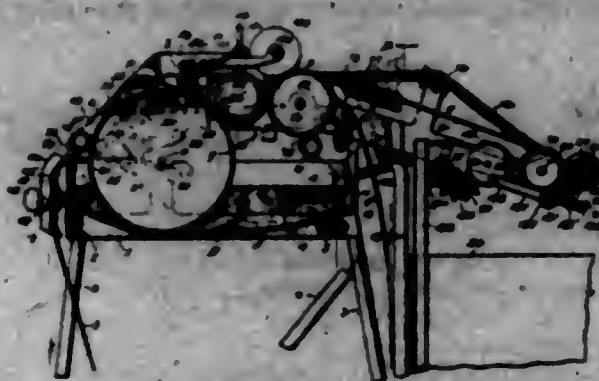


1. A fence post of the class described, comprising a body, said body having a vertical slot, said slot being comparatively broad at its inner portion and tapered toward the outer face of said body, staples formed from single strands of wire and being looped so as to carry strands of wire upon the outer surface of said post, said staples comprising side arms which are flattened at their inner ends, the inner ends overlapping so as to form comparatively broad structures, whereby the broadened inner ends of said staples will fit within the broadened inner portions of said slot thus holding the staples against accidental displacement.

2. A fence post of the class described, comprising a body, said body having a rib formed upon its forward surface, said rib having grooves formed therein, said grooves extending in horizontal planes and in parallel

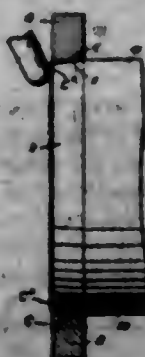
relation with respect to each other, said rib body having a vertical slot formed therein, said slot being comparatively broad at its inner portion and tapered toward its outer portion to provide a reduced entrance therefor, staples carried within said slot, each staple being formed from a single strand of material bent intermediate its ends to provide side arms, said side arms terminating in flat overlapping inner ends, thereby comprising comparatively broad inner portions for each staple, said terminating arms extending into said slot and overlapping, whereby the broad inner portions of said staples will fit within the broad inner portions of said slot, whereby said staples will be held against accidental displacement, and said staples being adapted to engage strands of wire for holding the same within the grooves of said rib.

1,908,905. MACHINE FOR PASTING, TRIMMING, AND FOLDING WALL-PAPER. NASTON HURLAND, Chicago, Ill. Filed Jan. 16, 1917. Serial No. 142,063. 14 Claims. (Cl. 91-13.)



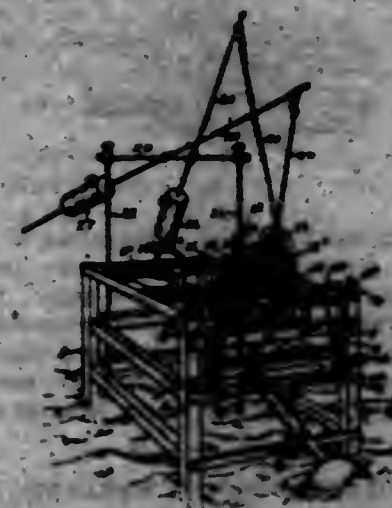
1. In a device of the kind described and in combination, a suitable frame, a paste receptacle, a paste roll arranged to project into said receptacle, a paper carrier, means for leading the paper to said paste roll, a presser roll arranged in proximity to said paste roll, a paper softener arranged adjacent said paste roll, a paper drawing roll arranged between said cutter roll and paste roll, cutters arranged to cooperate with said cutter roll, a paste smoother, folding mechanism, and means for drawing the paper over the paste smoother and pushing the same through the folding mechanism.

1,908,906. MANUFACTURE OF OBTURATOR-RINGS. JOHN SEBASTIAN HECHT and ALBERT THOMAS DOWELL, St. Albans, England. Filed June 28, 1917. Serial No. 177,515. 7 Claims. (Cl. 29-154.1.)



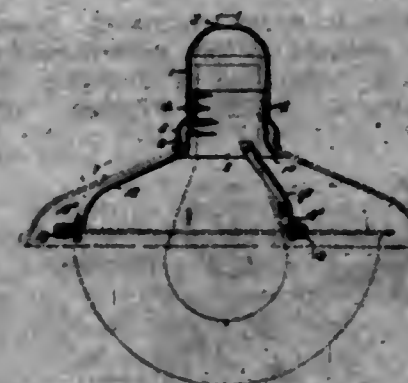
6. The herein described process of manufacturing a split metallic obturator ring which consists in bending the strip flatwise into a ring of smaller diameter than that to be imparted to the finished ring, mounting said ring so as to leave the edged part of the ring projecting clear, and spinning or pressing over said projecting edge to thereby form the inwardly extending flange on the ring.

1,908,907. WAVE-MOTOR. GUYMART HICKERMAN, San Diego, Calif. Filed Sept. 24, 1918. Serial No. 295,854. 5 Claims. (Cl. 90-2.)



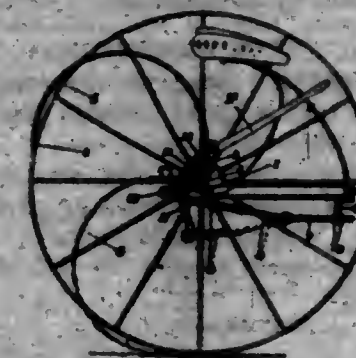
4. In an apparatus of the class described the combination of a supporting frame, a seat pivotally connected thereto, a pair of drums revolvably mounted thereon, a cable with its opposite ends wound on said drums, levers engaging said drums for shifting them longitudinally, pulleys mounted on the opposite ends of said drums over which the ends of said cable extend, other pulleys mounted on the frame over which the ends of said cable extend and are secured to the opposite sides of said seat, intermediate drums in alignment with and adapted to be engaged by said first mentioned drums, each carrying a cable adapted to wind thereon, weights supported by each of said cables, a gear mounted between said intermediate seats, ratchet and pawl means in connection with said gear and said intermediate drums for revolving said gear when either of said drums revolves in one direction, whereby said drums and said intermediate drums are engaged and disengaged with the movement of said seat.

1,908,908. SHADE-HOLDER. MAX HANSKOVITZ, Chicago, Ill. Filed Apr. 25, 1918. Serial No. 24,409. 2 Claims. (Cl. 240-111.)



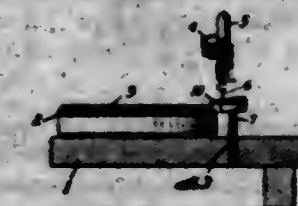
2. A shade holder for a light inclosing bowl, and a reflector superposed over said bowl, said device consisting of a socket cover having a cylindrical threaded body terminating at its lower end in a flaring skirt, a sleeve removably mounted within said body and projecting downward therefrom, said sleeve having an annular flange at its lower end located below the edge of said skirt, said sleeve being adapted to be embracingly engaged by the neck of the shade or reflector, and said flange constituting a seat upon which said shade or reflector is supported, arms secured to said sleeve and heads formed upon the ends of said arms for supportingly engaging the rim of a bowl.

1,908,909. RETURN-SPRING FOR DUMPING-RAKES. ANDREW V. HANSEN, Coon, Oreg. Filed July 12, 1918. Serial No. 244,889. 1 Claim. (Cl. 54-304.)



A spring return device for dumping rakes comprising a bracket attached to the rear of a rake head of inverted L-shaped section and under the same, a downwardly extending bar pivotally mounted to the bracket, and a helical spring normally at rest fastened at one end to the lower end of the bar and pivoted at the other end to the main rake frame, the bar being adapted for fore and aft swinging about its pivotal point until the teeth or the rake head have nearly reached their upmost position, when it impinges against the rake head, whereby the radial length of the spring from its pivotal point to the bar is not increased until such point of bearing of the bar against the rake head is reached, and the spring not placed in tension until then.

1,908,910. STYLUS-GUIDING DEVICE. HARRY HORN, Brooklyn, N. Y. Filed Nov. 20, 1918. Serial No. 263,262. 2 Claims. (Cl. 274-1.)



1. In a photograph, a stylus supporting device mounted in normally fixed position adjacent the edge of a relatively rotatable record, and adapted to partially overlie said record, whereby, when the stylus is positioned thereon, it may be moved therefrom into substantially correct tracking position on the record.

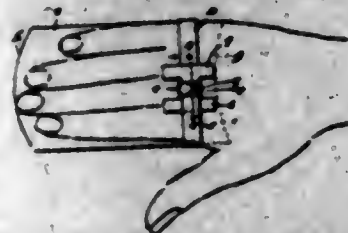
1,908,911. ELECTRIC SIGNALING DEVICE. WILLIAM M. HORTON, Cleveland, Ohio, assignor to The Adams-Bakall Electric Co., Cleveland, Ohio, a Corporation of Ohio. Filed July 19, 1916. Serial No. 110,025. 4 Claims. (Cl. 177-7.)



1. An electric signaling device comprising a supporting plate, a diaphragm carried by said supporting plate, an electro-magnet carried by the said supporting plate, a portion of said electro-magnet being formed as a strip of metal which is resilient, an armature for said electro-magnet, a spring plate supporting the armature,

said spring plate being in turn supported by the said strip of resilient material, means whereby the movement of the armature imparts vibration to the diaphragm, and a make and break device which opens and closes with the movement of the armature.

1,303,902. **BLOTTER.** STEPHEN HUDACK, Danvers, N. Y. Filed Oct. 4, 1918. Serial No. 256,857. 2 Claims. (Cl. 120-25.)



1. A blotter for the hand, comprising in combination with a body, lateral extension strips forming integral parts with the longitudinal side edges of the body and adapted to overlap each other adjacent the back of the hand, a loop encircling the overlapped ends of the extension strips slidably uniting the same, and means on the ends of the extension strips cooperating with the loop to prevent slidable disconnection of the strips.

1,303,903. **SURGICAL BANDAGE.** BERNHARDT W. JANSEN, College Point, N. Y., assignor to Traun Rubber Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 16, 1918. Serial No. 250,105. 1 Claim. (Cl. 128-109.)



A bandage comprising a band of rubber, a tongue of fabric superimposed on one end of said band, said tongue having oppositely disposed slots therein spaced away from each other lengthwise of the band, and a tying tape secured between said tongue and said rubber band, and having its ends projecting in opposite directions substantially co-axially with said rubber band.

1,303,904. **POSITION-BRACKET FOR SEWING-MACHINES.** GEORGE JACKSON, Chicago, Ill., assignor of one-half to Clarence G. McClay, Chicago, Ill. Filed Dec. 19, 1917. Serial No. 207,911. 2 Claims. (Cl. 112-22.)



1. A position bracket for holding the bobbin case of a sewing machine, comprising a main body portion having a rearward extension provided with a lateral offset having a vertical flute along which the needle reciprocates, said body portion and extension being pivotally connected to permit the body portion to swing laterally of the bobbin case to release the same, and means for holding the extension in a predetermined position relative to the body portion.

1,303,905. **ARTIFICIAL ARM AND HAND.** JENSEN THOMAS JENSEN, Copenhagen, Denmark. Filed July 2, 1917. Serial No. 178,244. 14 Claims. (Cl. 8-12.)



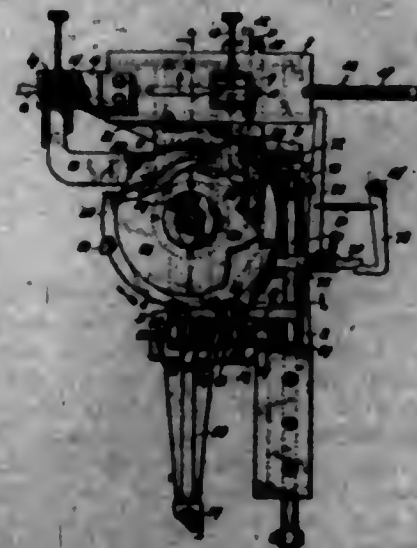
1. In an artificial hand, the combination of a fore arm sleeve; a plate pivotally mounted thereon; another plate slidably mounted on said first named plate; fingers consisting of several joints, and tension elements connected with both of said plates, the first named plate being secured to one joint of each finger and the second named plate being secured to another finger joint of each finger.

1,303,906. **MULTIPLE SPOT-WELDING MACHINE.** OTTO H. JENSEN, Cleveland, Ohio, assignor, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 20, 1918. Serial No. 117,404. 15 Claims. (Cl. 210-4.)



1. In mechanism of the character described, the combination of two parallel conductor-bars connected with the respective secondary terminals of a transformer; and paired electrodes adjustable along said bars, respectively, and adapted to be moved to clamp together the parts to be welded.

1,303,907. **BRUSH-MAKING MACHINE.** CONRAD JENSEN, Toledo, Ohio, assignor to The Ames-Bonner Company, Toledo, Ohio, a Corporation of Michigan. Filed Aug. 23, 1917. Serial No. 187,821. 9 Claims. (Cl. 15-7.)



2. In a machine of the class described, a vertically movable article carrying member, a pattern member for con-

trolling the vertical movements of said first member, pawl and ratchet means operable to periodically move said pattern member in one direction, a dog engaging the ratchet part of said means to prevent a back movement of the pattern member, means operable to release the engagement of the pawl and ratchet parts of said first means and to move said dog to released position, and means for automatically backturning said pattern member to starting position when released for back movement.

1,303,908. **BUTCHER'S SAW.** FREDERICK O. JOHNSON, Detroit, Mich. Filed Mar. 23, 1917. Serial No. 187,882. 4 Claims. (Cl. 143-42.)



2. In a device of the character described, a motor, a counter weighted cable for suspending the same, a circular saw, a frame therefor by means of which the saw may be manipulated, a flexible shaft between the motor and saw and a flexible casing for the shaft providing the sole means of suspending the saw from the motor.

1,303,909. **DRAFT-YOKE FOR RAILWAY-CAR DRAFT-RIGGING.** GEORGE A. JOHNSON, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Oct. 25, 1918. Serial No. 127,523. 5 Claims. (Cl. 212-64.)



1. In a draft rigging for railway cars, in combination, a draw bar, a yoke secured to said draw bar, the yoke having a pair of loops, plates pivoted at their ends to said loops, and a pin passing through said plates and through the draw bar.

1,303,910. **METHOD OF AND MEANS FOR MAINTAINING SHIPS AFLOAT.** OLAV JOHNSON, West New York, N. J., assignor of one-half to Bertinus Klavens, Brooklyn, N. Y. Filed Jan. 21, 1918. Serial No. 212,912. 3 Claims. (Cl. 114-68.)



1. The method of maintaining ships afloat, which consists in establishing a normal pressure of predetermined value and greater than atmospheric pressure in each of a predetermined number of interior compartments of the vessel and maintaining such pressure therein in the absence of damage to the walls thereof to produce individual counter-pressure chambers, and rapidly increasing the value of such counter-pressure in connection to the damaging of walls of individual chambers.

1,303,911. **METHOD OF TREATING PYROLUSITE.** CARL VALENTIN JENSEN, Copenhagen, Denmark. Filed Dec. 14, 1918. Serial No. 206,906. 2 Claims. (Cl. 23-12.)

1. The method of increasing the power of reaction of pyrolusite which consists in first pulverizing the pyrolusite, then adding thereto a comparatively small quantity of alkaline compounds, heating the mixture to red heat, and finally washing the product.

1,303,912. **MEANS FOR RAISING SUBMERGED VESSELS BY MEANS OF AVIATING-MACHINES.** HISAO KATAYAMA, Odawara-Machi, Japan. Filed Dec. 17, 1917. Serial No. 207,587. 1 Claim. (Cl. 114-44.)



In an apparatus for lifting vessels, the combination of a tender boat having a cable gripping device thereon, an aircraft for lifting the vessel, and a cable connecting the aircraft with the vessel, said cable passing through the cable gripping device, whereby the cable may be gripped to hold the sunken vessel in raised position, substantially as described.

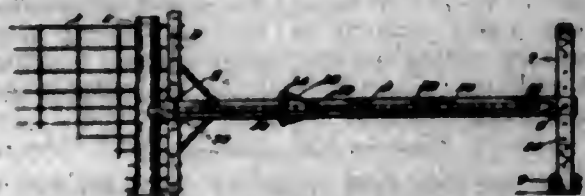
1,303,913. [WITHDRAWN.]

1,303,914. **BLAST-FURNACE.** JULIAN KENNEDY, Pittsburgh, Pa. Filed Mar. 15, 1918. Serial No. 222,566. 8 Claims. (Cl. 206-15.)



1. A blast furnace having a plurality of uptake pipes extending above the top of the furnace proper, a down-comer, and a connection connecting the upper ends of the uptakes with the down-comer, said uptakes having restricted discharge openings leading into said connection, substantially as described.

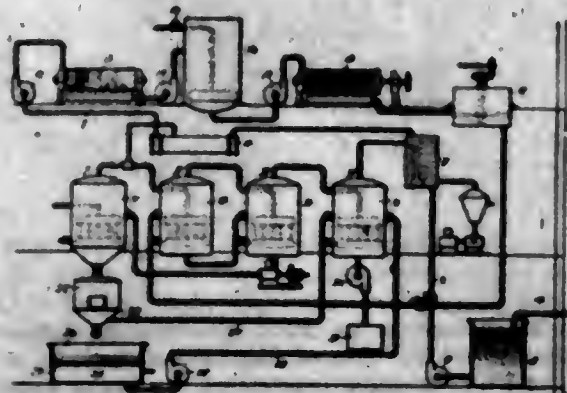
1,303,915. **STRETCHER.** JAMES P. KENYON, Lowell, Ill. Filed Mar. 23, 1918. Serial No. 234,471. 5 Claims. (Cl. 254-71.)



1. A mechanism of the character described, including in combination, a main beam, adjustable supporting means for one end of said main beam, a head member on the other end of the main beam adapted to engage a post, said main beam being provided with a plurality of ratchet teeth, clamping means, a pulley connected to said clamping means and having a flexible element passing therearound, one end of said flexible element being connected to the main beam, a lever to the free end of which the other end of said flexible element is connected, said lever having a pawl and also a latch extending in opposite directions to each other, and adapted to engage the ratchet teeth on said beam.

5. A mechanism of the character described, including in combination, a main beam, an adjustable supporting means for one end of the main beam, a head for the other end of the main beam having a concave portion to engage a post and having a socket portion to receive the end of the main beam, a ratchet plate secured to said main beam, one end of said ratchet plate fitting within the socket of said head, and a single securing means fastening the ratchet plate and the head to the main beam, clamping means adapted to clamp a fence, a pulley connected to said clamping means, a hook member near the other end of the main beam, a single securing means for fastening the other end of said ratchet plate, and said hook member to the main beam, a chain passing around said pulley and having one end engaging said hook member, a lever having a handle part and a yoke part, a hook member mounted between the free ends of the yoke part of said lever, said hook member having a pair of spaced hooking elements adapted to receive one link of the chain longitudinally and the next link of the chain transversely, so as to afford a secure attachment, a loop latch connected to the free ends of the yoke part of the lever and having resilient means for forcing it into engagement with the teeth of the ratchet plate, and a pawl connected to the lever on the opposite side of the main beam and extending in an opposite direction to said loop latch and having resilient means for forcing it into engagement with the teeth of said ratchet plate.

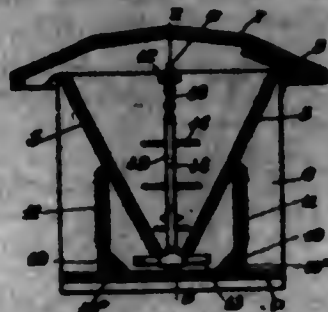
1,303,916. **METHOD OF RECLAIMING POTASSIUM SALTS, &c., FROM SUGAR REFUSE.** MARTIN J. KEMMER, Evanston, Ill., and HENRY A. FAHER, Cincinnati, Ohio. Filed Mar. 15, 1918. Serial No. 222,553. 5 Claims. (Cl. 23-22.)



1. The process of reclaiming salts of potassium and nitrogen, from the waste water from Steffens' process of

refining sugar, which consists in subjecting said water to the effect of sulfuric acid to invert the sugar content and to change the organic and carbonic constituents into sulfates; concentrating the liquor to precipitate the potassium sulfate, then concentrating the residue to obtain the nitrates.

1,303,917. **HOG-FEEDER.** EDWARD A. KLUMP, Pleasant township, Fairfield county, Ohio. Filed Apr. 18, 1918. Serial No. 230,234. 1 Claim. (Cl. 119-53.)



In a hog feeder, the combination with a hopper having a discharge, a feed agitator device consisting of a rigid structure extending upward into the hopper and including a bar provided with cross bars, one of said cross bars being below the discharge of the hopper, and links suspending said rigid structure by its upper end in said hopper whereby the rigid structure may be moved vertically and laterally.

1,303,918. **FILM-CAMERA.** ROBERT KROEDER, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Feb. 7, 1918. Serial No. 218,766. 7 Claims. (Cl. 95-32.)



1. In a folding film camera, the combination with a body and film roll supports at opposite sides thereof for supply and winding spools, respectively, one of said supports being movable axially of the roll, a removable back having a side portion interlocked with the body and also releasable therefrom by the axial movement of said support.

1,303,919. **SPOT-WELDING ELECTRODE.** LAURENCE E. LACHMAN, New York, N. Y., assignor to Universal Electric Welding Company, New York, N. Y., a Corporation of New York. Filed July 10, 1918. Serial No. 245,627. 4 Claims. (Cl. 219-4.)

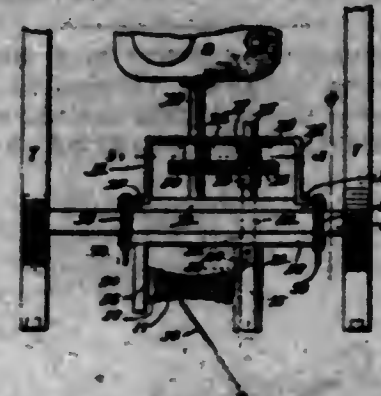


1. A spot welding electrode having a serrated work-contacting face adapted to form a single weld in the work.

1,303,920. **DRAFT ATTACHMENT FOR AUTOMOBILES.** EDWARD B. LA MARCHES and ALFRED APPER, Marietta, Mich. Filed Nov. 8, 1917. Serial No. 200,804. 3 Claims. (Cl. 254-104.)

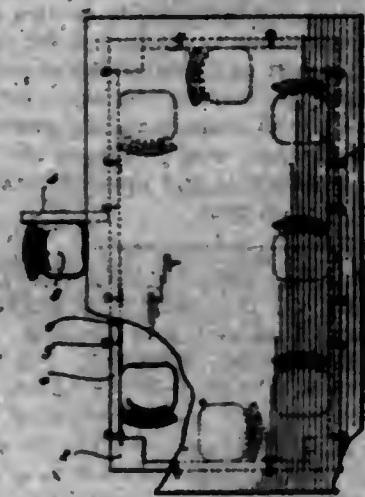
1. A draft attachment for automobiles having a driving section with a bearing, a shaft slidable relatively to the bearing, a gear wheel on said shaft, a spring interposed

ate the gear wheel and bearing, means cooperating with the gear wheel to drive it from the engine, a draft means,



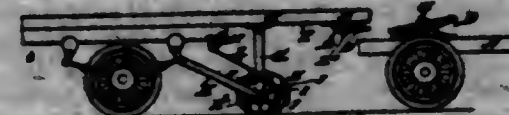
and means to secure said bearing in a position compressing said spring and maintaining the shaft in driving relation with the draft means.

1,303,921. **CHAIR ATTACHMENT FOR TABLES.** GREEN C. LANCASTER, Parma, Mo. Filed Sept. 14, 1915. Serial No. 50,650. Renewed Mar. 6, 1910. Serial No. 261,077. 1 Claim. (Cl. 45-31.)



In a chair attachment for tables, the combination of a top board, supporting legs carried by said top board, walls connected to said top board and said legs, said walls having openings formed therethrough, doors pivotally mounted upon the walls for normally closing the openings therein, a chair having a back thereon fixedly connected to each door, the front portion of said chair extending at right angles to the surface of said door, thus causing the chair to be facing said top board when the door is swung to an open position at right angles to its supporting wall.

1,303,922. **AUTOMATIC SUPPORTING-JACK.** CHARLES H. LAND, Jr., Detroit, Mich., assignor of six-tenths to Benjamin N. Cutting, Detroit, Mich. Filed Jan. 20, 1919. Serial No. 278,723. 6 Claims. (Cl. 254-86.)



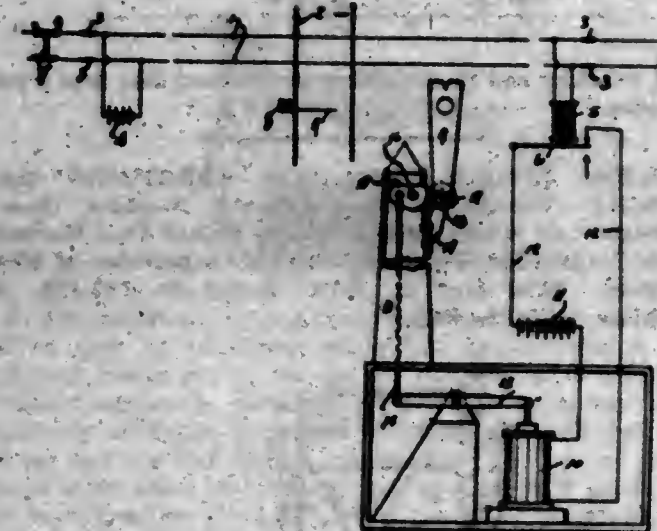
1. In a vehicle, an axle, and a gradually expanding cam composed of separate cam elements carried by said axle adapted to bear upon the road surface, whereby upon being rotated it may lift said vehicle above its normal plane.

6. In a device of the character described, a vehicle having supporting wheels, a swinging leg pivoted to the vehicle in advance of the wheels, means for holding the leg rigid with the vehicle, expanding cam carried by the swing-

242 O. G.-23

ing leg and provided with a plurality of flat faces arranged to engage the road surface when the leg is held rigid with the vehicle, and means for supporting the leg and the cam in an elevated position when the leg is released.

1,303,923. **AUTOMATIC SIGNAL.** WILLIAM LARKIN, Tacoma, Wash., assignor of one-half to John A. Miller, Okanogan county, Wash. Filed Oct. 15, 1917. Serial No. 196,756. 1 Claim. (Cl. 244-130.)



In a semaphore board the combination of a dead light formed of transparent lens of colored glass set in the said board adjacent its outer end, whereby when the board is placed within the path of light from a vehicle headlight the dead light will be visibly illuminated from either direction, and auxiliary dead light swingably suspended from the semaphore board, whereby when swinging within a path of light it will give the illuminated appearance of a swinging lantern.

1,303,924. **FURNACE.** WILLIAM D. LATHAM, Atlanta, Ga. Filed June 10, 1918. Serial No. 239,199. 1 Claim. (Cl. 110-82.)

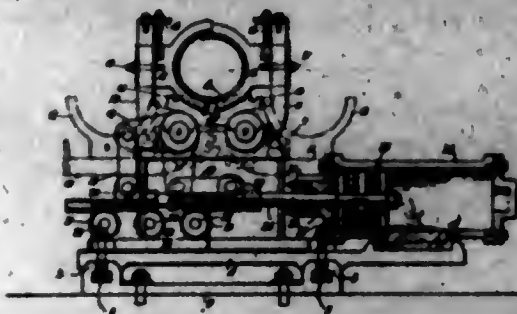


In a boiler furnace having the usual transverse bridge wall beneath its boiler and a smoke flue in rear of said boiler, a divider rising from the midlength of the bridge wall to the boiler shell and of triangular cross section with its apex forward and its base rearward, and a pair of deflecting walls in rear of the bridge wall rising from the bottom of the combustion chamber to the shell of the boiler and converging from the sides of the combustion chamber to the rear and their inner ends beveled at such angle that they in turn diverge to the rear slightly, the opening between such ends being directly in rear of the base of said divider and of an area substantially that of said flue.

1,303,925. **DRESSING SKELP.** JOSEPH W. LATSHAW, Pittsburgh, Pa., assignor to National Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Sept. 19, 1918. Serial No. 254,867. 3 Claims. (Cl. 78-84.)

1. In the manufacture of lapweld pipes and tubes, the steps which consist in bending the flat skelp into substantially cylindrical form with the edges of at least one end

separated, then dressing said end of the bent shaly to thereby bring the longitudinal edges thereof into overlap-



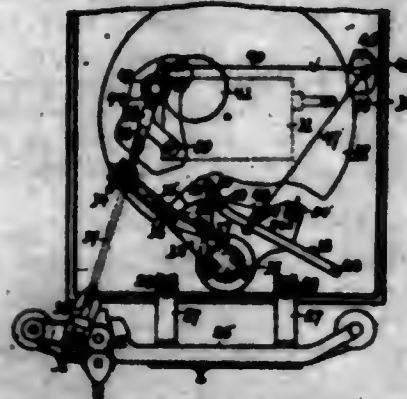
ping relation, and then welding the dressed help into pipes or tubes.

1,808,926. INSOLE-HEEL-SEAT-SMOOTHING MACHINE. BERNARD THOMAS LEBROUX, Wenham, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 21, 1917. Serial No. 187,489. 6 Claims. (Cl. 12-84.)



1. A machine of the class described, having, in combination, a shaft, a cutting tool mounted upon the end thereof, a stationary suction conduit the mouth of which extends around said tool and serves as a gage to limit the depth of cut of said tool, and means for rotating said shaft.

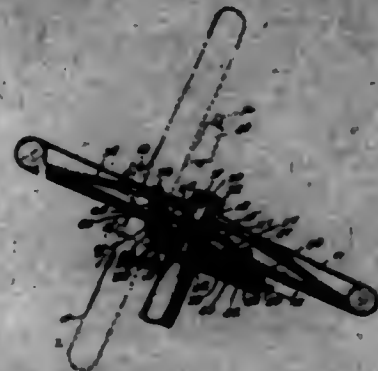
1,808,927. CONTROL MECHANISM FOR PHONOGRAPHIC APPARATUS. FRANK D. LEWIS, West Orange, N. J., assignor to Pathe Freres Phonograph Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 7, 1918. Serial No. 248,716. 12 Claims. (Cl. 274-1.)



1. In a repeat device for phonographs, the combination with a turntable and a tone-arm having a reproducer

thereon, of a toothed segment applied to the tone-arm, and a pivoted lever having a spring-pressed pawl thereon adapted to engage the teeth of said segment.

1,808,928. STEERING DEVICE FOR MOTOR VEHICLES. VICTOR LOUHEM, Chicago, Ill., assignor to Warner Electric Company, Muncie, Ind., a Corporation. Filed Apr. 6, 1917. Serial No. 160,232. 3 Claims. (Cl. 74-32.)



1. In a steering device the combination with a steering post and a steering wheel adapted for connection to such steering post, of a member interposed between the wheel and the post, such member being made in two parts movable relatively to each other and adapted for engagement respectively with the post and hub of the wheel, whereby the relative movement of the said two parts will vary the position of the wheel with respect to the position of the post, and means on the part which engages the wheel hub to engage a spoke of the wheel and prevent rotation of the wheel with respect to such part.

1,808,929. AUTOMATIC MEANS FOR CONTROLLING THE GAS-SUPPLY TO GAS-HEATED WATER-HEATERS. JAMES LOWE, Auckland, New Zealand. Filed Nov. 25, 1916. Serial No. 122,451. 2 Claims. (Cl. 120-351.)



1. In an automatic water heater and in combination, a water pressure reducing device on a water pipe; a gas valve casing on a gas pipe; opposed plungers of unequal area within said gas valve casing; a water pressure pipe from the inlet side of said water pressure reducing device to said gas valve casing opposite the smaller plunger; a water pressure pipe from the outlet side of said water pressure reducing device to said gas valve casing opposite the larger plunger; a gas chamber in said casing and a gas valve operated by the action of unequal water pressures on said plungers to permit the passage of gas through said chamber, and operated by the action of equal water pressures on said plungers to prevent the passage of gas through said chamber.

1,808,930. BABY-CARRIAGE. AUGUST L. LUCAS, New Haven, Conn. Filed Apr. 30, 1918. Serial No. 220,751. 9 Claims. (Cl. 21-12.)

1. In a baby carriage, a supporting frame mounted upon wheels, a second frame pivotally mounted upon said sup-

porting frame, spaced belts mounted upon one of said frames adjacent the opposite ends thereof, and means for



simultaneously moving said belts into and out of engagement with the other frame for preventing gas frame from moving relatively to the other about its pivotal mounting

1,808,931. BURNISHING-MACHINE. THOMAS LUND, Beverly, Mass., assignor, by mesne assignments, to United-Kopite Finishing Company, Barwick, Me., a Corporation of Maine. Filed Nov. 28, 1916. Serial No. 122,967. 23 Claims. (Cl. 12-77.)



1. In a machine of the type described, a shaft, a rotary finishing tool mounted thereon provided with a finishing surface surrounding a chamber, and means for introducing steam into said chamber through the shaft of said tool near one side of the finishing surface, said chamber being provided with an opening near the opposite side of the finishing surface for exhaust of the steam.

1,808,932. MACHINE FOR MOLDING PULP. LOGAN McFARLANE, Halton, near Leeds, England. Filed Nov. 10, 1916. Serial No. 120,571. 3 Claims. (Cl. 92-54.)



1. A pulp-molding machine, comprising a supporting frame, a plurality of radially arranged molds on said

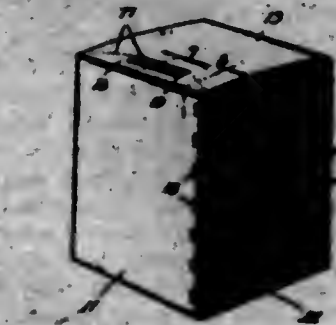
frame, means for filling each of said molds at predetermined intervals, a piston in each mold for compressing the material fed thereto, cams arranged to actuate the piston to compress the material, means for relatively moving the molds and cams and automatic means adjacent to each mold for discharging the finished article therefrom; substantially as described.

1,808,933. JOURNAL-BOX-PACKING RETAINER. JOHN McMULLIN, Buffalo, N. Y. Filed July 5, 1917. Serial No. 178,662. 7 Claims. (Cl. 64-24.)



1. The combination with a journal box having an inner curved face at the lower outer end thereof and a lid pivotally connected at its top to the box, of a packing retainer adjustably attached to said lid at points substantially vertically below the pivotal connection between the lid and box and movable to operative position to press the packing when the lid is closed and movable to an inoperative position when the lid is opened to permit ready access to the packing beneath the journal, the lower portion of said retainer engaging said curved face of the box when the lid is moved to closed position to thereby force the lower portion of the retainer against the packing.

1,808,934. CONTAINER. ALFRED C. MACI, New York, N. Y., assignor to National Blacuit Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 21, 1918. Serial No. 212,883. 5 Claims. (Cl. 220-6.)



1. A container comprising a bottom wall, marginal walls, and a hinged lid, one portion of the same having thereon the name of the articles packed or to be packed in the container and adapted to remain connected with said container when the remaining portion of said lid is removed therefrom.

1,808,935. REFRIGERATOR-BOX. ALBERT MENEICH, Alcega, Wyo. Filed July 9, 1918. Serial No. 244,070. 1 Claim. (Cl. 220-14.)



The combination with an inner and outer casing, one centrally within the other, of covers for said casings respectively, the bottom of the outer casing having an opening, an upstanding flange around the margin of said open-

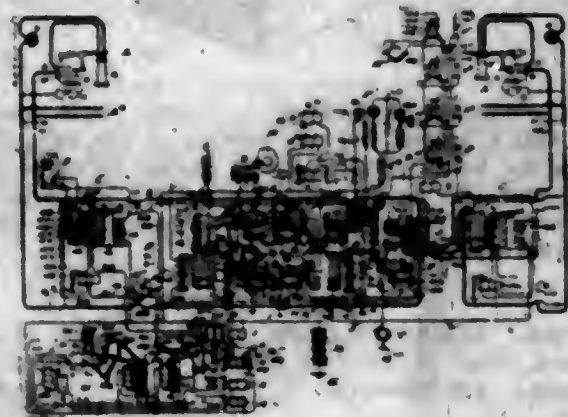
ing, said flange being provided with a shoulder and inwardly and downwardly extending flange, the bottom of the inner casing being conical and of the same taper as the inwardly and downwardly extending flange so that when the lower end of the bottom of the inner casing is placed in the opening formed by the inwardly and downwardly extending flange the inner casing will be guided into its seat by gravity and the inner casing properly seated and means whereby the fluid from both receptacles will drain through the opening in the bottom of the outer casing.

1,303,936. SHARPENING APPARATUS FOR CLOTH-CUTTING-MACHINE KNIVES. HYMAN MAIMIN, New York, N. Y., and WILLIAM J. MARSHALL, Newark, N. J., assignors to H. Maimin Co., Inc., a Corporation of New York. Filed Mar. 22, 1917. Serial No. 156,686. 8 Claims. (Cl. 51-7.)



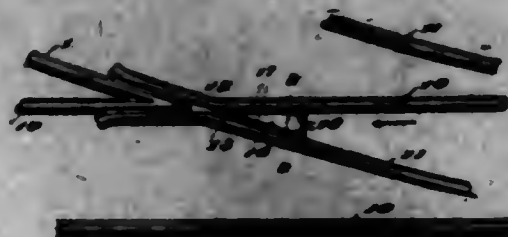
1. In a device for sharpening the chopping edge at the end of a long straight knife for cloth cutting machines by means of sharpening stones adapted to move alternately over a curved path, the combination of a standard, and means for engaging and holding an intermediate portion of the knife at a point spaced from the lower end of the knife the proper distance to position the chopping edge relative to the sharpening device.

1,303,937. TELEPHONE SYSTEM. TALBOT G. MARTIN, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 25, 1914. Serial No. 874,003. Renewed Aug. 1, 1918. Serial No. 247,668. 80 Claims. (Cl. 170-27.)



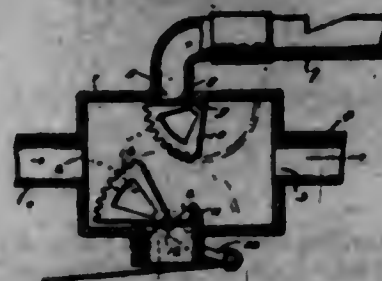
1. In a telephone system, a plurality of trunks each comprising a main circuit and a busy test circuit, means including a plurality of progressively movable trunking switches controlled by a common master switch mechanism, for seizing any one of said trunks and means operable when a trunk is seized for making every other idle trunk busy when the seizure is made, means for releasing the connection comprising a release circuit associated with each trunk, and means for opening the release circuit to initiate the release, said busy test and release circuits having sections in common.

1,303,938. GUARD FOR RAILWAY-FROGS. THOMAS W. MAYO, Springfield, Mo. Filed Jan. 9, 1919. Serial No. 270,346. 2 Claims. (Cl. 246-468.)



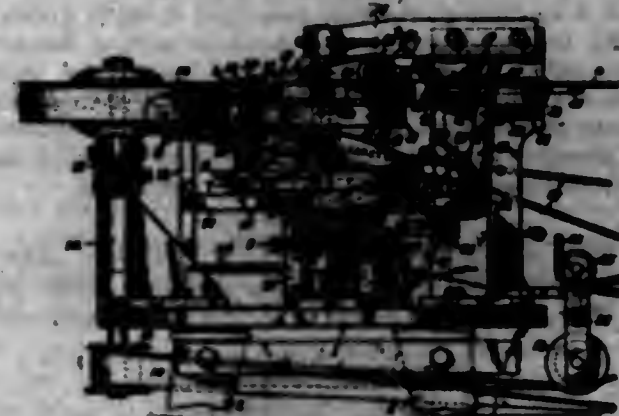
1. A guard for a railway frog consisting of a plate including a frusto-triangular body adapted to be secured within the frog and a boss upon the upper face of the body having vertical side walls that are spaced inwardly from and are respectively parallel to the side walls of the body portion and intersect adjacent the minor end of the body portion, the boss having its base angles cut away with resultant other side walls that converge oppositely with respect to the first named side walls.

1,303,939. COMBINED CUT-OUT AND ALARM. ERNEST MOELLER, Ladell, Kans. Filed Apr. 19, 1918. Serial No. 229,565. 1 Claim. (Cl. 116-1.)



A combined cut-out and alarm comprising a casing adapted to be interposed in the exhaust pipe leading from an internal combustion engine and provided with opposed openings, a cut-out valve closing one of the openings, an alarm valve closing the remaining opening, and toothed segments having connection with the respective valves whereby the cut-out may be independently operated and whereby a continued movement of the cutout valve in the opening thereof results in an opening of the alarm valve.

1,303,940. MACHINE FOR MAKING FOUNTAIN-PEN FEED-BARS. FRANK H. MOONAY, Hinsdale, Ill., assignor to The Conklin Pen Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed Oct. 9, 1917. Serial No. 195,650. 34 Claims. (Cl. 29-38.)



34. In a machine of the class described, means having a cutter and periodically operable to longitudinally groove one side portion of a work-piece carried by said holder when the holder is in one position of its movement, means embodying opposed trimming members and periodically movable transversely of a work-piece to edge-trim the same when the holder is in another position of its movement.

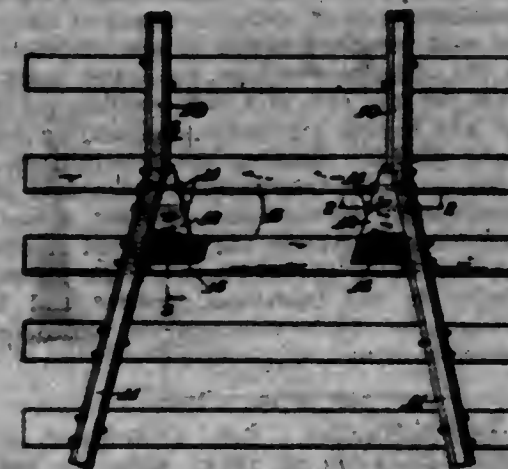
and means for first grinding a side portion of a work-piece in opposition to its curved side and at right angles to its trimmed edges when the holder is in another position of its movement.

1,303,941. HARNESS-GIRTH. EDWARD MORREY, Haskell, N. J. Filed June 11, 1918. Serial No. 239,353. 2 Claims. (Cl. 54-23.)



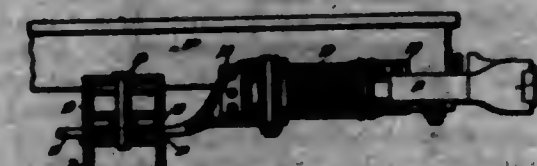
1. A harness girth having branches forming tug-ropes adapted to be secured to the shafts of a vehicle and having its ends extended beyond the branches and crossed under the animal's body and then each secured to the relatively opposite shaft.

1,303,942. RERAILING DEVICE. NICHOLAS E. MURPHY, Milwaukee, Wis. Filed Dec. 31, 1917. Serial No. 209,794. 2 Claims. (Cl. 104-204.)



1. A rerailing device for returning cars to the rails at the end of a track, comprising rail members bent to have their ends diverging from the main track, blocks having tapered sides fitting against the inner faces of the webs of the rails at the bent portions of the rails and having their top surfaces at the level of the wheel flanges when the wheels are on the rails and being of a flaring shape with their flaring ends beveled to form inclined surfaces, and bolts passing through the blocks and the webs of the rails.

1,303,943. FRICTION DRAFT-GEAR FOR RAILWAY-CARS. JOHN S. NAWY, La Fayette, Ind. Filed Sept. 7, 1917. Serial No. 190,223. 5 Claims. (Cl. 213-64.)



1. The combination with a railroad car having a body bolster and a truck having a bolster, of a draft rigging including a slideable member resting on the truck bolster

and in turn supporting the body bolster whereby movement of the member is frictionally resisted by its contact with said bolsters.

1,303,944. COMBINATION PENCIL AND SCRIBE. LLOYD F. NELSON, Seattle, Wash. Filed Oct. 25, 1917. Serial No. 196,516. 2 Claims. (Cl. 120-1.)



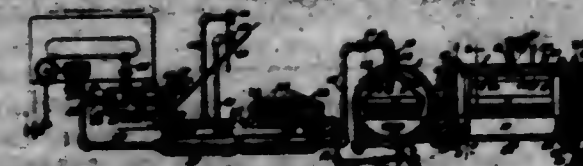
1. In a combination scribe and pencil the combination of a tubular casing having a longitudinal and offset slot extending from one end thereof and a longitudinal slot having lateral extension slots adjacent the other end of the said casing, and in alignment with the first mentioned slot, a tapered and hollow point formed at the end of the said casing which is adjacent the last mentioned slot, a pencil slidably mounted in the opposite end of the said casing, a follower secured to the inner end of a scribe, an extension bar connecting the said follower at one end and adjustably connected to the inner end of the said pencil at the other end, whereby the pencil may be moved longitudinally beyond the end of the casing simultaneously while the scribe is withdrawn within the casing.

1,303,945. APPARATUS FOR CURING HAY, GRAIN, AND THE LIKE. PHILIP J. NICHOLS, Rockford, Ill. Filed Mar. 14, 1918. Serial No. 222,458. 2 Claims. (Cl. 34-24.)



1. An apparatus for curing hay comprising in combination, heat distributing means embedded in the hay, a pipe having a perforated covering to permit the free passage of air therethrough but prevent the entrance of chaff and the like, and an adjustable neck carried by one end thereof.

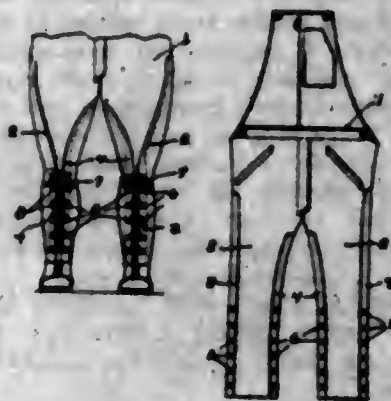
1,303,946. ACETYLENE GENERATING AND SUPPLY SYSTEM FOR AUTOMOBILES. FRANK NORMAN, Des Moines, Iowa, assignor, by direct and mesne assignments, of seven thirty-seconds to William A. McAtee, four thirty-seconds to Alphonso B. Loran, two thirty-seconds to George W. Young, and one thirty-second to William T. Shores, Springfield, Ohio; two thirty-seconds to Clarence H. Nichols, New York, N. Y., and eight thirty-seconds to Otho E. McAtee, Springfield, Mo. Filed June 24, 1916. Serial No. 105,600. 2 Claims. (Cl. 49-1.)



1. The combination with an engine, of an acetylene gas generator, a device operated by the engine for forcing

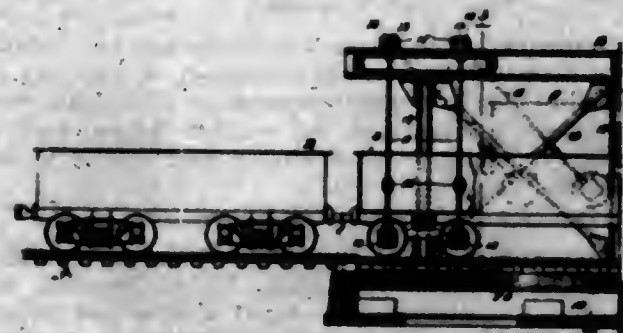
water into the generator, means for supplying the engine with gas from the generator, a device controlled by the pressure of the gas in the generator for preventing the flow of water into the generator, when the gas pressure in the generator exceeds the pressure of the water, and while said first-named device continues in operation, and means for controlling the pressure of the water, whereby said last-named device will be operated by the pressure of the gas to prevent the flow of water into the generator while said first-named device continues in operation, when the desired pressure of gas in the generator is attained.

1,303,947. GARMENT. BENJAMIN NOXON, Denver, Colo. Filed Mar. 13, 1918. Serial No. 222,268. 1 Claim. (Cl. 2-122.)



The herein described overalls having the usual legs terminating substantially at the ankles, each leg having its front and rear breadths extended into two-ply flaps along its inner and outer sides, eyelets disposed in rows along said flaps and passing through both plys thereof, the rows extending from the ankles upward to about the knees, and a lacing for each leg whereby the flaps thereof may be drawn together up the front.

1,303,948. MECHANISM FOR RECORDING ACTIONS OF DRAFT-GEARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Sept. 5, 1916. Serial No. 118,412. 16 Claims. (Cl. 265-12.)



1. In a testing mechanism of the character described, the combination with a framework, of means for normally swingingly supporting a car therefrom, said means being adjustable in length whereby the car may be lowered onto weighing scales, weighing scales associated with said framework by which said car may be weighed, and means for elevating said car while sustained by said supporting means.

1,303,949. SHOCK-ABSORBER. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Jan. 8, 1918. Serial No. 210,882. 4 Claims. (Cl. 21-105.)

1. In a shock absorber for vehicles and the like, the combination with two sets of eccentrically disposed re-

tortable friction plates, of means located at one side of said plates for rotating one set of said plates in one direction upon relative approach of the two members of



the vehicle to be cushioned, and independent means located on the opposite side of said plates for rotating the other set of said plates in the opposite direction upon relative separation of said members.

1,303,950. SHOCK-ABSORBER FOR VEHICLES. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Apr. 1, 1918. Serial No. 228,804. 2 Claims. (Cl. 267-2.)



1. In a shock absorber, the combination with three telescoped members each of which is closed at one of its ends, two of said members facing in one direction and the third in the opposite direction, the latter being telescoped between the first two, of a piston within the innermost member and having a pressure-transmitting rod extending to and directly engaging the intermediate telescoped member, a spring interposed between said piston and the closed end of the innermost member, a centrally disposed check-valve carried by the innermost member at its inner end, and liquid confined between the piston and said check-valve in the innermost member and liquid confined between the check-valve and the closed end of the intermediate member.

1,303,951. PHONOGRAPH. LEO J. O'HEILY, Grand Rapids, Mich. Filed Oct. 23, 1918. Serial No. 289,948. 4 Claims. (Cl. 181-27.)



1. A phonograph horn comprising an outwardly flared bell portion and a curved neck portion both of rectangular cross section, the side walls of the bell and neck portions being integral and formed of soft open grained wood dis-

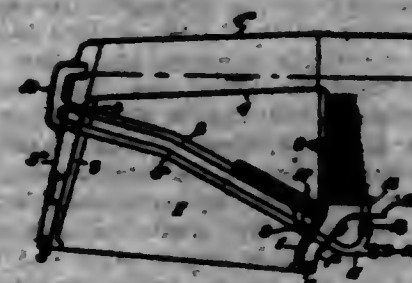
posed with the grain longitudinally of the horn, the top and bottom walls being formed of sections, the outer sections extending substantially to the curve of the horn and being of soft open grained wood disposed with the grain longitudinally of the horn, the curved neck portions being formed of relatively short sections of soft open grained wood and hard close grained wood disposed alternately with the grain of the wood diagonally and the grain of adjacent sections alternating in direction, the inner section of the top wall being of soft wood and the inner section of the bottom wall being of hard wood, the sections joining said outer sections being of hard wood, the several sections being glued edge to edge.

1,303,952. BELT-SHIPPER. OSCAR L. OWEN, Whitinsville, Mass., assignor to Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed July 27, 1916. Serial No. 246,979. 2 Claims. (Cl. 64-4.)



1. A belt shipper comprising a way, a slide supported on the way, means for imparting motion to the slide, an arm integral with the slide, a lever pivotally connected with the arm, belt guiding means attached to the lever and yielding means for limiting the movement of the lever.

1,303,953. CIRCULATION AND FEED DEVICE FOR LOCOMOTIVES. LA GRAND PARIKH, New York, N. Y. Filed Oct. 19, 1914. Serial No. 267,290. 1 Claim. (Cl. 122-62.)

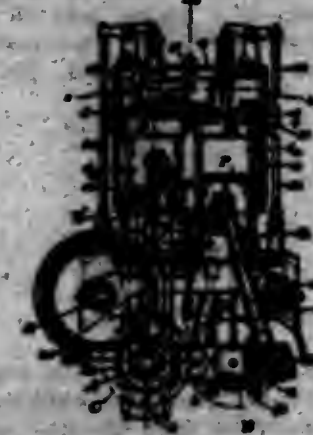


The combination with a locomotive boiler having a fire-box, water spaces, and a normal circulation tube of substantially uniform flow capacity throughout extending through the fire-box rearwardly and upwardly and connecting water spaces to establish normal circulation of water therebetween, of means for utilizing said tube as a heater of feed water comprising a feed water delivery member communicating with the tube at the forward end thereof without restricting the same, whereby feed water may be injected into said tube.

1,303,954. INTERNAL-COMBUSTION-ENGINE APPARATUS. CHARLES F. PARK, Taunton, Mass. Filed Feb. 28, 1917. Serial No. 151,489. 5 Claims. (Cl. 122-56.)

1. An internal combustion engine comprising two parallel crank-shafts, piston and cylinder means associated with each crank-shaft and disposed on one side of the plane of the crank-shafts, means operatively connecting the respective piston and cylinder means with the respective crank-shafts so as to rotate the crank-shafts in

opposite directions, and means for supporting the engine off-center so that the reactions of each piston and cylin-



der means will be directed in the same angular direction around the off-center support.

1,303,955. SEAL. WILLIAM FERRY, Chicago, Ill., assignor to The Acme Car Seal Co., Chicago, Ill., a Corporation of Illinois. Filed June 22, 1918. Serial No. 241,220. 6 Claims. (Cl. 70-90.)



1. A self-locking seal comprising a strap, a forwardly projecting lug on one end of said strap, a shoulder on said strap rearwardly of said lug, a shoulder on the forward part of the other end of said strap adapted to have interlocking engagement with said first mentioned shoulder, a shield struck out from said other end of said strap and adapted to receive said forwardly projecting lug when said shoulders are in interlocking engagement, and a housing surrounding said interlocking strap ends, said shield and housing coacting to prevent access to said interlocking shoulders.

1,303,956. FOOT-REST FOR AUTOMOBILES. JOSEPH POLLAK, Boston, Mass. Filed Feb. 12, 1919. Serial No. 278,735. 10 Claims. (Cl. 74-81.)



2. A foot rest comprising a base, a rocking member pivoted upon said base having parts arranged to support the heel and fore-part of a person's foot, and a springy member support mounted on said rocking member in position to be pressed upon by the instep of each foot.

1,303,957. NAPKIN-CLASP. JOHN H. POOLE, Brockton, Mass., assignor to Brockton Manufacturing Company, Brockton, Mass., a Corporation of Massachusetts. Filed Feb. 8, 1919. Serial No. 278,264. 2 Claims. (Cl. 24-7.)

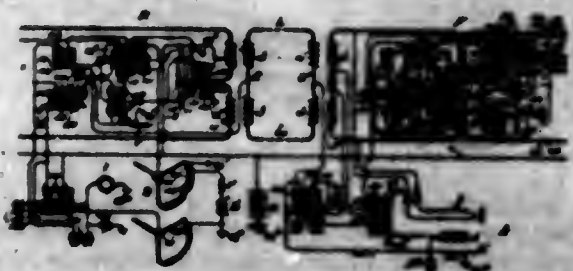
1. A napkin clasp formed from a length of resilient wire, and comprising a neck, two arms connected by the neck, and jaws formed on the ends of the arms, each arm including an inclined portion crossing the inclined portion of the other arm between the neck and jaws, the said arms and neck forming a napkin-receiving opening

having a V-shaped throat formed by said inclined portions, the jaws being separable from each other by inward pressure on the arms, and the arrangement being such that a portion of a napkin may be passed through said opening and another portion interposed between said jaws when the latter are separated, the napkin portion



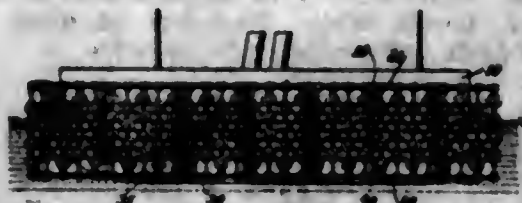
bearing on the inclined portions of the arms forming said throat, acting as a wedge to force said portions outward and the jaws inward, so that the jaws are closed upon the napkin portion interposed between them when strain is exerted on the body of the napkin, substantially as described.

1,303,958. AUTOMATIC TELEPHONE SYSTEM. WINFRED T. POWELL, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed July 19, 1915. Serial No. 40,704. 67 Claims. (Cl. 179-9.)



1. In a telephone system, a toll assessing device, means for controlling said device, a Wheatstone bridge, and other means for unbalancing said bridge for controlling said device through the medium of said first means.

1,303,959. SHIP-FENDER. THOMAS POWELL, Louisville, N. Y. Filed Jan. 29, 1918. Serial No. 214,405. 1 Claim. (Cl. 114-220.)

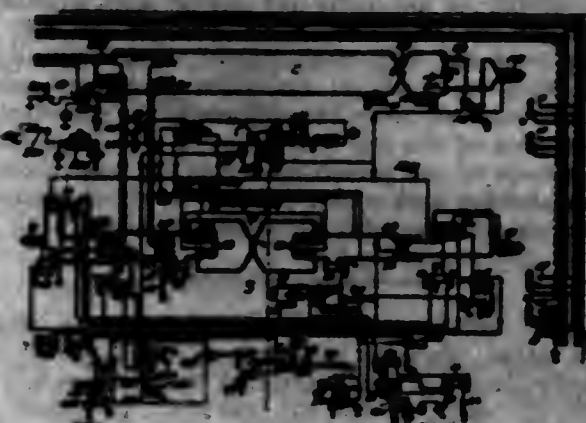


In a ship's fender of the character described, the combination of upper and lower bars encircling the entire hull of a ship with hubs secured upon said bars, arm extensions on said hubs, washer-like rings or ring elements formed with each of said arms, disks adapted to be secured by rivets to said elements, said rings having countersunk openings in the rear part thereof, projections on said disks receivable in the openings of said rings, central seats on said rings, and balls in said seats projecting outwardly slightly beyond the face of said rings, and adapted to rotate on their seats.

1,303,960. CONNECTING-CIRCUIT FOR TELEPHONE SYSTEMS. RALPH L. QUARR, Hawthorne, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed July 19, 1917. Serial No. 181,575. 19 Claims. (Cl. 179-27.)

1. The combination with a connecting circuit having an answering plug and a calling plug, of operator's tele-

phone apparatus, an electromagnetic switch under the control of the answering plug for connecting said telephone apparatus with the cord circuit, and means under



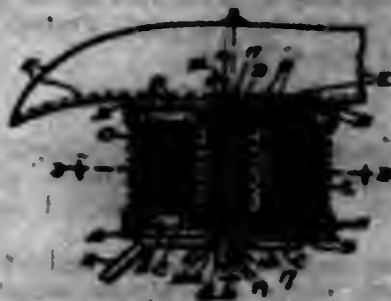
the joint control of the answering plug and the calling plug for rendering the answering plug inoperative to control said electromagnetic switch.

1,303,961. FARMING IMPLEMENT. GEORGE BAUX, Hahn, Tex. Filed June 4, 1917. Serial No. 172,814. 2 Claims. (Cl. 97-21.)



2. In a farming implement, a pair of plow beams having rearwardly and downwardly curved plow standards, plows mounted upon said standard having their land sides facing each other and having upwardly and rearwardly extending arms, adjustable means connecting the corresponding forward ends of said beams and said standards respectively whereby the beams may be adjusted in parallelism toward and from each other and whereby the standards may be separated or brought together more than the forward ends of said beams and vice versa, handle beams having swiveled joints with said arms, whereby the adjacent faces of the handle beams may assume proper angles relative to each other when adjusting the plow beams, right and left threaded rods connecting the handle beams and provided with nuts engaging opposite faces of the handle beams respectively, and bracing links connecting the handle beams and the plow beams for reinforcing the structure.

1,303,962. SPRING-SEAT. LEMON M. RENN, Cleveland, Ohio, assignor to Hattie E. Gynn, Cleveland, Ohio. Filed Feb. 21, 1919. Serial No. 278,423. 6 Claims. (Cl. 158-28.)



1. In a spring-seat, two vertically spaced and oppositely arranged substantially horizontal plates the lower of which is adapted to be mounted on a supporting

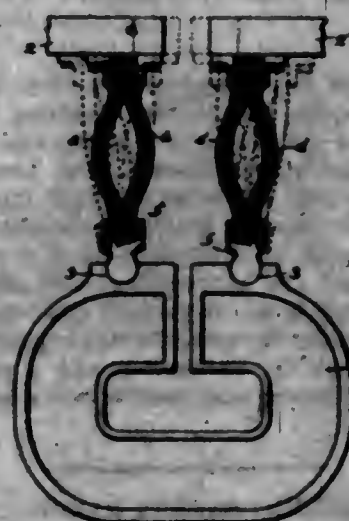
bracket, a nut-proper mounted on and secured to the upper plate, an even number of substantially vertically arranged helical springs interposed between the plates and supporting the upper plate from the lower plate and spaced circumferentially of the space between the central portions of the plates, and means for guiding the upper plate during any movement of said plate toward the lower plate, each plate being provided at the adjacent end of each spring, with a flange extending circumferentially of said spring, and each flange-surrounded spring being removable from between the plates upon regulate compression of the spring toward the lower plate.

1,303,963. ADJUSTABLE ALLIGATOR-WRENCH. FRANK W. RHINIS, Lament, Iowa. Filed July 13, 1917. Serial No. 180,965. 2 Claims. (Cl. 81-113.)



1. An adjustable alligator wrench comprising an integral H-shaped block having an integral threaded stem extending from the web thereof in a plane parallel to and between the arms of the block and at right angles to the extent of the latter, a handle on the free end of the stem, a nut threaded on the stem and having a rounded tapered extension toward the block, oppositely tapered jaws pivoted intermediately of their ends, between the opposed arms of the block adjacent to the extremities thereof at either side of the web and having converging inner faces adjacent to the stem for engagement by the nut so as to move the opposite faces into clamping relation, said web having opposed recesses facing the jaws and the jaws having their inner faces cut away intermediately throughout the web to accommodate the latter and springs seated in said recesses and engaging the jaws at the cut-away portions thereof.

1,303,964. ELECTRIC-WELDING TRANSFORMER. ADOLPH F. RISTEN, Charlestown, R. I., assignor to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed Oct. 2, 1918. Serial No. 258,716. 6 Claims. (Cl. 219-4.)



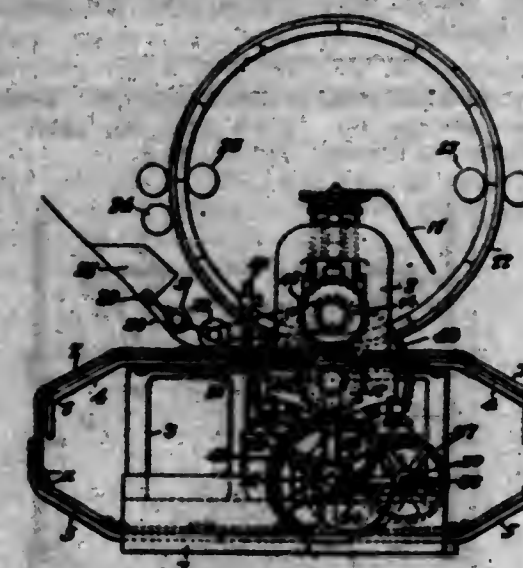
1. In an electric welding transformer, a solid secondary and a flexible conductor hinged to said secondary, said conductor being under tension to maintain a good electrical contact at the hinged joint.

1,303,965. SPARK-PLUG. FRANK ROBINSON, Chicago, Ill. Filed July 15, 1918. Serial No. 180,400. 6 Claims. (Cl. 123-100.)



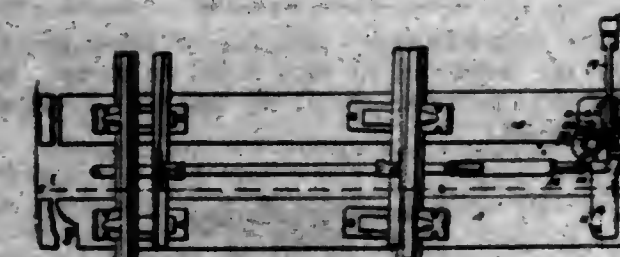
1. In a spark plug of the class described, a sleeve member adapted to be threaded into the wall of the combustion chamber of an engine, an insulating core removably mounted therein, said insulating core having a combustion chamber therein larger than the passage in the sleeve, a spark terminal projecting into said enlarged chamber, a second spark terminal in said sleeve projecting upwardly into said enlarged chamber to a point below said first mentioned terminal, and means mounted thereon to keep said terminals clean.

1,303,966. MACHINE FOR FORMING SHEETS OF PLASTIC MATERIAL. THOMAS ROSE, Milwaukee, Wis. Filed Sept. 18, 1918. Serial No. 254,552. 12 Claims. (Cl. 25-21.)



11. In a machine for forming sheets of plastic material, an endless series of lower molds, a relatively large drum carrying upper molds arranged to cooperate with the lower molds, and means to exert pressure on said drum.

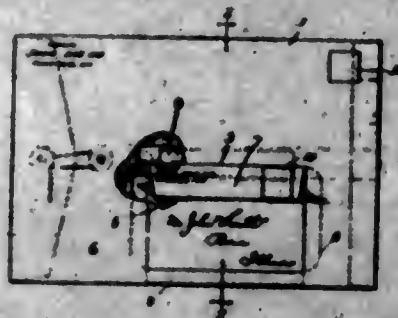
1,303,967. SWITCH-STAND. NEIL E. SALSICH, Bethlehem, Pa. Filed July 17, 1918. Serial No. 245,327. 4 Claims. (Cl. 246-411.)



2. A switch stand comprising in combination, a base plate having an integral vertical pivot post and an annular seat at the base of the post, a two armed lever mounted on said post the lower face of the lever hub

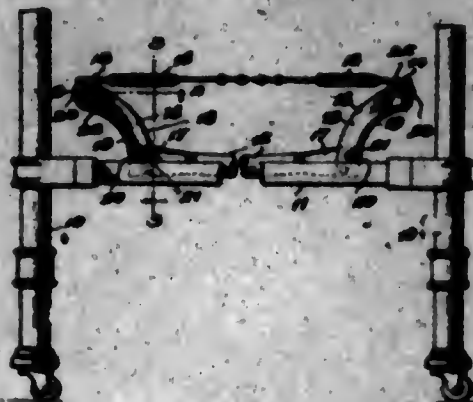
resting on said seat, means on the post to hold the hub against upward movement, a hand lever pivoted on said plate, and means directly connecting the hand lever to one arm of the first lever to swing the latter, the other arm being pivotally connected to the switch operating rod.

1,308,968. DUPLEX ENVELOP. JOSEPH SAWYER, Quincy, Ill. Filed Jan. 21, 1918. Serial No. 212,028. 5 Claims. (Cl. 229-72.)



5. A duplex envelop comprising a relatively large rectangular compartment for holding mail matter less than first class, a relatively small rectangular compartment for a letter on the front of said large compartment, the smaller compartment being entirely within the area of the larger compartment, so that one address applied to the smaller compartment is sufficient for both kinds of mail matter, the two compartments being inseparable, means to accessibly close the larger compartment, and a loose flap on the face of the envelop for non-accessibly sealing the smaller compartment after the insertion of the letter therein.

1,308,969. SPRING-BED CONSTRUCTION. ROBERT W. SCHWAB, Atlanta, Ga. Filed June 15, 1918. Serial No. 240,198. 2 Claims. (Cl. 5-62.)



1. In a bed spring construction the combination with an angle iron end rail of a tubular metal side rail, and a corner bracket formed of angle iron L-shaped in cross section connecting said rails, the end of the tubular side rail being flattened to form a vertical flattened portion, one wing of said L-shaped corner bracket being united to said flattened portion and the other wing of said bracket being riveted to said end rail.

1,308,970. GAS-HEATER. GERHARD F. SCHWARTZ, St. Louis, Mo. Filed Oct. 30, 1915. Serial No. 58,926. Renewed Oct. 29, 1918. Serial No. 280,172. 7 Claims. (Cl. 158-60.)



1. An improved double combustion burner, comprising a primary burner, a top plate over the primary burner in

close proximity thereto, provided with openings for secondary combustion surrounding said burner at a level above the burner top, said plate immediately above said burner being unperforated, and a downwardly extending flange on said top plate, entirely enclosing said primary burner laterally.

1,308,971. CLOTH-MEASURING MACHINE. LEWIS L. SCOTT, St. Louis, Mo. Filed Jan. 29, 1917. Serial No. 145,145. 13 Claims. (Cl. 30-123.)



1. In a measuring and computing machine, the combination with a measuring roller, of a computing chart operated from said roller, said chart having a series of computed prices for each fractional measurement and having said fractional measurements printed on said chart, a casing for said parts and having an opening therein through which a portion of said chart is visible, a series of prices per single yard on the casing, and on each registering wheel directly connected with said measuring roller, said each registering wheel cooperating with the yardage indicated by said chart.

1,308,972. CARBURETOR AIR-INLET. ALFRED A. SEBASTIAN and DELBERT E. CAPES, Chicago, Ill., assignors to A-C Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 20, 1917. Serial No. 165,451. 1 Claim. (Cl. 261-144.)



In a connection for carburetors, an elbow having a large air passage therein, means for clamping to the outlet thereof the fixed air intake of a carburetor, a valve seat flange in the inlet of said elbow, a wall formed integrally with said valve seat flange at one side thereof and having a small inlet passage therein to permit hot air to be supplied constantly to said carburetor, a valve mounted within said elbow and cooperating with said flange normally to close said large air passage and adapted to be operated automatically to open said large passage by the suction draft through the carburetor, and a pipe fitted into the inlet of said elbow and limited in its insertion therein by said wall.

1,308,973. ELECTRIC SAFETY-RAZOR. HANS SEDEN-SUCH, Chicago, Ill. Filed Feb. 23, 1917. Serial No. 180,578. 13 Claims. (Cl. 30-12.)

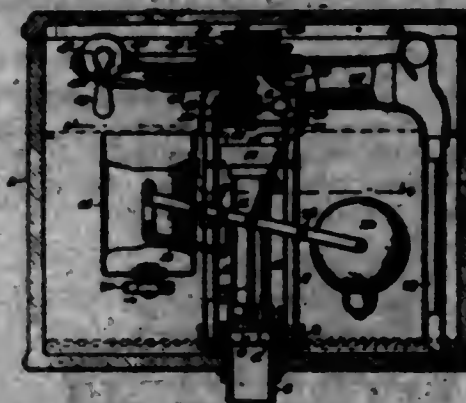
9. In a safety razor, the combination of a handle, a head on said handle, a razor blade, guiding means carried on said head to support said blade for endwise reciprocating movement parallel with the cutting edge thereof,

electro-magnetic means supported by said head to actuate the blade in one direction, spring means to actuate the



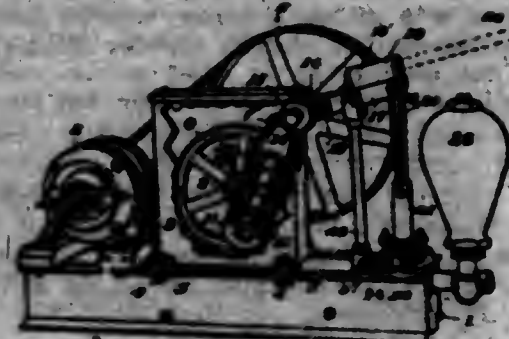
blade in the opposite direction, and a guard for the cutting edge of said blade.

1,308,974. VENTILATING AND FLUSHING APPARATUS. CHARLES E. SHADALL, Milwaukee, Wis., assignor to Shadall Manufacturing Company, Wauwatosa, Wis., a Corporation of Wisconsin. Filed July 23, 1917. Serial No. 182,187. 16 Claims. (Cl. 4-21.)



2. In ventilating and flushing apparatus the combination of a flush tank having a discharge connection; a valve controlling said connection; a ventilator having a water supply connection, a water outlet into the tank, and air inlet and outlet connections; a valve controlling said water supply connection; and a float adapted to open the flush valve and to cause the water supply valve to close when the water rises to a certain level in the tank.

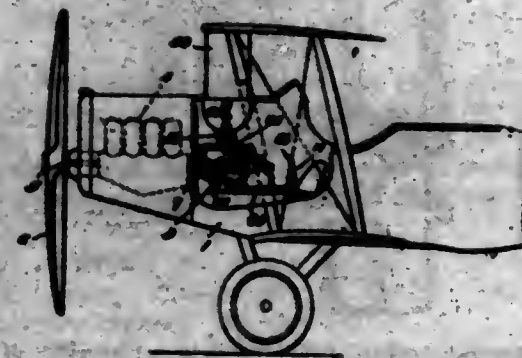
1,308,975. PUMP. WILLIAM A. SMITH, Decatur, Ill., assignor to Lander Iron Works, Decatur, Ill., a Corporation of Illinois. Filed Mar. 15, 1915. Serial No. 14,053. 8 Claims. (Cl. 100-70.)



2. A mechanism of the character described including in combination a base or support, a driving means mounted thereon for operating a pump, a pump rod connected to said driving means, a head secured to said base or support and including a stuffing box for said pump rod, said head

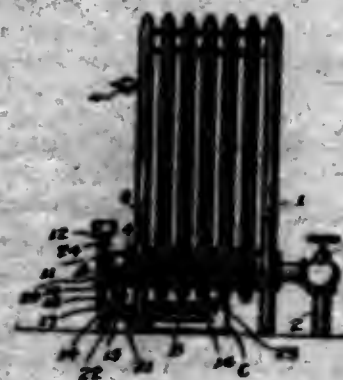
also including a compressor, said compressor including an inlet and compression compartment having an air inlet connection, a discharge compartment having communication with said head and having valve controlled communication with said inlet and compression compartment, a cylinder connected to said inlet and compression compartment and a piston or plunger in said cylinder operated from said driving means.

1,308,976. AIRSHIP ATTACHMENT. DAVID SMITH, Douglas, Wyo. Filed Dec. 12, 1918. Serial No. 268,445. 3 Claims. (Cl. 244-21.)



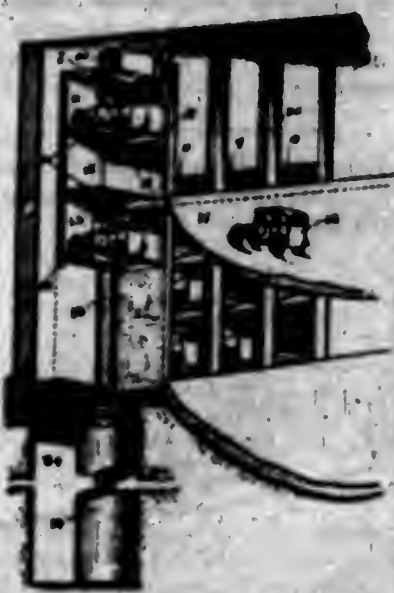
1. The combination with an airship, a windlass, a motor driven shaft, a crank thereon, means operated by the shifting of the crank in one direction for coupling the windlass to the crank, and, when moved in the opposite direction for coupling the crank to the shaft to rotate the shaft, means for coupling the shaft to the windlass, a parachute container, means for ejecting a parachute from the container and a cable upon the windlass adapted to be unwound therefrom by the ejection of the parachute.

1,308,977. HEATING APPARATUS. LEONARD C. SMITH, New York, N. Y. Filed Dec. 26, 1917. Serial No. 208,884. 1 Claim. (Cl. 237-10.)



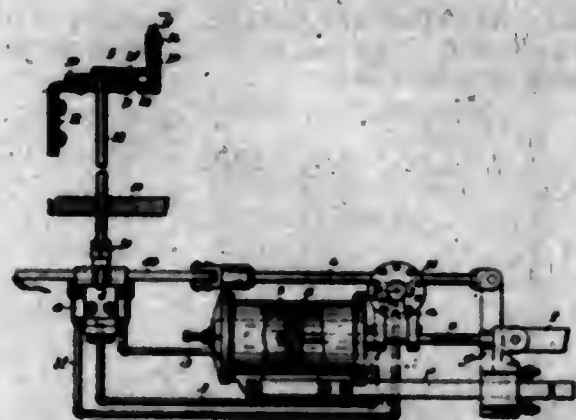
An attachment to be applied to the far end of a radiator for supplying auxiliary heat to said radiator, comprising a plug adapted to be screwed into the aforesaid end of the radiator, said plug having a horizontally disposed conduit therein communicating with the interior of the radiator, a pipe threaded into the underside of the said plug and in constant communication with the said conduit, a horizontally disposed heating coil extending beneath the radiator and having one end connected to said pipe, a head enclosing said heating coil, an upwardly extending pipe screwed into the plug above the horizontally disposed conduit in said plug, the other end of said pipe passing to the interior of the radiator, a horizontally disposed pipe threaded into the plug at the side opposite the said upwardly extending pipe, the two pipes being in alignment and communicating with each other through a conduit in the plug above the first named conduit, connecting means extending between the last named horizontal pipe and the heating coil, and a valve controlled conduit communicating with both the heating coil and the radiator.

1,308,978. VEHICLE-STORAGE BUILDING. MARTIN C. SMITH, Portland, Oreg., assignor of one-half to Charles E. Frasier, Portland, Oreg. Filed May 22, 1917. Serial No. 170,507. 2 Claims. (Cl. 187-1.)



1. A storage building divided into a plurality of respectively adjacent floorless stalls, and having an inclosed pit beneath said stalls; an elevator having a plane unobstructed top thereto in each of said stalls, said elevator top coacting to form the building floor when all of said elevators are in lowered position.

1,308,979. POWER-REVERSE GEAR. JACOB RUSH SYDNER and HARRY W. FLEMING, Pittsburgh, Pa., assignors to Percy H. Donner, Pittsburgh, Pa. Filed Mar. 26, 1917. Serial No. 157,423. 8 Claims. (Cl. 121-96.)



5. A power reverse gear, comprising a fluid pressure motor, a reversing rod operated thereby, a fluid pressure friction lock for locking said rod, means for automatically adjusting the said lock to maintain its gripping action uniformly, and valvular mechanism for controlling the flow of motive fluid to and from said motor and lock.

1,308,980. DISTILLATION-TUBE. FREDERICK W. BRUNS, Jr., Oakmont, Pa., assignor to H. Koppers Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 28, 1917. Serial No. 144,431. 7 Claims. (Cl. 22-3.)



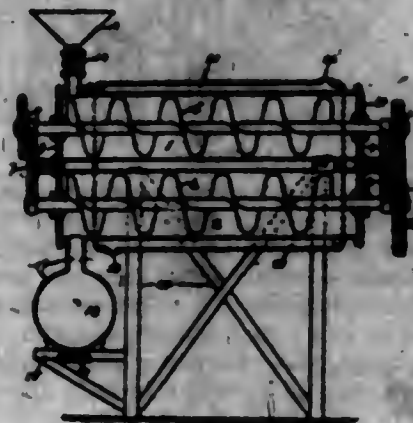
1. A distillation apparatus, comprising an outer tube in which the material to be distilled is placed, and a removable inner tube seated in the outer tube and forming a lining for the portion of the outer tube in which it seats, said inner tube forming a receptacle for the collection of at least a portion of the distillate, substantially as described.

1,308,981. COMBINED SEAT AND DESK. BENJAMIN H. STAFFORD, Glencoe, Ill., assignor to E. H. Stafford Manufacturing Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 22, 1915. Serial No. 46,829. 7 Claims. (Cl. 155-34.)



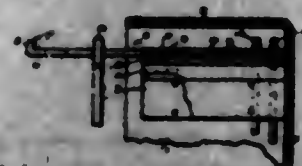
1. In a combined seat and desk, in combination, a frame comprising a pair of side walls and a back, one of the side walls being forwardly extended, a bottom vertically adjustable on the frame, a desk carried by the forward extension of the frame side and being vertically adjustable.

1,308,982. CONTINUOUSLY-OPERATING DRIER. WILLIAM M. STEVENS, Brooklyn, N. Y., assignor to Stevens-Aylsworth Company, New York, N. Y., a Corporation of New York. Filed Apr. 14, 1917. Serial No. 162,084. 7 Claims. (Cl. 34-9.)



2. In a drier, a vacuum cylinder inclined to the horizontal, an inlet receptacle for said vacuum cylinder adapted to receive the material to be dried and provided with a valve for permitting said material to flow continuously by the action of gravity directed to the lower end of said vacuum cylinder without destroying the vacuum therein, said vacuum cylinder being adapted to retain the material to be dried in the lower end thereof until said material has partially lost its moisture.

1,308,983. TRACK FOR TRUNK. CHARLES E. STEVENSON, Mishawaka, Ind., assignor to National Veneer Products Company, Mishawaka, Ind., a Corporation of Indiana. Filed Apr. 24, 1915. Serial No. 23,707. 3 Claims. (Cl. 211-16.)



1. In a trunk, a one-piece sheet metal track conforming in length to the depth of a side of the trunk and

having a supporting part adapted to be directly secured to the trunk body, an integral part projecting from the supporting part at an angle thereto and terminating in a roll whose extreme free edge is bent to almost complete a circle having a continuous slot from end to end between the edge and the body portion of the track, a projection extending into the slot near one end thereof.

1,308,984. SLIDING DOOR FOR CASES, CUPBOARDS, AND THE LIKE. JOHN STOW and HARRY BARTON CHOS, Bradford, England. Filed Sept. 4, 1917. Serial No. 130,595. 1 Claim. (Cl. 20-10.)



The combination of a track provided with a longitudinal groove having gently curved inwardly extending terminal portions and provided between its ends with short branch grooves extending inwardly at right angles to the longitudinal groove, a pair of sliding doors having vertical wheels to run on the track and horizontal wheels to operate in the said grooves, said horizontal wheels being received within the terminals of the grooves and in the said branch grooves when the doors are closed, and rollers carried by the doors and located at opposite sides of the branch grooves and supporting the doors in their closed positions and when the same are moved inwardly and outwardly.

1,308,985. DESK-TRAY SET. FREDERICK L. G. STRAUSS, Green Bay, Wis. Filed Oct. 12, 1917. Serial No. 190,511. 4 Claims. (Cl. 65-58.)



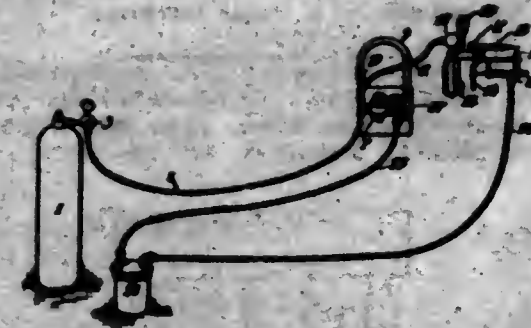
1. In a tray rock, posts each composed of consecutively interconnected sections, and tray-supporting strips fastened to the posts at the junctures of post sections; each strip including a horizontal portion disposed respectively between two post sections and under a tray, and a vertical portion disposed for laterally guiding a tray.

1,308,986. ROLLER SIDE BEARING. ARNOLD STUCKI, Pittsburgh, Pa. Filed May 28, 1918. Serial No. 230,990. 8 Claims. (Cl. 64-64.)



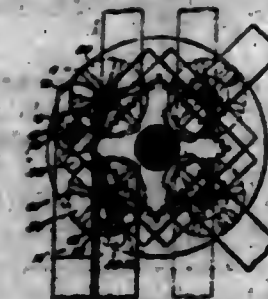
1. In an anti-friction side bearing, the combination with plain flat upper and lower bearing members, of an interposed roller provided with an axle, spring means at each end of said roller and directly connected to said axle and curving to center the roller and hold it against one bearing member, and means on the ends of the axle to retain said spring means.

1,308,987. SPRAYING OR ATOMIZING APPARATUS. BENJAMIN EDWARD STUCKER, Brooklyn, N. Y. Filed May 14, 1915. Serial No. 23,162. 16 Claims. (Cl. 93-45.)



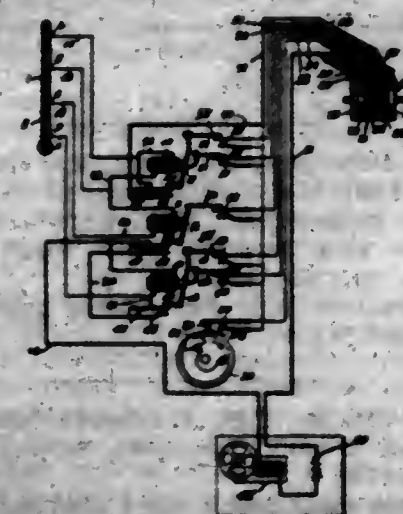
5. In a spraying apparatus of the class described, a stationary receptacle for the material to be sprayed, means for regulating the pressure feed of the material to be sprayed, and body-securing means supporting said regulating means in proximity to the spraying tool.

1,308,988. REVOLVING DOOR. JOHN F. SUNDERLAND, Natick, Mass. Filed Aug. 22, 1916. Serial No. 116,451. 10 Claims. (Cl. 20-18.)



1. In a revolving door, a revolving support, a plurality of wings normally radiating from said support and connected therewith to swing relatively thereto, plates mounted to turn on said support about axes parallel to that of the support, and also movable lengthwise of said axes, springs tending to force said plates lengthwise of their axes toward said support and into holding engagement therewith, and cooperating means on the wings and on the respective plates, normally in engagement to connect the wings with said plates, but adapted to be brought out of engagement to release the wings.

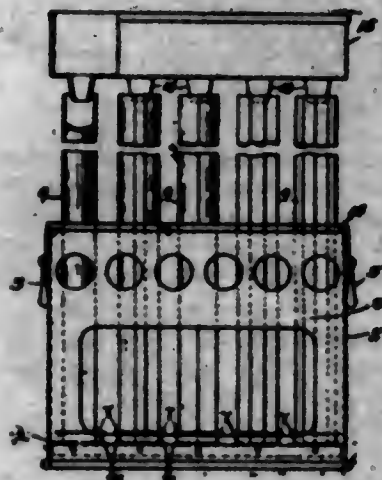
1,308,989. TEMPERATURE-INDICATOR. NATHAN H. SUNSH, Needham, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Filed Feb. 6, 1915. Serial No. 6,575. 11 Claims. (Cl. 177-351.)



1. A signaling apparatus for temperature indicators including a plurality of individualized circuit controllers,

a plurality of circuits controlled thereby, said controllers being simultaneously operable for the transmission of signals over the circuits controlled thereby, and temperature controlled means to select a particular circuit for the transmission of a signal thereover.

1,303,900. HOLDER FOR ICE-CREAM MOLDS. CHARLES B. TELLING, Cleveland, Ohio. Filed Dec. 8, 1917. Serial No. 200,231. 3 Claims. (Cl. 62-141.)



1. A holder for ice cream molds comprising a casing member, a plurality of cups mounted therein, the wall of said casing opposite said cups being provided with apertures aligned with said cups and adapted to cooperate therewith to receive a plurality of tubular molds and maintain the same in parallelism.

1,303,901. [WITHDRAWN.]

1,303,902. APPARATUS FOR MOLDING AND SHAPING HAT PARTS. JULIUS TOWNS, Winthrop, Mass., assignor, by mesne assignments, to Winthrop M. Jameson, Cambridge, Mass. Filed July 1, 1918. Serial No. 242,778. 6 Claims. (Cl. 222-31.)



1. An apparatus of the class described comprising a base mold having a brim shaping section and a tip shaping section, the said base mold having a shoulder to form a head section and having an annular surface extending between said shoulder and the periphery of the said tip shaping section.

1,303,903. REFRACTORY ARTICLE. FRANK J. TONE, Niagara Falls, New York, assignor to the Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed July 26, 1918. Serial No. 246,573. 4 Claims. (Cl. 106-10.)

1. A refractory article containing graphite, sintered magnesia and clay.

1,303,904. CHAIR. CARL J. ULMANN, New York, N. Y. Filed Mar. 8, 1917. Serial No. 153,245. 10 Claims. (Cl. 188-18.)

1. A tilting chair comprising a fixed seat, a back and means on which said chair is supported in a stationary, positive upright position independent of any force exerted by the seat and in a stationary, positive tilted position

independent of any force exerted by said seat and upon which said chair is tilted to and from said positions, said means extending continuously from the front to the



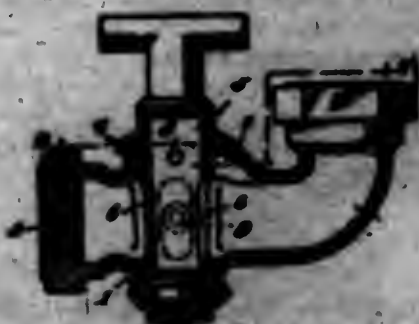
back of the chair and being shaped to cause the center of gravity of the occupied chair to move in substantially straight horizontal lines as the chair is tilted from one position to another.

1,303,905. TIRE. WILLIAM JOHN VINCENT, Cardiff, Wales. Filed Sept. 18, 1917. Serial No. 191,991. 1 Claim. (Cl. 182-16.)



In a vehicle wheel, the combination with a hub and spokes, of a rim, a tire provided with a flat circumferential face, a pneumatic tube inclosed by said tire, means for holding the latter in place on the rim, a tread band stiffened near its inner circumference by fabric and fitted to the flat circumferential face of the tire, perforated guides mounted on said rim and having portions bearing against the sides of said tread band, and metal studs provided in the sides of the said tread band forming a wearing surface for the guiding portions of the said guides.

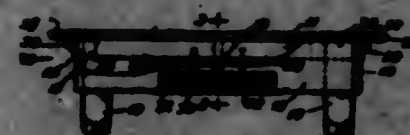
1,303,906. HYDRANT-COCK. WILLIAM VOLKHAUSEN, Stapleton, New York. Filed Jan. 10, 1918. Serial No. 212,677. 1 Claim. (Cl. 281-64.)



A hydrant cock having an inlet, an outlet and a tapered key seat between the inlet and outlet, there being a drain canal in the wall of the outlet and in the large end portion of the tapered key seat, a hollow, tapered key mounted for rotation in either direction upon the

key seat and having diametrically opposed openings movable into register with the inlet and outlet, there being a vent within the casing adapted to register with one of said openings when the key is moved to closed position, there being diametrically opposed waste holes within the large end portion of the key and opening into the space within the key, either of said holes being movable into communication with the canal when the key is brought to closed position, said canal being broadened at that end in communication with the cock outlet and extended partly around the large end portion of the key.

1,303,907. EXTENSION-TABLE. HARRY L. VON THOTT, Fort Madison, Iowa. Filed Jan. 26, 1918. Serial No. 213,085. 5 Claims. (Cl. 45-112.)



5. An extension table comprising in combination a plurality of legs, a table top therefor, a plurality of face boards secured to said legs, a pair of central supports, a detachable leaf adapted for disposition adjacent the table top, a pair of leaf supports movable horizontally to support said leaf adjacent an outer edge of said top, and supporting means carried by one of the central supports to carry the detachable leaf when not in use.

1,303,908. TIRE. HARRY L. VON THOTT, Fort Madison, Iowa. Filed July 28, 1918. Serial No. 246,794. 7 Claims. (Cl. 182-22.)



3. A tire comprising a casing, a flexible valve strip within said casing, having an inflating and a deflating duct formed therein, the said valve strip being easily flexed to conform it to a wheel and bring its ends in juxtaposition, and the walls of said ducts being sufficiently strong to withstand the pressure imposed thereon, a plurality of elastic coils in said casing, and means for establishing communication between each of said coils and each of said ducts, the means for establishing communication between said coils and one of said ducts comprising valves seating toward said coils, and the means for establishing communication between said coils and the other of said ducts comprising valves seating away from said coils.

1,303,909. AIRSHIP. THOMAS E. WARR, Burlingame, Calif. Filed June 26, 1917. Serial No. 176,796. 1 Claim. (Cl. 244-14.)

In an air ship, a longitudinal frame, sustaining planes supported by the front portion of said frame, and stability planes extending transversely from said longi-

tudinal frame and increasing in width therefrom to rear, the rear portions of the stability planes having inner



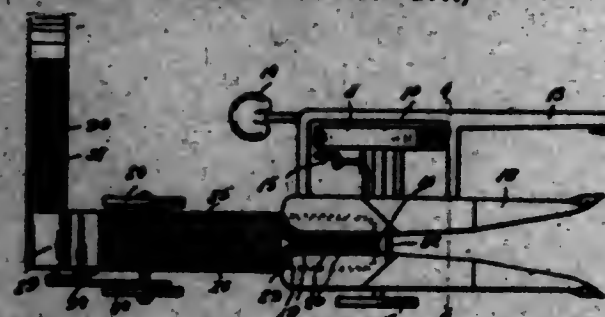
edges diverging from each other and a passenger cabin contained between said inner edges.

1,304,000. MEANS FOR AUTOMATICALLY CONTROLLING ELECTRIC HEADLIGHTS FOR AUTOMOBILES. HARRY B. WALLACE, Paducah, Ky., assignor of two-thirds to Frank M. Fieber, Paducah, Ky. Filed Sept. 27, 1918. Serial No. 32,902. 4 Claims. (Cl. 171-342.)



1. A regulator for an electric circuit provided with a current source subject to great variations in speed, comprising a reactance coil with a normally separated core and armature having these surfaces presented toward each other toothed or corrugated to provide an extended area representing many times the cross-sectional area of the core or armature, the teeth or corrugations on the respective parts being in alternation to intermesh when the armature is brought into close approach to the core.

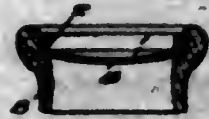
1,304,001. ENSILAGE-CUTTER. WILLIAM F. WARNER, Frederickburg, Iowa. Filed Dec. 29, 1915. Serial No. 69,302. 1 Claim. (Cl. 56-107.)



In a mechanism of the character described, the combination with a chopping mechanism including an ensilage cutting reel having a horizontal axis and knives disposed parallel to said axis, which is transverse to the direction of the conveyor belt, of horizontal rollers in advance of the knives, a horizontal conveyor belt extending forwardly from the feed rollers with its conveying surface above the entering space between the rollers, a baffle plate in front of said rollers and above said conveyor to assist in directing the butts between the rollers, upper and lower conveyor chains in advance of the conveyor belt and substantially in the plane thereof, a stop above the upper chains and extending directly over the space between them and in the path of the upper ends of the feed stalks in advance of the rear ends of the lower chains for stopping the upper ends of stalks contacting therewith, and cutting mechanism in advance of the

chains and from which the chains are adapted to receive the cut stalks, the conveyer belt being of a length less than that of a stalk, whereby the stalks will be slid one from another by the conveyer belt to the feeding rolls, butt end first.

1,304,002. BOTTLE-CAP. HARVEY LAWREN WATKINS, Philadelphia, Pa. Filed Oct. 6, 1917. Serial No. 195,961. 3 Claims. (Cl. 215-101.)



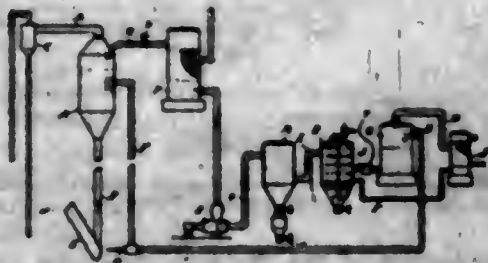
1. A closure cap comprising an annular body portion, a vertically disposed flange formed on said body portion and bent intermediate its ends to provide an obliquely disposed secondary flange.

1,304,003. DRINKING-FOUNTAIN. EARL G. WATSON, Chicago, Ill. Filed Feb. 26, 1915. Serial No. 10,702. 15 Claims. (Cl. 137-100.)



7. A drinking fountain comprising a water supply and waste fixture including a valve casing and a water supply valve therein, a cup, means securing said cup on said casing and rotatable to release the cup for detachment, and means for locking the cup against rotation consisting of interlocking lugs on, and recesses in, the cup and waste fixture.

1,304,004. METHOD OF SEPARATING SOLUBLE BODIES FROM MIXED SOLUTIONS. CHARLES LEWIS WATL, Port Huron, Mich. Filed June 22, 1917. Serial No. 176,259. 4 Claims. (Cl. 23-13.)



1. The method of separating soluble bodies from a mixed solution thereof, comprising precipitating quantities of both salts at one point through evaporation and cooling, adding solvent to redissolve one of said salts, removing the undissolved salt from the solution, heating the solution and precipitating the other salt from heated solution by reduction of pressure and consequent evaporation.

1,304,005. TONE-MODIFIER. HAROLD EDWARD WHITE, Putney, London, England, assignor to The Aeolian Company, New York, N. Y., a Corporation of Connecticut. Filed June 7, 1916. Serial No. 102,262. 4 Claims. (Cl. 181-27.)

4. In combination, a sound-conveying conduit; and sound-modifier means for controlling the size of the

passage-way through said conduit comprising a valve in said conduit; an expandible chamber operatively con-



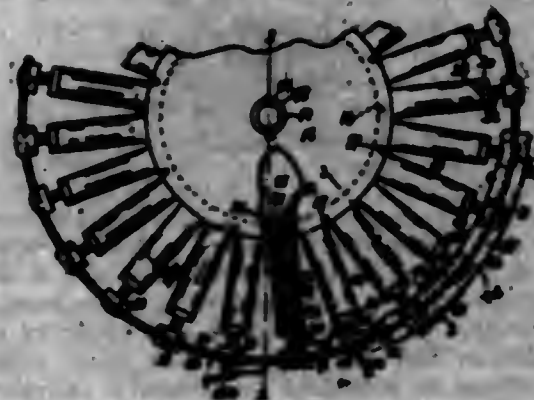
nected with said valve, and a fluid-control means connected with said chamber for at will varying the degree of expansion of said chamber.

1,304,006. STRETCHER. NEWTON WHITMAN and FREDERICK WHITMAN, Omaha, Nebr. Filed June 17, 1918. Serial No. 249,840. 4 Claims. (Cl. 264-102.)



2. A wire stretcher comprising a pair of elongated members arranged in vertically spaced relation when in working position, the forward extremities of said members being provided with an abutting member, a drum rotatably supported by and between the members adjacent the rear extremities thereof, a pair of bolts connecting the members at each side thereof and adjacent the drum, a bearing supported between the bolts of each pair, a shaft supported by the bearings and operatively engaged with the drum, and means for rotating the shaft.

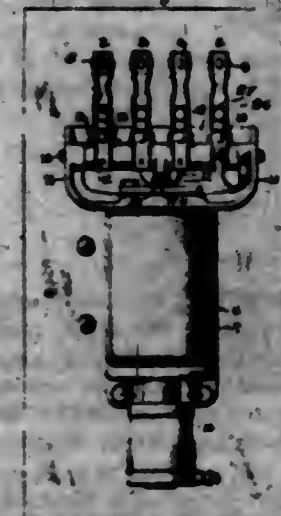
1,304,007. SPRING-WHEEL FOR VEHICLES. ALFRED WICKSTROM and CARL A. BONDSTROM, Minneapolis, Minn. Filed Sept. 3, 1918. Serial No. 252,552. 6 Claims. (Cl. 152-29.)



3. In a spring wheel for vehicles, a hub section having telescopic spokes, each with a slidable member spring-pressed toward the periphery of the wheel, means for limiting the outward movement of said member, a felly section secured to the outer ends of the slidable spoke members and composed of two circular series of segmental spring steel plates each series slidable on the face of the other series and having its plates slightly spaced apart at their adjacent ends, and, except for said spacing each plate of each series extending practically from the middle of one plate to the middle of the next plate in the other series; every other spoke of said wheel having at its outer end means for loosely embracing and guiding the middle portion of one of the inner plates and the adjacent ends of two plates of the outer series; and means carried by the other spokes for keeping together in circular position

the adjacent ends of the plates of the inner series and the middle portions of the plates of the outer series, and means preventing sliding movement of said outer plates relative to said other spokes.

1,304,008. CONTROLLING DEVICE. PAUL H. ZIMMER, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 4, 1915. Serial No. 6,040. 11 Claims. (Cl. 175-281.)



1. In combination, a stationary contact, a cooperating contact element, a pivoted supporting member for said element, the latter also having a bearing upon the former permitting relative movement thereof, and means constantly biasing said element, together with its said supporting member, for engagement of said element with said stationary contact subject to disengagement by operation of said supporting member against the action of said biasing means.

1,304,009. DETACHABLE SPRING-HINGE. GEORGE N. BACCHUS, Wabash, Ind. Filed Oct. 6, 1916. Serial No. 124,188. 1 Claim. (Cl. 16-25.)

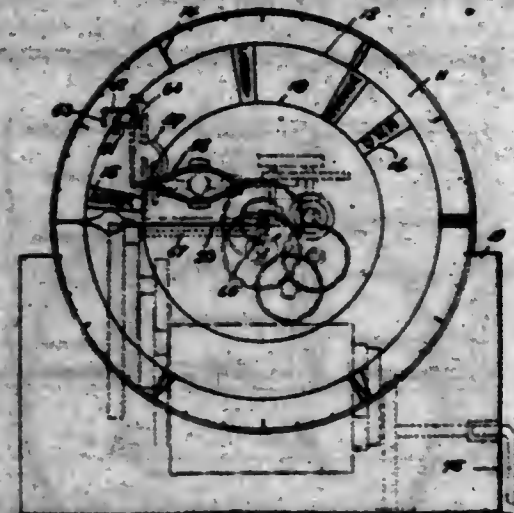


In a detachable spring hinge separable by relative movement of the parts in a vertical plane, in combination with a leaf of sheet metal having its vertical longitudinal edges turned inwardly to provide straight parallel groove-forming retaining lips, the grooves being open at both ends, an attaching jamb plate having straight parallel vertical formations to engage said grooves, and having at its lower end an outwardly turned flange constituting a supporting and stop member for the hinge, and means for securing said jamb plate to a jamb, said leaf having an opening whereby said securing means may be removed or secured while the leaf is in position.

1,304,010. MOVING-PICTURE INDICATOR. LEMOINE J. BACHROTS, Denver, Colo. Filed Nov. 14, 1917. Serial No. 202,067. 8 Claims. (Cl. 161-4.)

1. A time indicating program for moving picture theaters including a dial, a plurality of signs mounted thereon in spaced relation to indicate the title or character of the picture, a hand movable across the dial, a uniformly operating means for moving the hand, means urging

movement of the hand in an opposite direction and means for temporarily disconnecting the hand from the uni-



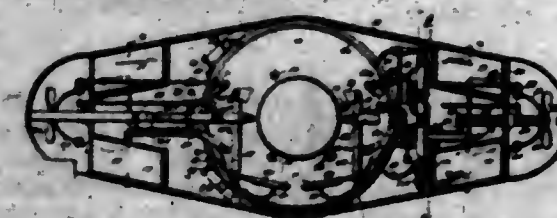
formly operating mechanism whereby to permit the hand urging means to return the hand to initial position.

1,304,011. CUSHION-WHEEL. ALBERT L. BENNETT, Kansas City, Mo. Filed Jan. 27, 1919. Serial No. 273,903. 3 Claims. (Cl. 152-36.)



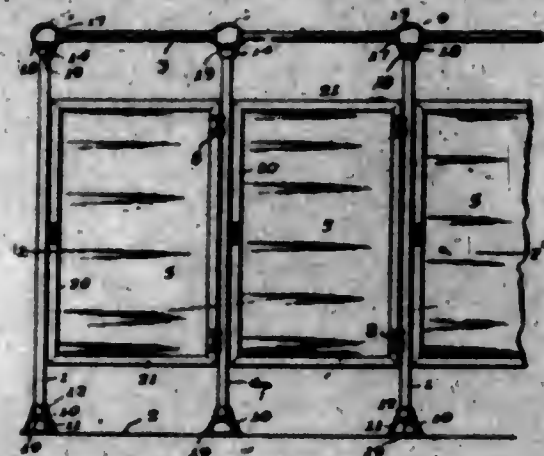
1. A wheel comprising a rim, a felly, a cushion of rubber or similar material fitting between them, guide bars at opposite sides of the cushion overlapping the felly and having their outer ends abutting the rim, the outer ends of said bars having portions extending angularly toward one another between said cushion and rim and fitting the rim, said portions of the bars at one side being secured rigidly to the rim, said portions of the bars at the other side being removable from the rim and cushion, and means removably securing the outer ends of the last named bars to the rim at one side of said cushion.

1,304,012. MACHINE FOR SUBMARINE SALVAGE OPERATIONS. ALEXANDER J. BERGERON, Des Moines, Iowa. Filed May 11, 1916. Serial No. 96,956. 6 Claims. (Cl. 61-7.)



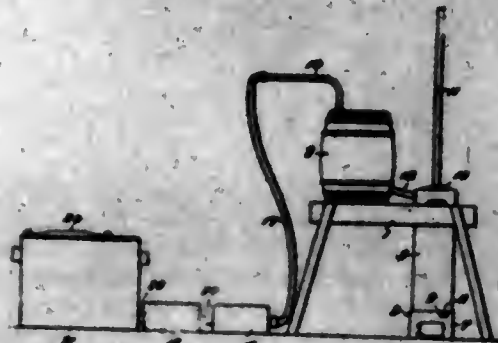
1. In a device of the class described, a water tight chamber, a pair of motive power devices therein, a pair of water pumps outside said chamber, means for operating said pumps from said motive power device, a cylinder having a piston therein, said cylinder being open on one side of the piston to the pressure of the water surrounding the device, means for alternately connecting said piston within said cylinder on the opposite side thereof to the action of the respective pumps, and means for subjecting water passing through said pumps to the cushioning effect of air under pressure, respectively, greater and less than that of the surrounding water.

1,304,013. TOILET PARTITION. CHARLES A. BITE, New York, N. Y. Filed Aug. 6, 1918. Serial No. 246,582. 8 Claims. (Cl. 123-24.)



1. In a toilet partition construction, the combination of a front support, comprising a post rising from the floor, a back support secured against the wall, said supports having flanges projecting toward each other, a sheet constituting a partition, and stiles each comprising side portions embracing a vertical edge of the sheet and the flange of the adjacent support.

1,304,014. CANNER AND EVAPORATOR. WILLIAM E. BISS, Sallisaw, Okla. Filed Mar. 9, 1918. Serial No. 221,505. 1 Claim. (Cl. 120-346.)



Apparatus for the conservation of food comprising a boiler, means for automatically supplying water to the boiler, and connected series of evaporating pans in communication with the boiler and a vat connected with the evaporating pans and receiving the heating medium therefrom, said vat containing a canning tray and a preserving boiler or tank.

1,304,015. KEY-RING HOLDER. JOHN BLUM, Seattle, Wash. Filed Sept. 30, 1918. Serial No. 256,218. 1 Claim. (Cl. 24-2.)



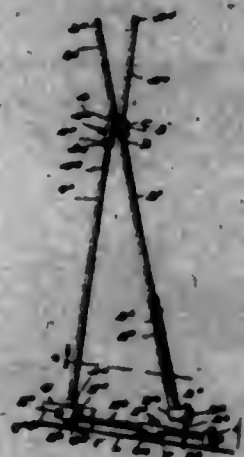
In a device of the class described the combination of a disk having a perforation adjacent its edge, a spring secured to the back of said disk, a bent latch plate in contact with the back of said disk, an open hook integral with said latch plate and projecting through the said perforation in the disk, a spring secured to the back of said disk and engaging said latch plate oppositely the said hook, whereby the open face of the said hook is normally held against the face of the said disk.

1,304,016. FOLDING UMBRELLA. ORLANDO WILKINSON, Bort, Barre, Ohio. Filed Nov. 27, 1917. Serial No. 204,219. 3 Claims. (Cl. 125-26.)



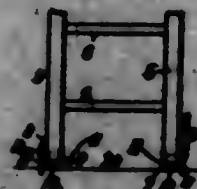
2. In a folding umbrella, the combination, of a stick, a plurality of ribs hinged to the stick, each rib comprising an inner tubular section, having a short slot near its outer end and outstanding ears at opposite sides of said short slot, and an outer section slidable within the tubular section, and stretchers adjustably mounted on the handle at their inner ends and pivoted to said ears at their outer ends, said stretchers having cam heads between said ears adapted to enter the short slots and bind the outer sections of the ribs from turning.

1,304,017. ANGLE FIXING AND TRANSPOSING DEVICE. ARTHUR BROCK, Jr., and LOEWY J. R. HOLT, Philadelphia, Pa., assignors to said Brock, Jr. Filed Mar. 22, 1917. Serial No. 156,562. 8 Claims. (Cl. 33-150.)



1. The combination with a compass having two pivoted legs, clamping means for holding its two legs in any desired angular adjustment, and having one leg extensible in length, of supporting means connected to the other compass leg for holding the latter perpendicular to a surface engaged by said means.

1,304,018. ANTISLIPPING LADDER ATTACHMENT. CHARLES J. BROWN, River Falls, Wis. Filed Feb. 22, 1918. Serial No. 219,874. 5 Claims. (Cl. 228-61.)



1. A ladder attachment comprising two angular plates and means securing one flange of each plate in vertical

position to one side of each rail of the ladder near the bottom end thereof, the other flange of each plate extending horizontally underneath the end of the rail, a call pivoted on the vertical flange and having a sharp end adapted when in a downward position to engage in the surface that supports the ladder, means on the vertical flange for retaining the call in engagement with said surface, and means on the same flange for holding the call out of such engagement.

1,304,019. INTERNAL-COMBUSTION ENGINE. MARVIN H. BROWN, San Francisco, Calif., assignor, by direct and mesne assignments, to H. J. McGinnis, R. O'Connor, and B. M. Vigoroux, San Francisco, Calif., and C. P. Englesten, Oakland, Calif. Filed Sept. 26, 1918. Serial No. 122,300. 4 Claims. (Cl. 123-25.)



2. In combination with an internal combustion motor, a water tank; a three-way valve having a slight feed thereon; a regulating valve controlling said slight feed; a conduit between said tank and the intake manifold of said motor through said regulating valve and said three-way valve and having an air hole therein, and a fuel supply pipe connected to the carburetor of said motor; and a by-pass leading from said fuel supply pipe through said three-way valve to said water conduit.

1,304,020. BOX OR CARTON. HARRY E. CALDWELL, Decatur, Ill., assignor to United States Wire Mat Company, Decatur, Ill., a Corporation of Illinois. Filed Oct. 8, 1917. Serial No. 195,224. 6 Claims. (Cl. 211-22.)



1. A combined shipping and displaying box or carton including top and bottom blank portions having means whereby they may be assembled to form the telescopic parts of a complete box or carton, each of said blank portions having a plurality of slots provided therein and corresponding in position to each other so that an article may be displayed by having a portion thereof passed through the corresponding slots, whereby it is held in an upright display position, the assembled box or carton being adapted to contain the articles for shipment.

1,304,021. FILM-REEL AND CARING THEREFOR. ARTHUR E. CANNON, Monticello, Vt. Filed Apr. 6, 1917. Serial No. 160,508. 10 Claims. (Cl. 308-22.)

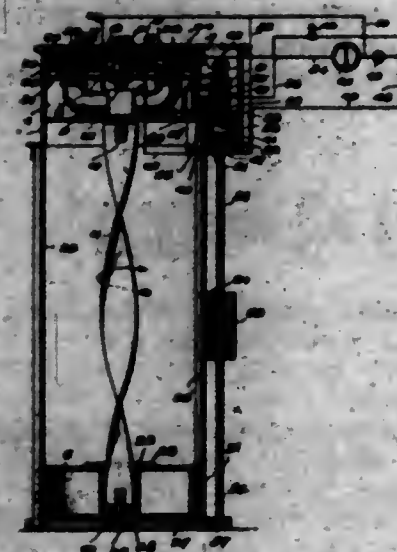
1. A case for a motion picture film consisting of a motion picture reel comprising a hub having attached at each end an impervious metallic disk having its periphery outwardly flared, and means for leading a film around said

hub, in combination with a one-piece metallic band fitting entirely around the peripheries of said disks, provided with specially formed inwardly opening grooves and a wire on each extreme outer edge forming a reinforcing resilient rim for each side of the band, said grooves cooperating



with the flared peripheries of said metallic disks, said band also being provided, at its terminals, with integral tongues which overlap each other, a rivet at the base of each tongue, each tongue having therein a slot which cooperates in sliding engagement with the rivet at the base of the other tongue.

1,304,022. ELECTRICAL INDICATING DEVICE. SAMUEL F. COLE, Parcellville, Va. Filed May 25, 1915. Serial No. 80,335. 18 Claims. (Cl. 177-351.)

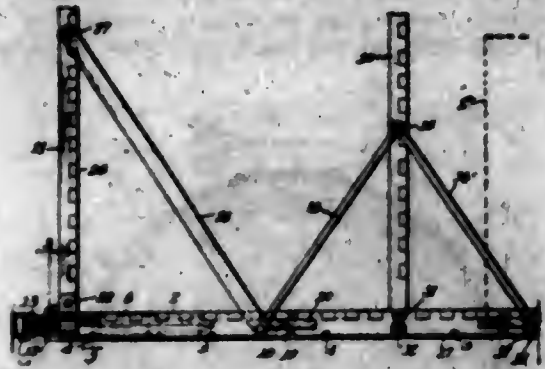


1. In an indicating device the combination with a source of electrical energy and a circuit from said source of a means for producing variations in the current in said circuit proportional to variations in the quantity of liquid to be indicated, means responsive to the current in said circuit for indicating the variations thereof in terms of units of the quantity to be indicated and an impervious member disposed between the first named means and the surface of the liquid to hermetically separate same.

1,304,023. FREIGHT-CAR. JAMES M. COLMAN, Montreal, Quebec, Canada. Filed June 3, 1915. Serial No. 32,022. 7 Claims. (Cl. 105-374.)

1. The combination with a freight car having longitudinally extending bottom sills, of a cradle mounted in said car and movable longitudinally therein, shock absorbers for said cradle comprising shock-absorbing cyl-

inders mounted at each end of the cradles, pistons operating in said cylinders and springs stationarily secured



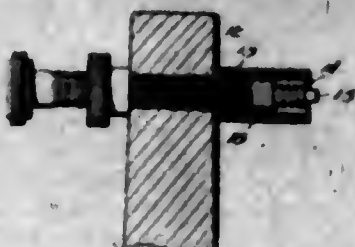
to the sills of the car and connected to the piston rods of said pistons.

1,304,024. PROTECTOR. WALLACE L. COOK, Chicago, Ill. Filed Feb. 9, 1917. Serial No. 147,547. 4 Claims. (Cl. 175-273.)



1. A pencil fuse having an end cap, said end cap being punched from a single piece of metal and having an annular skirt portion adapted for association with the tube of said pencil fuse, and having a flattened extension adapted for association with a contact terminal, said end cap being hollow throughout and of greater internal width than the fuse wire to permit of the repeated insertion and withdrawal of a fuse wire throughout the length of said cap.

1,304,025. TELEGRAPH SENDING-MACHINE. WILLIAM C. COZAD, Chicago, Ill., assignor of one-half to Arthur T. Moloney, Chicago, Ill. Filed Feb. 12, 1918. Serial No. 216,702. 1 Claim. (Cl. 178-82.)



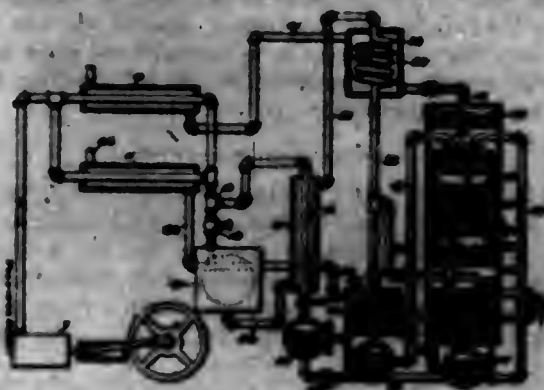
In a telegraph sending machine, a vibratory member having a rigid contact, a contact engageable by said rigid contact, a support, a screw carried by the support, a spring carried by the screw and projecting therefrom, the second-mentioned contact being carried by the outer end of the spring and a sleeve carried by the screw and housing the spring, the last-mentioned contact projecting from the sleeve.

1,304,026. UNLOADING OR DISCHARGING DEVICE. HENRY JAMES CRAYMER, Peckham, London, England. Filed July 22, 1918. Serial No. 246,118. 7 Claims. (Cl. 214-65.)



1. An unloading or discharging device comprising a plurality of load-carrying platforms and platform connecting means adapted to guide said platforms into shunting, superimposed positions during unloading or discharge.

1,304,027. METHOD OF SEPARATING MIXED GAS. CHARLES F. CROSBY, Malden, Mass., assignor to Geoffrey L. Cabot, Boston, Mass. Filed May 31, 1918. Serial No. 287,415. 3 Claims. (Cl. 183-115.)



1. A process of separating a mixed gas, as air, comprising the following steps:—compressing and cooling the mixed gas, expanding a portion thereof, liquefying the remainder by thermal contact with the expanded portion, thereafter cooling the expanded gas by the waste gases or vapors of the rectification process about to be referred to, liquefying the cooled gas by evaporating the liquid resulting from the rectification process, and effecting rectification by causing both quantities of liquefied gas to descend in countercurrent to the gases or vapors arising from such evaporation.

1,304,028. GASOLINE-DISPENSING DEVICE. EUGENE CHOVAN, Wichita, Kans. Filed July 29, 1918. Serial No. 247,364. 1 Claim. (Cl. 221-60.)

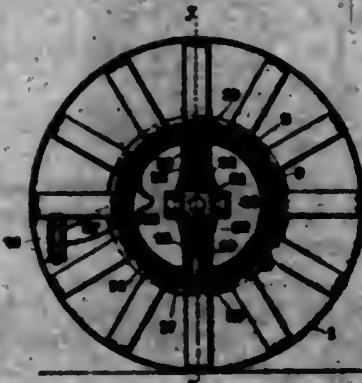


A liquid dispensing device comprising a transparent container provided with graduations, a member disposed below and communicating with said container, a pipe extending through said member in spaced relation to the walls thereof to provide an annular chamber and extending into and terminating at the upper portion of said container, a valved discharge pipe communicating with said chamber, a supply pipe communicating with said chamber, means for supplying liquid under pressure into said supply pipe, and an overflow pipe communicating with said first named pipe, and valved means establishing communication between said chamber and said last named pipe.

1,304,029. DIRIGIBLE DRIVING-WHEEL. JOSEPH DAIN, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Apr. 4, 1914. Serial No. 839,654. Renewed Oct. 12, 1918. Serial No. 287,876. 1 Claim. (Cl. 186-42.)

The combination of the hollow axle 18 having two diametrically opposite arms, the wheel having a hub com-

posed of the larger cylindrical part 2, the smaller outer cylindrical part 3 connected by the web 4 to the part 2, the cap 5 detachably secured to the said web 4, the intermediate cylindrical axle extension having the larger part 9 adjacent to the part 2 of the hub and the smaller outer cylindrical part 10 integral with the part 9 and adjacent to the smaller cylindrical part 3 of the hub and formed with the arms 18, the pivot pins 20 hinging the axle arms to the cylindrical part 9 and the arms 18, the axle arms.



lying entirely inside of the part 9 of the said axle extension, the driving shaft 24 universally hinged to the cap, the outside ball bearings 21 arranged in circles of short radii in planes outside of the pivot pins 20 and the roller bearings 14 arranged in transverse planes inside of the said pivot pins and in circles of long radii in which they travel around the axle arms, and the steering arm 27 rigidly connected to the larger cylinder 9 of the axle extension.

1,304,030. TREATING HIDES AND SKINS. RAUL RIBEIRO DA SILVA, Rio de Janeiro, Brazil. Filed Dec. 10, 1918. Serial No. 266,984. 7 Claims. (Cl. 146-2.)

5. A method of preserving untanned hides and skins which comprises subjecting the hides or skins to the action of a copper sulfate solution and subsequently drying the hides or skins.

1,304,031. CARD OR TICKET HOLDER FOR RECEPTACLES. OWEN S. DAVIS, Zanesville, Ohio. Filed Feb. 24, 1918. Serial No. 60,365. Renewed Feb. 24, 1919. Serial No. 278,938. 1 Claim. (Cl. 40-11.)

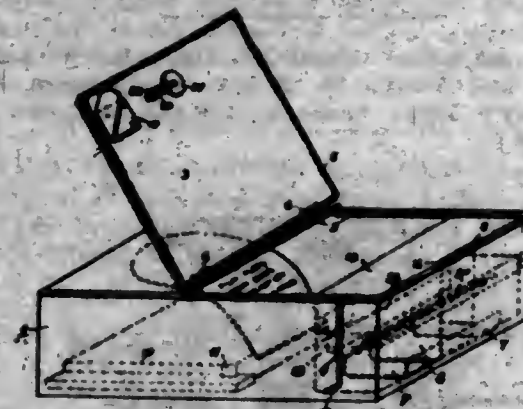


In combination with a milk can cover having a vertical wall, a clamp comprising an arcuate coil-bearing clamp member adapted for yieldable and intimate engagement with said wall, said clamp having its coil terminals seated in arcuate recesses provided in said wall, and openings in said wall to receive split rings which surround the terminals of the clamp for securely holding them in place.

1,304,032. MEANS AND METHOD FOR DEVELOPING PHOTOGRAPHIC FILMS. PHILIP E. ROEMER, St. Paul, Minn. Filed Sept. 12, 1918. Serial No. 50,458. 35 Claims. (Cl. 95-64.5.)

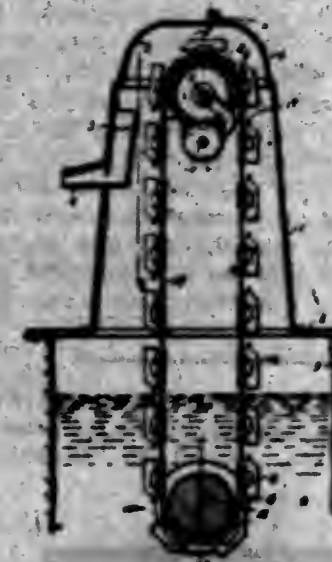
1. Means for treating a film of a film pack which comprise a container adapted to receive a film pack, a wind-

ing shaft in relation therewith and having means to engage the paper extension belonging to said film, and an



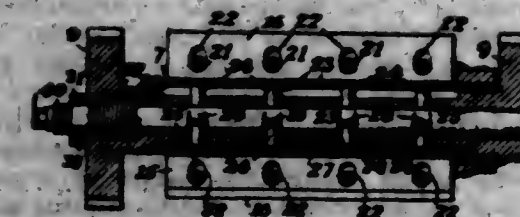
auxiliary container included by said first container and in turn including said winding shaft.

1,304,033. CHAIN-PUMP DRIVING MECHANISM. WILLIAM F. EDMONSON, Wellington, Kans. Filed Nov. 12, 1917. Serial No. 201,539. 1 Claim. (Cl. 74-7.)



A chain pump driving mechanism comprising a drive shaft provided with a sprocket having the pump chain trained thereon, a gear mounted on the shaft adjacent the said sprocket and carrying a pawl suspended from the shaft to swing at one side of the said gear, a second shaft provided with a pinion meshing with the said gear and having its teeth adapted for engagement with the end of the said pawl to permit movement of the pinion only in one direction.

1,304,034. SHEARING MECHANISM. VICTOR E. EDWARDS, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Aug. 22, 1916. Serial No. 116,397. 15 Claims. (Cl. 164-68.)



1. A shearing mechanism comprising a rotating head, a radially movable knife carried by said head, a rotatable

gag member to move said knife radially outward, and means for establishing and disestablishing a driving connection between said head and said member.

1,304,035. RAILWAY-CROSSING SIGNAL. WILLIAM F. ENOLAN and JULIUS M. RUDY, Los Angeles, Calif. Filed July 9, 1917. Serial No. 179,553. 1 Claim. (Cl. 246-128.)



A crossing signal comprising a stationary supporting structure located at either side of a roadway which it is desired to protect and extending across said roadway at a sufficient height to give ample clearance to the traffic on said roadway; a cross bar substantially parallel with the surface of said roadway and of sufficient length to cover the major portion of the width of said roadway; a series of pendant lanterns on said cross bar; two pulleys each secured to said structure over said roadway, said pulleys being separated from each other by a distance slightly less than the length of said bar; two flexible cords each secured to said bar near the end thereof and each passing through one of said pulleys; winding means secured in said structure for raising and lowering said cross bar in a position substantially parallel to the surface of said roadway by winding up or unwinding said flexible cords each substantially the same distance and means for arresting the movement of said bar at a sufficient height above the roadway to allow vehicles to pass under said pendant lanterns.

1,304,036. ANTIBURST-TUBE FOR LINING WATER-PIPES. WILLIAM ESHLEBY, Calgary, Alberta, Canada. Filed Apr. 26, 1918. Serial No. 230,991. 1 Claim. (Cl. 137-71.)

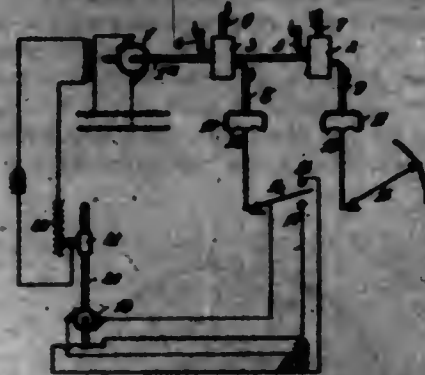


An anti-burst lining tube adapted to be inserted into an ordinary water pipe, said tube being metallic and having longitudinal corrugations, the outer portions of the said corrugations engaging the inner surface of the pipe, the ends of the lining tube being circular and of a diameter equal to the interior diameter of the pipe and being welded or soldered to the inner surface of the pipe whereby to retain an air cushion between the tube and the pipe.

1,304,037. APPARATUS FOR QUANTITATIVELY ANALYZING GASEOUS MIXTURES. HANA GUMINSKY, Schmargendorf, near Berlin, Germany, assignor to Siemens & Halske, A. G., Berlin, Germany, a Corporation of Germany. Original application filed July 18, 1913, Serial No. 779,883. Divided and this application filed June 26, 1914, Serial No. 847,473. Renewed Oct. 3, 1918. Serial No. 256,764. 2 Claims. (Cl. 23-3.)

1. Apparatus for quantitatively analyzing gaseous mixtures containing known constituents comprising in combination a pair of gas centrifuges, means for rotating them at the same speed, means for supplying a gaseous mixture to be analyzed and a comparison gas at the same pressure and temperature to said gas centrifuges respectively, and separate means controlled by the pressure of the gaseous

mixture and the comparison gas respectively, at corresponding parts of the centrifuges, for indicating the respective pressure of the gaseous mixture and for regulating the speed of said centrifuges in accordance with the pressure of the comparison gas.



2. In an internal combustion engine, a cylinder having a head-wall provided with a bore communicating with the piston chamber, a valve seat plug in said bore, said plug having a passage, a cylinder head secured over the cylinder head-wall, inlet and exhaust ducts adapted to communicate with said bore and a rotatable valve between the cylinder head and the head-wall and cooperating with said ducts and said valve seat plug for controlling the admission and exhaust functions of the engine, said plug having surface portions exposed to atmospheric pressure through the inlet and exhaust ducts.

1,304,038. DENTAL PLATE. ADOLPH J. GLASSER, Comfort, Tex. Filed Mar. 22, 1919. Serial No. 284,445. 1 Claim. (Cl. 32-4.)



A dental plate formed with a suction device, and having spaces in its lateral portions between said suction device and the gum-channels of the same.

1,304,039. INTERNAL-COMBUSTION ENGINE. MARTIN GOLASCHUK, Kansas City, Mo. Filed Mar. 28, 1918. Serial No. 234,616. 14 Claims. (Cl. 128-80.)

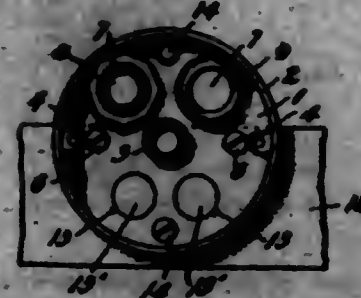


1. In an internal combustion engine, a cylinder having a head-wall provided with a bore communicating with the piston chamber, a valve seat plug in said bore, said plug having a passage, a cylinder head secured over the cylinder head-wall, inlet and exhaust ducts adapted to communicate with said bore and a rotatable valve between the cylinder head and the head-wall and cooperating with said ducts and said valve seat plug for controlling the admission and exhaust functions of the engine, said plug having surface portions exposed to atmospheric pressure through the inlet and exhaust ducts.

1,304,040. OUTLET-BOX. ALBERT GUTH, Perth Amboy, N. J. Filed May 1, 1916. Serial No. 94,562. 4 Claims. (Cl. 247-6.)

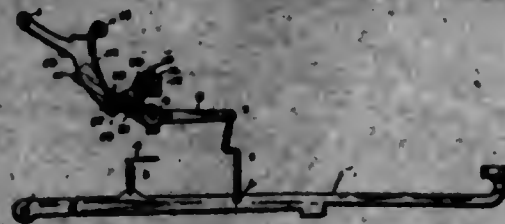
2. An article of manufacture consisting of a shallow metal outlet box having a bottom, a circular wall, a central screw-threaded stud having sides substantially in line with its screw-thread and rising abruptly from said bottom, and two diametrically disposed internally projecting

lugs extending from said bottom approximately to the top of said wall, all formed of a single casting and integral with each other, said bottom having a pair of screw holes located respectively on opposite sides of said stud and removed from said lugs so as to be axially accessible, two large conductor holes located on one side of the line connecting said screw holes and two smaller conductor holes located on the other side of said line and removed



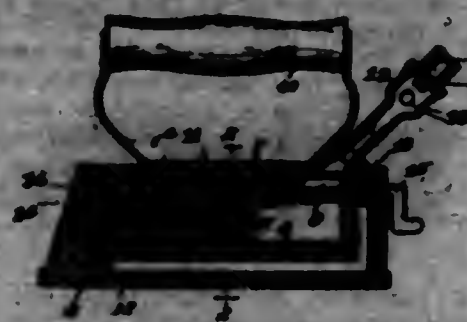
therefrom, said large conductor holes being removed for a considerable distance from said line and from said stud, wall and projections, the angles between said line and the radii passing through the center of said stud and the centers of said large holes respectively being greater than 45°, and two other screw holes in a line passing through said stud at right angles to the line connecting said other screw holes and also removed from said lugs so as to be axially accessible.

1,304,041. CASE-SHIFT MECHANISM. JOHN A. HAGGARD, Scranton, Pa., assignor to Victor Typewriter Company, Scranton, Pa., a Corporation of New York. Filed Aug. 31, 1917. Serial No. 180,107. 4 Claims. (Cl. 197-79.)



1. In a typewriter, an oscillatable lever adapted to impart the case-shift movements to a typewriter carriage, a second lever oscillatably engaging the first lever, a movable arm adapted to lock the first mentioned lever against movement, means interengaging between said arm and the second mentioned lever for releasing the first mentioned lever, and a case-shift key lever connected to the second mentioned lever.

1,304,042. APPARATUS FOR BURNING GAS. CHARLES KNOX HARRIS, Chicago, Ill. Filed Dec. 31, 1914. Serial No. 878,455. 9 Claims. (Cl. 155-23.1.)



1. An apparatus for burning highly inflammable gaseous mixtures with a flame comprising the combination of a mixing chamber, means for passing a combustible mixture of gas and air therethrough, and a flame intercepting diaphragm for localizing the flame of burning gaseous mixture at one side thereof, and outside the mixing chamber,

said diaphragm having preformed perforations extending therethrough from side to side for free passage of the mixture and constructed of refractory material comprising such catalytic substance distributed throughout its mass as will produce flameless contact combustion of that portion of the mixture coming in contact with the sides of the passageways.

1,304,043. CAKE-COATING MACHINE. PEMBROKE D. HARTON, Philadelphia, Pa.; Mary J. Harton executrix of said Pembroke D. Harton, deceased. Filed Aug. 20, 1915. Serial No. 46,529. 4 Claims. (Cl. 91-3.)



1. The combination, in a cake coating machine having an endless travelling belt for carrying cakes beneath a fixed depositing receptacle having downwardly discharging nozzles, of a narrow, vertically movable table positioned beneath said nozzles, fixed guides for the ends of said table; said table having its greatest length at right angles to the travelling belt which passes over it, lever mechanism for lifting said table and the overlying belt to a position directly beneath said depositing nozzles to bring the cakes into cooperative relation therewith, means for actuating said lever mechanism at regular intervals, and supplemental supports for the endless belt at the front and rear of said table; one portion of said supplemental supports rising and falling with the narrow table.

1,304,044. BRAKE-SHOE KEY LOCK. ARTHUR W. HAWKINS, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 4, 1917. Serial No. 194,715. 2 Claims. (Cl. 158-28.)



1. A brake shoe key lock comprising the combination of a brake head, a brake shoe adapted to be secured in position thereon, and a tapered key for securing said parts together, said key being made of resilient material and having a head at its upper or thicker end, and a shoulder adjacent said head for engaging with a shoulder on the brake head whereby said key is locked in its home position but is capable of being removed by springing the headed end to one side to disengage said shoulder, the brake head being provided with a space, or spaces, to permit such springing action of the headed end of the key incident to its removal.

1,304,045. BURNER-TIP. WILLIAM P. HILL, St. Louis, Mo. Filed Aug. 9, 1918. Serial No. 240,116. 3 Claims. (Cl. 158-120.)

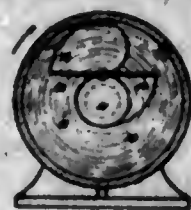
1. As a new article of manufacture, a burner-tip consisting of a cup-shaped body-member having a jet-orifice in its end wall, and a clog-preventing guard for the jet-orifice, the guard comprising an elongated tube of reduced diameter throughout its length relatively to the diameter

of the body-member end-wall, the tube being disposed axially of and within the body-member and fixed at one end



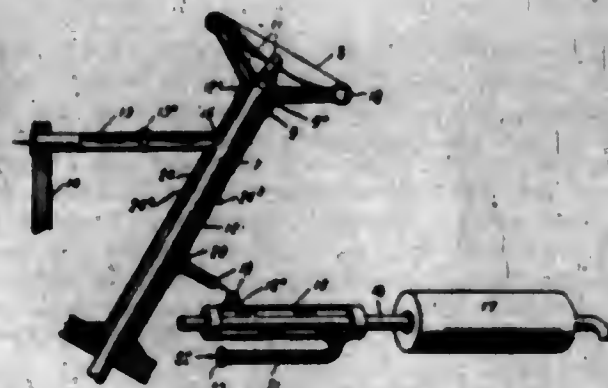
to the body-member end-wall in communication with the jet-orifice, the tube having an intake-port located in its side wall adjacent its said opposite end.

1,304,046. ROTARY PUMP OR BLOWER. JOHANNES HIRSCH, Spandan, near Berlin, Germany, assignor to Siemens Schuckert-Werke G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed Apr. 26, 1915, Serial No. 23,904. Renewed Oct. 16, 1918. Serial No. 258,392. 4 Claims. (Cl. 230-22.)



1. A rotary pump or blower of the class specified, comprising a casing with an inlet and an outlet, a blade wheel mounted eccentrically therein, and lateral walls for the blades of said blade wheel, said lateral walls having a form to effect proper closing and opening of said inlet and said outlet, said blade wheel with said lateral walls being of such width that an intermediate space will be left between said lateral walls and said inlet and said outlet.

1,304,047. HEATING DEVICE FOR VEHICLE STEERING-WHEELS. EDWARD F. HOBAN, Madison, N. J. Filed Sept. 11, 1917. Serial No. 190,707. 6 Claims. (Cl. 237-12.3.)



1. In a device of the character described, the combination of a chambered steering wheel, means for conveying cool air thereto, means for transmitting heated air for mixing with said cool air to produce an atmosphere of a predetermined temperature, and means for effecting the circulation of such heated atmosphere within said steering wheel.

1,304,048. AUTOMATIC REVERSIBLE FAN FOR EXPLOSIVE-ENGINES. ALBERT HOSMAN, Fargo, N. D. Filed Jan. 21, 1918. Serial No. 212,917. 2 Claims. (Cl. 128-173.)



2. The structure specified in claim 1, and a spring acting directly on the said rod of the thermostat to assist in the retracting of the rod when the temperature falls.

1,304,049. LOCKING-KEY FOR BRAKE-SHOES. EARL HUSUM, Cleveland, Ohio, assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 15, 1917. Serial No. 202,229. 1 Claim. (Cl. 183-23.)



A locking key for brake shoes which is slightly curved and tapered and which key is also provided with a locking projection near the extremity of its thickened end, said locking projection having anti-clinal camming surfaces adapted to cam the key in its movement both into and out of engagement with the shoe.

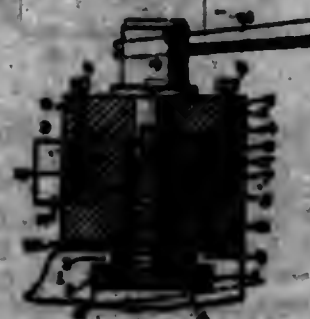
1,304,050. COLD-ROLL-FEEDER MECHANISM. THOMAS B. HUGHES, WILLIAM J. DAVIS, and DAVID D. HUGHES, Granite City, Ill. Filed Aug. 13, 1914, Serial No. 856,095. Renewed Nov. 21, 1918. Serial No. 263,633. 9 Claims. (Cl. 271-10.)



1. A feeder mechanism comprising a car adapted to receive and hold a plurality of plates, means to take the plates singly from the car, a sprocket chain to be capable of movement adjacent one of the sides of said car, projections provided from said sprocket chain to engage with

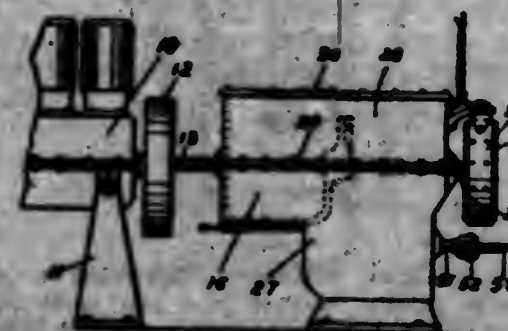
said axle, and means to be operated during the operation of the means to take the plates from the car to cause movement of the sprocket chain to carry the car forward step by step.

1,304,051. TOOL-HOLDER FOR LATHES. EDGAR I. HUNT, Edmonds, Wash. Filed Nov. 22, 1918. Serial No. 262,793. 2 Claims. (Cl. 30-40.)



1. In apparatus of the character described, a cross-feed of a lathe having a recess and spaced flanges at the top of the recess; a base arranged in the recess and having flanges to engage beneath the first named flanges, said base being polygonal in cross section and projecting above the cross-feed for a substantial distance; a tubular cylindrical hub rigidly secured to the base and internally screw threaded; a polygonal tool holder having an opening to loosely receive the hub, said polygonal tool holder being provided in its bottom with radial recesses to receive the upper end of the base to thereby lock the tool holder against rotation; a set screw passing through an opening in the top of the tool holder and engaging within the opening of the hub; and means to secure tools to the sides of the polygonal tool holder.

1,304,052. CHANGE-SPEED DEVICE. CARL A. HUNT and GEORGE E. TAYLOR, St. Paul, Minn. Filed May 2, 1917. Serial No. 166,085. 2 Claims. (Cl. 74-34.)



1. A change speed gearing comprising a driving shaft, a beveled gear secured to said driving shaft, an idler shaft, a beveled gear secured to said idler shaft, a brake for said idler shaft, a yoke member, beveled gears mounted on said yoke member and meshing with both of the first mentioned beveled gears, a sleeve secured to said yoke and rotatably positioned around said idler shaft, a gear secured to said sleeve, and means for actuating said brake to effect different degrees of retardation of the idler shaft whereby corresponding degrees of acceleration of the yoke member and the last mentioned gear are effected.

1,304,053. MANUFACTURE OF CARBON BLOCKS. THOMAS WILLIAM STRAIN HUTCHING, Middlewich, England. Filed Oct. 18, 1918. Serial No. 266,343. 2 Claims. (Cl. 30-43.)

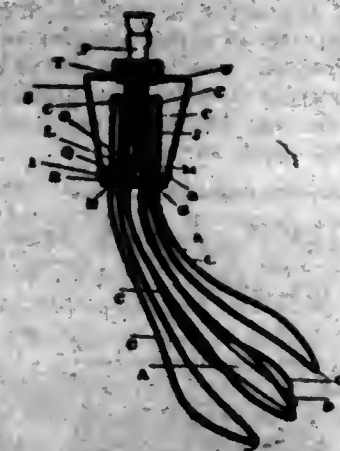
1. In the production of carbon blocks by the compression of the finely ground material in hydraulic or other pressure, the provision upon the wall of the cylinder or former, before or while the carbon is fed therein, of a film or covering of finely powdered solid lubricating ma-

terial with or without the addition of oil or fat as a binding medium, so that when pressure is applied to the carbon, binding of the same upon the walls is minimized.



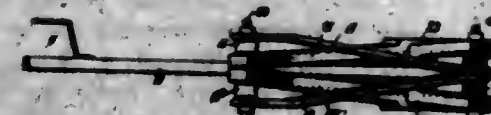
and the whole body will be carried forward by the ram or plunger of the press until the carbon becomes of a nearly even non-porous structure, substantially as described.

1,304,054. UTERINE SYRINGE. TATSUJIRO IMAIZUMI, Seattle, Wash. Filed Nov. 23, 1918. Serial No. 262,837. 4 Claims. (Cl. 128-244.)



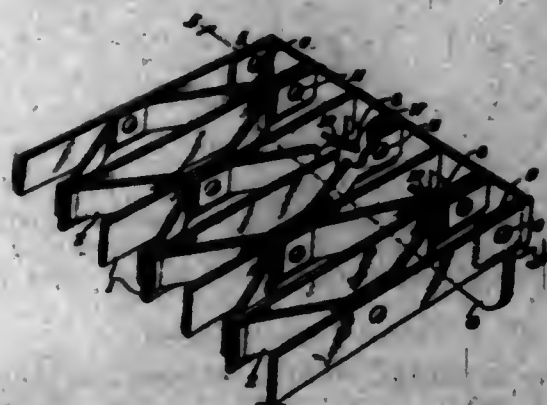
1. A uterine syringe of the class described comprising a nozzle, a casing inclosing the upper end of said nozzle, a collar disposed on said nozzle and rigidly secured to the lower end of said casing, dilator members shaped to conform to the curvature of said nozzle said dilator members extending upwardly into said casing and being pivoted to said collar, another collar movable on said nozzle above said first named collar, links connecting said last named collar with the upper ends of said dilator members and means for moving said last named collar on said nozzle to expand said dilator members.

1,304,055. TRACTOR-COUPPLING. JOSEPH BELMEIER, Jr., Templeton, Iowa. Filed July 10, 1918. Serial No. 244,281. 1 Claim. (Cl. 212-67.)



In a tractor coupling, the combination with a pair of tractor beams having spaced bolts connecting them, a pair of guide beams paralleling the tractor beams and connected at their extremities by rear bolts spaced a greater distance apart than the bolt through said tractor beams, a coupling bolt through the tractor beams midway between the front bolts, and the draft bar pivotally mounted on said coupling bolt and extending loosely through the guides between said rear bolts; of two pairs of side bars connecting the front bolts with the rear bolts respectively, the members of each pair diverging from each other toward the rear, and two pairs of braces whereof each pair extends from one front bolt obliquely across the draft bar to the opposite rear bolt, the members of one pair being spaced to permit the owing of the draft bar and the members of the other pair being spaced to admit the members of the first pair, the members of each pair diverging from each other toward the front.

1,304,056. BRACKET FOR STAIR-TREADS. WALTER EDWARD IRVING, Glenbrook, Conn. Filed June 25, 1918. Serial No. 241,761. 5 Claims. (Cl. 189-42.)



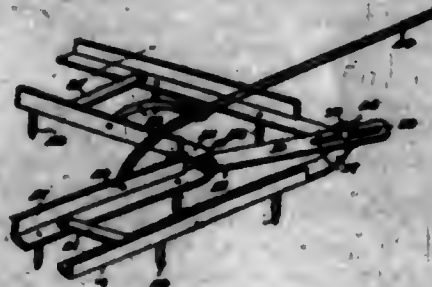
5. As a new article of manufacture a bracket for supporting the end of a grating or similar structure which bracket comprises a strip of metal adapted to be fastened to a supporting structure and having a lug stamped out and projecting inwardly toward the grating in an inclined position, said lug having a relatively deep and narrow groove in its upper surface.

1,304,057. TIRE-ARMOR. AARON E. JENNINGS, Owensboro, Ky. Filed June 17, 1918. Serial No. 240,402. 2 Claims. (Cl. 152-32.)



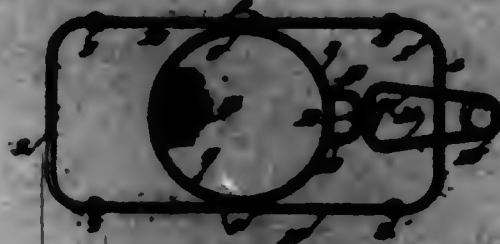
1. A tire armor comprising a metallic shell having lateral lugs on its edges, an elastic tread carried by said shell, retaining plates to bear against the tire and the tread, said plates being provided with transverse openings to receive the lugs on the shell, and locking devices fitted in some of said openings and engaging the lugs therein.

1,304,058. HAND-HARROW. FRANK J. JOHN, Cedar Rapids, Iowa. Filed July 10, 1918. Serial No. 244,191. 2 Claims. (Cl. 97-41.)



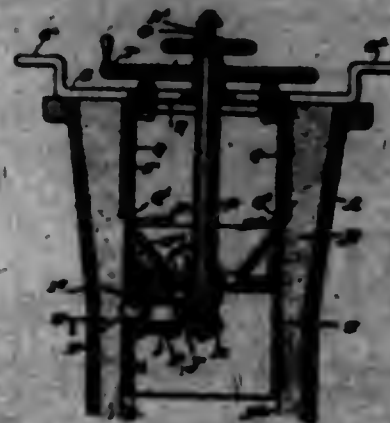
1. The combination with an expansible V-shaped harrow including a pair of pivotally connected side frame bars, of a handle for said harrow, including a pair of laterally yieldable resilient arms, each having one end attached to one side bar of the harrow, and a handle member rigidly fastened to the other ends of said arms.

1,304,059. STRAINER. HOWARD P. JOHNSON, Chicago, Ill. Filed Jan. 15, 1917. Serial No. 142,556. 1 Claim. (Cl. 248-30.)



A device of the class described, comprising a longitudinally extensible loop-shaped support; an annular carrier within the support and provided with oppositely disposed projections engaged slidably with the side portions of the support; a ring removably held in the carrier; a resilient grip surrounding the ring; and a handle including crossed parts pivoted to the ends of the grip, said parts being compressible to effect an opening of the grip, the handle being of sufficient length to rest on one end of the support, the pivotal connection between the handle and the grip permitting the handle to be raised to secure a sliding of the carrier on the support and to permit the handle to rest on said end of the support.

1,304,060. GATE-CUTTER AND HEAD-FORMER FOR PIPE-MOLDS. ISAAC JOHNS, Bessemer, Ala., assignor to United States Cast Iron Pipe and Foundry Company, Burlington, N. J., a Corporation of New Jersey. Filed June 22, 1918. Serial No. 241,230. 5 Claims. (Cl. 22-19.)



2. A pipe molding appliance comprising a member adapted to be axially inserted in a pipe mold and provided at its periphery with axially extending outer bar portions and formed with openings for the escape through said body of the mold material gouged out of the mold by said projections.

1,304,061. CASTER. JOSEPH ALBERT JONES, Elmwood, Conn. Filed Aug. 20, 1917. Serial No. 187,500. 1 Claim. (Cl. 16-72.)



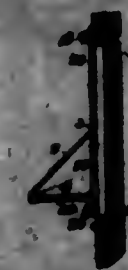
A caster comprising a bifurcated wheeled bracket having a race and also having an inwardly extending annular flange, a head provided with a race complementary to the other race, a series of balls in the two races, the head having a downturned flange extending freely through the opening in the other flange and provided at its lower end with a flange fitted under the other flange.

1,304,062. CALLING DEVICE. WILLIAM HAINLINE, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Original application filed June 28, 1918. Serial No. 245,782. Divided and this application filed July 13, 1916. Serial No. 160,187. 13 Claims. (Cl. 74-45.)



10. A governing device of the class described including a cylindrical casing, a hollow rotatable shaft provided with attached upper and lower plates, a weighted member carried by said plates, and a driving shaft extending through the hollow of said first shaft for rotating the same to cause the weighted member to frictionally engage the inner surface of said casing.

1,304,063. AWNING. LOUIS KAHAN, New York, N. Y. Filed Feb. 8, 1917. Serial No. 147,230. 10 Claims. (Cl. 156-44.)



1. In an interchangeable awning for installation upon windows of various sizes, means for regulating the lateral extent thereof in the installation including a single cloth having its lateral extent regulated by means of folding each of its side edges to conform to the required width for fitting it to the required adjusted width of the awning.

1,304,064. BOTTLE-SUSPENDING HOOK. HOWARD B. KRAMER, Lakewood, Wash. Filed May 27, 1918. Serial No. 260,505. 1 Claim. (Cl. 248-30.)



A device of the class described comprising a hook that is pointed at one end, a curved arm fixedly mounted on the other end of said hook and extending outwardly therefrom, said curved arm having a bifurcated end, another curved arm pivotally mounted on said hook and adapted to cooperate with said first named curved arm to clamp a circular body, a threaded end on the last named arm adapted to extend through the bifurcated end of the first named arm, and a nut for said shank.

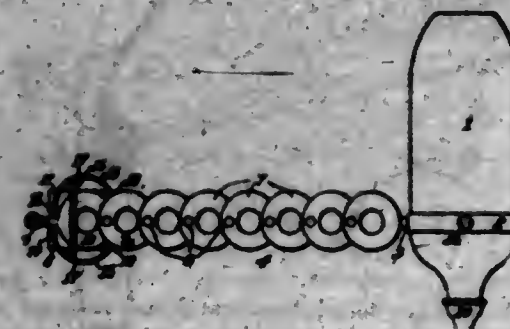
1,304,065. CLAMP. JOSEPH KERNERT, Richmond Hill, N. Y., assignor to J. Edward Ogden, Mountville, N. Y. Filed Mar. 18, 1918. Serial No. 223,003. 2 Claims. (Cl. 85-24.)



2. An expansion clamp comprising a plurality of members longitudinally divided from one another, constructed near their ends to form, when assembled, an annular flange, and with reduced portions in their outer surfaces

near said flange forming parts, and a sheet metal clamp arranged to hold the members together in transverse and longitudinal alignment, said clamp comprising a disk-like body portion adapted to lie transversely across and to cover the flanged ends of the assembled members, and an expandable portion extending over the flange with its free end crimped at spaced intervals into the reduced external portion of the members, the body portion of the clamp being constructed with an orifice to prevent the obstruction of the shield.

1,304,066. NURSING-BOTTLE SUPPORTER. MAX KLEINSTEIN, New York, N. Y. Filed Oct. 18, 1917. Serial No. 197,207. 6 Claims. (Cl. 248-30.)



1. A nursing bottle supporter having the combination with means for attaching it to and detaching it from a baby carriage, of a flexible arm for holding the bottle in operative state adaptable to be folded, and a retaining casing having means to open and close for inserting and closing said arm therewithin in folded state.

1,304,067. GRINDER. JOSEPH KOWALSKI, Detroit, Mich. Filed July 17, 1918. Serial No. 245,394. 5 Claims. (Cl. 81-7.)



1. In a grinder, the combination of a supporting bar having an eye in one end, a carriage guide provided with a cylindrical extension adapted to fit within said eye, a graduated washer and a screw adapted to hold the extension in said eye, a carriage slidably mounted in the guide, a motor mounted on the carriage, a grinding wheel mounted on the carriage, and means whereby the motor may drive the grinding wheel.

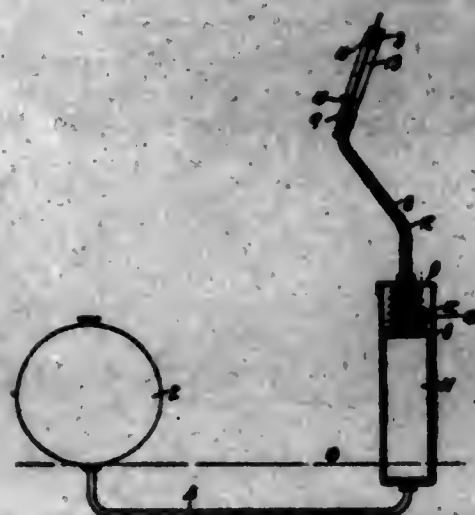
1,304,068. TURBINE DEEP-WELL PUMP. FREDERICK W. KNOX, San Francisco, Calif. Filed Jan. 2, 1915. Serial No. 124. 6 Claims. (Cl. 253-199.)



1. In combination with a deep well, a pump casing therein, central suspending means for holding said pump

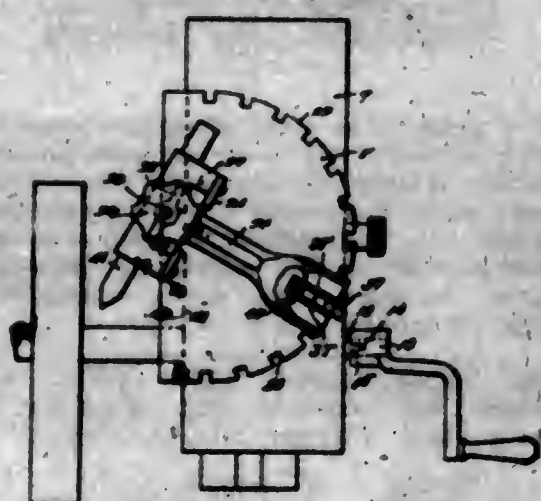
casing within said well, packing detachably secured to said casing at the top thereof and engaging said well and means to disconnect said packing.

1,304,069. FUEL-GAGE. JOHN H. LARSEN, Detroit, Mich. Filed June 2, 1918. Serial No. 287,500. 3 Claims. (Cl. 72-82.)



1. In mechanism of the class described, a float chamber, a float movable therein, a spring constantly opposing the upward movement of the float, an indicator, a pipe joining the indicator and float chamber, a scribe wire passing through the pipe and movable by the float to actuate the indicator.

1,304,070. ATTACHMENT FOR GRINDING THREAD-TOOL BITS. AUGUST H. LUND, Fond Du Lac, Wis. Filed Dec. 17, 1917. Serial No. 207,613. 3 Claims. (Cl. 51-7.)



1. In a device of the class described, the combination of a supporting means, a tool engaging clamp pivotally mounted upon said supporting means and comprising a vertically extending body, a sliding jaw which is substantially U-shaped in top plan engaging the front and side surfaces of said body, plates fixed upon said jaw and engaging the rear surfaces of said body for slidably holding said jaw upon said body, said body having a fixed jaw at its lower portion in the path of movement of the sliding jaw, an overhanging plate carried by the upper end of said body, a screw passing through the overhanging plate and engaging said sliding jaw, whereby the sliding jaw may be adjusted with respect to the fixed jaw.

1,304,071. REPRODUCING PICTURAL, ARTISTIC, AND GRAPHIC WORKS. JULIUS LOUPOUX, Uccle-Stalle, Brussels, Belgium. Filed Oct. 24, 1916. Serial No. 122,220. 2 Claims. (Cl. 41-84.)

1. A process for reproducing pictorial, artistic and graphic works, consisting in preparing a mixture of colors, thickened linseed-oil and a volatile liquid, applying said mixture in several layers on a supporting substance, drying and painting each layer and printing on the coating formed by said layers.

1,304,072. VEHICLE-SEAT. ANDREW L. LEWIS, Petersburg, Va. Filed Aug. 1, 1918. Serial No. 247,790. 3 Claims. (Cl. 155-85.)



1. A vehicle seat comprising relatively movable upper and lower seat sections each comprising a surrounding frame provided with flexible connecting means producing an enclosure, and devices secured respectively to the inner side of the frames of the upper and lower sections, each device embodying a cushion acting to lift the upper section relatively to the lower section, a guide for the vertically movable upper section, and a stop for limiting the upward movement of the upper section, the guide and stop being enclosed within the sections.

1,304,073. COMPOSITE ROLLER-BEARING. CHARLES S. LOCKWOOD, Newark, N. J., assignor to Hyatt Roller Bearing Division, United Motors Corporation, Harrison, N. J., a Corporation of New York. Filed July 11, 1918. Serial No. 244,352. 3 Claims. (Cl. 64-62.)

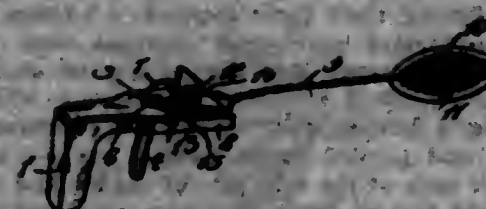


1. In a roller bearing, a hub having upon one end a depressed cylindrical roll-seat with flanges at the edges and upon the other end a depressed concave raceway forming a ball-seat smaller in diameter than the cylindrical roll-seat, the flanges of the roll-seat being sloped outwardly to avoid contact with the ends of rolls and the said ball-seat having its outer rim elevated above the ball-seat, substantially as set forth.

1,304,074. FLY-GUN. ALFRED LIMONG, North Bay, Ontario, Canada. Filed Dec. 2, 1918. Serial No. 205,000. 2 Claims. (Cl. 43-1.)

1. A fly gun comprising a handle, a venter arm pivoted to said handle, formed of two strands of wire bent

at their outer ends to form a circular frame, the inner ends of said strands being formed with an angular



U-shaped portion, a coil spring actuating said arm, a notched trigger anchored in said handle, said angular portion adapted to engage the notch of said trigger.

1,304,075. ELECTRICAL CONNECTOR. JOHN LOREMAN, Chicago, Ill., assignor to Balco Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 20, 1917. Serial No. 192,000. 1 Claim. (Cl. 173-322.)



A two part separable connector comprising two inter-engaging members; one member providing a cylindrical shell open at one end; an insulating block having limited axial and rotatable movement therein; means to limit the axial and rotatable movement of said block; a spring in said shell to yieldingly hold the block near the open end of the shell; a pair of electric terminals carried by the block and movable therewith; in combination with another member providing a cylindrical shell telescopically engaging the shell of the first mentioned member; an insulating block fixed in the shell of the second mentioned member; a pair of electric terminals carried by the said block telescopically engaging the terminals of the first mentioned member and a cooperative bayonet joint to lock the members together.

1,304,076. TELEPHONE-EXCHANGE TRUNKING SYSTEM. FRANK LUSKINSON, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed May 6, 1910. Serial No. 550,621. Renewed Dec. 6, 1918. Serial No. 265,645. 70 Claims. (Cl. 173-18.)



1. In a telephone system, a branch exchange provided with automatic connectors, subscribers' lines terminating

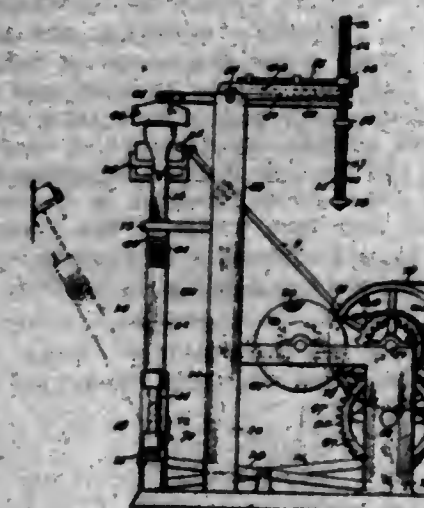
in the banks of said connectors, a main exchange, and means including a particular contact of each connector bank for effecting a trunking connection from the branch exchange to the main exchange, which particular contacts are excluded from the trunking connections between the two exchanges.

1,304,077. DEWATERING, CLASSIFYING, AND RABBLING APPARATUS FOR ORE-PULP. CRAIG W. McARTHUR, Denver, Colo. Filed Aug. 26, 1918. Serial No. 251,510. 7 Claims. (Cl. 83-82.)



1. In an ore pulp dewatering, classifying and rabbling apparatus, the combination of the tank, the endless chain conveyor having an eccentric movement adapted to impart an upward and downward and a reciprocating movement, and means for imparting a continuous traveling movement to said conveyor, said conveyor consisting of sprocket chains spaced a predetermined distance apart in said tank and metal flights extending transversely across, between and secured to said chains, said sprocket chains being mounted on sprocket wheels mounted on shafts eccentrically to their axial centers and arranged to move the conveyor throughout its length upwardly and downwardly, or a rising and falling, and at the same time a reciprocating movement, and means for imparting a continuous traveling movement to said conveyor.

1,304,078. SHOE-SOLE-LEVELING MACHINE. PATRICK J. McGRATH, Philadelphia, Pa., assignor of one-half to William Butler, Jr., Philadelphia, Pa. Filed Oct. 19, 1917. Serial No. 197,480. 6 Claims. (Cl. 12-38.)

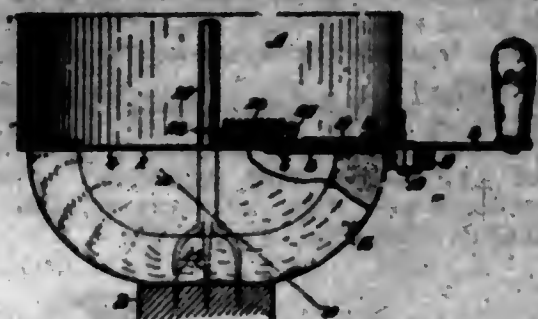


1. In a shoe leveling machine, the combination of a mold form comprising a series of thin, stiff mold plates arranged to present their edges to the work, and means for imparting spring pressure to individual plates to hold all of the plates within the range of the size of the sole being operated upon, constantly and resiliently against the sole during the leveling operation.

1,304,079. FRUIT AND VEGETABLE SLICER AND PEELER. WARREN L. McLEAN, San Francisco, Calif. Filed Jan. 22, 1918. Serial No. 272,576. 12 Claims. (Cl. 146-14.)

1. In a fruit and vegetable slicer and peeler, a supporting member, means for securing the fruit or vegetable to

be sliced and peeled on said member, a receiver turnably mounted on said securing member above the fruit or



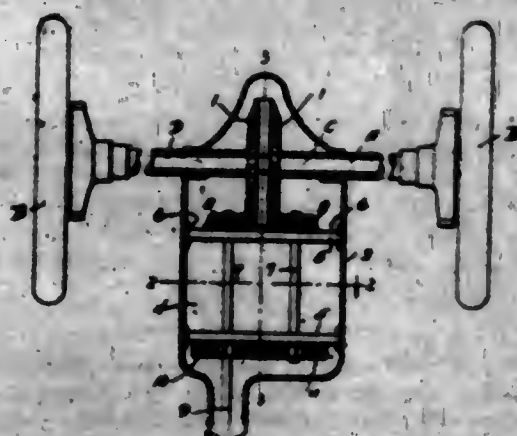
vegetable, a slicing knife carried by the receiver and a peeling knife carried by the receiver.

1,304,080. ADVERTISING BOARD OR FRAME. ENRICO MANTALLA, (also known as Harry Mantle,) Leeds, England, assignor to Harry James Johnson, Leeds, England. Filed June 12, 1918. Serial No. 230,535. 3 Claims. (Cl. 40-140.)



3. In a board for advertising purposes, a rabbeted and grooved frame, a translucent sheet of glass placed therein to form a background, means for retaining the said sheet in the frame, a plurality of strips of glass placed within the frame in front of its translucent background, and means for spacing, retaining, cushioning, and adjusting the strips, said means comprising a pair of rods placed respectively in two sides of the rabbeted and grooved portion of the frame, each pair of rods being united together at one end, movable devices mounted on each pair of rods between and near the ends of the strips for spacing purposes, a coiled spring mounted on the ends of a pair of rods and near each corner of the frame, and a pin placed in the said rabbeted and grooved portion for dividing the strips into two portions, as set forth.

1,304,081. POWER TRANSMISSION. TONY MAURER, Eden, Mont. Filed Oct. 19, 1917. Serial No. 197,481. 1 Claim. (Cl. 74-7.)



A gearing device of the character described comprising in combination with a rear axle centrally divided into

two axle sections, having their ends in close proximity and adapted to operate independently of each other, a beveled gear mounted on each axle section, the two beveled gears having their faces opposed, a housing encompassing the beveled gears and provided with interior brackets forming shaft bearings, a pair of shafts, one being relatively short and disposed entirely within the said housing, a driving shaft formed of a continuation of one of the said pair of shafts, beveled pinions mounted on the inner ends of the said pair of shafts, and in mesh with the said beveled gears, and gears mounted entirely within the housing on the said pair of shafts and in mesh with each other to impart movement to the shorter of the said pair of shafts when the driving shaft is actuated whereby either of the said axle sections may be driven independently of the other.

1,304,082. FERTILIZER. THOMAS C. MEADOWS, New York, N. Y. Filed June 15, 1918. Serial No. 240,188. 7 Claims. (Cl. 71-0.)

6. As a new fertilizer an infusion of alkali metal compounds in a plastic and intensively hydrated mass of calcium iron silicate; substantially as described.

1,304,083. FLOOR, WALL, OR LIKE COVERING. FREDERICK W. MOON, New York, N. Y. Filed May 21, 1915. Serial No. 29,000. 10 Claims. (Cl. 154-40.)



1. A sheet or layer formed of plastic material of resilient consistency having depressions extending partially through the sheet and formed by the removal of portions of the substance of said sheet without materially changing the density of the other portions of the sheet, said removed portions being replaced by substance of a contrasting color and of substantially the same resiliency and consistency intimately and inseparably united therewith, the configurations of said filling being determined by the shape and outline of the ridges of the foundation sheet and the depth of the depressions.

1,304,084. APPARATUS FOR LOADING COAL. EDWARD C. MORGAN, Chicago, Ill. Continuation in part of application Serial No. 611,000, filed Nov. 10, 1900. (Patent No. 1,116,360, dated Nov. 3, 1914.) This application filed Sept. 2, 1914. Serial No. 350,970. Renewed Aug. 24, 1918. Serial No. 261,230. 63 Claims. (Cl. 190-62.)



2. In loading apparatus, the combination with a scoop open at its rear end, of means for reciprocating the scoop, and mechanism for unloading the scoop by pushing the material out of said open rear end.

1,304,085. MEANS FOR AUTOMATICALLY ALIGNING CAR-TRUCKS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Aug. 20, 1917. Serial No. 187,290. 5 Claims. (Cl. 105-000.)

3. As an article of manufacture, a center plate for cars, said center plate including members adapted to be as-

sembled to the body and truck bolsters of a car, said members being telescoped and free to move angularly and in a



direction longitudinally of the car when in position, with respect to each other.

1,304,086. COMBINED CAR CENTER-PLATE AND TRUCK-ALIGNING DEVICE. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Aug. 20, 1917. Serial No. 187,290. 3 Claims. (Cl. 64-68.)



1. In car construction, the combination with body and truck bolsters, of a center bearing plate movable in unison with the body bolster, a center bearing plate movable in unison with the truck bolster, said center bearing plates being provided with opposed sets of faces, each set comprising a plurality of faces radiating from the center of the bearing plate and disposed at an angle to the horizontal, the arrangement of said faces being such that when the two bolsters are parallel, the faces are nearest each other, and as the bolsters are moved angularly relatively to each other, the faces compel vertical separation of the bearing plates and the weight of the car body will automatically return the track to normal position when the car enters a straight section of track.

1,304,087. APPARATUS FOR THE MANUFACTURE OF DENTAL CROWNS. DAVID T. PARKINSON, Wichita, Kans. Filed July 3, 1916. Serial No. 100,230. 1 Claim. (Cl. 112-30.)



An apparatus for making seamless dental crowns comprising a lower die having a cavity the bottom of which has the intaglio configuration of a crown top, said cavity having an opening at least equal to the largest cross-sectional dimension of the finished crown, a plunger adapted to receive blanks for forming the crown, and yielding material arranged in the blank at the end of the plunger, said plunger adapted to cooperate with said lower die whereby said yielding material is forced out and the blank stretched to fit the lower portion of the lower die.

1,304,088. COLLAPSIBLE LANTERN. GILBERT PARKMAN, Duluth, Minn. Filed Mar. 1, 1913. Serial No. 219,500. 13 Claims. (Cl. 240-52.)

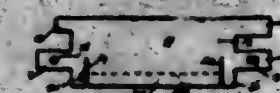
1. A lamp consisting of three sections, the base section containing a bowl and burner, the intermediate section

being the light-diffusing section, and the top section being the ventilating section, said intermediate section having telescopic connection with the other sections and being



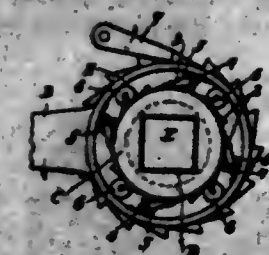
adapted to telescope entirely within the same, whereby the three sections may be collapsed to the extent of the height of the intermediate section.

1,304,089. RADIATOR-SHIELD FOR AUTOMOBILES. GEORGE W. PAYNE, Kansas City, Mo. Filed Jan. 29, 1918. Serial No. 214,344. 1 Claim. (Cl. 257-132.)



A radiator shield for automobiles, consisting of a split tubular member provided with roller supporting brackets projecting crosswise the ends of the tube, the intermediate portion of the wall of the tube at one side of the split being folded backward to provide a rounded edge, the unfolded adjacent portions forming spaced apart bridges over the opening and engaging the wall of the tube at the opposite side of the opening to adjust the width of the opening, a spring actuated shade roller inserted in the tube and supportingly engaged by said roller supporting brackets and having a flexible shield adapted to pass through said opening and frictionally engage the folded edge, means for withdrawing and detaining the shield from the tube, and an attaching member hingedly connected in parallelism with said holding member at one end and provided with a rotatable clamping bar adapted to receive and detain the free end of the holding member.

1,304,090. RELEASING-WRENCH FOR COAL CARS. HARRY M. PRIESTER, Binghamton, N. Y. Filed Oct. 23, 1914. Serial No. 803,244. 4 Claims. (Cl. 81-61.)



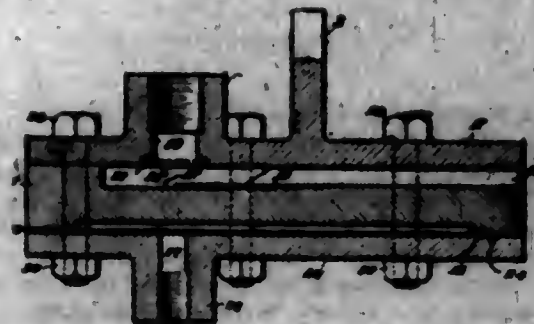
1. A device of the class described comprising a hollow cylindrical casing having a central opening therethrough, a handle projecting from said casing, a disk mounted within the casing and provided with a squared central opening, a row of ratchet teeth on the periphery of the disk, a roller bearing track way also on the periphery of the disk at one side of the row of ratchet teeth, spring pressed dogs pivotally secured to the casing and engaging the ratchet teeth and roller bearing elements interposed between the casing and the track way on the disk and positioned between the dogs.

1,304,001. SUPERHEATER UNIT. FRANCIS N. POSE-
NAND, Rutherford, N. J., assignor to Locomotive Super-
heater Company, New York, N. Y., a Corporation of
Delaware. Filed Jan. 26, 1918. Serial No. 214,014.
3 Claims. (Cl. 257-248.)



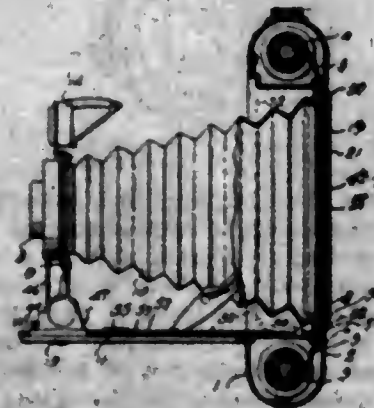
1. An element for a superheater or similar structure comprising a plurality of separate branches connected only at their ends to form a continuous conduit, the branches being arranged about and equidistant from a central axis and in contact with each other, and each branch having the portion of its wall facing the center cylindrically concaved, whereby a central passage is provided inclosed by but not communicating with the interior of the branches.

1,304,002. OIL-BURNER. GEORGE W. POSE, Cairo, Egypt, assignor of one-half to Herbert F. Bridges, Los Angeles, Calif. Filed July 23, 1917. Serial No. 182,877. 6 Claims. (Cl. 158-75.)



1. An oil burner comprising a burner block having a depression on its upper face opening at one end thereof, a removable cover extending over the depression to form an oil receiving chamber, distributing fins in said chamber for directing oil over an edge of the open end of the depression, a steam chamber on the under side of said block having a discharge opening extending beneath the open end of the depression, a steam pipe arranged to deliver steam upwardly into the steam chamber against the underside of the block, and an oil pipe arranged to deliver oil downwardly upon the block opposite the point of steam discharge.

1,304,003. CAMERA. JOHN E. PORRIS, Dayton, Ohio. Filed Sept. 24, 1917. Serial No. 192,838. 25 Claims. (Cl. 95-49.)



1. In a camera, a casing having an opening therein, a lens arranged in alignment with said opening, a ground

glass mounted in alignment with said opening, a closure for said opening, a flexible carrier mounted within said casing and having openings therein, said openings being spaced apart to permit sections of condensed material to be mounted on said carrier, between said openings, and means for actuating said carrier to bring said openings and said sections of condensed material alternately into alignment with said lens.

1,304,004. MOP. CHARLES O. QUINBY, Wakefield, Mass. Filed Feb. 19, 1914. Serial No. 819,616. 3 Claims. (Cl. 15-12.)



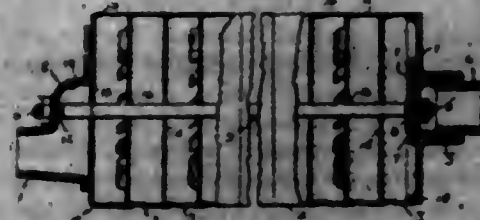
2. In a mop, an absorbent mop head of textile material having a porous, flexible and tubular body portion; a pair of hollow arms for supporting said mop head, each arm being made with outlets and having a free end in proximity to and permanently spaced from the free end of the other arm to permit the ends of the tubular body portion of the mop head to be clipped upon said arms to be supported thereby, and a hollow handle with which said arms are connected, the interior of said handle communicating with the interiors of said arms.

1,304,005. CHILD'S TOILET-SEAT. MYRTON E. REAM, Chicago, Ill. Filed May 27, 1918. Serial No. 236,778. 3 Claims. (Cl. 4-18.)



1. A child's toilet seat comprising a base adapted to be set upon an ordinary toilet seat, and a device mounted on said base at one end thereof and adapted to depend through the opening in the main toilet seat and engage beneath the latter, said device being disengageable from the seat by a movement of the base relative thereto.

1,304,006. MUFFLER. JOHN J. ROSENKRANZ and HANSEN L. THOMPSON, Elgin, Ill., assignors to Elgin Gas Motor Company, Elgin, Ill., a Corporation of Illinois. Filed Apr. 15, 1918. Serial No. 228,581. 1 Claim. (Cl. 121-116.)

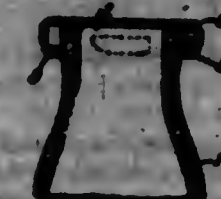


In an exhaust muffler, a series of sheet metal sections, and means to bind them together, the alternate sections being formed with a central perforation for the exhaust, and the intermediate ones each having tongues bent at an angle out of the section on radial lines and at a distance from the center thereof so that the exhaust will be given a tangential whirling movement as it passes to the next section.

1,304,007. PROCESS OF RECOVERING POTASSIUM SALTS FROM SALINE MIXTURES CONTAINING THE SAME. JAMES H. ROSS, Salt Lake City, Utah. Filed Sept. 26, 1918. Serial No. 285,942. 7 Claims. (Cl. 22-22.)

2. The herein described process of recovering potassium salts from saline mixtures, which consists in digesting the low grade potassium salts in a hot solution of magnesium chloride whereby the potassium salts are taken into solution and the remaining salts are undissolved, separating the hot liquor thus obtained from the remaining undissolved salts, cooling the liquor thus obtained to precipitate carnallite, and separating the magnesium chloride content of the carnallite from the potassium chloride content.

1,304,008. CLOSURE FOR CONTAINING VESSELS. BENJAMIN WHITWORTH RIVERA, Portland, Me., assignor to National Metal Seal Corporation, Dearing Junction, Portland, Me., a Corporation of Maine. Filed Dec. 18, 1917. Serial No. 207,785. 7 Claims. (Cl. 215-85.)



1. In combination with a container having a lug, a closure having a lip adapted to engage said lug upon rotation of the closure in one direction, said lip having a step adapted to contact the leading end of the lug to limit the rotation of the closure in its seating direction.

1,304,009. ARTIFICIAL HAND. ERIC ROBINSON, Southampton, England. Filed Aug. 23, 1917. Serial No. 182,884. 4 Claims. (Cl. 9-12.)



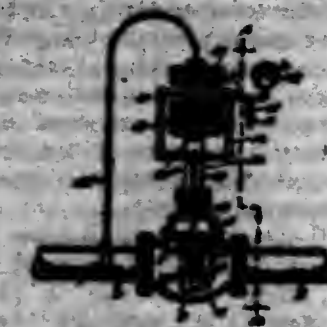
1. An artificial hand comprising finger and thumb joints; tongues forming part of said joints; grooves in said fingers; peripheral grooves in said joints; rollers in said grooves; flexible connections secured to different parts of said joints and guided by said grooves and rollers; and means in said fingers tending to straighten them, for the hereinbefore specified purpose.

1,304,100. REGULATING-VALVE. ALFRED ROSEN, Brooklyn, N. Y., assignor to Charles J. Tagliabue Manufacturing Co., Brooklyn, N. Y., a Corporation of New York. Filed Aug. 1, 1916. Serial No. 112,489. 3 Claims. (Cl. 256-6.)

1. The combination of a valve casing having an inlet and an outlet, a valve in said casing controlling the communication between said inlet and outlet, a main bellows operatively connected with said valve and inflated to a predetermined degree whereby said valve is correspondingly opened, an auxiliary bellows operatively connected with said main bellows and a connection extending between

202 O. G.-25

said outlet and said auxiliary bellows and through which a fluid agent controls the actuation of the latter, the ex-



pression of said auxiliary bellows collapsing the main bellows against the pressure therein, whereby the valve is moved toward its closed position.

1,304,101. CHOCOLATE-HEATING APPARATUS. JOHN G. ROSS, Belmont, Mass. Filed Aug. 29, 1918. Serial No. 261,822. 18 Claims. (Cl. 219-19.)



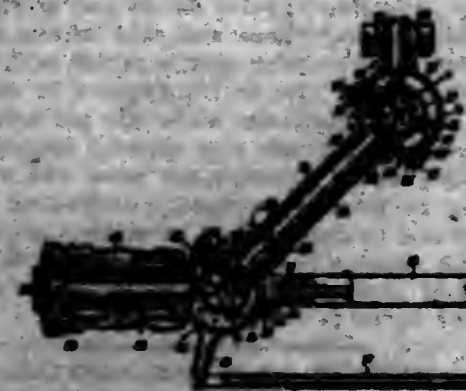
1. Apparatus for maintaining a regular temperature in liquid chocolate, comprising a tank for the chocolate; a jacket of water therefor, of a lower temperature than that of said chocolate; means independent of the jacket for introducing heat into the chocolate at a rate exceeding the rate of flow from it to the said jacket and its other heat losses; and a thermostatic device controlling the said inflow of heat.

1,304,102. SCREW-PROPELLER. WILLIAM ROUTLEDGE, London, England. Filed Dec. 28, 1918. Serial No. 248,721. 5 Claims. (Cl. 170-159.)



1. A screw propeller having a blade built up of a series of layers of fibrous material, which are substantially parallel to its helical surface and which extend from the tip to the boss portion, substantially as hereinbefore described.

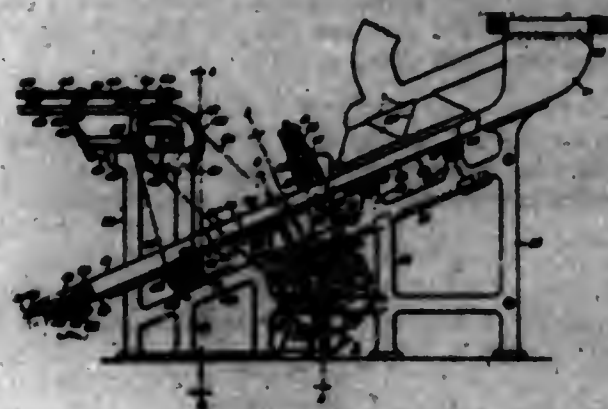
1,304,103. COMPOUND UNIVERSAL JOINT. ARTHUR L. BUNYAN, Omaha, Neb. Filed July 2, 1917. Serial No. 178,454. 7 Claims. (Cl. 74-108.)



1. A compound universal joint comprising two forks, each symmetrical to the axis of a shaft, yokes having parts fitting within said forks and pivotally connected with the ends thereof on axes at right angles to the respective shaft.

axes, each yoke having arms extending in a plane at right angles to the parts within the fork and symmetrically thereto, an annular member sitting about the spaced ends of said arms, and means pivotally connecting said annular member and spaced ends, the axes of said connecting means being in a common plane and intersecting at right angles, each of said axes also being in a plane common to and at right angles with the respective fork-and-yoke connection, and the yokes and forks extending oppositely from the plane of the annular member.

1,304,104. DOUGH-TREATING DEVICE. BOONEN SCHMITZ, Detroit, Mich. Filed Feb. 2, 1918. Serial No. 215,000. 12 Claims. (Cl. 107-4.)



2. In a dough treating device, in combination, a dough chute, means for passing dough through the chute, means for making and breaking an electric circuit, means whereby the movement of the dough will make the circuit, means whereby the making of the circuit will cause the dough to be cut into a predetermined length, means for lifting the dough from within the chute and retaining it in its original form and means whereby the removal of the dough from the chute will break the circuit.

1,304,105. PIN-LOCK-PROTECTING DEVICE. SAMUEL SUGAL, New York, N. Y. Filed Jan. 15, 1918. Serial No. 211,948. 1 Claim. (Cl. 70-66.)



The combination with a pin-lock barrel having an escutcheon plate at its forward end providing an annularly projecting rim of a protecting device comprising a face-plate having a central opening therein, a rearwardly extending annular flange bounding said opening, a bottom flange extending inwardly from the rearward edge of said rearwardly extending annular flange and at right angles thereto, said annular flange and said bottom flange providing a depressed annular seat in which said escutcheon plate is countersunk with its rim engaged in stopped relation upon said bottom flange while said pin-lock barrel extends rearwardly through said opening bounded by said annular seat, means engaging the inner end of said pin-lock barrel to prevent outward withdrawing movement thereof tending to displace said escutcheon plate rim from countersunk relation to said annular seat, and means for securing said protecting device to the body with which said pin-lock barrel is associated.

1,304,106. METHOD OF STEAM-HEATING. JOHN A. SUMMILL, North Plainfield, N. J. Original application filed Jan. 7, 1910, Serial No. 538,994. Divided and this application filed Nov. 12, 1915. Serial No. 90,997. 9 Claims. (Cl. 287-33.)

1. The herein described method of circulating steam for heating purposes, which consists in supplying steam

to the radiators or coils of the system and withdrawing the water of condensation and air therefrom under a predetermined differential pressure while restricting the passage of steam from the radiators or coils, returning the water of condensation to the source of steam supply under a pre-



determined static head, and compensating for any increase in pressure in the source of steam supply by automatically admitting steam in regulated quantities to the return side of the system without passing through the radiators or coils to maintain the static head substantially constant.

1,304,107. HOG-FEEDER. OTIS B. SMITH, Eldon, Ohio. Filed Jan. 18, 1919. Serial No. 270,914. 2 Claims. (Cl. 119-52.)



1. A feeder of the character described comprising a relatively wide trough, a plurality of bins mounted above the trough and having substantially vertical side walls extending downward but having their lower edges spaced from the trough, the bins being less in width than the width of the trough, freely swinging gates hinged to the lower edges of the side walls of the bins and depending into the trough but spaced therefrom, partitions dividing the trough to correspond with the bins, a plurality of bars attached to the edges of the trough and extending upward and inward from the bins and attached to the lower edges of the side walls thereof whereby to divide the space above the trough into a plurality of feeding spaces and brace the lower edges of the side walls from the margins of the bins, and longitudinal members intersecting said upwardly and inwardly extending bars and attached thereto and acting as impediments to the animals feeding from the trough.

1,304,108. PROCESS FOR THE MANUFACTURE OF MONOCHLORACETIC ACID. LOUIS JACQUES SIMON and OUSMANE CHAVANIER, Paris, France. Filed July 28, 1917. Serial No. 188,221. 5 Claims. (Cl. 28-34.)

1. The manufacture of monochloroacetic acid by hydrating trichloroethylene by heating it with sulfuric acid containing a small amount of water, substantially as described.

1,304,109. BUSHING-REMOVER. RICHARD SIMON, Joseph A. GAVSTEN, and FRANK J. HANSEN, Norway, Mich. Filed Mar. 6, 1918. Serial No. 221,442. 3 Claims. (Cl. 20-32.2.)



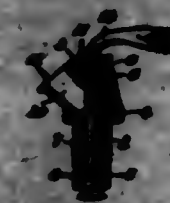
1. A bushing remover comprising a cylindrical shaft having a reduced square at one end thereof, an enlargement upon the shaft spaced from the headed end providing an annular shoulder and a tapered threaded portion on the shaft extending from said enlargement toward the unheaded end of the shaft.

1,304,110. PRIMING AND TESTING CUP. OSCAR A. SMITH, Cleveland, Ohio. Filed Oct. 22, 1917. Serial No. 199,282. 2 Claims. (Cl. 120-157.5.)



1. A three-part priming cup comprising a block or bar stock body having exterior threads at its lower end, a valve seat at its lower end, and a central threaded passageway communicating with said valve seat, a drawn and flaring sheet metal priming cup assembled with said body at the upper end thereof, and a valve adapted to fit said seat and opening in the direction of the flow of the fluid through the passageway, said valve having a stem projecting through the axial passageway and cup and spaced all around from the side walls thereof, and having threads cooperating with the threads of the passageway.

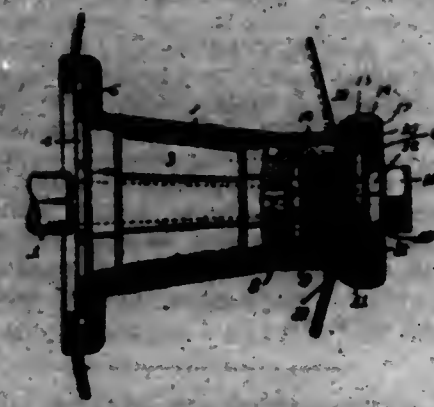
1,304,111. PRIMING AND TESTING CUP. OSCAR A. SMITH, Cleveland, Ohio. Filed Feb. 5, 1918. Serial No. 215,816. 5 Claims. (Cl. 120-157.5.)



1. A priming and testing cup comprising a two part device, one comprising a body having a passage therethrough and provided with a valve seat at its lower end and a chamber projecting to one side of and in communication with said passage below the top of said body and so located that the longitudinal axis of said chamber is adapted to be placed in a vertical plane when the body is located in an inclined position, and the other a valve for closing

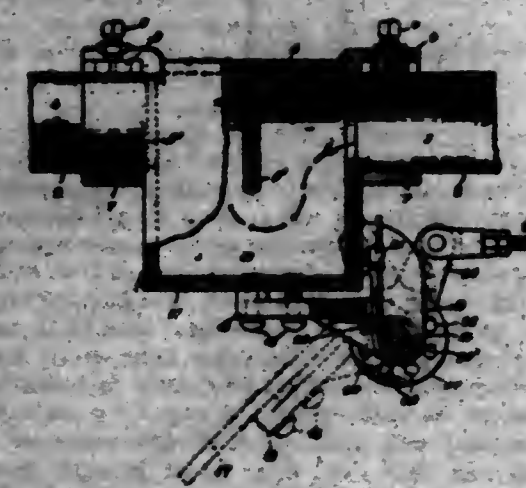
said seat and having a stem extending through said passage, said body and stem having adjacent to the upper end of said body cooperating threads for holding the valve in its closed or open position, the diameter of the passage from the valve seat to its point of communication with the chamber being greater than the diameter of the passage adjacent to said cooperating threads, the opening of the valve being effected by lowering said valve from its seat in the direction of the flow of the fluid through said passage, said body also having exteriorly of its valve seat threads and also having a wrench receiving portion.

1,304,112. DEMOUNTABLE WHEEL. ANTHONY J. BRANSON, Detroit, Mich. Filed Jan. 11, 1918. Serial No. 270,636. 1 Claim. (Cl. 21-81.)



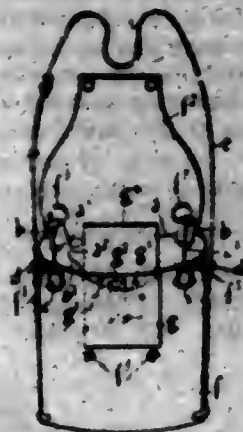
In a hub construction for demountable wheels, the combination of an inner hub having the outer end thereof provided with a recess, an outer hub adapted to fit on said inner hub, a retainable cap in the outer end of said outer hub, a threaded shank carried by said cap adapted to screw into the recess of said inner hub, said cap having the outer face thereof provided with inclined faces, a retaining ring mounted in the outer end of said outer hub, and screws in said retaining ring having ends engaging the inclined faces of said cap and adapted to fix said cap relative to said inner hub.

1,304,113. MUFFLER CUT-OUT. IRVING STANLEY, New York, N. Y. Filed Oct. 20, 1916. Serial No. 128,379. 17 Claims. (Cl. 281-19.)



2. The combination with an exhaust pipe having a pair of spaced ends, of a muffler cut-out comprising a casing secured to each end and having a chamber, said chamber having a non-movable baffle plate therein extending transversely of the pipe at a distance at least substantially equal to the diameter of the pipe, a hinged closure for said chamber, and means operative at a point remote from said closure for swinging it.

1,304,114. BOTTLE. SARAH S. STAPLES, London, England. Filed Apr. 18, 1918. Serial No. 230,322. 3 Claims. (Cl. 224-5.)



1. In a so-called "water bottle," the combination of two separate containers fitting together along two narrow sides, a neck on each container, a non-conducting cover closely fitting the two containers and holding them together and having apertures therein fitting the necks and slots in its sides, a loop on each container passing through one of said slots, and a stop attached to the cover the ends of which pass through said loops, substantially as set forth.

1,304,115. HYDROMETER APPARATUS. JACOB STRAUSS, Long Island City, N. Y. Filed Jan. 17, 1919. Serial No. 271,551. 4 Claims. (Cl. 308-45.)

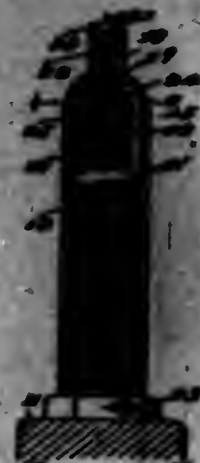


1. Hydrometer apparatus adapted to be carried in the tool kit of an automobile, comprising the combination with a float hydrometer, of a containing tube having a float chamber for permanently housing said hydrometer, a hand operated suction device at one end of said tube for drawing liquid into said float chamber through the other end of said tube, a water-tight receptacle for said containing tube, a removable water-tight cover for sealing said receptacle adapted to be tightly fastened thereto and connected to said containing tube between said suction device and said tube, so that said cover will operatively suspend said tube in a liquid in said receptacle and said suction device will be exposed for manipulation.

1,304,116. AUXILIARY TIRE-VALVE. THOMAS JAMES STURMERS, Spokane, Wash. Filed Sept. 14, 1918. Serial No. 254,034. 6 Claims. (Cl. 152-12.)

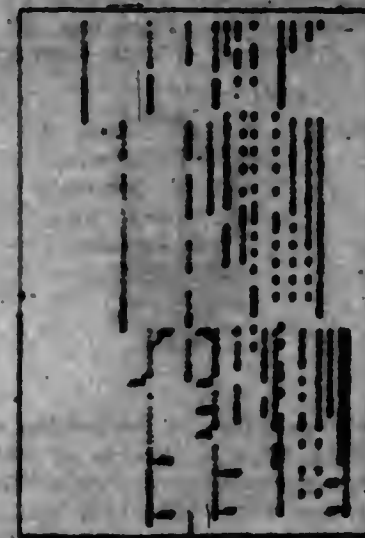
2. The combination with a tire valve casing, a valve arranged within the casing and having a stem depressible for opening the valve, and a dust cap fitting over the casing, of an auxiliary valve including a casing fitting

over the outer end of the tire valve casing and projecting through the dust cap, a valve reciprocable within the



auxiliary casing and provided with a stem movable to depress the stem of the tire valve, and means normally holding the auxiliary valve closed.

1,304,117. NOTE-SHEET FOR MUSICAL INSTRUMENT. CHARLES F. STODOLSKY, Boston, Mass. Filed Jan. 28, 1913. Serial No. 672,902. Renewed Oct. 24, 1918. Serial No. 280,808. 3 Claims. (Cl. 84-102.)



1. A note sheet for reproducing or imitating characteristics of a musical rendition, provided with note sounding perforations which have their advanced ends relatively located to sound their notes in accordance with desired tempo, but which, in order to cause their notes to be sustained with the effect of a damper pedal operation, have their rear ends arbitrarily prolonged.

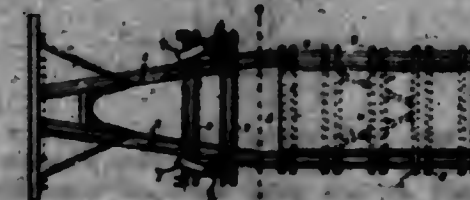
1,304,118. CASTING-MACHINE. FRANCIS WILLIAM STOKES, Mansfield, Nottingham, England. Original application filed July 2, 1918. Serial No. 244,000. Divided and this application filed Feb. 14, 1919. Serial No. 277,079. 5 Claims. (Cl. 20-68.)



1. A centrifugal casting machine wherein the mold is made in halves mounted in or on a guide and so arranged that they are separated by spring action when the ma-

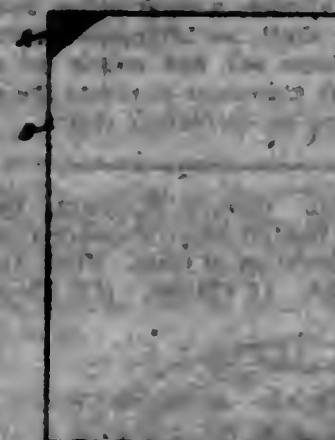
chine is at rest and closed together by the action of centrifugal force when the machine is in operation, substantially as hereinbefore described.

1,304,119. BASH FOR PILE-DRIVERS. EDWARD J. STONE, Duluth Minn. Filed June 24, 1916. Serial No. 105,764. 1 Claim. (Cl. 61-12.)



In a pile driver, the combination of horizontally disposed shafts or shafts connected together by cross ties mounted thereon, an engine bed mounted upon said ties near the rearward ends of said shafts, said shafts being approximately parallel with each other from their rearward ends to a line transsecting them intermediate of said engine bed and their forward ends, said shafts converging toward each other from said transsecting line to their forward ends, footings for said shafts mounted upon the cross ties intermediate of said engine bed and the forward ends of said shafts, the latter said ties extending transversely over and beyond converging portions of said shafts and said footings being mounted thereon near the ends thereof outwardly of said shafts, said shafts pivotally mounted at their lower ends in said footings and converging upwardly toward each other, and weight or hammer heads mounted upon the forward ends of said shafts.

1,304,120. STENCIL-SHEET. EDWARD THOMAS, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Original application filed Dec. 24, 1912. Serial No. 720,412. Divided and this application filed Sept. 19, 1917. Serial No. 192,008. 7 Claims. (Cl. 41-38.6.)



4. The combination with Yoshino paper, of a continuous coating thereon including shellac, and a non-hygroscopic substance lacking the firmness of shellac and incorporated therewith as a softener to enable the coating to be pushed aside to form a stencil.

1,304,121. UNIT FOR MOTOR-VEHICLE CONSTRUCTION. HARRY M. TOMPKINS, Detroit, Mich. Filed Feb. 6, 1917. Serial No. 140,008. 3 Claims. (Cl. 74-37.)



2. As a new article of manufacture, a metallic tubular unit for motor vehicle construction, said unit having a

plurality of both internal and external diameters obtained by expanding the metal, whereby overstraining the metal in shear is avoided, and the strength of one transverse section is substantially the same as that of another.

1,304,122. SPOKE-CLAMP FOR NON-SKID CHAINS. EDWARD T. TORRELLON, Worcester, Mass., assignor to Fred Iver Johnson, Fitchburg, Mass. Filed Mar. 12, 1919. Serial No. 282,120. 5 Claims. (Cl. 24-72.)



5. A clamp for non-skid chains, consisting of four grooved corner pieces, two U-shaped clamp bars, four grooved washers with square holes through the same, two bolts with square sectioned shoulders under their heads, and two nuts, the parts being arranged so that by tightening the nuts the clamp bars will be rigidly secured to the corner pieces and the clamp will be held in adjusted position on the spoke of a wheel.

1,304,123. DUST-SEPARATOR. GEORGE TREMBLAY and JOSEPH N. DUBOIS, Chicoutimi, Quebec, Canada. Filed Jan. 15, 1918. Serial No. 211,901. Renewed Apr. 7, 1919. Serial No. 288,225. 1 Claim. (Cl. 180-29.)



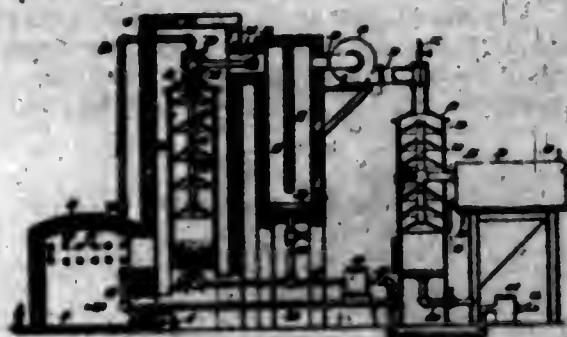
A dust separator for thrashing machines comprising a base portion, a casing supported thereupon, said casing comprising two sections, said sections communicating with a single outlet opening, a fan operatively mounted within each of said sections, a conveying tube, the inner end of said conveying tube mounted between said sections and communicating therewith, a closure controlled inlet opening arranged within the inner end of said conveying tube, and an air inlet passage way communicating with each of said sections adjacent said fans substantially as and for the purpose specified.

1,304,124. METHOD AND APPARATUS FOR DEHYDRATING EMULSIONS. MILTON J. TRUMBULL, Los Angeles, Calif., assignor to Shell Company of California, a Corporation of California. Filed Aug. 16, 1915. Serial No. 48,944. 2 Claims. (Cl. 100-25.)



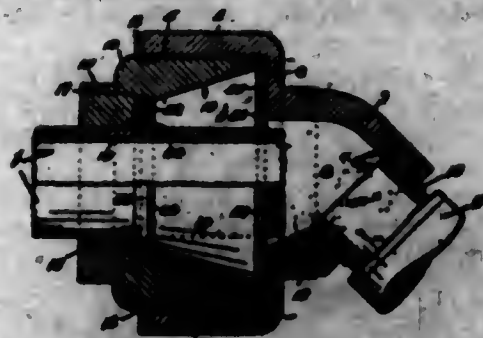
2. The process of removing water from an emulsion of oil and water which consists in passing the emulsion through porous diaphragms which are progressively increased in area to allow the time of separation for the water and other impurities to be progressively increased.

1,804,125. PROCESS FOR TREATING HYDROCARBON OILS. MILTON J. TRUMBULL, Alhambra, Calif., assignor to Shell Company of California, a Corporation of California. Filed June 27, 1916. Serial No. 106,286. 7 Claims. (Cl. 100-25.)



1. Any process of treating hydrocarbon oil which consists of the following steps: heating the oil in a suitable heating means by means of incandescent gases; separating vapors from the oil; mixing said vapors with said incandescent gases, the separated oil being so disposed of as to keep it out of contact with said gases; and condensing the condensable portion of the resulting product.

1,804,126. EMERGENCY ANGLE-COUPLING FOR BROKEN TRAIN-LINES. JOSEPH C. VERMILION, East St. Louis, Ill. Filed Apr. 15, 1918. Serial No. 226,514. 14 Claims. (Cl. 200-62.)



14. A coupling having means concealed therein which is clampable upon the broken end of a train pipe line and adapted to act as an emergency coupling until the broken pipe can be re-threaded and a new angle cock fixed thereto.

1,804,127. FRUIT-PICKER. LOUIS VUCHNOVICH, Annapolis, Md. Filed Apr. 10, 1918. Serial No. 227,761. 4 Claims. (Cl. 50-60.)



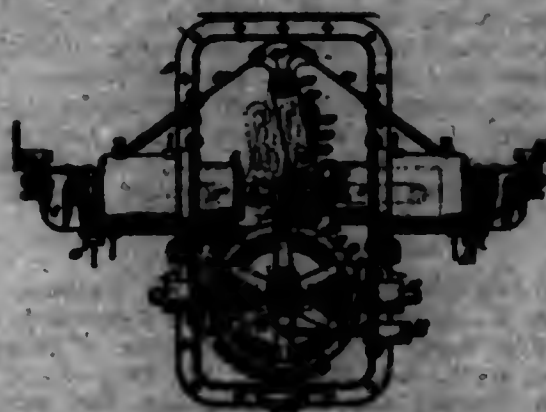
4. A fruit picker comprising a pole, a head member on the upper end of said pole, a pair of picking arms pivotally mounted on said head member, the outer ends of said arms being looped, a flexible material covering the looped ends of said arms, a pair of bell-cranks pivotally mounted on the head member, one adjacent to each picking arm, a sliding connection formed between the upper end of each bell-crank arm and its adjacent picking arm, an operating lever on the lower end of one of the bell-cranks, said operating arm having a looped portion formed therein, a hook on the lower end of the opposite bell-crank engaging said looped portion, means on the lower end of the pole for rocking the bell-cranks and picking arms in unison, said means comprising a pivotally mounted lever on the lower end of the pole, a spring interposed between one end of said lever and the pole, and a rod connecting the lever with the lower end of the bell-crank arm which has a looped portion formed therein.

1,804,128. BAND-SAW GUIDE. HERMAN VOLZ, Newark, N. J. Filed Feb. 2, 1919. Serial No. 274,978. 3 Claims. (Cl. 143-102.)



2. A band saw guide comprising, a support, a spindle adjustably carried by said support, a rotary sleeve on said spindle, a pair of side guide members adjustably supported one with respect to the other on said sleeve, said sleeve extending through at least one of said side guide members, said guide members having flat faces presented toward each other forming a single uniform annular saw slot for all positions of adjustment of said guide members.

1,804,129. ENGINE. JAMES J. WALK, Oakland, Calif. Filed Jan. 24, 1918. Serial No. 212,677. 10 Claims. (Cl. 120-54.)



1. An engine comprising a pair of aligned cylinders, a piston in each cylinder, a rigid piston rod connecting the same, a power shaft, an interposed oscillatory shaft actuated by the piston rod, and means for transmitting the oscillatory shaft movement to rotate the power shaft, said means including an oscillatory clutch.

1,804,130. WHEEL. GEORGE WALKER, Dayton, Ohio, assignor to The Dayton Steel Foundry Company, Dayton, Ohio, a Corporation of Ohio. Filed Aug. 28, 1918. Serial No. 261,000. 11 Claims. (Cl. 21-60.)



1. In a metal wheel, a hub forming a hollow body, and a web composed of a plate having a series of open

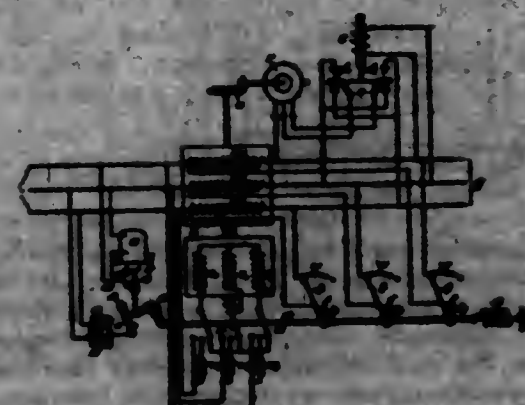
reinforced raised portions united to the hub and hollow spokes extending outwardly from said raised portions and terminating in the rim of said wheel.

1,804,131. LUMINOUS PEN OR PENCIL. JOSEPH W. WHITSON, Rutherford, N. J. Filed July 24, 1918. Serial No. 244,492. 5 Claims. (Cl. 240-2.)



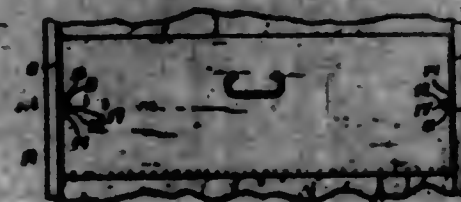
1. A tubular casing adapted to hold a pen or pencil having an opening in the body thereof, an electric bulb attached within the opening in the casing, capable of being raised or moved to a position outside the said opening, suitable wire or metal connections for attaching the tubular casing to an electric battery whereby electric current may be imparted to the electric bulb so as to cause it to glow and impart light.

1,804,132. SYSTEM OF BOOSTING ELECTRIC LINES. ALBERT WEHNER, Berlin-Friedrichs, Germany, assignor to Siemens-Schuckertwerke, G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed Nov. 26, 1918. Serial No. 262,946. Renewed Nov. 2, 1919. Serial No. 260,917. 6 Claims. (Cl. 171-110.)



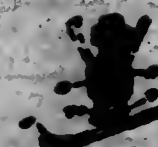
1. In combination with an alternating current line, a booster, means controlled by a voltage variation of said line for changing the boosting effect of said booster, and preventive means applied to the windings of said booster and controlled from a falling of the supply voltage of said line for preventing said booster from increasing the voltage corresponding to its condition at the moment of the falling of the supply voltage, upon the reappearance of the supply voltage.

1,804,133. DRAWER-GUIDE. GEORGE HENRY WHEAT, Racine, Wis. Filed Oct. 21, 1914. Serial No. 260,519. 3 Claims. (Cl. 48-77.)



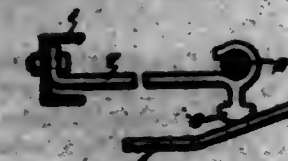
1. A drawer guide, comprising a channelled and flanged member of elongated form constructed to be secured to the side portions of a drawer, and a guide rod member extending into the channelled portion of said channelled member and having apertured flattened offset portions which space the guide portion of the rod away from the support to which it is attached.

1,804,134. FOURTH-POINT SUPPORT FOR BRAKE BEAMS. CHARLES HAINES WILLIAMS, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 25, 1918. Serial No. 219,005. 3 Claims. (Cl. 100-70.)



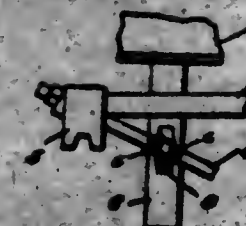
2. In a brake beam fourth point support, a supporting member attached to the brake beam by a separable member and held against vertical and lateral movement and capable of attachment to either the left or righthand side of the beam.

1,804,135. FOURTH-POINT SUPPORT FOR BRAKE BEAMS. CHARLES HAINES WILLIAMS, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 27, 1918. Serial No. 219,483. 3 Claims. (Cl. 100-70.)



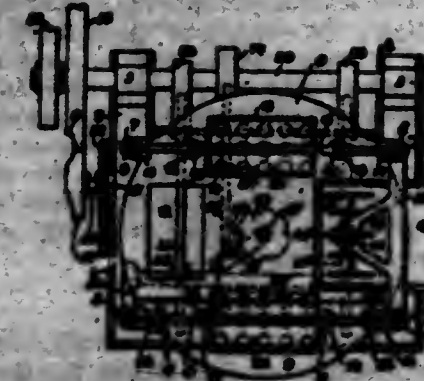
2. A fourth point support for brake beams comprising a bracing element connected to the tension and compression members and carrying a supporting member located beyond the tension member for cooperating with the fourth point supports.

1,804,136. FOURTH-POINT SUPPORT FOR BRAKE BEAMS. CHARLES HAINES WILLIAMS, Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 27, 1918. Serial No. 219,484. 3 Claims. (Cl. 100-70.)



1. A reversible fourth point support for brake beams loosely arranged upon the tension rod, and having means located on each side thereof for preventing longitudinal movement thereof on said tension rod.

1,804,137. PEAT-PRESSING MACHINE. CHARLES A. WILLIAMS, Detroit, Mich. Filed Aug. 10, 1918. Serial No. 249,907. 6 Claims. (Cl. 25-72.)



1. A machine of the type described comprising uprights, cross members at the upper ends thereof, sets of fulcrumed levers supported from said cross members and connected

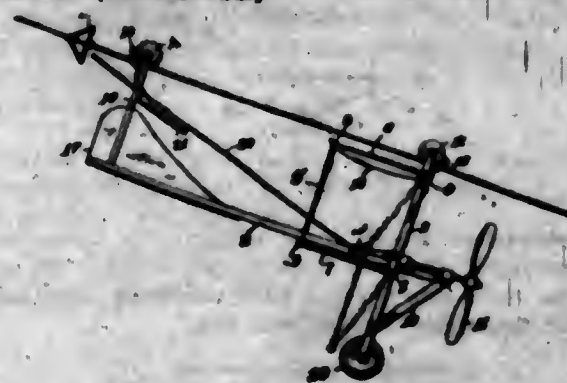
to operate in synchronism, cross heads connected to said levers and slidable between said uprights, presser heads carried by one of said cross heads, ejectors carried by the other of said cross heads, means connected to one of said cross heads adapted for imparting movement to both of said cross heads, molds and means adapted to successively move the molds beneath said cross heads.

1,304,138. CLUTCH. LEWIS WOLFGANG, Erie, Pa. Filed Oct. 11, 1917. Serial No. 195,895. 3 Claims. (Cl. 192-11.)



1. As means for coupling two members mounted to turn about the same axis, a rim held to turn with one of said members, a body held to turn with the other member and provided with radial guides, carriers mounted to slide along said guides and provided with coupling blocks movable into and out of engagement with said rim, a shifting slide movable lengthwise of said second member and held to turn therewith, each of said carriers having a radial guide, a screw-threaded bolt movable along the last-named guide, and provided with a transverse pivot, said slide being provided with corresponding pivots parallel to the adjacent pivots on the bolts, springs connecting corresponding pivots, nuts on said bolts, and means for locking said nuts.

1,304,139. TOY AEROPLANE. PHILIP R. YOUNG, Fairhaven, Mass. Filed May 14, 1918. Serial No. 234,424. 3 Claims. (Cl. 244-84.)

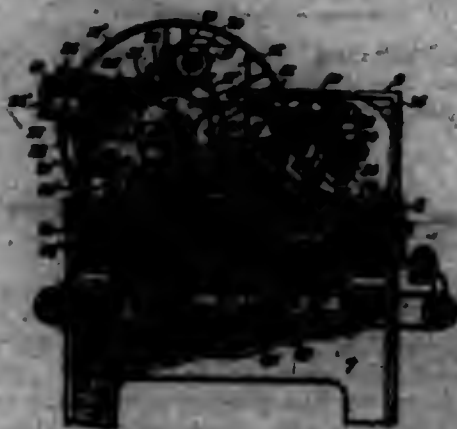


1. A toy resembling an aeroplane, adapted to move along an inclined string such as a kite string, comprising a pair of spaced wings maintained substantially parallel to each other and each rotatable about a longitudinal axis lying substantially in its plane, said wings being adapted to be rotated into a wind resisting position such that the area exposed to a wind blowing along the supporting string and against the nose of the aeroplane will be substantially the total area of both wings, a trigger member adapted to hold said wings in such position, means for releasing such trigger and means for rotating the wings into substantially the position of the wings of a true aeroplane when such trigger is released.

1,304,140. MACHINE FOR FORMING CANDY. FRED E. ZAISS, Chicago, Ill. Filed Oct. 18, 1917. Serial No. 197,178. 14 Claims. (Cl. 107-10.)

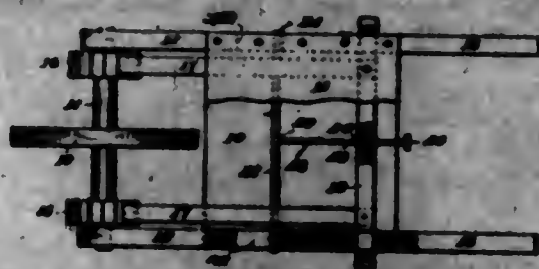
1. In a machine of the character described, the combination of a gang of movable devices for cutting a long stick of candy into pieces, presser devices mounted inde-

pendently of the cutting devices for pressing the severed pieces, mechanism for operating the cutter and presser devices, and power-driven devices for forcing the pieces from the cutting devices to the presser devices.



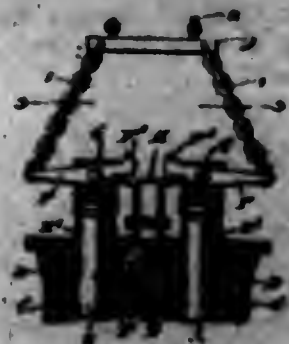
pendently of the cutting devices for pressing the severed pieces, mechanism for operating the cutter and presser devices, and power-driven devices for forcing the pieces from the cutting devices to the presser devices.

1,304,141. WHEELBARROW TOY. JOSEPH ALMA, Perth Amboy, N. J. Filed Feb. 14, 1919. Serial No. 276,997. 3 Claims. (Cl. 46-47.)



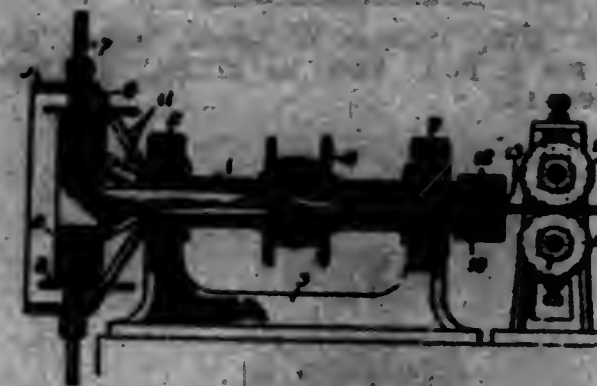
1. A device of the class described comprising side rails, an axle journaled adjacent the forward ends of said rails, a transverse brace between the rails spaced from the rear ends thereof, a ground wheel, upon said axle, sprocket wheels upon the axle at opposite sides of the ground wheel and opposite springs secured at their rear ends to said brace with their forward ends in normal resilient engagement with said sprocket wheels, a bottom plate upon said rails and a curved plate upon the top of the rails adapted for the reception of articles to be carried.

1,304,142. CORE-BAR FULLER. THOMAS P. ANTMONT, Edgewater Park, N. J., assignor to United States Cast Iron Pipe and Foundry Company, Burlington, N. J., a Corporation of New Jersey. Filed Apr. 23, 1918. Serial No. 230,323. 7 Claims. (Cl. 22-68.)



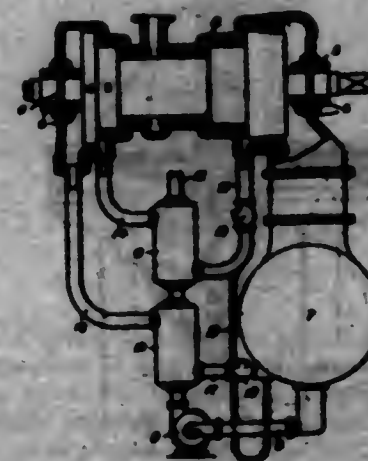
1. In pipe molding apparatus the combination with the vertical mold flask and means for drawing the core located above it, of a core member, a bifurcated lever formed of two bars, one pivoted on each side of the core and so shaped as to be capable of moving to a position in alignment with the core, said lever having one arm initially fulcrumed on the flask and the other connected to the core drawing means.

1,304,143. PROCESS OF MAKING PAPER REED. LAMAR F. BARNUM, Detroit, Mich. Filed May 14, 1917. Serial No. 168,983. 2 Claims. (Cl. 36-31.)



1. Means for producing paper reed comprising a rotatable spindle having a tapered head, a hollow head on the end of the spindle at the large end of the bore adapted to carry a coil of paper ribbon and rotate the same on its axis, detachably secured on the outer end to the spindle, a sliding head through which the inner end portion of the strip may be continuously led through the bore of the spindle, a pair of sliding rolls transverse to the spindle for gripping and drawing the strip through the sliding head and preventing its rotation beyond the head, and yielding means for gradually compressing the coil toward its axis as the strip is withdrawn through the head.

1,304,144. CONDENSING STEAM-TURBINE PLANT. KARE BAUMANN, Urmston, England, designer to The British Westinghouse Electric and Manufacturing Company Limited, a Corporation of Great Britain. Original application filed Mar. 26, 1914, Serial No. 84,777. Divided and this application filed Sept. 22, 1917. Serial No. 192,901. 8 Claims. (Cl. 69-64.)



1. In combination with a steam turbine, two feed water heating means operating in series and below atmospheric pressure, means for delivering leakage steam from the turbine to each of said heating means and means for discharging non-condensable gases from said heating means.

1,304,145. ADJUSTABLE GUSSET FOR ENVELOPE. RUDOLPH BUCHNER, Chicago, Ill. Filed July 27, 1918. Serial No. 246,971. 3 Claims. (Cl. 226-72.)

2. An adjustable partition for envelope consisting of an expandable body, and clips clamped upon the outer edges

of said body, said clips having hooks adapted to engage the upper edges of the front and back of an envelope, and



said hooks being arranged to have a light frictional contact with said edges.

1,304,146. ELECTRICALLY HEATED PUFF-IRON. DAVID BENTLEY, Portland, Oreg. Filed June 22, 1918. Serial No. 241,308. 2 Claims. (Cl. 219-21.)



1. A puff iron, comprising a head formed in two complementary sections, strips of refractory and insulating material applied to the opposing faces of said sections and extending longitudinally thereof and in abutting relation to each other and clamped between said sections, an electrical heating element interposed between said strips and held thereby, a hollow standard extending through one of said sections, a base upon which said standard is mounted, and conducting wires passing through said standard and connected to said heating element.

1,304,147. INNER TUBE. FRANK E. BRASLER, Akron, Ohio. Filed Sept. 17, 1918. Serial No. 254,485. 5 Claims. (Cl. 153-3.)



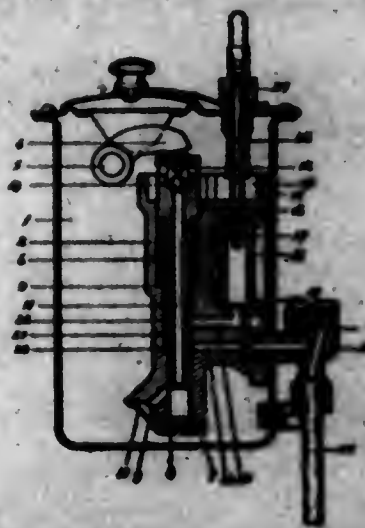
1. In a device of the class described, a wheel body; a casing on the body; a main shaft journaled in the body; a yoke wherein the shaft is journaled; an auxiliary shaft carried by the yoke; a beveled pinion on the main shaft; other beveled pinions mounted on the auxiliary shaft

and meshing with the piston on the main shaft; and a helical spring disposed within the casing and having its ends connected with said other beveled pistons.

1,304,148. MANUFACTURE OF KEENE'S CEMENT. JOHN CARLOS BURT, Medicine Lodge, Kans., assignor to The Best Brothers Keene's Cement Company, Medicine Lodge, Kans., a Corporation of Kansas. Filed May 6, 1918. Serial No. 232,714. 2 Claims. (Cl. 104—34.)

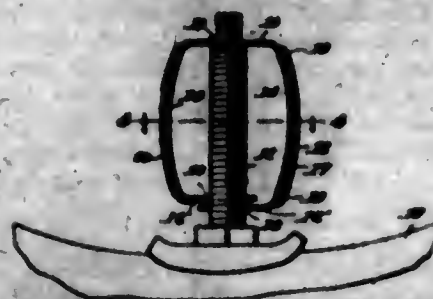
1. The process of producing a superfine grade of Keene's cement which consists in burning gypsum at a temperature reaching at least 1200° F., admixing with the burnt product a neutral catalyst, and grinding to substantially 150 mesh.

1,304,149. FORCED-FEED LUBRICATOR. FREDERICK C. BLANCHARD, Detroit, Mich., assignor to Detroit Lubricator Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 7, 1918. Serial No. 230,906. Renewed Apr. 4, 1919. Serial No. 287,634. 9 Claims. (Cl. 184—27.)



1. In a device of the character described, the combination with a sight feeding device, of a basin for supplying oil to said device, a pump comprising a plunger formed with a longitudinally-extending passage having an outlet discharging into said basin, and a barrel receiving said plunger having an inlet in its lower portion, said barrel and plunger jointly forming a pumping chamber beneath the latter with which said inlet communicates the outlet of said chamber being through said longitudinal passage of the plunger, a second pumping chamber being formed above the first-mentioned chamber surrounding the plunger between annular shoulders respectively formed on said pump and barrel, and passages for respectively conducting the oil passed through said sight feeding device to and from the last-mentioned pumping chamber.

1,304,150. TAG AND CHECKING DEVICE. GIBSON E. BLAYLOCK, Baltimore, Md. Filed July 8, 1918. Serial No. 243,897. 1 Claim. (Cl. 40—10.)



A device of the kind described, comprising a resilient elongated looped member divided at one end, with the end portions thereof interlaced and overlapping and provided

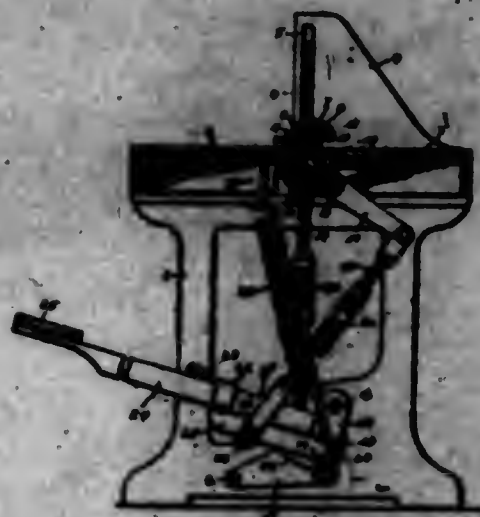
with perforations adapted to register, the other end of the loop also having a perforation, and the sides of the loop having a normal tendency to spread, and draw the overlapping end portions in opposite directions and in the direction of their length, and one of said sides having a tag holding means.

1,304,151. DIE. CHARLES M. BURNIN, Dayton, Ohio. Filed Feb. 8, 1919. Serial No. 275,781. 20 Claims. (Cl. 164—18.)



1. In a die, the combination, a stationary member having an aperture therein, a member operable in said aperture, cam elements arranged respectively in said aperture and on said movable member; and a member movable relative to said members and adapted to move the second member vertically, whereby the cam elements will act to move said second member successively laterally in a plurality of planes.

1,304,152. METAL-BENDING MACHINE. THOMAS BAINSON, Rock Island, Ill. Filed May 11, 1917. Serial No. 207,912. 5 Claims. (Cl. 188—12.)



1. In a metal-bending machine, a frame; a bed-plate mounted therein and provided with a central opening; a die fixed in said bed-plate at one edge of said opening and having a metal-bending face at an angle with said bed-plate; a die member vertically movable above said opening and carrying a metal-bending rib at an angle corresponding with the angle of the face of said first-named die, and adapted to be brought into proximity therewith to form a bend in a sheet of metal; a die member pivotally mounted in said frame and capable of forming a radius bend in said sheet of metal; mechanism for operating said

vertically movable die member; mechanism for operating said pivoted die member; and actuating device for causing the operation of both of said last-named mechanisms, in succession, in the order mentioned.

1,304,153. ARM-SLING. BENJAMIN M. BROWN, Spokane, Wash., assignor to Clark H. Quigley, Spokane, Wash. Filed Sept. 11, 1918. Serial No. 253,579. 1 Claim. (Cl. 128—64.)



The combination with an open sling and its shoulder strap, and said sling having a series of spaced loops around its wrist end, a wrist strap passed through these loops and connected with the shoulder strap at one of its ends, the other end of the shoulder strap formed with a pair of diverging members, one of which is provided with a loop for a buckle and fixed extensions attached to the sling, and a complementary forced extension attached at the opposite edge of the open sling and connected with the buckle.

1,304,154. GAS-RADIATOR. WILLIAM H. CAHN, Los Angeles, Calif. Filed Apr. 1, 1918. Serial No. 230,000. 3 Claims. (Cl. 126—61.)

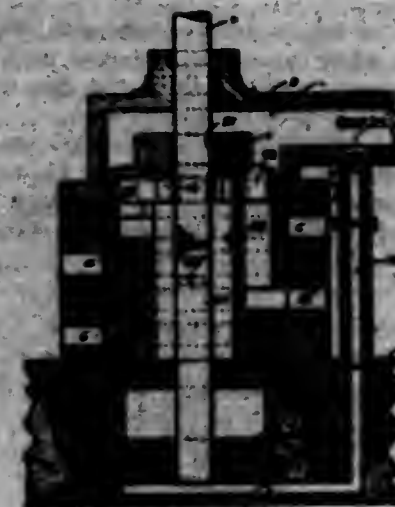


1. In a radiator, means forming a combustion chamber and a connecting chamber, means forming two passages leading up from the combustion chamber and down to the connecting chamber, and a fan leading upwardly from the center of the connecting chamber; there being a bypass leading downwardly from the bottom of the fan to near the bottom of the combustion chamber.

1,304,155. ENGINE-VALVE. HERBERT L. CAMPBELL, St. Louis, Mo. Filed Sept. 20, 1916. Serial No. 121,190. 1 Claim. (Cl. 126—7.)

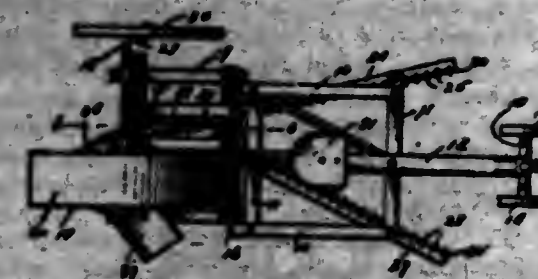
In a device of the character described in combination with an arcuate valve seat having a hole in its geometric center extending therethrough in communication with the atmosphere, an engine cylinder, an arcuate rotative valve disk with a hole in its geometric center extending from one face partially through the disk and with certain arcuations similarly extended from the same face partially through the disk and in direct communication with said

hole, and other arcuations extended from face to face of said disk, and means whereby at a certain selective positioning of said valve disk communication is established between the arcuations which extend from face to face of the disk and one end of the cylinder, and simultaneously direct communication is established between the other end of said cylinder through the remaining arcuations of said disks into the hole of said disk and thence to the atmosphere, a split valve stem formed of two parts, hav-



ing its adjacent ends in rotative contact, a balance disk, a balance disk chamber, said balance disk positioned in said chamber, said valve disk and said balance disk secured to opposite ends of said split valve stem, said arcuated valve disk being in rotative contact with said arcuated valve seat, and means for making the pressure on the steam side of the valve equal to that on the steam side of the balance disk.

1,304,156. STONE-GATHERER. CHARLES E. CHASS and OLIN E. HUTCHINGS, Belgrade, Mont. Filed Aug. 2, 1917. Serial No. 184,835. Renewed Oct. 8, 1918. Serial No. 287,400. 2 Claims. (Cl. 55—17.)

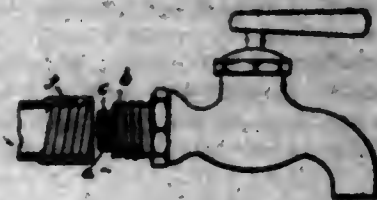


1. A stone gatherer including a frame, rearwardly converging scraping rakes on the frame, a movably connected frame carried by the first frame, a wheel carried by the movable frame and engaging the ground adjacent the converging ends of said rakes, stone receiving pockets carried by the wheel, one of said rakes extending beyond the end of the other rake, and a scooping member on the said extended end of the scraping rake for guiding the stones into the pockets successively, said pockets being arranged to dump the stones adjacent the upper portion of the wheel.

1,304,157. WATER-WASTE CONTROL. ARTHUR C. COWELL, Detroit, Mich. Filed Apr. 11, 1918. Serial No. 237,898. 1 Claim. (Cl. 127—111.)

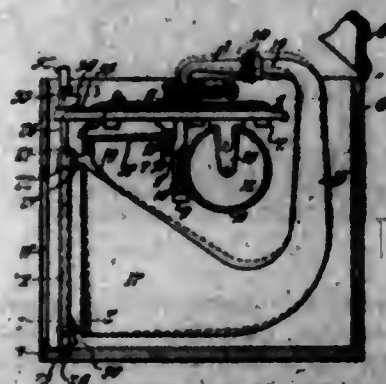
In a water waste control, the combination of a bib and supply pipe, one of which is provided with an internally and externally threaded nipple and the other with an internally threaded socket to receive the nipple, and a hollow externally threaded and side perforated pipe

screwed partially into the nipple and closed at its end which projects out of the nipple and open at its opposite



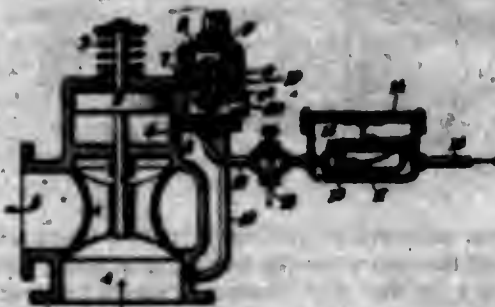
end, the end of the nipple cooperating with the perforations in the plug when the plug is screwed into or out of the nipple to varyingly regulate the water flow to the bib.

1,304,158. PHONOGRAPH OR TALKING-MACHINE. JOHN E. CONSTABLE, West Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Apr. 19, 1915. Serial No. 22,387. 18 Claims. (Cl. 274-2.)



1. In a phonograph or talking machine, the combination of a record support, a reproducer in operative relation thereto, a sound conveyor carrying said reproducer, and means movable rectilinearly at an angle to the horizontal for shifting said conveyor about a substantially horizontal axis to move said reproducer away from said record support, substantially as described.

1,304,159. MEANS FOR OPENING AND CLOSING VALVES IN CERTAIN DETERMINED INTERVALS OF TIME. GUSTAF DALEN, Skäråkra, Lidingö, Stockholm, Sweden, assignor to American Gasaccumulator Company, Elizabeth, N. J., a Corporation of New Jersey. Filed Apr. 3, 1915. Serial No. 19,015. 16 Claims. (Cl. 67-111.)



1. Apparatus for periodically opening and closing a valve, comprising a movable wall connected with the valve and actuated by a fluid, controllable means for admitting said fluid to said wall at predetermined intervals independently of the position of said valve, and mechanism for controlling the operation of said means.

1,304,160. STORING MASS FOR GAS DISSOLVED IN A LIQUID AND METHOD OF PRODUCING THE SAME. GUSTAF DALEN, Skäråkra, Lidingö, Stockholm, Sweden, assignor to American Gasaccumulator Company, Elizabeth, N. J., a Corporation of New Jersey. Filed July 28, 1916. Serial No. 111,964. 12 Claims. (Cl. 23-29.)

1. A porous mass comprising a fibrous substance and a binder for binding the fibers of said substance together,

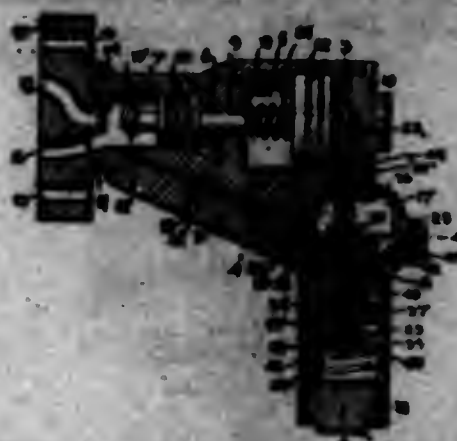
said binder being the residue of a carbonizable material mixed with the said fibrous substance, the said residue resulting from the heating of the mixture to cause decomposition of said material.

1,304,161. ENVELOP. JAMES ALAN DELAUGHTER, Benita, La. Filed Oct. 28, 1918. Serial No. 300,002. 1 Claim. (Cl. 230-72.)



An envelop of the character described formed of a blank having a front portion, a back flap attached to the bottom thereof and adapted to be folded into confronting relation thereto, this front portion and the back flap being formed with sealing flaps, the sealing flap attached to the back flap being less in depth than the sealing flap attached to the front portion and lateral flaps attached to the ends of the front portion having a length sufficient to overlap each other, the inner faces of said lateral flaps along the bottom margins thereof being provided with adhesive and one end of one of the lateral flaps being provided with adhesive, said lower adhesive covered margins of the lateral flaps being folded over upon and caused to adhere to the lower margin of the front flap when the envelop is folded whereby to provide an envelop having two compartments and two sealing flaps.

1,304,162. AIR-PRESSURE GOVERNOR FOR AIR-BRAKE SYSTEMS. JOHN W. DE SCHAMPS, Muskogee, Okla. Filed Mar. 23, 1916. Serial No. 224,200. 3 Claims. (Cl. 50-38.)



1. In a pressure governor for air brake systems, a body having two piston chambers of relatively different diameters, means connecting the smaller chamber to the air supply reservoir and train line pipe of the air brake system, a piston in each of said chambers, a valve connected to and movable with said pistons, said body being further provided with an air receiving chamber in communication with the respective piston chambers, a spring pressed valve element operating in the air receiving chamber and normally closing communication between the same and the larger piston chamber, means operatively connected to the valve element and acted upon by air pressure in said receiving chamber to move the valve to open position and permit the air at reservoir pressure to enter from said chamber into the larger piston chamber whereby the valve is moved to close communication between the reservoir and the train line pipe, said valve having an air ejection port in communication with the larger piston chamber in the normal position of the valve to exhaust

the air from said chamber to the atmosphere upon the return of the piston to its normal position, and a relatively stationary part coacting with the valve when the latter is moved to its open position to close communication between said ejection port and the atmosphere.

1,304,163. STOVE-POLISH. CARLETON DAVLIN, Providence, R. I. Filed Nov. 26, 1918. Serial No. 343,297. 1 Claim. (Cl. 184-85.)

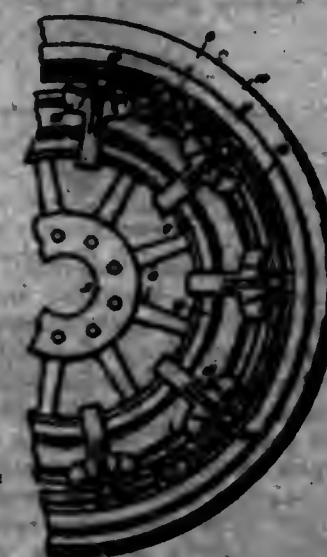
A stove polish consisting of the following ingredients in the following proportions, viz., 1 pound pure graphite, 2 ounces turpentine, 1 ounce of boiled linseed oil, 1 ounce of asphaltum, 1/2% of citric acid, 1/2% of amyloacetate, and a perfuming ingredient.

1,304,164. RESILIENT WHEEL. FRANCIS DICKSON, Sonoma, Calif. Filed Nov. 27, 1918. Serial No. 344,351. 1 Claim. (Cl. 183-64.)



In a vehicle wheel the combination with a hub of a plurality of spring spokes, the inner ends of said spokes being mounted in slots of one of the hub sections, said hub section being provided with an annular groove, notches on one side of the inner ends of the spokes, a retaining plate having a beveled annular rib for engaging the notches in the inner ends of the spokes whereby the inner ends of the spokes will be forced into the ends of the hub section slots and the annular rib on the retaining plate allowed to enter the annular slot in the hub section.

1,304,165. VEHICLE-WHEEL. TIMOTHY C. DEANER, Huntington Park, Calif. Filed Aug. 22, 1916. Serial No. 116,221. Renewed Apr. 14, 1919. Serial No. 290,078. 3 Claims. (Cl. 143-21.)



1. The combination with a resilient wheel center, of a transversely divided ring encircling the center, a rim encircling the divided ring, and means for forcibly separating the parts of the divided ring to expand the latter, said rim and ring being adapted to mutually engage and form a rigid unit when the ring is forcibly expanded.

1,304,166. FOOD PRODUCT AND ITS METHOD OF MANUFACTURE. ROBERT DOUGLAS, Rochester, N. Y., assignor to Douglas Packing Company, Inc., Rochester, N. Y., a Corporation of New York. Filed Aug. 14, 1913. Serial No. 784,738. 6 Claims. (Cl. 90-11.)

1. A jellified conserve composed of crushed fruit, sugar dissolved in the fruit juice and a concentrated pectous solution of sufficient strength to combine with the sugar and surplus water of the fruit to jellify the mass without material reduction of volume by evaporation.

2. The process of making jams or conserves consisting in adding to crushed fruit and sugar a concentrated pectous solution, heating the mass sufficiently to sterilize it without producing evaporation by prolonged boiling and subsequently allowing the mass to cool.

3. A fruit jelly made from sugar syrup to which is added an acid solution of concentrated fruit pectins in sufficient quantity to form jelly without prolonged boiling.

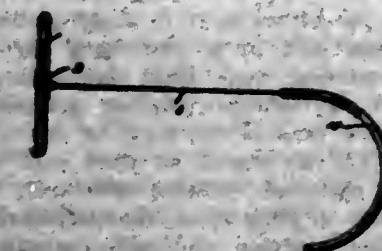
6. Unflavored pectin, treated with fruit pulp, sucrose and water.

1,304,167. UNDERREAMER. CHARLES L. DUNHAM, Pennsboro, W. Va. Filed Sept. 12, 1918. Serial No. 283,805. 1 Claim. (Cl. 253-75.)



A reamer provided with a body portion having an opening, a yoke-shaped spring secured therein and having the legs thereof normally extending toward each other, said body portion having a bifurcated lower end and further having a lengthwise opening communicating with a horizontal opening and with the bifurcation of said end, the walls of said lengthwise opening forming inclined bearing surfaces and the top wall of said bifurcation provide flat shoulders, shanks eccentrically pivoted in the bifurcated end of said body portion and extending into the horizontal opening and between the legs of said spring, said shanks provided with rounded and flat shoulders engaging the bearing surface and shoulders of the body portion, and cutter heads carried by the shanks and arranged exteriorly of the body portion.

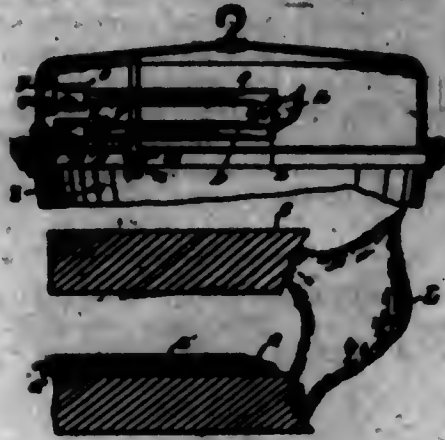
1,304,168. TEMPLE FOR SPECTACLES. EDWIN L. DUNN, Newark, N. J., assignor to New Jersey Optical Co., Newark, N. J., a Corporation of New Jersey. Filed July 26, 1917. Serial No. 182,809. 14 Claims. (Cl. 50-82.)



1. In a temple for spectacles, in combination, a non-metallic rear end member said member having a narrow slot in its forward end, said slot extending across the said forward end and a relatively small wire having its rear end portion flattened and extended into the said slot, the

parts of said non-metallic member upon opposite sides of the said flattened portion fitting against the opposite sides of the latter and means for holding the said parts clamped against said flattened portion, substantially as described.

1,804,169. ARRANGEMENT FOR FORMING ELECTRICAL ARCS. EUSTALAN DUSCHNITZ, Berlin, Germany. Filed July 14, 1911, Serial No. 688,505. Renewed July 22, 1918. Serial No. 246,220. 3 Claims. (Cl. 176-100.)



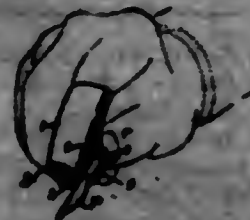
1. The arrangement for forming an electrical arc, consisting of two electrodes which are conductors in the cold state, one being arranged in proximity to the other in the air, a current supply connected with said electrodes, a conducting substance which when heated emits conducting glowing particles and vapors, said substance being placed between said electrodes and insulated by an air space from one of the electrodes and coated with an insulation adapted to be consumed by heating, a conducting mass of high resistance connected with said substance, and means for passing a heating current through said electrodes and said conducting mass.

1,804,170. CHAIN-PENDANT. RAYMOND W. BOSTA, Weehawken, N. J. Filed May 10, 1918. Serial No. 224,945. 7 Claims. (Cl. 24-116.)



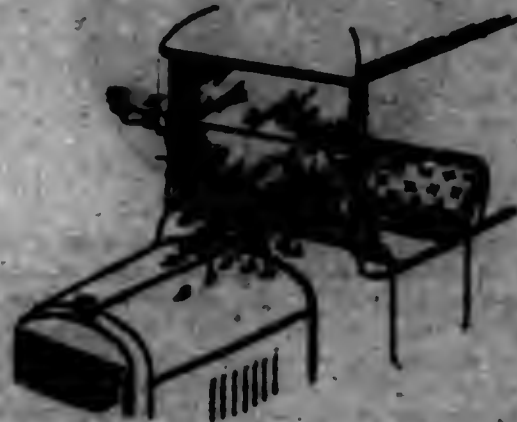
4. A device for attachment to a sphere-like object such as the terminal ball of a ball-chain for electric pull-switches, comprising two sheet members pivotally secured together for relative angular movement and having ball-receiving orifices eccentric to the pivotal axis of the members and arranged so that said members will mutually open their said orifices sufficiently to receive the said sphere-like object when the members are in one relative angular position and will mutually close their said orifices sufficiently to retain said object when the members are in another relative angular position, and one of said sheet members being adapted to spring into the orifice of the other member when the members assume their said relative angular position which retains the object.

1,804,171. HOLDER FOR WRITING IMPLEMENTS. JOHN W. FINNAN, Salt Lake City, Utah. Filed Oct. 10, 1918. Serial No. 298,989. 3 Claims. (Cl. 190-102.)



1. A holder of the class described comprising a sleeve adapted to receive a digit of a hand, a laterally directed plate carried by the sleeve, said plate being returned upon itself to afford resilient jaws between which is adapted to be inserted an end portion of a writing implement, said return portion being extended to afford a socket to receive a second writing implement.

1,804,172. DIRECTION-SIGNAL FOR VEHICLES. CARL FRIEDRICH, Lockport, N. Y. Filed Aug. 22, 1917. Serial No. 187,872. 9 Claims. (Cl. 177-287.)



1. A direction signal for vehicles comprising a turret rotatable about a vertical axis, and an indicator rotatable with said turret and also capable of being projected and retracted relatively thereto.

1,804,173. MULTIPLE-SPINDLE MACHINE. E. J. GAGNON, Boston, N. H. Filed Mar. 21, 1918. Serial No. 222,932. 6 Claims. (Cl. 13-1.)



1. In a machine of the class described, in combination, a support, a power shaft journaled thereon, a turret adapted to rotate about said shaft as an axis and carrying a plurality of spaced arbors adapted to be selectively moved into a pre-determined position, power transmitting connections from said shaft to said arbors for driving said arbors, said connections tending to rotate said turret, and controlling means normally restraining said turret against rotation but operable to permit said connections to rotate said turret to bring a selected arbor into said pre-determined position and then to automatically stop the rotation of said turret.

1,804,174. CLEAN-OUT PLUG. CHARLES EDWARD GATE, Winnipeg, Manitoba, Canada. Filed Mar. 20, 1918. Serial No. 224,263. 4 Claims. (Cl. 157-78.)

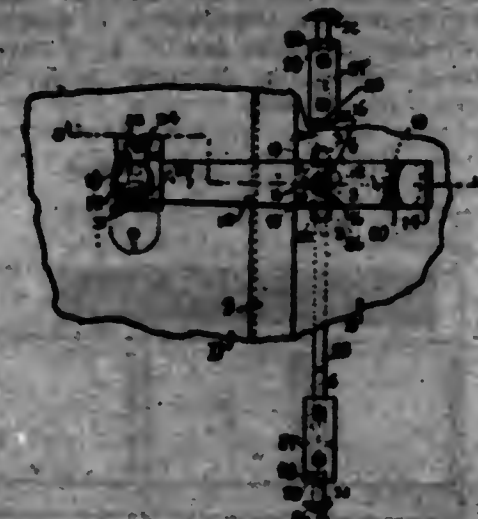
1. The combination with a pipe, of a cleanout plug comprising a collar inserted within the end of the pipe

and provided at the inner end of the valve seat, a cap detachably secured to the outer end of the collar and a



spring pressed valve carried by the cap and engageable with the valve seat in a manner such that the spring is under compression when the cap is applied.

1,804,175. DOOR-LOCK. SAMUEL P. GUNN, York, Pa. Filed June 24, 1912. Serial No. 241,572. 4 Claims. (Cl. 10-61.)



1. In a locking device for doors, an operating lever, a rod fixed to said lever intermediate of its ends and rotatably mounted in the door, an arm fixed to said rod, locking bolts operatively connected to the ends of said arm, a plate engaged upon the rod and secured to the door, said plate having a hook formed on one end and within which one end of the operating lever is adapted to frictionally engage when the lever is moved to dispose the bolts in locking position, and a keeper member to receive the other end of said operating lever.

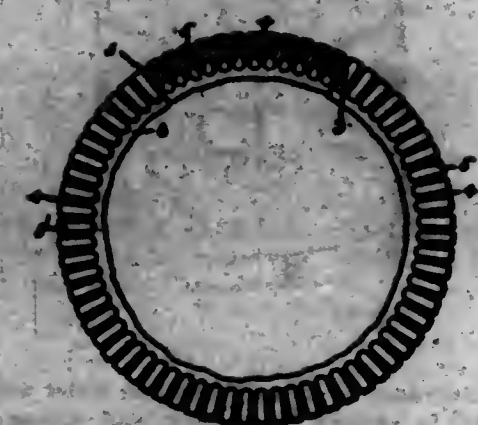
1,804,176. CONTRIVANCE FOR CLEANING COOKING UTENSILS AND OTHER ARTICLES. EDWIN M. GOSCHEN, Philadelphia, Pa., assignor to Friedberger-Aaron Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 10, 1918. Serial No. 212,005. 6 Claims. (Cl. 66-12.)



1. A cleaning contrivance comprising an unsupported pliable piece of fabric a large part of the surface of which is uncovered, the uncovered part acting wholly as

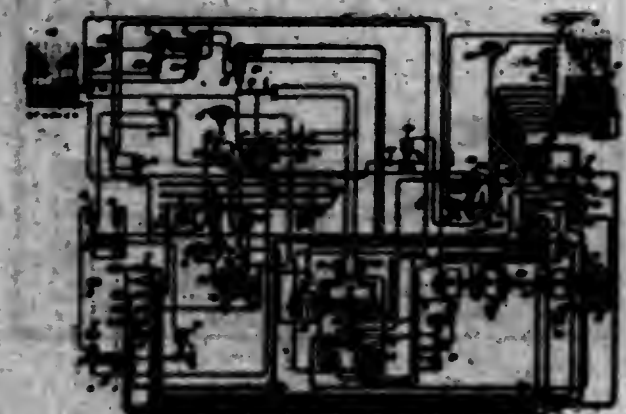
an absorbent, and abrasive material both positively secured to the fabric and so extending superficially over the remaining part of said surface as to leave a substantial portion of the abrasive section of the fabric uncovered, thereby providing a flexible cleaning contrivance one section which is wholly absorbent and another section which is both absorbent and abrasive.

1,804,177. PNEUMATIC TIRE. ISRAEL GUNNBERG, Baltimore, Md. Filed Nov. 8, 1918. Serial No. 261,500. 1 Claim. (Cl. 182-12.)



A pneumatic tire having an outer casing, an inner tube, two flexible hoops extending around the inner side of said outer casing between the inner tube and said outer casing, a row of flexible plates each having rounded extremities and extending across and secured to said hoops and having spaces between their edges, a row of flexible plates having rounded extremities and resting upon and overlapping the edges of the first-named row of plates and secured to said hoops, and a piece of leather secured between the inner tube and the said hoops and plates.

1,804,178. ELECTRICAL SYSTEM OF POWER TRANSMISSION. WILLIAM S. H. HAMILTON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 24, 1916. Serial No. 88,854. 19 Claims. (Cl. 172-179.)

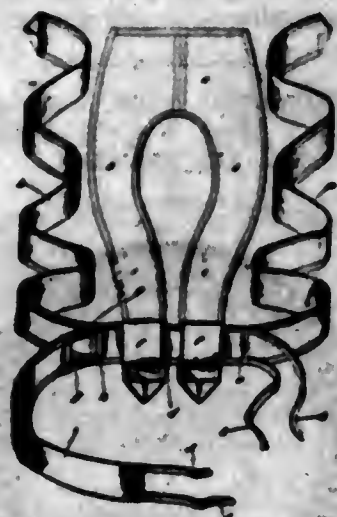


1. In combination, a dynamo-electric machine having a field winding in series with its armature, a separately controllable source of potential connected to said series field winding, means for controlling the potential supplied by said source, and means responsive to the sum of the currents in the armature and field windings of said machine for regulating said controlling means.

1,804,179. GARMENT. BERTHA HAWKST, London, England. Filed June 12, 1918. Serial No. 220,553. 4 Claims. (Cl. 2-94.)

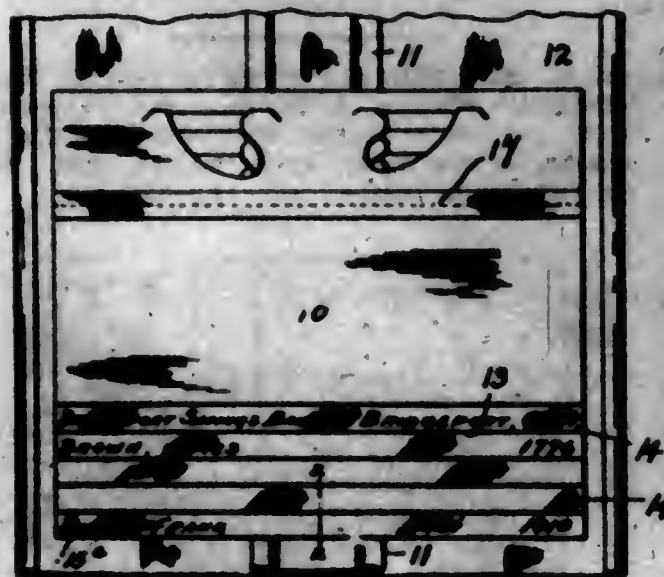
1. An attachment for garments comprising a substantially U-shaped section arranged to be slipped over the

head and shoulders and forming a continuous collar and continuing front straps extending downwardly at the front and having free ends located approximately at the waist line, a belt connected with said front straps at their free



ends and arranged to extend about the waist whereby said attachment is secured in position and means connected with said belt and arranged to be secured about the waist whereby said belt is concealed.

1,304,180. INDEX OR FILE. ROBERT D. HAYES, New Haven, Conn., assignor to Index Visible, Incorporated, New Haven, Conn., a Corporation of New York. Filed July 31, 1917. Serial No. 183,770. 21 Claims. (Cl. 129-18.)

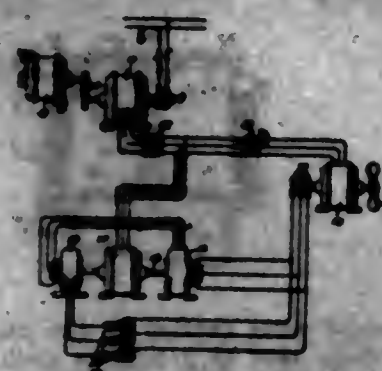


4. In an index or file, a plurality of overlapped cards, pockets extending beyond the free edges of the cards, and inserts in said pockets.

1,304,181. ELECTRIC SHIP PROPULSION. HENRY M. HOBART, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 21, 1916. Serial No. 121,506. 3 Claims. (Cl. 173-8.)

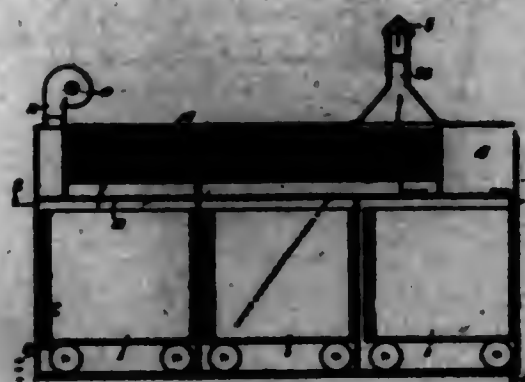
1. An electric system of ship propulsion comprising a high speed elastic fluid turbine, a relatively high speed polyphase alternating current generator, mechanical speed reducing gearing operatively connecting said turbine to said generator, the speed reduction between said turbine and said generator being such that the frequency of the

generated alternating current is not greater than ten cycles per second, a propeller shaft, and a relatively low



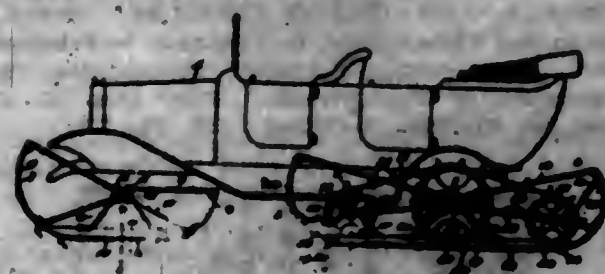
speed polyphase induction motor mounted on said shaft and adapted to be electrically connected to said generator.

1,304,182. APPARATUS FOR DRYING MATERIALS. HARRY R. HOLLISTER, Irvington, N. J., assignor to Kallperry Corporation, Elizabeth, N. J., a Corporation of New Jersey. Filed July 17, 1917. Serial No. 180,984. 30 Claims. (Cl. 94-46.)



1. The combination of a tunnel, a series of cars adapted to be placed in said tunnel, transverse partitions between said cars, partitions between the car partitions and the tunnel walls arranged to form a continuous air passage leading through the cars successively in opposite directions transversely of the tunnel, means to force heated air through said passage, and means for preventing formation of strata of cold and warm air in said passage.

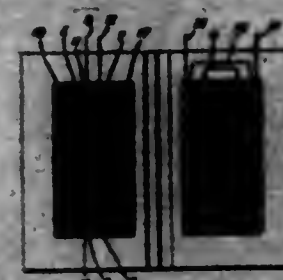
1,304,183. SLED ATTACHMENT FOR AUTOMOBILES. ANDREW JACQUOT, Clifton, Ore. Filed Nov. 24, 1917. Serial No. 208,704. 1 Claim. (Cl. 180-5.)



In a sled attachment for automobiles, the combination of rear runners having bearings rotatably receiving the rear axle sections of the vehicle, said rear runners each including an inverted U-shaped channelled body provided with laterally extending flanges and having central and front and rear openings in the crown wall thereof, a drive gear fixed to the rear axle section and having its lower portion movable through said central opening, front and rear guide sprockets on each rear runner having their lower portions movable through the front and rear openings in said runner body, and a looped chain extending

around the drive and guide sprockets of each rear runner and a having a lower stretch extending through the channel of the runner body, said chain being provided at spaced intervals with propeller blades operating in said channel.

1,304,184. TRANSFORMER. SVEND E. JOHANNSEN, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Nov. 11, 1918. Serial No. 60,840. 2 Claims. (Cl. 175-36.)



1. A transformer comprising adjacently located multi-layer secondary and primary windings, each line lead for both of said windings being connected to a layer of its respective winding which is separated from all layers of the other winding by other layers of the same winding.

1,304,185. BRIQUETING APPARATUS. FRED ALLEN JONMAN, Sallwood, Ontario, Canada, assignor to Moose Mountain, Limited, Sallwood, Ontario, Canada, a Corporation of Ontario. Filed May 29, 1918. Serial No. 81,116. 9 Claims. (Cl. 28-1.)



9. In a briquetting plant, mold lifting tracks, a mold return track receiving empty molds from said lifting tracks, a mold carrier receiving the molds from said mold return tracks and movable with a mold to a predetermined mold discharging position, and means for discharging a mold from said carrier on to a mold support and simultaneously advancing the mold and support.

1,304,186. PROCESS OF BRIQUETING. FRED ALLEN JONMAN, Sallwood, Ontario, Canada, assignor to Moose Mountain, Limited, Sallwood, Ontario, Canada, a Corporation of Ontario. Filed May 29, 1918. Serial No. 81,117. 1 Claim. (Cl. 28-1.)



The method of making briquets, which consists in positioning a bottomless multiple compartment mold on a support, charging wet material into said mold while on said support, heating and jarring said material while in the mold to effect an initial set of the briquet, and simultaneously jarring and lifting the mold to separate it from the briquet.

1,304,187. AEROPLANE. CHARLES A. LANE, San Jose, Calif., assignor to one-fourth to Charles B. Lewton, San Jose, Calif. Filed Aug. 18, 1918. Serial No. 280,181. 5 Claims. (Cl. 244-34.)

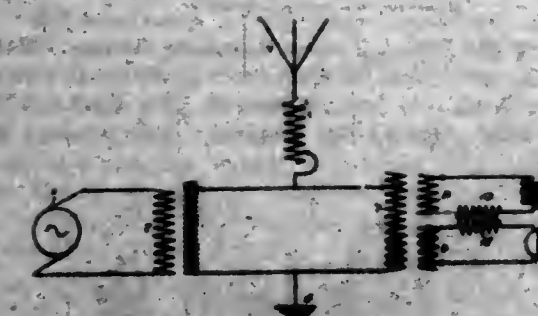
1. In an aeroplane, a propeller comprising a shaft operatively mounted on the body thereof substantially par-

allel with the gliding plane thereof, a plurality of oblong blades projecting outwardly from the perimeter of said



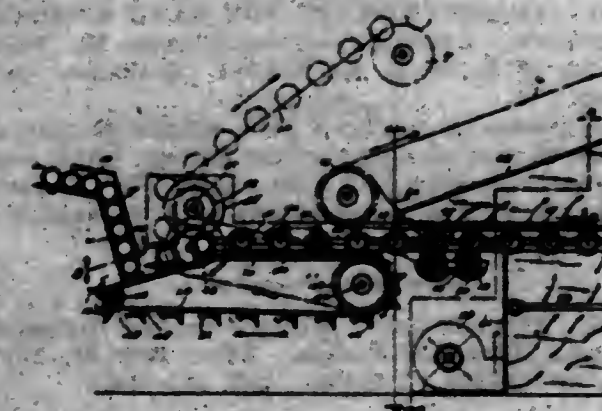
shaft and operating means for said shaft, and a casing having perforated ends inclosing a portion of said propeller.

1,304,188. CONTROLLING APPARATUS FOR WIRELESS TELEPHONE SYSTEMS. DAVID G. MCCAA, Lancaster, Pa. Filed June 4, 1918. Serial No. 238,176. 9 Claims. (Cl. 250-8.)



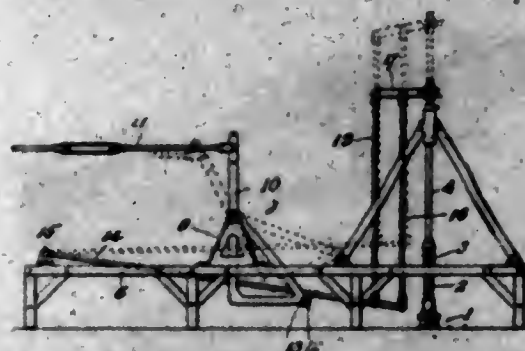
2. The combination in a transmitting system of a radiating circuit; a source of high frequency oscillations operatively connected to said circuit; two inductively coupling auxiliary circuits inductively connected to said first circuit; and a microphone connected to one of said auxiliary circuits.

1,304,189. MACHINE FOR COATING PAPER TUBES. CHARLES B. MACT, Noblesville, Ind., assignor to Charles B. Hawkins, Akron, Ohio. Filed July 6, 1918. Serial No. 243,629. 29 Claims. (Cl. 91-41.)



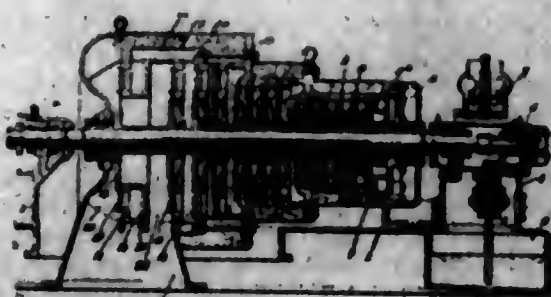
1. A tube-coating machine, comprising a flexible endless conveyor provided with means for gripping tubes by their ends, said gripping means being arranged in pairs, means which in the travel of the conveyor produces movement of the gripping means of the respective pairs to ward and from each other at the beginning and the end of a working path so as to grip and release said tubes, means cooperating with said gripping means to produce rotation of said tubes while they travel said working path, and means for acting on the tubes while they are in said working path.

1,304,190. PUMPING-JACK FOR OIL-WELLS. BENTON MOORE, Cherryvale, Kans., and GARRETT O. STANBURY, Kansas City, Mo. Filed Aug. 2, 1918. Serial No. 247,907. 2 Claims. (Cl. 74-5.)



1. A pumping jack comprising a lever, a second lever fulcrumed above and underlying the first lever and adapted to constantly change its point of engagement with the latter, a third lever for engagement with a part to be lifted, and a pair of rods connecting the first-named lever and said third lever.

1,304,191. TURBINE. JAMES LEONARD MOORE, Wellsville, N. Y., assignor to The Kerr Turbine Company, Wellsville, N. Y., a Corporation of New York. Filed June 16, 1916. Serial No. 104,066. 27 Claims. (Cl. 253-69.)

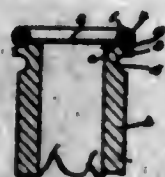


20. A turbine compartment having a plurality of rotor divisions for receiving simultaneously the expansive force of the steam at a given pressure while continuing its forward direction of movement.

1,304,192. NEGATIVE PLATE FOR LEAD STORAGE BATTERIES. WILLIAM MORRISON, Chicago, Ill. Filed Sept. 23, 1918. Serial No. 255,384. 3 Claims. (Cl. 204-29.)

2. The process of making a plate suitable for use as a negative element of a lead storage battery, which comprises electrodepositing lead from solution, in the pores of the active material coincidentally with the reduction of such active material.

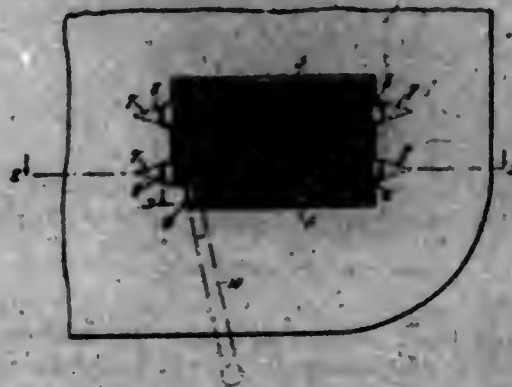
1,304,193. BOTTLE-CAP. WILLIAM GEORGE NICHOLLS, Winnipeg, Manitoba, Canada. Filed May 21, 1917. Serial No. 160,907. 2 Claims. (Cl. 215-96.)



1. A bottle-cap comprising a rubber ring and a rubber cover piece spanning the center of the ring and adapted to close the bottle opening, the rubber ring being nor-

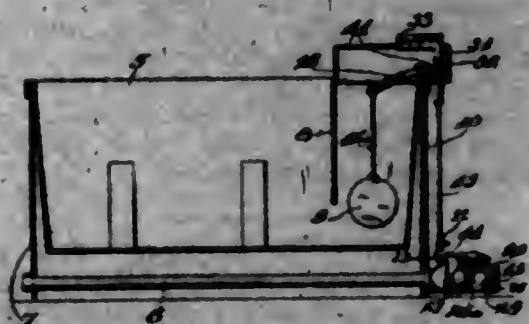
mally of less diameter than the bottle neck but capable of being expanded with its center so as to be forced downwardly under a projecting shoulder of the bottle neck to hold the closure in place, substantially as described.

1,304,194. MATCH-SCRATCHER. WILLIAM BERNIE NICOLL, Fort William, Ontario, Canada. Filed Sept. 26, 1918. Serial No. 255,332. 2 Claims. (Cl. 51-20.)



1. A device of the character described comprising a metallic plate provided with a rough surface upon which matches may be scratched, said plate being provided with means for holding it upon a garment, and having a portion thereof bent into the proximate form of a hollow cone with the roughened surface on the inner side for the purpose of guiding a stick and also dressing the same when thrust through said cone, into engagement with the rough surface of the plate.

1,304,195. AUTOMATIC GAS-BURNER. JOHN J. NOYER, Chicago, Ill. Filed Sept. 5, 1918. Serial No. 252,765. 1 Claim. (Cl. 137-111.)



The combination with a water tank and a gas burner for heating the water therein; of a valve controlling the gas supply to the burner, said valve having a casing and a stem extending therefrom, a lever fulcrumed on the valve casing and connected to the valve stem, a rod connected to the lever for actuating the same, an actuating lever connected to the rod, a float in the tank, a connection between the float and the last mentioned lever, an indicator carried by the rod, and a housing for the indicator into and out of which it is moved by the rod.

1,304,196. FORCE AND SUCTION DEVICE. EMIL KOEPEL, Philadelphia, Pa., assignor of one-half to Julius E. Kennedy, New York, N. Y. Filed Apr. 30, 1914. Serial No. 835,123. 3 Claims. (Cl. 4-1.)

1. In a combined force and suction device, the combination of a pump, a cup connected therewith and provided with flexible sealing lips normally diverging from each other toward their free ends and provided on their adjacent sides with sealing surfaces, said lips being of such length and construction that when spread apart the

sealing surfaces may be made to cooperate with surfaces relatively inclined to each other to seal the same, and



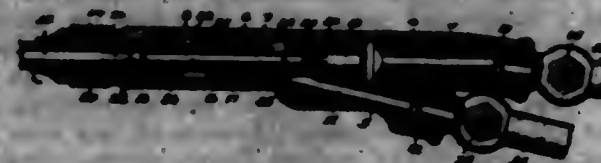
means acting on the cup and adapted by pressure thereon to deform the cup and spread the sealing lips apart.

1,304,197. CONDUIT-EQUIPPED STRUCTURE. CARL J. NYQUIST, Chicago, Ill. Filed Nov. 13, 1918. Serial No. 263,902. 6 Claims. (Cl. 285-21.)



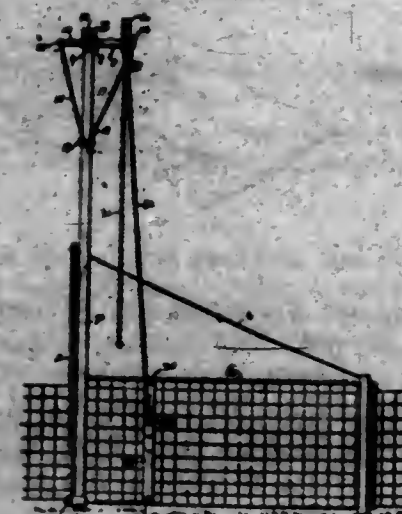
1. In a sectional structure containing a plurality of conduits, the combination of one section having a plurality of seats, one of which surrounds the other, said section containing a plurality of conduits, one of which opens through said sections within the confines of the inner one of said seats, and the other of which opens through said section between said seats, and a second section held to said first-named section and having surfaces which bear against said seats, with conduits in said second section in communication, respectively, with the said conduits in said first-named section, said seats extending substantially in the same plane transversely of the length of said sectional structure.

1,304,198. TORCH. CARL J. NYQUIST, Chicago, Ill. Filed Nov. 13, 1918. Serial No. 263,904. 6 Claims. (Cl. 155-27.4.)



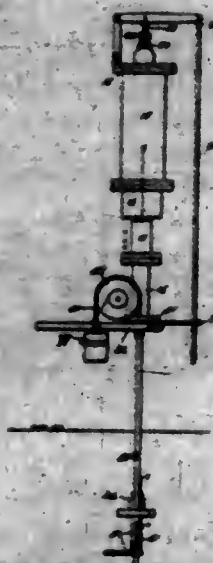
1. A torch comprising a tubular member containing a socket for communication with a plurality of gas supplies, and a second member confined in said socket and containing a conduit extending therethrough for communication with one of said gas supplies, said second member containing passages in its periphery, one of which forms a back-back pocket in communication with the conduit in said second member and the other of which communicates with said conduit and opens into that part of said socket which communicates with the other of said gas supplies.

1,304,199. GATE. GEORGE L. PARBLOW, Oakland, Calif. Filed Jan. 8, 1919. Serial No. 270,184. 3 Claims. (Cl. 30-60.)



1. An apparatus of the class described comprising a vertical post, a beam carried thereby and extending beyond a side thereof, a gate pivotally engaged with the post for swinging movement in a vertical plane, a laterally directed shank carried by the beam, a sleeve loosely mounted upon the shank, a bracket adjustably engaged with the sleeve, a lever supported intermediate its length by the bracket, and a member connecting an end portion of the lever and the gate.

1,304,200. PROCESS OF AND MEANS FOR REMOVING SAND CORES FROM HOLLOW ROLLED METALS. CHARLES F. PASSCOTT, Brooklyn, N. Y. Filed Sept. 9, 1918. Serial No. 253,530. 8 Claims. (Cl. 137-70.)



1. The herein described process of removing the sand core from a rolled bar which consists in projecting a stream of liquid into the bore of the bar, and into direct creative contact with said core.

1,304,201. ARTIFICIAL HAND. GAVIN RALSTON and EARL BLANKENSHIP, Commerce, Okla. Filed June 21, 1918. Serial No. 241,215. 4 Claims. (Cl. 3-12.)

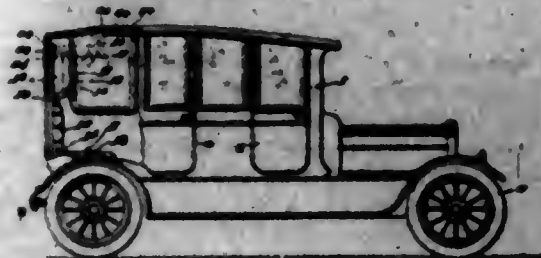
1. An artificial hand comprising a base block, finger and thumb core wires extending from and secured in the base block, pliable finger and thumb body members sur-

rounding said core wires, metallic bands surrounding the junctures of the finger and thumb body members with



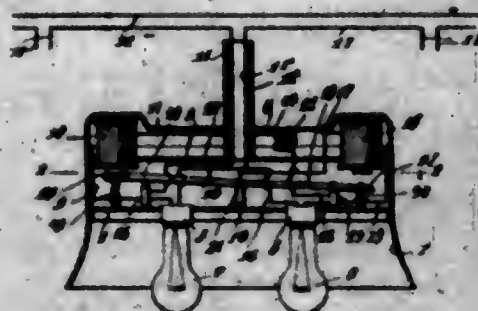
the body block and a sheathing for the finger and thumb member and the body block.

1,304,202. CONVERTIBLE VEHICLE-BODY. WILLIAM V. RICHMAN, Champaign, Ill. Filed Mar. 28, 1918. Serial No. 224,769. 22 Claims. (Cl. 21-42.)



1. In a vehicle body having a top, a removable seat comprising a back and a seat portion hingedly connected for permitting the seat portion to be swung upwardly into engagement with the front surface of the seat back, means connecting said seat back to the vehicle body to permit the seat to be moved upwardly and swung into a horizontal position directly beneath said top.

1,304,203. LIGHTING SYSTEM. ALBERT PHILIP ROBINSON, Kenil, N. J. Filed Aug. 9, 1917. Serial No. 185,286. 2 Claims. (Cl. 175-279.)



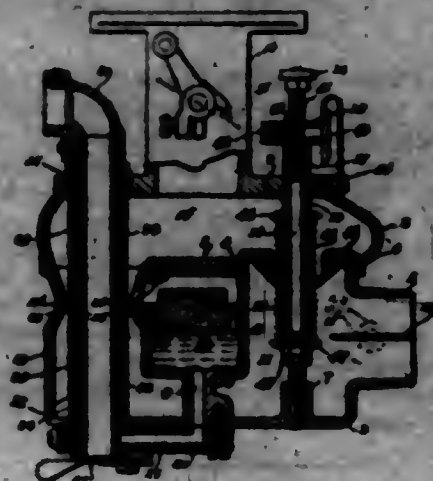
1. In lighting systems, a main electric circuit two lamps connected in series with said main circuit, electro-magnets mounted in the circuit of said lamps respectively, and connected in series therewith, a resistance equal to the resistance of the electro-magnet and lamp of one of the lamp circuits connected in shunt to the same, and means controllable by said electro-magnets for normally connecting one of said lamps into the main in series therewith while cutting out the other lamp, said means being adapted to connect the other lamp and its electro-magnet into the circuit in series in the event of the first mentioned lamp becoming extinguished and to simultaneously disconnect said resistance from the main circuit, said controlling means being further adapted to connect the resistance directly into the main circuit in series therewith in the event that the second lamp is also extinguished.

1,304,304. EXTENSION-TABLE. OSCAR HOWARD BROWN and ALFRED ANDERSON, Fort Frances, Ontario, Canada. Filed May 15, 1918. Serial No. 224,761. 5 Claims. (Cl. 45-112.)



1. In a multi-leaf extension table, centrally located pockets extending transversely of the table and located beneath the closed table top and receiving the leaves in stacks, flexible elements for raising the stacks of leaves to bring the upper of the stacked leaves into the plane of the table top and after the table top has been opened to expose the pockets, means connected with said flexible elements and extending to the ends of the table for operating them, and means for withdrawing the uppermost leaf with the table top and from above the pocket each time the leaf is brought into the plane of the table top.

1,304,305. CARBURETER. CARL ALBERT ROSSUM and OSCAR FREDERICK ROSSUM, Winnipeg, Manitoba, Canada. Filed Jan. 8, 1917. Serial No. 141,378. 1 Claim. (Cl. 261-12.)

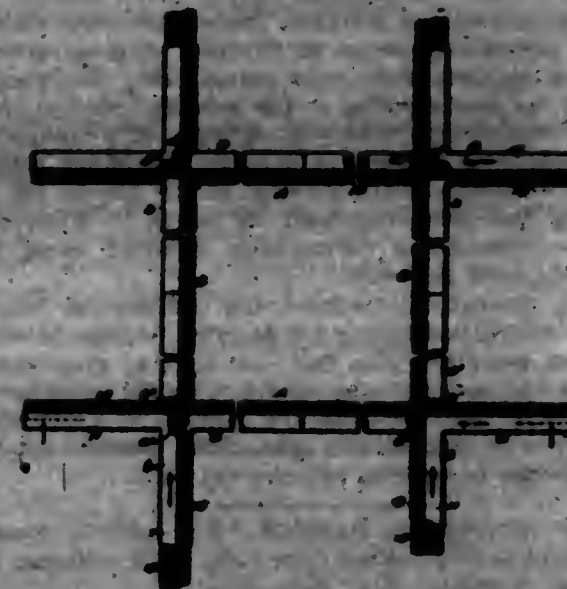


In a carburetor, the combination with an air inlet passage, a mixing chamber and a source of liquid fuel supply, of a contracted choke tube connecting the air passage with the mixing chamber, an exhaust gas tube passing through the carburetor and extending through the choke tube, an upstanding outer tube surrounding and spaced from the lower end of the exhaust gas tube and providing a fuel intake passage communicating with the source of fuel supply, said outer tube having the upper end thereof inwardly coned and terminating adjacent the contracted portion of the choke tube, an adjusting tube 28 adjustably mounted in the upper portion of the carburetor and surrounding the upper portion of the exhaust gas tube and having the lower end thereof outwardly coned and spaced from the inner end of the upstanding outer tube and providing an adjustable fuel outlet passage to the interior of the choke tube, an adjustable sleeve mounted on the upper end of the tube 28, and an adjustable valve located at the lower end of the exhaust gas tube.

1,304,306. PROCESS OF MAKING RAIN-EXCHANGE-ING BODIES. GEORGE BROWN, London, England, assignor to The Parson Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 21, 1918. Serial No. 198,294. 7 Claims. (Cl. 22-18.)

1. The process of making purifying materials which comprises precipitating a solution containing silica and alkali by a solution of a compound of a metal acid, separating the major portion of the mother liquor, drying the unwashed precipitate and immersing in water to cause granulation and washing.

1,304,307. RAILWAY-CROSSING. LANCROT STAN, St. Louis, Mo. Substitute for application Serial No. 48,941, filed Sept. 10, 1918. This application filed Mar. 29, 1919. Serial No. 288,147. 2 Claims. (Cl. 248-454.)



1. A railway crossing, the rails of which present grooves at their intersections for the passage of wheel flanges, and present, in the tread of each crossing rail, at the far side of a groove, a surface elevated above the tread surface at the near side of the groove, there being inclines at said far sides of the grooves, leading from the said grooves to said elevated surfaces and adapted to receive the contact of a wheel tread before the tread leaves the rail surfaces at the near sides of the grooves.

1,304,308. APPARATUS FOR THE DETECTION AND MEASUREMENT OF GASES. GRUBER ANDER SHAKENBARD, Birmingham, England. Filed Oct. 15, 1918. Serial No. 288,288. 2 Claims. (Cl. 75-51.)



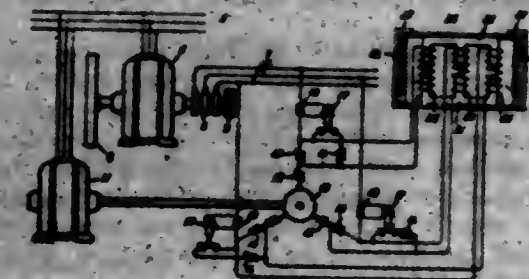
1. In apparatus for the detection and measurement of gases, the combination comprising a pair of detecting wires, a pair of resistances and a galvanometer forming a Wheatstone bridge system, and a metal block having a pair of cavities each containing a detecting wire, said block being provided with perforations between one of the cavities and the exterior of the block, substantially as described.

1,304,309. CHECK-CUTTER AND CHECK-BOOK HOLDER. JOHN F. SNEDEMAN, Des Moines, Iowa, assignor, by mesne assignments, to J. T. Gurnea and D. B. McDonald, Chicago, Ill. Filed Oct. 16, 1917. Serial No. 198,285. 1 Claim. (Cl. 211-37.)



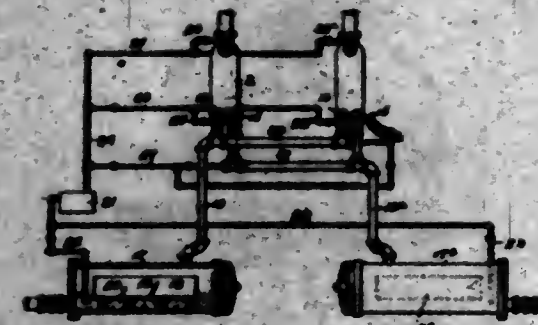
In a device of the class described, the combination of a check book cover having a pocket, a check cutter comprising a rigid member, a cutter blade adjustably mounted thereon, a flexible member operatively connected with said rigid member, and a rigid member operatively connected with said flexible member and adapted to be received within said pocket, whereby the cutter blade may be moved to a variety of positions with relation to the face of checks or the line in said cover.

1,304,310. INDUCTION-MOTOR CONTROL. NEWTON SHUTTLEWORTH and GEORGE MATTHEWS BROWN, Rugby, England, assignors to General Electric Company, a Corporation of New York. Filed Mar. 18, 1916. Serial No. 84,761. 4 Claims. (Cl. 172-274.)



1. In combination, an asynchronous machine, a fly-wheel rotated thereby, a dynamo-electric commutator machine having a commutated winding connected to the secondary winding of said asynchronous machine, and means responsive to the load on said asynchronous machine for abruptly increasing the excitation of said commutator machine when a predetermined load is reached.

1,304,311. APPARATUS FOR TREATING HYDROCARBONS. FRANK L. BLOCUM and CHARLES C. STUTZ, Pittsburgh, Pa., assignors to Synthetic Hydrocarbon Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Apr. 12, 1916. Serial No. 90,851. 6 Claims. (Cl. 196-1.)



1. In an apparatus for cracking hydrocarbons, the combination of a heating tube, a chamber for the reception of material discharged from said tube, said chamber being provided with an outlet for the escape of gases and vapors, and an outlet for the removal of solids and

liquids, and means for returning discharged liquids to said chamber to insure the removal of the solids.

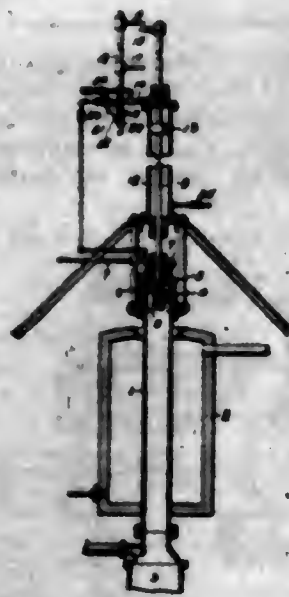
2. In an apparatus for cracking hydrocarbons, the combination of a treating tube, means for removing deposits from the walls of the said tube, a chamber for the reception of material discharged from said tube, said chamber being provided with an outlet for gases and vapors and an outlet for the removal of solids and liquids, means for reducing the temperature of said chamber below the boiling point of a portion of the vapors discharged from the treating tube, and means for returning discharged liquid to said chamber to insure the removal of the solids therefrom.

3. In an apparatus for cracking hydrocarbons, the combination of a treating tube, means for removing deposits from the inner surface of said tube, a chamber for the reception of material discharged from said tube, said chamber being provided with outlets for the removal of products received from the tube, means for segregating the solids and liquids removed from the chamber, and means for returning liquid to the chamber to insure the removal of the solids.

4. In an apparatus for cracking hydrocarbons, the combination of a plurality of treating tubes, a like number of chambers for receiving material discharged from the tubes, said chamber being provided with outlets for the removal of products received from the tubes, a plurality of means for segregating the solids and liquids discharged from the chambers, each segregating means being connected to a plurality of chambers, and means for withdrawing liquid from the segregating means and returning it to a plurality of chambers to insure the removal of the solids.

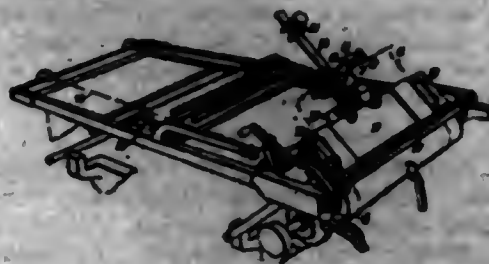
5. In an apparatus for cracking hydrocarbons, the combination of a treating tube, a chamber for the reception of the material discharged from the tube, said chamber being provided with outlets for the discharge of products received from the tube, a segregating chamber having a removable trough for the reception of solids, and means for withdrawing liquids from the segregating receptacle and returning it to the chamber to insure removal of solids therefrom.

1,304,212. APPARATUS FOR TREATING HYDROCARBONS. FRANK L. SLOCUM AND CHARLES C. STUTZ, Pittsburgh, Pa., assignors to Synthetic Hydrocarbon Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Apr. 13, 1916. Serial No. 90,552. 2 Claims. (Cl. 196-4.)



1. In an apparatus for treating hydrocarbons, the combination of a treating tube, means for feeding hydrocarbons to said tube, means for heating said tube, a cleaning head adapted to be reciprocated in said tube by the fluid pressure generated in the tube.

1,304,213. TYPE-WRITING MACHINE. JAMES A. R. SMITH, Stamford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 18, 1917. Serial No. 297,769. Renewed Oct. 9, 1918. Serial No. 257,837. 26 Claims. (Cl. 197-128.)



1. In a typewriter machine, the combination with a revoluble platen and means for carrying carbons between superposed separate webs, said platen being displaceable to permit the straightening of the webs for relative readjustment between the webs and carbons, of a transverse row of registering pins at the delivery side of the platen, said row extending longitudinally of the platen for re-registering the webs repeatedly by means of transverse rows of corresponding perforations repeated along the web at requisite intervals.

2. In a typewriter machine, the combination with a revoluble platen and means for carrying carbons between superposed separate webs, said platen being displaceable to permit the straightening of the webs for relative readjustment between the webs and carbons, of a web-registering device at the delivery side of the platen, said registering device movable to advance the webs.

1,304,214. BATTERY-ADAPTER. MAXWELL H. SMITH, Philadelphia, Pa. Filed Apr. 13, 1918. Serial No. 228,468. 3 Claims. (Cl. 240-8.5.)



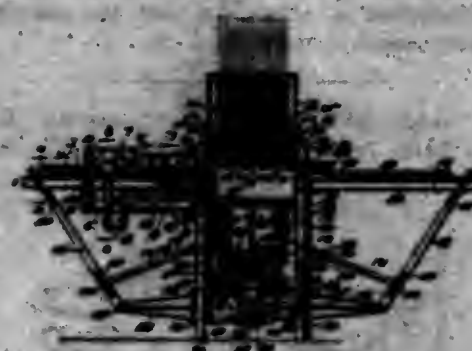
1. A battery adapter for flash lights and other electrical apparatus, comprising a support of insulating material, a plurality of metallic holders secured to the said support and held spaced one from the other, battery cells having metallic casings removably fitting the said holders, interlocking means locking the said battery cells to the holders, a connecting member extending from one holder and engaged by a battery cell in another holder to electrically connect the battery cells with each other, a contact arm mounted on the said support and adapted to be engaged by the battery cell in one holder, and a contact arm connected with another holder, the said contact arms being adapted to be engaged by the contacts of the electrical apparatus on which the adapter is used.

1,304,215. SWEAT-BAND PROTECTOR. CHARLES E. SKYDER, Columbus, Ohio. Filed June 1, 1918. Serial No. 237,757. 3 Claims. (Cl. 2-32.)



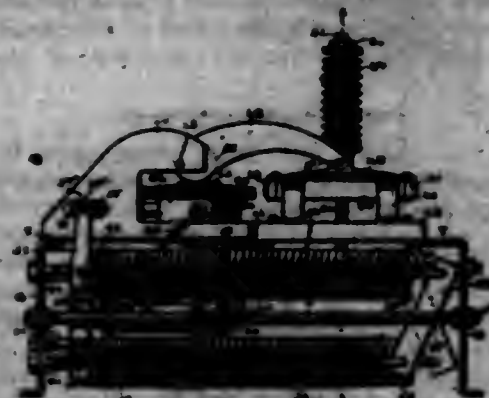
1. An attachment for a hat comprising a band of non-porous material, and means for adjustably coupling the ends of the band, whereby the same is adapted to be disposed within the sweat band of the hat.

1,304,216. MAT-WEAVING MACHINE. JASPER H. STANFIELD, Muskegon, Mich., assignor to Jesse B. Alton, Winnetka, Ill. Filed Nov. 10, 1915. Serial No. 62,324. 1 Claim. (Cl. 138-66.)



A mat weaving machine comprising in combination warp supporting and shed changing mechanism, a yarn carrier movable in and transversely of the shed of the warp, a movable cam bar, a channel therein, and a plurality of pivoted loop lifting levers of the first class, each loop lifting lever comprising a hooked arm and a second arm bearing in said movable cam bar.

1,304,217. PRESSURE-CONTROLLED SWITCH. EDMUND E. TANSBURY, Los Angeles, Calif. Filed Oct. 28, 1914. Serial No. 900,138. 14 Claims. (Cl. 175-306.)



4. In a pressure regulator two hollow intercommunicating casings, diaphragms connected to the cavities of said casings, inlet and outlet ports respectively in each of said casings and controlling means slidably mounted in each of said casings, a lever between said casings operably connected to the controlling means of said casings, parallel intercommunicating diaphragm compartments in one of said casings, and an electric switch operably connected to said compartments.

1,304,218. WELL-BUCKET VALVE. EWING H. TAYLOR, Petersburg, Tenn., assignor to James A. Ausbrooks, Fayetteville, Tenn. Filed Feb. 19, 1917. Serial No. 149,539. 1 Claim. (Cl. 168-35.)

In a well bucket, a valve opening, a valve for normally closing said opening, a lifting member connected to said valve, said valve having a flat surface adapted to cover the valve opening, and a body portion of sufficient dimensions to provide a weight whereby the valve may be kept firmly closed under normal conditions; said lifting member comprising a bar extending diametrically across the valve area, downwardly projecting side members extending from said

bar, having their ends terminating in outwardly presented ears, and a cross bar secured to said ears having depend-



ing ends for engaging the opposite rim portions of a receptacle.

1,304,219. BONDING CONSTRUCTION FOR BUILDINGS. JOSEPH FRANCIS THOMPSON, Kansas City, Mo. Filed July 31, 1916. Serial No. 112,298. 2 Claims. (Cl. 72-101.)



2. Bonding means for securing facing material to concrete building walls comprising a continuous channel track member extending substantially the entire distance across the face of the building wall, said track member being of substantially D-shaped cross-section formed of sheet material and provided with T-shaped portions stamped from its flat face and bent to form staple-like projections for securing the member to the concrete form with the flat face of the member flush with the face of said building wall, said member having a longitudinal slot opening along the flat face thereof, and a series of bonding elements for engagement between successive courses of the facing material, said elements being adjustable along said slot opening and insertible at any point along said opening and having key portions formed for detachable connection with said member by engagement with the inner margins of said slot opening.

1,304,220. BEARING FOR HEAVY ROLLS. JOSEPH W. THORNTON, Trenton, N. J. Filed Mar. 19, 1918. Serial No. 223,379. 3 Claims. (Cl. 64-33.)



1. The combination, in an anti-friction bearing, of a load shaft, a casing, an elongated anti-friction roller, a spindle extending through said roller; said spindle having its ends fixed in the casing and the latter with said roller being arranged to take the pressure of a load shaft, and self-aligning roller bearings interposed between the spindle and the anti-friction roller and concealed by the latter.

1,504,221. AUTOMATIC-CUT-OFF GAS-BURNER. GEORGE B. TAYLOR, Derby, Conn. Filed Jan. 30, 1919. Serial No. 273,947. 3 Claims. (Cl. 67-116.)



1. The combination with a burner tube formed with an internal valve seat, a tip carrier slidably mounted in said burner tube and formed with a shoulder adapted to react with the said valve seat, the lower end of the tip carrier closed and the tip carrier formed with a port above the closed end, a yoke secured to the upper end of the burner tube, said yoke formed with oppositely extending arms, and expansible plates secured to said arms and extending inward toward the tip carrier and adapted when expanded to grip and hold the said tip carrier in a depressed position.

1,504,222. PROCESS OF EXTRACTING MANGANESE AND MAKING SULFURIC ACID AND MANGANESE DIOXIDE. GEORGE D. VAN ARSDALE and CHARLES G. MAIER, New York, N. Y. Filed Apr. 18, 1918. Serial No. 229,465. 13 Claims. (Cl. 204-9.)

1. A process of extracting manganese and making sulfuric acid and manganese dioxides, which consists in suspending ground manganese ore in water, adding acid to dissolve oxide of manganese other than the dioxides, agitating and introducing sulfur dioxide gas into the pulp, and continuing to agitate while still conducting sulfur dioxide gas into the pulp, until substantial completion of the reaction between the sulfur dioxide and the manganese compounds contained in the ore, separating the resulting solution containing manganese from the leached ore residue, removing undesirable constituents of the solution, heating the manganese solution, and subjecting the heated manganese solution to electrolysis, making this electrolysis discontinuous as to the anode so as to produce desirable physical qualities in the separated manganese dioxide, continuing the electrolysis to obtain a sufficient degree of purity and strength of the sulfuric acid produced and to obtain as dioxides a sufficient amount of the manganese originally present, removing the substantially manganese free sulfuric acid thus produced, and in then removing the precipitated manganese dioxide from the anode.

1,504,223. BOOK-POSTING DEVICE. EDWARD VASLEY, Pietermaritzburg, Natal, South Africa. Filed Jan. 10, 1917. Serial No. 143,233. 2 Claims. (Cl. 120-34.)

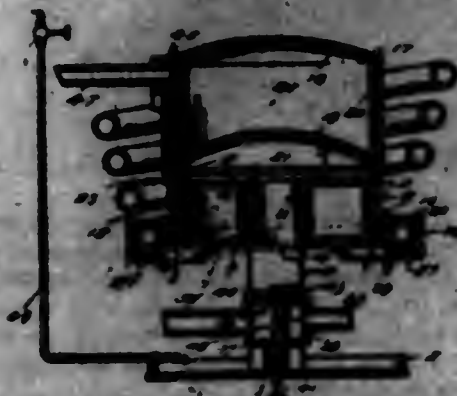


1. In a book posting device, a member having substantially parallel sides with bearings, spindles disposed in the bearings, two rollers having openings in their ends in which the ends of the spindles are disposed, means on the spindles at one side of the member to prevent the rotation of the rollers relatively to the spindles, wheels with teeth mounted on the last mentioned spindles, a spring secured to the member and having terminals engaging the teeth, resilient means for holding the spindles at one side of the member in the direction of the spindles at the other side of the member, and a tough absorbent paper wound on one spindle and secured to the other spindle.

1,504,224. ALLOY. LOUIS FAYN VOR, Washington, Pa., assignor to Standard Chemical Company, Washington, Pa. Filed Mar. 11, 1918. Serial No. 231,713. 3 Claims. (Cl. 75-1.)

1. An alloy having high qualities of strength and toughness comprising aluminum and uranium, the main body of the alloy consisting of aluminum and the uranium being in a relatively small proportion.

1,504,225. GAS-GENERATOR. CLARENCE B. WARD, American Falls, Idaho. Filed July 12, 1917. Serial No. 180,415. 6 Claims. (Cl. 120-28.)



1. A generator having a superheating retort, an annular burner and a mixing chamber in communication with the burner, the bottom wall of the said retort being concaved to form the upper wall of said mixing chamber, a vaporizing coil in communication with a source of supply and surrounding and spaced from said retort and discharging thereto, the zone of combustion of said burner being beneath and between the side wall of the retort and said coil, and a fuel feed jet disposed to discharge axially into said mixing chamber against the concaved upper wall thereof.

1,504,226. ELECTRIC BOX. FREDERICK H. WARD, Brooklyn, N. Y. Filed May 1, 1913. Serial No. 764,321. 6 Claims. (Cl. 247-3.)



1. An outlet box composed of parallel spaced separable segmental elements, each engageable with one or more cables independently and including a central open space receptive of a support, and means for combining said elements into a substantially cylindrical body encompassing the support.

1,504,227. WELDING-ELECTRODE. JAMES M. WARD, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 4, 1918. Serial No. 200,937. 3 Claims. (Cl. 210-4.)



1. A spot welding electrode comprising a welding head, a separable frusto-conical tip therefor, and a clamp for holding said tip into engagement with the end of said electrode, said clamp comprising a ring engaging with said tip and encircling the end of said welding head.

1,504,228. GATE-VALVE. OWEN L. WHITMAN, Cambridge, N. Y. Filed Feb. 4, 1918. Serial No. 215,989. 3 Claims. (Cl. 251-62.)



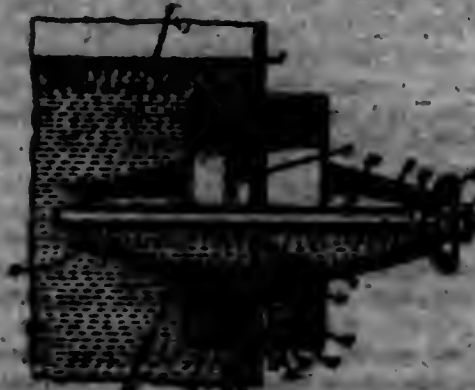
1. A gate-valve comprising a valve casing having a pair of disks movably mounted therein, said disks being provided with bearing surfaces for allowing said disks to rock upon one another in a horizontal and vertical direction, and an operating nut provided with oppositely disposed lugs upon which said disks are loosely mounted.

1,504,229. HIGH-SPEED GRINDING-MACHINE. JOHN B. WARD, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed July 2, 1918. Serial No. 24,920. 2 Claims. (Cl. 172-36.)



1. A high speed machine for grinding or the like comprising in combination a supporting member having but one bearing formed integrally therewith on one end thereof, a spindle rotatably mounted therein, the other end of said supporting member being hollowed out to form a cup-shaped motor housing having its interior surface formed concentric with and surrounding said spindle, an electric motor stator removably secured within said housing and in engagement with the interior surface of said housing, and an electric motor rotor removably mounted on one end of said spindle interiorly of said housing in operative relation to said stator, the other end of said spindle being formed to support a grinding tool.

1,504,230. LEAD-BUSHING. JAMES WILKINSON, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 7, 1916. Serial No. 124,494. 6 Claims. (Cl. 172-311.)



1. The combination with a casing wall having an opening therein, of a lead bushing, consisting of inner and

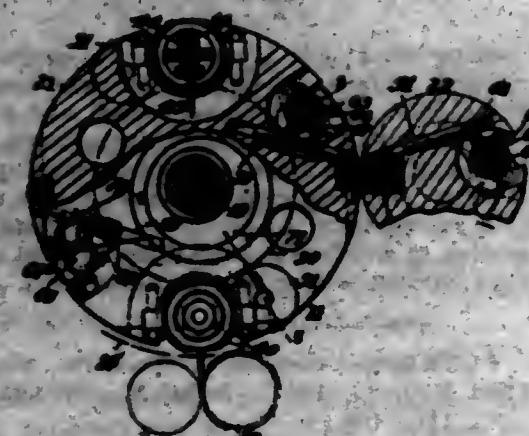
outer insulating members provided with flanged portions and clamping members for independently securing each insulating member over the opening in the casing wall.

1,504,231. HUB STRUCTURE. WILLIAM R. WILSON, Terre Haute, Ind. Filed Jan. 21, 1918. Serial No. 212,970. 5 Claims. (Cl. 64-24.)



1. In a hub structure, the combination with a hollow hub having enlarged openings at its ends, and a shaft extending through said hub, of means to close the ends of the hub to prevent leakage of lubricant therethrough, comprising a pair of washer-like plates, a section of absorbent fabric between said plates and of a diameter less than the diameter of the plates, and a ring loosely surrounding said fabric and resting between said plates adjacent their peripheral edges for holding the plates from pressing against said fabric.

1,504,232. FOLDING AND CUTTING MECHANISM. HENRY A. WINS WOOD, New York, and JOHN A. LABELL, Middletown, N. Y., assignors, by means assignments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Aug. 5, 1912. Serial No. 712,302. Renewed Oct. 10, 1917. Serial No. 106,815. 20 Claims. (Cl. 270-50.)



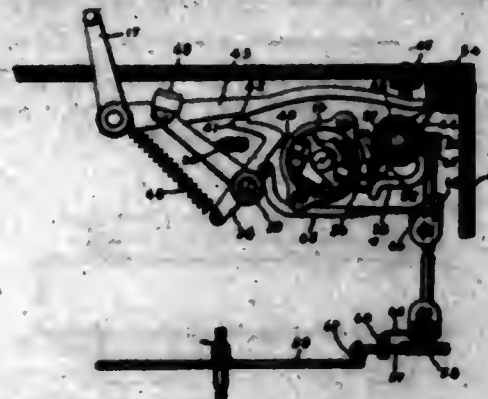
1. In a machine of the character described, the combination of a frame, two cylinders journaled on the frame, a stationary gear fixed on the frame concentric with one of said cylinders, a folding blade holder rotatably carried by one of said cylinders, a gear on the folding blade holder arranged to be rotated by the stationary gear as the cylinder rotates, and means for adjusting the distance between said cylinders capable of operation while the cylinders are rotating.

6. In a machine of the character described, the combination with a folding cylinder, of a cooperating cutting cylinder, a shaft on which said cutting cylinder is carried, a series of reciprocable pins on the cutting cylinder, and means for reciprocating said pins as the cylinder rotates to cause the points of the pins to move in an uninterrupted smooth circular path, concentric with respect to the axis of cutting cylinder.

1,504,233. TALKING-MACHINE. JAMES J. WOOD, Fort Wayne, Ind., assignor to General Electric Company, a Corporation of New York. Filed May 6, 1915. Serial No. 24,378. 20 Claims. (Cl. 74-44.)

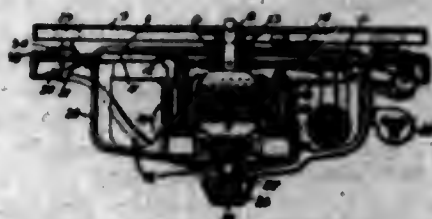
15. In a talking machine, a record carrying plate, an electric motor for driving said plate, an electric switch for closing the motor circuit, and means for opening the

motor circuit depending upon the number of revolutions of said motor comprising a switch operating mechanism, a



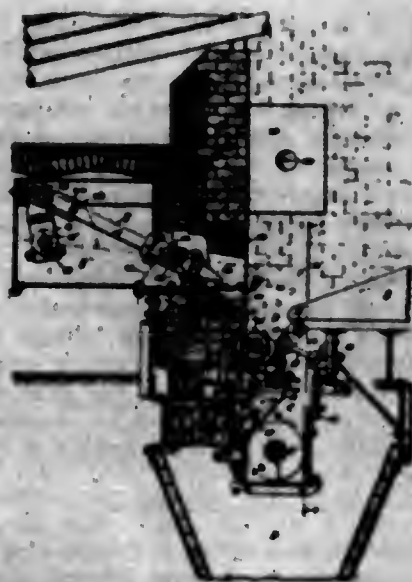
ratchet mechanism for operating the same, a wobble plate on the motor shaft, and an operative connection between said wobble plate and said ratchet mechanism.

1,304,234. TALKING-MACHINE. JAMES J. WOOD, Fort Wayne, Ind., assignor to General Electric Company, a Corporation of New York. Original application filed May 6, 1915, Serial No. 26,278. Divided and this application filed Dec. 19, 1917. Serial No. 207,928. 4 Claims. (Cl. 74-43.)



1. In a talking machine a motor plate, a motor supported from said plate and having a vertical shaft, a record carrying plate mounted on said shaft and a centrifugal governor for said motor comprising a track, friction pads for engaging said track, weights for moving said pads into more or less close engagement with said track, and means for mounting said weights on said shaft comprising a member to which said weights are pivoted and a universal joint between said member and said shaft.

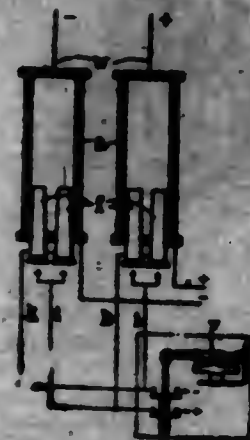
1,304,235. FURNACE. ORRICO C. WOOLSON, Newark, N. J. Filed Sept. 12, 1917. Serial No. 190,883. 26 Claims. (Cl. 110-165.)



1. In a furnace having an ash-discharge, the combination of a grate over which fuel is fed to said ash-discharge, a reciprocatingly actuated rousing-tool for rousing and breaking up the clinker at the discharge end of the grate,

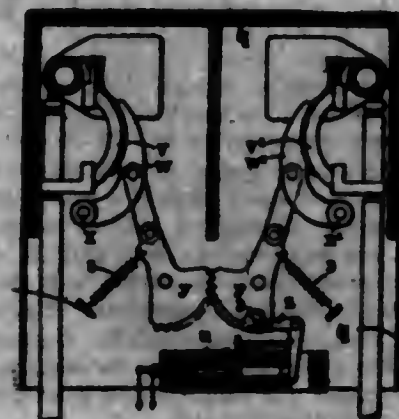
and means for actuating the rousing-tool; said rousing-tool being normally located outside of the furnace and in rousing movement being moved inwardly into the furnace reversely to the fuel-bed flow.

1,304,236. DISCONNECTING DEVICE FOR ELECTRIC SUPPLY-CIRCUITS. CHARLES HENRY WOODINGHAM, Redhill, England. Filed Aug. 12, 1918. Serial No. 249,574. 5 Claims. (Cl. 175-204.)



3. An electric disconnecting device consisting of a rupturable tubular conductor arranged in the supply main, detonating means for generating a sufficient gas pressure within said conductor to shatter and destroy the same, an auxiliary circuit containing said detonating means, and a flood switch for closing said auxiliary circuit, as set forth.

1,304,237. SYSTEM FOR DISTRIBUTING ELECTRIC ENERGY. CHARLES HENRY WOODINGHAM, Redhill, England. Filed Aug. 12, 1918. Serial No. 249,575. 2 Claims. (Cl. 175-204.)



1. In systems for distributing electric energy, disconnecting means provided with live terminals, a casing inclosing said disconnecting means and terminals and including an imperforate top, imperforate sides and an open bottom, said casing maintaining the live terminals out of contact with water, when the casing is submerged, by trapping air beneath the top of the casing and preventing water from rising therein, a flood switch exposed to the flooding water, conducting wires connecting the flood switch and disconnecting means, and means controlled by said flood switch for causing the actuation of said disconnecting means.

1,304,238. TIDE-MOTOR. JAMES E. WRIGHT, San Diego, Calif., assignor of one-half to Charles Frey, San Diego, Calif. Filed Dec. 27, 1916. Serial No. 139,111. 3 Claims. (Cl. 60-8.)

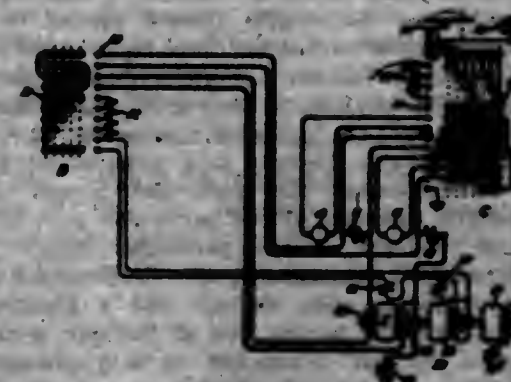
1. In a tide motor, a wharf comprising three floors spaced apart one above another, a float adapted to rise and fall with the water below said wharf, a plurality of vertical guides for preventing side movement of said float, a plurality of pairs of gear rack members each pair

shiftably connected to said float at their lower ends, a gear revolubly mounted between said rack members on the middle floor of said wharf, means for facilitating the manual shifting of said rack members whereby the opposite members are engaged by said gear, a plurality of wheels mounted on the shaft provided with a plurality of pockets in their outer edge, a track for each wheel for guiding



balls to the pockets in said wheel on the lower floor of said wharf, a track on the upper floor for each wheel for guiding the balls from the pockets of said wheels, a plurality of other wheels revolubly mounted on the second floor of said wharf adapted to receive the balls from the tracks in the upper floor whereby said wheels are turned by the weight of said balls for producing power in their descent to the lower floor.

1,304,239. ELECTRICAL SYSTEM OF POWER TRANSMISSION. HENRY F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 11, 1916. Serial No. 83,609. 21 Claims. (Cl. 172-179.)

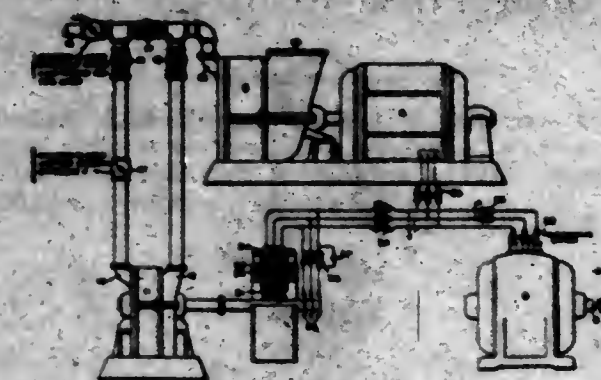


1. In combination, a dynamo-electric machine having a series winding and adapted to be operated either as a motor or as a generator, a source of current connected in a local circuit with the field winding of said machine and adapted to be traversed during the generating operation of said dynamo-electric machine by the currents in the armature and the field winding thereof, and means for maintaining the sum of the currents in the armature and field windings of said machine approximately constant.

1,304,240. ELECTRIC SYSTEM OF SHIP PROPULSION. HENRY F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 22, 1916. Serial No. 84,012. 4 Claims. (Cl. 172-8.)

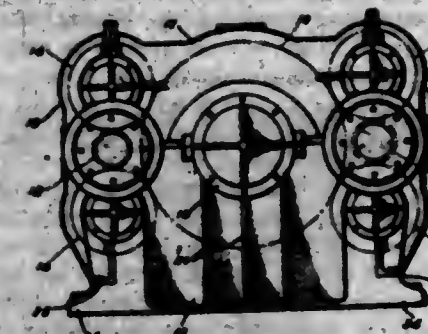
1. An electric system of ship propulsion comprising a main elastic-fluid turbine, a synchronous alternator coupled to said turbine, an auxiliary elastic-fluid turbine, means for supplying the exhaust fluid of said auxiliary turbine to the admission of said main turbine, a double-synchronous alternator coupled to said auxiliary turbine, a propeller, an electric motor operatively connected to said propeller, and means for electrically connecting said two alternators

so that they deliver electric energy in parallel to said motor, said two alternators being electrically so propor-



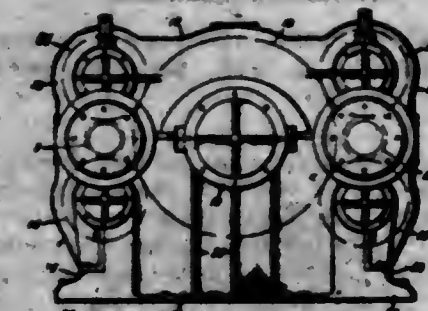
tioned as to establish a relation between the turbines whereby the auxiliary turbine operates at a higher speed than the main turbine.

1,304,241. GEARING. KARL ALQUIST, Schenectady, N. Y. Filed Nov. 20, 1917. Serial No. 203,063. 3 Claims. (Cl. 74-7.)



1. In a gearing, the combination of a casing comprising a base section, a top section and two side sections, a driven gear wheel journaled centrally in bearings located between the base and top sections, two driving pinions one on each side of the driven gear wheel, each journaled in bearings located between the base and top sections on the one hand and the side sections on the other hand, and intermediate gear wheels located on opposite sides of the pinions and similarly journaled which transmit power from the pinions to the driven gear wheel.

1,304,242. METHOD OF ASSEMBLING GEARING. KARL ALQUIST, Schenectady, N. Y. Original application filed Nov. 20, 1917, Serial No. 203,063. Divided and this application filed Dec. 28, 1917. Serial No. 209,215. 3 Claims. (Cl. 29-84.)



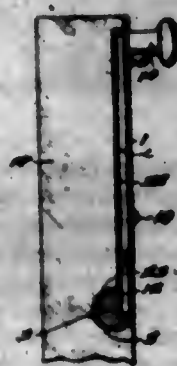
1. In a gearing of the type comprising a pinion, a gear wheel, and two intermediate gear wheels between which the pinion is balanced and which transmit power between the pinion and first named gear wheel, the method of locating the correct position of the pinion in its bearings which comprises mounting the pinion in its bearing supports between the two intermediate gear wheels, putting a torque on the gear train to bring the pinion to its correct position, and providing lining means for the pinion bearings to hold it in such position.

1,304,243. AUTOMATIC DOOR-ALARM. JAMES E. ANDERSON, Lonsconing, Md. Filed Sept. 18, 1917. Serial No. 192,006. 1 Claim. (Cl. 116-44.)



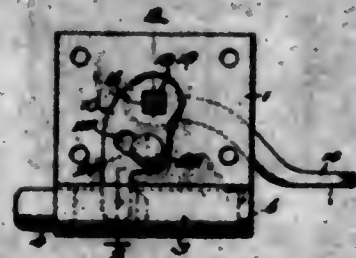
A door alarm comprising relatively spaced plates, a spacing block connecting said plates, a shaft connecting said plates, a spring coiled about said shaft and having one end bent to form an actuating arm, a stop secured to the inner plate and adapted to hold the arm in an inoperative position, spaced lugs formed on the outer plate and receiving between the same the other end of the spring, means supporting a cartridge on the block so as to be struck by the arm when released and a stop pivoted to the block and adapted to be turned into the path of the arm when desiring to render the device inoperative.

1,304,244. LATCH. WILLIAM H. APPELBY, Chicago, Ill. Filed May 4, 1918. Serial No. 232,490. 13 Claims. (Cl. 70-42.)



1. A door latch having a plate adapted to lie substantially flush with the surface of the door, a barrel formed on said plate and lying behind the plate thereof for the purpose of being embedded in the door, a bolt slidable in said barrel, and a handle for actuating said bolt, said handle passing from the bolt forward through and beyond the plane of the plate whereby it may be grasped on the side of the plate opposite to the barrel.

1,304,245. LOCK-FITTING. WILLIAM H. APPELBY, Chicago, Ill. Filed Jan. 2, 1919. Serial No. 240,375. 14 Claims. (Cl. 70-42.)



2. A lock having a rotatable arm for causing the lock to function, a handle having a screw connection with said arm, the axis of the screw being coincident with the axis of rotation of the arm, and means effective in any one of a plurality of different positions of the handle relatively to the arm for locking the handle and arm against relative rotation.

1,304,246. AUTOMATIC MAGAZINE-PHONOGRAPH. ELWOOD AMMERMAN, Orlino Depot, Ontario, Canada. Filed June 27, 1917, Serial No. 177,234. Renewed Apr. 8, 1919. Serial No. 287,513. 10 Claims. (Cl. 276-13.)



1. In an automatic phonograph, the combination of a magazine wheel, a series of records supported at one end thereon, means to rotate the wheel so as to bring selected records into playing position in succession, temporary supporting means for the free end of the record being played, and a pair of magnets arranged in series serving to actuate the wheel rotating means and the extending of the temporary holding means simultaneously.

2. In an automatic phonograph, the combination of a series of records, means to support the same and bring them in succession into playing position, index means bearing a corresponding series of legends to indicate the several selections and the lengths thereof carried by the several records, means to connect the record operating means and the index means for simultaneous proportional movement, a reproducer movable along the respective records, and an indicator connected with the reproducer and movable thereby and adapted to point out on the index means the particular record being played, the length thereof and the particular part of the selection being rendered at any particular time.

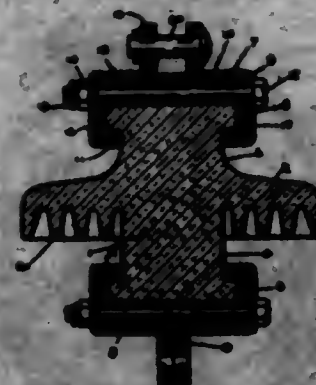
3. In an automatic phonograph, the combination of a guide bar, a normally open contact and a plunger to close the same adjacent to one end of the bar, a sleeve supported upon the bar connected to said plunger, a reproducer slidable along and tiltable around the bar, said sleeve being provided with a lug projecting toward the reproducer and the reproducer being provided with a notch, one wall of the notch being adapted to strike the lug and thereby close the contact when the reproducer reaches the end of one reproduction, the lug and notch being so arranged that when the reproducer is tilted the plunger will be released to break the contact prior to the return movement of the reproducer, and means to control the tilting movement of the reproducer.

14. In an automatic phonograph, the combination of a series of records, means to support and carry the records into playing position in succession, a reproducer, means to actuate the reproducer and the record being played, an electromagnetic blower to remove the dust from the region of the reproducer, an electromagnet to lift the reproducer at the end of each record and arranged in series with the dust blower, and means actuated by the reproducer to energize both electromagnets simultaneously.

15. The combination with sound reproducing means, a motor for actuating the same, and a series of circuits and switches to control the action of the motor, of a rotary member, a series of selective steps movably connected to the rotary member, and a plurality of inde-

pendently operated bell cranks arranged in the path of movement of the aforementioned steps when they are adjusted into operative position for controlling the action of the electric switches.

1,304,247. INSULATOR. OMAR C. BARNES, Indianapolis, Ind. Filed June 24, 1918. Serial No. 241,623. 1 Claim. (Cl. 173-986.)



An insulator construction, including a shield, extensions on each side of the shield, a rib at the outer end of each extension, hangers formed of a pair of substantially semi-cup shaped members, an inwardly extending flange at the open ends of said members adapted to engage said ribs, a bolt extending transversely through each pair of hanger members beyond the ends of said extensions for engaging the hangers with the ribs of the extensions, an ear on each hanger section extending outwardly to the straight edge of the section, the ears of one pair of hanger sections being in line with the meeting edges of the sections so as to form a single element, and the ears on the section of the companion hanger being dovetail to the meeting edges of the sections and placed a distance apart to receive the ears forming the single element, and means for pivotally securing the ears of one hanger to the ears of the next succeeding hanger.

1,304,248. ROCK-DRILL-HOSE CONNECTION. MARCOLM S. BEATON, Jeppesdown, and STEWART YOUNGSON, Johannesburg, Transvaal, South Africa. Filed Aug. 18, 1918. Serial No. 114,984. 2 Claims. (Cl. 284-19.)



1. The combination of a drill spud consisting of a tubular member having one end screw threaded for connection with a supply pipe, the opposite end enlarged and provided with a coarse external thread adapted to be engaged by a union nut, and an intermediate polygonal portion to receive a spinner, the enlarged end having an internal recess, a removable annular valve seat within said internal recess, a ring engaging said valve seat and retaining it within the recess, a valve comprising a flanged head engaging said valve seat and a perforated tubular stem slidably fitting within the annular valve seat and retaining ring, the free end of said stem lying within the outer face of the ring, a tubular extension projecting from its forward end and adapted to enter the aforementioned retaining ring and engage the free end of the valve stem to arrest the valve, an annular collar carried by the stem, and a union nut having a shouldered central

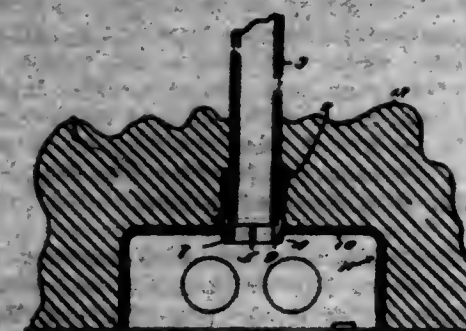
opening rotatably engaging the collar on the stem, and an internally coarsely threaded recess adapted to engage the coarsely externally threaded enlarged end of the spud.

1,304,249. DIE-STOCK. MILTON W. BACHTEL, Warren, Ohio, assignor to The Borden Company, Warren, Ohio, a Corporation of Ohio. Filed Apr. 4, 1917. Serial No. 189,854. 5 Claims. (Cl. 10-120.)



4. The combination of a handle frame having a pair of diametrically opposite sockets, handles occupying said sockets, said handle frame having an internally cylindrical chamber overhung at the front by a flange integral with the frame and overhung at the rear by a ring removably secured to the frame, a movable ring within the chamber specified and having an abrupt notch in its outer periphery, a radial housing carried by the frame, a spring-pressed plunger mounted in said housing and having its inner end abrupt on both sides and adapted to occupy the notch in the ring and positively lock the ring at a time when an internal groove in the ring is out of registration with a notch through said flange, a chaser frame having a cylindrical sleeve adapted to occupy said movable ring and provided with a rigid external rib adapted to pass through the notch in the flange into the internal groove of the movable ring, said rib being adapted to pass behind the flange when the movable ring is turned about its axis, and chasers carried by the chaser frame.

1,304,250. EXPANSION-BUSHING. HARRY BEIDING, Los Angeles, Calif. Filed Mar. 19, 1918. Serial No. 232,450. 1 Claim. (Cl. 285-26.)

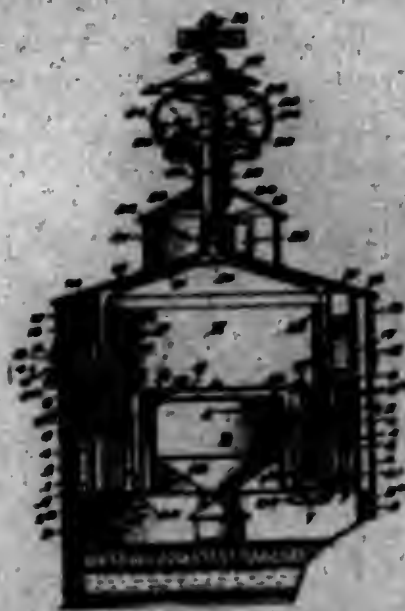


An expansion bushing comprising a circular internally screw threaded portion, a second portion extending from one end of the screw threaded portion and having a smooth outer face and an external groove and a beveled face leading to the groove and radial slots crosswise of the groove.

1,304,251. PORTABLE ACETYLENE-GAS GENERATOR. JAMES O. DEWAN, Oakley, Va. Filed Mar. 29, 1918. Serial No. 235,427. 6 Claims. (Cl. 48-53.1.)

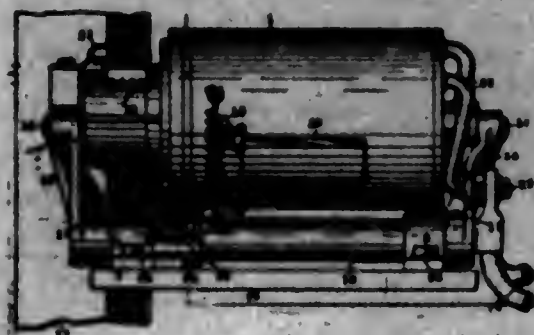
1. In a portable acetylene generator, a gas generating compartment, a free gas compartment, a valve controlled pipe conducting gas to the last mentioned compartment, a cover therefor, a burner standard mounted on the cover and communicating with the free gas compartment, a blow-off pipe leading from the generator through the free gas compartment and through said standard to the

outer air, a valve stem for the valve in the gas pipe first mentioned, said stem extending through the generator



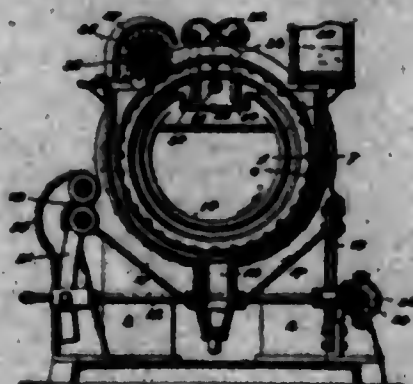
casing and interlocking with said cover, and locking means for said stem.

1,304,352. ENGINE STARTING DEVICE. JOSEPH D. JONAS, New York, N. Y., assignor, by mesne assignments, to Bijur Motor Appliance Company, a Corporation of Delaware. Filed July 7, 1914. Serial No. 849,444. 25 Claims. (Cl. 290-48.)



1. Apparatus of the class described, comprising, in combination, an engine-driven member, a motor-driven member radially offset therefrom, and means adapted automatically to swing said second member into power-transmitting engagement with said first member about an axis which is positioned from the surface of said first member at a distance greater than the length of the effective radius of said second member.

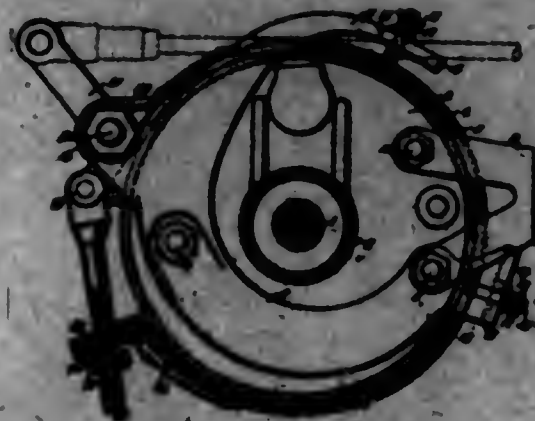
1,304,353. ROTARY SCREEN FOR PAPER STOCK. CHARLES S. BIRD, East Walpole, Mass., assignor to Bird Machine Company, a Corporation of Massachusetts. Filed Sept. 16, 1918. Serial No. 254,308. 7 Claims. (Cl. 92-36.)



1. In a machine of the character specified, the combination of a vat, means for vibrating the same; a screen

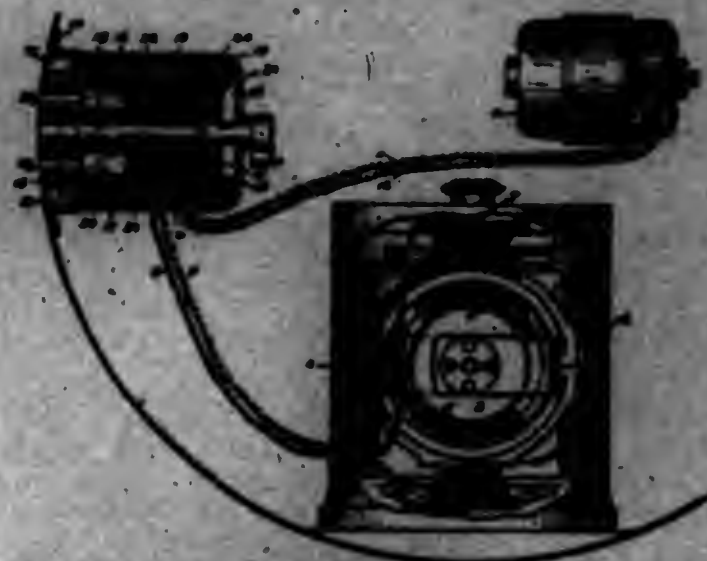
mounted for rotation within said vat; means for feeding the stuff to be screened to the vat; and a rotatable beater contacting the outer surface of the screen and acting upon the exposed surface thereof.

1,304,354. EMERGENCY-BRAKE. FRANK J. BOERK, Galton, Pa. Filed July 5, 1918. Serial No. 242,306. 3 Claims. (Cl. 74-37.)



2. The combination of a brake drum, a band surrounding the drum and having an eye at one end and a lug at its other end, a crescent shaped frame supported from a point within the drum and having its ends extending over the band and yieldingly connected therewith, said frame being provided with an outwardly projecting lug intermediate of its ends, a bell crank lever pivoted to lug and around the pivot of which passes the eye of the band, and a member having one end pivoted to a member of the bell crank lever and its other end adjustably secured to the lug of the band.

1,304,355. AUTOMOBILE TORPEDO. HERBERT H. BOSSON, U. S. Navy, assignor to the United States of America. Filed Jan. 28, 1917. Serial No. 144,795. 5 Claims. (Cl. 114-34.)

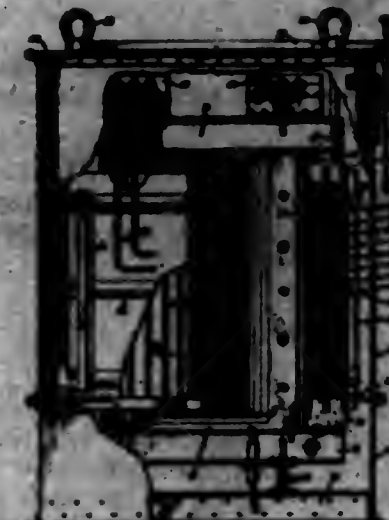


1. In torpedo apparatus the combination of an insert plug for inserting into the torpedo from outside thereof, power connections from an outside source of power carried by said plug for driving the gyro, means carried by the torpedo for driving the gyro, a transferring device carried by the torpedo for transferring the gyro from the last-mentioned driving means to the outside driving means, said transferring device actuated by the insertion and withdrawal of said plug.

1,304,356. PROCESS OF SHRINKING SHARK-SKINS. WILLIAM BRACKMANN, Newark, N. J., assignor to The Ocean Leather Co., Inc., New York, N. Y., a Corporation of Delaware. Filed Nov. 2, 1918. Serial No. 280,388. 2 Claims. (Cl. 140-1.)

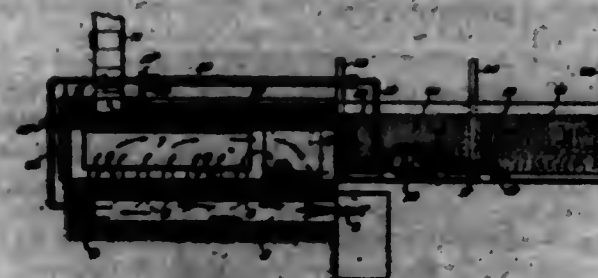
2. Material for treating skins embodying gambler, muriatic acid, oxalic acid and aluminum-chloride.

1,304,357. ELECTRICAL APPARATUS. FREDERICK F. BRAND, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 2, 1917. Serial No. 146,308. 10 Claims. (Cl. 175-361.)



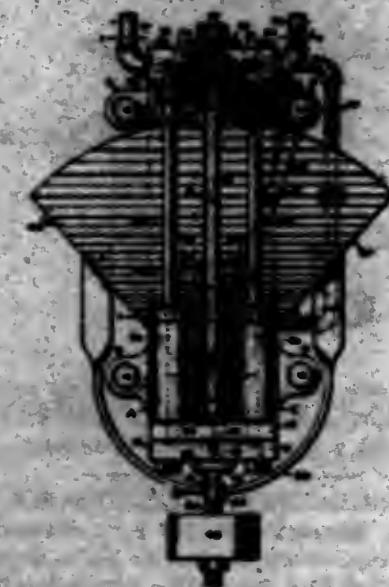
1. The combination with a core, of a plurality of coiled windings on a leg of said core, an individual casing surrounding said windings and disposed in substantially uniform spaced relation thereto, and means for supplying a cooling and insulating medium to the base of said casing; said casing being arranged to divert a portion of said medium, direct it over the edges of said windings and discharge it from the other end.

1,304,358. METHOD OF UTILIZING FUEL IN THE TREATMENT OF METALS. HARRY O. DUBAKKE, Winthrop, Mass., assignor to American Incandescent Heat Company, Inc., Boston, Mass., a Corporation of Maine. Filed July 19, 1917. Serial No. 181,502. 2 Claims. (Cl. 266-2.)



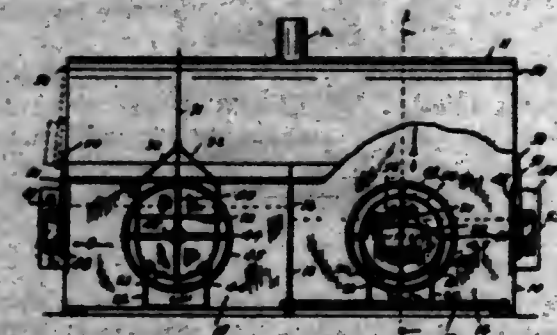
1. The method of utilizing fuel for annealing non-ferrous metals and similar purposes, which comprises the steps of burning the fuel, continuing the combustion under such conditions that substantially no free oxygen remains mixed with the products of combustion, heating the material under treatment in the products of combustion, and utilizing such products of combustion as an atmosphere in which to allow the material under treatment to cool in a cooling chamber into which the material under treatment may be moved while constantly surrounded by said products of combustion.

1,304,359. INDICATING INSTRUMENT. CHARLES F. BULLOCK, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 7, 1918. Serial No. 210,001. 11 Claims. (Cl. 72-31.)



1. In an instrument of the character described, the combination of a frame, a U-tube fixed on the frame, a scale plate pivoted on the frame, and means for maintaining said scale plate in a vertical position.

1,304,360. MILK-CAN WASHER. CHARLES A. CHRIST, Los Angeles, Calif. Filed Oct. 1, 1918. Serial No. 256,464. 4 Claims. (Cl. 141-7.)

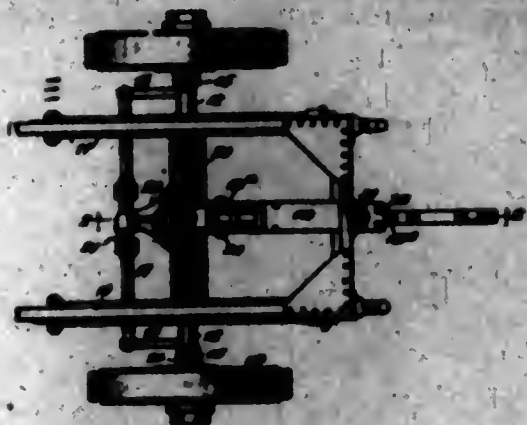


1. A washing machine for milk cans and the like, comprising a tank, a pair of parallel guide rails consisting of a downwardly inclined front portion and a horizontal rear portion; a can carriage slidably mounted on the guide rails, said carriage comprising a curved can supporting bed and wheels rotatably mounted in said guide rail, a carriage shock absorber means arranged at the end of the horizontal portion of the guide rails, a U-shaped rod pivoted on opposite sides of the can carriage; a semicircular can holding ball rigidly mounted on the U-shaped rod; a handle for operating said U-shaped rod, a plurality of revolving paddles agitating the water within and without the can to be washed, and means for operating said paddles.

1,304,361. TRAILER-TRUCK. ADDI BENJAMIN CADMAN, Beloit, Wis., assignor, by mesne assignments, to Warner Manufacturing Company, South Beloit, Ill., a Corporation of Wisconsin. Original application filed Dec. 8, 1916, Serial No. 135,419. Divided and this application filed Nov. 2, 1917. Serial No. 100,518. 5 Claims. (Cl. 212-67.)

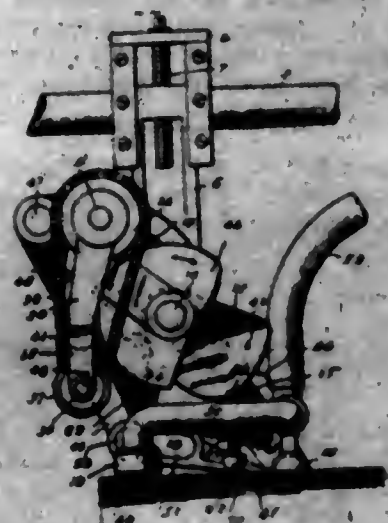
1. A trailer truck having, in combination with a body frame, a draw-bar comprising two members, one slidable longitudinally within the other, the outer member being shaped near one end to form a housing, and a pair of

springs entered in said housing and arranged to engage with the inner member to cushion its movements in opposite



site directions, one of said members being provided with grooves for retaining said springs in position between the inner member and a side wall of the housing.

1,304,262. PNEUMATIC SHEET-FEEDER. CARL M. CHAIKOFFSKY, Pearl River, N. Y., assignor to Dexter Folder Company, Pearl River, N. Y., a Corporation of New York. Filed Nov. 16, 1917. Serial No. 202,336. 10 Claims. (Cl. 271-27.)



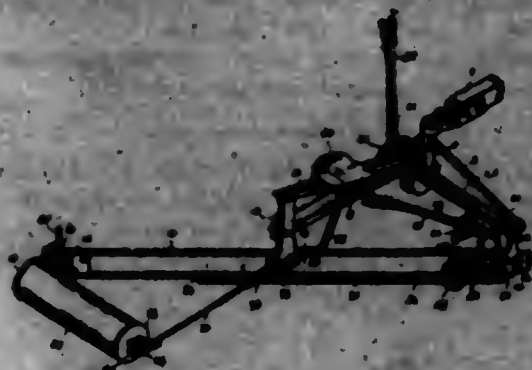
1. In a machine of the character described, a sheet-engaging suction device movable into engagement with the top of a pile of sheets, and away from said pile, a swinging arm, a friction wheel journaled in the outer end of said swinging arm and movable by the swing of said arm into engagement with excess sheets carried from the pile by said suction device, and a sheet-depressing finger carried by said suction device.

1,304,263. ROAD-WORKING MACHINERY. MELVILLE R. COLE, Eudora, Kans., assignor of one twenty-fourth to Chas. B. Floyd and one twenty-fourth to Chas. L. Fuller, Eudora, Kans., and one-twelfth to Frank M. Butler, Excelsior Springs, Mo. Filed Apr. 17, 1917. Serial No. 162,672. 6 Claims. (Cl. 37-5.)

1. In a road working machine, a fixed frame comprising longitudinal and transverse bars connected at the front end of the machine, a rocking frame carried within said fixed frame and loosely connected to the free ends of said bars, a road shaving blade carried by said rocking frame in diagonally extending relation to the road, and adjusting means associated with the intermediate portions of said frames and operable to oscillate said rocking frame for varying the cutting angle at which said blade is presented to the road surface.

6. A road working machine comprising a supporting frame, a road shaving blade carried by said frame in diagonally extending relation to the road, a packing roller trailed by said frame at the rear of the rear end portion of said shaving blade, means associated with one end of said

roller for angularly adjusting its axis in a vertical direction, and a turnbuckle connection between the other end



of said roller and said supporting frame adapted to adjust the axis of said roller in a horizontal direction about the opposite end thereof.

1,304,264. FOUNTAIN-PEN. GERRARD DALTON, Canterbury, England. Filed Aug. 26, 1918. Serial No. 251,796. 1 Claim. (Cl. 139-47.)



In a fountain pen, a reservoir, a piston rod having a tapered portion adjacent its lower end, and a piston slidably mounted on the piston rod and provided in its lower face with a tapered recess adapted to receive the tapered portion of the piston rod to lock it to said rod by frictional engagement.

1,304,265. (WITHDRAWN.)

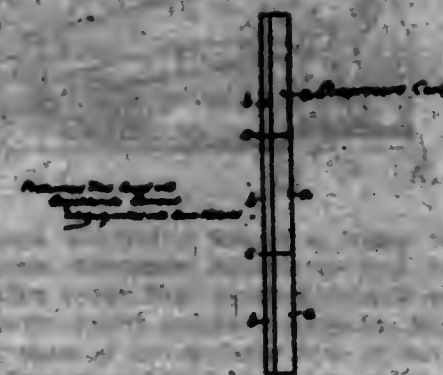
1,304,266. ADJUSTABLE RETAINER FOR CIGARS IN BOXES. LYMAN C. DAVISON, Chicago, Ill. Filed Mar. 19, 1917. Serial No. 155,062. 1 Claim. (Cl. 139-34.)



A device for securing loose articles in a receptacle comprising a flexible retaining member, anchor members carried at the ends of the flexible member respectively, one of said anchor members including a body, having means at one end for engagement with one wall of a receptacle, a

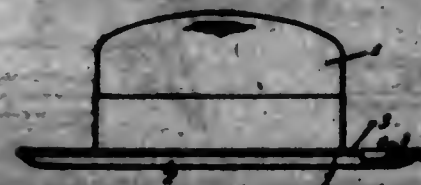
longitudinally reciprocating pin carried at the other end of the body, for engagement and disengagement with and from an opposite wall of a receptacle, a lateral extension on said pin movable in a longitudinal slot in the body, and an operating lever pivoted to the body and having a cam slot receiving the lateral extension whereby the movement of the lever will reciprocate the pin.

1,304,267. MANUFACTURE OF HEAT-INSULATING CHAMBERS, WALLS, FLOORS, AND CEILINGS. JOHN DAVID, Liverpool, and WILLIAM H. JONES, Walsley, England. Filed Mar. 2, 1918. Serial No. 21,752. 3 Claims. (Cl. 72-37.)



3. In heat insulating chambers, an assembly of pre-formed dried and finished unit cork slabs faced with an oxychlorid composition and united by a relatively small amount of grouting of oxychlorid cement, thereby forming a continuous water resisting surface.

1,304,268. HAT. DAVID L. DAVIS, South Norwalk, Conn., assignor to The American Hat Mfg. Co., Inc., Norwalk, Conn., a Corporation of Connecticut. Filed Jan. 10, 1919. Serial No. 270,453. 6 Claims. (Cl. 3-110.)



1. The process of making a piped welt edge for soft felt hats which consists in doubling down the marginal portion of the brim to form a welt, then attaching the welt to the brim adjacent to the folded edge, then turning the welt over the edge, and finally securing the free edge of the welt to the upper surface of the brim.

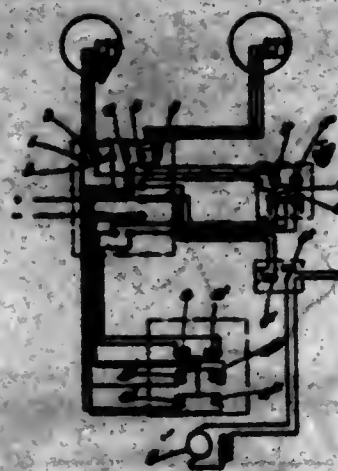
6. A soft felt hat having a turned welted edge consisting of a band secured to the under surface of the brim adjacent to the edge, turned over the edge, and secured to the upper surface of the brim.

1,304,269. DISTANT CONTROL OF MECHANISM SUCH AS GUN SIGHTS OR TURNSTILES. ARTHUR THORVON DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed Apr. 18, 1915. Serial No. 21,117. 7 Claims. (Cl. 173-299.)

1. In electrical receiving apparatus, the combination of an angularly displacable pointer operated from a distant station, an angularly displacable index mark with which said pointer is normally coincident, a switch member, means for moving this member to complete a circuit when the pointer and index mark are no longer in coincidence and to keep this circuit closed until the pointer and index mark resume their position of coincidence while permitting relative movements between the pointer and index mark greater than that necessary to merely complete the circuit, a motor running in one direction only, clutch

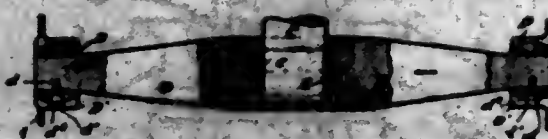
262 O. G.-27

mechanism interposed between said motor and the mechanism to be controlled and an electro-magnetic contrivance



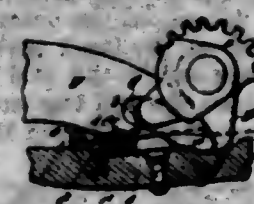
arranged in said circuit for operating said clutch mechanism.

1,304,270. BALL-AND-SOCKET JOINT. ARTHUR THORVON DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed June 16, 1915. Serial No. 24,545. 4 Claims. (Cl. 64-91.)



1. In a ball and socket joint, a ball member comprising two parts, each in the form of a ring having a spherical periphery and a socket member formed with aperture through which each of the parts of the ball member can be passed edgewise.

1,304,271. BREACH MECHANISM OF ORDNANCE. ARTHUR THORVON DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed Dec. 2, 1915. Serial No. 65,864. 8 Claims. (Cl. 89-20.)

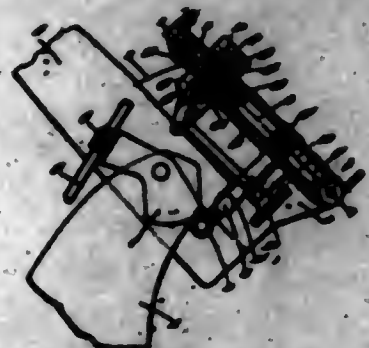


1. In a gun, the combination with the breech screw, its carrier and the crank piston for angularly moving said breech screw through the intermediary of a lever connected to the breech screw and then moving the carrier to the open position without any previous independent rearward movement of the breech screw, of a movable catch and means for positively moving said catch into the path of part of said crank piston as the carrier commences its opening movement.

1,304,272. SIGHTING APPARATUS FOR ANTI-AIRCRAFT GUNS. ARTHUR THORVON DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed June 21, 1917. Serial No. 176,114. 8 Claims. (Cl. 33-48.)

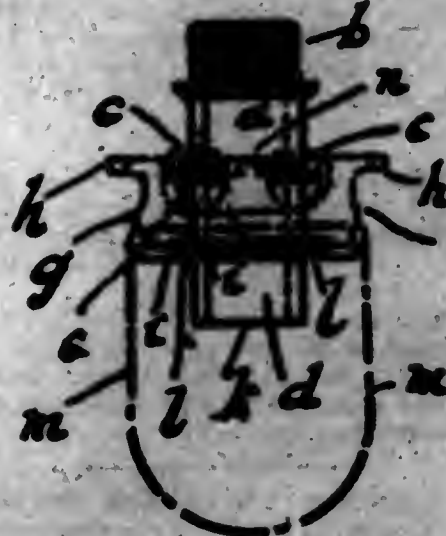
1. In sighting apparatus for anti-aircraft guns, the combination of means operating on the sight to set it for deflection to agree with the speed of the target relatively to the gun, and means, capable of adjustment in accordance with the ascertained height of the target also operating on the sight to automatically correct the said

deflection setting of the sight for the changing angle of sight and for the changing range during the elevation and



depression of the gun, without its being necessary to ascertain the range, and supporting means for said elements.

1,304,272. BURNER APPLICABLE FOR USE WITH INCANDESCENT MANTLES FOR GAS-LIGHTING. ALBERT DAY, Leeds, England. Filed Sept. 12, 1917. Serial No. 191,210. 5 Claims. (Cl. 67-94.)



2. The combination with the burner nozzle and with the suspension ring used with incandescent mantles, of supporting lugs on the burner nozzle, arms on the suspension ring adapted to engage with said lugs, a plurality of projecting recessed flanges on the outer periphery of the said burner, and also on the inner periphery of the suspension ring, the recesses in the said flanges being arranged below and under the said lugs and arms, and with the said parts of one flange covering the recesses in another flange as set forth.

1,304,274. GUN-LOADING MECHANISM. CARLO DE FELICA, New York, N. Y. Re filed for (abandoned) application Serial No. 732,121, filed Nov. 23, 1917. This application filed Dec. 3, 1917. Serial No. 205,515. 15 Claims. (Cl. 42-19.)



1. In a device of the class described, and in combination with a firing mechanism, a firing chamber, a longitudinal cartridge storage chamber, a cartridge feeding member, a recoil operated member, an element controlled by said recoil operated member, and an elastic connection between said element and said feeding member.

1,304,275. RIBBON CLEANER AND DRIER. HENRY DU GAY, Livingston Heights, Va. Filed Sept. 11, 1918. Serial No. 253,666. 1 Claim. (Cl. 101-108.)

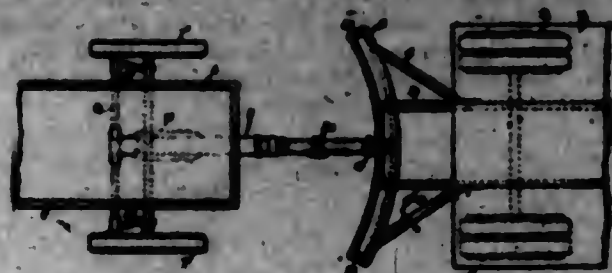
The combination with a die stamping press including a winding reel and a feed reel, of a ribbon wiping and clean-

ing mechanism comprising a frame, a lower guide roller held in said frame, a shaft adjacent to said roller, a cam gear loose on said shaft, a wiper mounted for reciprocatory movement on said shaft, a reservoir located in said frame, said roller being located in said reservoir, a gear held to said roller and in mesh with said cam gear, a spring on said shaft to force said wiper against said cam gear, an upper guide roller, an adjustable scraper located



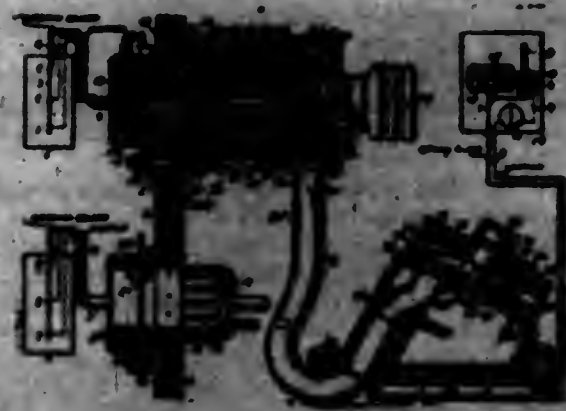
above said wiper, a second adjustable scraper located above said first mentioned adjustable scraper, and a heated pad located between said upper roller and said winding reel, whereby a wiping ribbon unwinding from said feed reel to said winding reel is made to pass over said lower roller, and against said reciprocating wiper between and against said adjustable wipers, over said upper roller and pad, and upon said winding reel.

1,304,276. TRUCK-COUPLING. HENRY DE HANDELSMAN, Paris, France, assignor to The Troy Wagon Works Company, Troy, Ohio, a Corporation of Ohio. Filed Oct. 14, 1918. Serial No. 267,997. 5 Claims. (Cl. 213-67.)



1. In a draft mechanism, the combination, with a leading truck, a frame extending from the rear end of the truck, and a curved track supported by said frame and having two oppositely disposed parallel walls, said track having its curve convex toward the rear end of said leading truck, of a trailing truck having a draft bar extending therefrom, the outer end of said draft bar having rollers riding in said curved track between said walls.

1,304,277. ELECTRICAL THERMOMETER SYSTEM. LEONARD H. DUN ISLES, Chicago, Ill. Filed Jan. 21, 1918. Serial No. 212,901. 19 Claims. (Cl. 73-32.)



1. In an electric thermometer system, the combination of a plurality of groups of thermoelectric junctions,

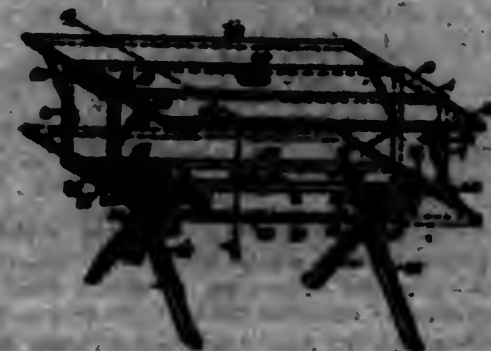
each group having a separate, independent set of different metal leads, a common comparison junction, a galvanometer, and means comprising separable coupling members and switch mechanism for detachably connecting the different metal leads of each of said groups and individual junctions thereof to said comparison junction and said galvanometer.

1,304,278. HIGH-SPEED-SPINDLE MACHINE. THOMPSON H. DUNN, West Haven, Conn. Filed Oct. 17, 1917. Serial No. 197,497. 12 Claims. (Cl. 283-8.)



1. A high-speed spindle machine, comprising a tool-carrying spindle, a rotating bearing in which said spindle turns, and a direct-acting motor device for driving said spindle and bearing.

1,304,279. FOLDABLE CAMP KIT. HENRY J. DUNN, Los Angeles, Calif. Filed Apr. 9, 1918. Serial No. 227,579. 2 Claims. (Cl. 100-12.)



1. A foldable camp kit comprising a bottom board; a top board; and boards fitting against the ends of the bottom and top boards and rigidly secured to form a rectangular frame; leaves connected to the centers of the end boards by toggle braces; and means for removably connecting the leaves to the top and bottom boards; so that the leaves may be moved from the level of the top board to the level of the bottom board at will.

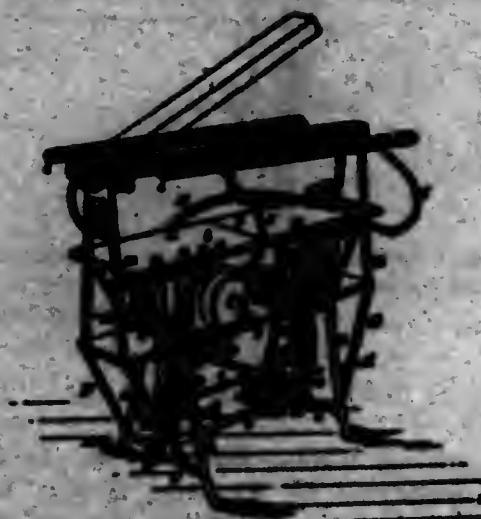
1,304,280. MILKING APPARATUS. ROBERT B. DUNN, St. Paul, Minn. Filed June 12, 1917. Serial No. 174,869. 9 Claims. (Cl. 31-68.)



1. In a milking apparatus, the combination with a milk chamber having a milk delivery port, of a valve for opening and closing said port, a valve actuator connected to said valve and subject to varying suction pressure in said milk chamber, a milk tube opening into the intermediate

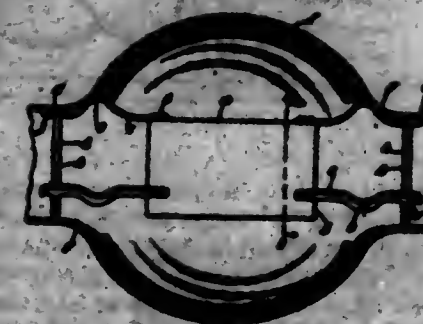
portion of said milk chamber, and means for producing suction pulsations in said milk chamber, including a port connected to said chamber at a point that is always between said milk delivery port and said valve actuator.

1,304,281. CLOTH RENOVATING AND REFINISHING MACHINE. HENRY J. DUNN, Los Angeles, N. J. Filed Aug. 22, 1917. Serial No. 197,547. 7 Claims. (Cl. 20-4.)



4. A machine of the class described comprising a pair of frames, a shelf supported on the frames, and frames on the first-mentioned frames and shelf, a second shelf composed of hingedly connected sections mounted on the first-mentioned frames and engageable with the second-mentioned frames, a cloth-holding board mounted on the end frames, jaws cooperating with said board, means mounted on the first-mentioned frames for operating the jaws, a motor on the first-mentioned shelf, a flexible shaft connected with the motor, and an implement connected with the free end of the flexible shaft and movable on the article held on the board by the jaws.

1,304,282. MEANS FOR SUPPORTING ELECTRODES IN IONIC TUBE. OSWALD DUNN, London, England, assignor to Osram-Robertson Lamp Works Limited, London, England. Filed Aug. 9, 1918. Serial No. 245,100. 6 Claims. (Cl. 250-27.)



1. Means for supporting a substantially cylindrical anode in an ionic tube, consisting in the combination of two sets of pliable fingers attached to the anode and extending longitudinally therefrom in opposite directions respectively, said fingers being adapted to so engage the annular shoulders presented by the junction of the bulb with the respective necks of the tube as to prevent displacement of the anode in the direction of its axis, and a pair of expanding spring locking-rings adapted to be interlocked with the terminal portions of the fingers of the respective sets and to hold the fingers of each set radially separated in contact with the inner surface of the corresponding neck of the tube, substantially as set forth.

1,304,283. INSULATING-BUSHING. EDWARD D. EAY, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed May 24, 1918. Serial No. 286,270. 5 Claims. (Cl. 173-311.)



1. An insulating bushing for oil submerged electrical apparatus comprising an insulating member having a terminal securing device secured to one end, a second insulating member secured in the first insulating member and projecting from its other end, said second insulating member adapted to have its lower end submerged beneath the oil surface and formed with a lead opening therein, and a grounded shield overlaid with a layer of insulating material encircling the whole exposed surface of said second insulating member which is above the oil surface.

1,304,284. CURRENT-WATER-MOTOR MACHINE. MILAN A. ELLIS, Davenport, Iowa, assignor of one-fourth to George C. Weck. Filed Apr. 22, 1918. Serial No. 229,980. 1 Claim. (Cl. 170-180.)



A current-water-motor machine comprising a superstructure supporting a rotatable shaft having curved spoke wheels at each end having spokes of equal length adapted to a common curve, a set of spiral curved blades of even width extending the length of said shaft secured to said spokes, the whole forming a water wheel adapted to be submerged in the current of a running stream of water and to be caused to rotate on said shaft thereby, and a current straightener constructed in the downstream end thereof consisting of sheets hung by their ends edgewise to the current upon rods in proximity to said wheel in such manner as to prevent an eddy in the stream, a return of the water into and between the blades of the mechanism and to facilitate the downflow of the water.

1,304,285. TROLLEY-WHEEL. FRANK T. ELWELL, Los Angeles, Calif. Filed Nov. 16, 1917. Serial No. 208,219. 4 Claims. (Cl. 64-66.)

1. The combination with a relatively long supporting member, of a trolley wheel carried by said supporting

member, said trolley wheel having a main body portion of aluminum or the like relatively light material, and a



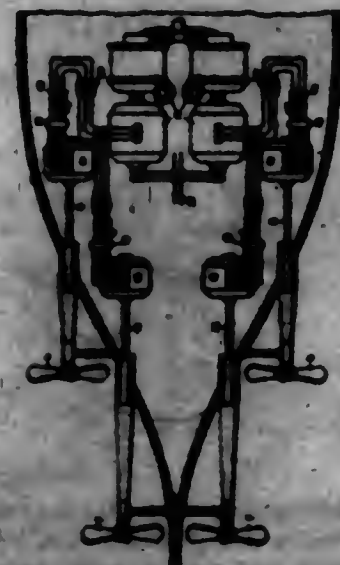
rim portion of heavier material such as copper to provide an adequate wearing surface.

1,304,286. VALVE-GEAR. PAUL BRUNN, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Feb. 16, 1916. Serial No. 78,621. 8 Claims. (Cl. 131-111.)



1. The combination in a fluid actuated motor, of a cylinder, a piston therein, a pilot valve, conduits controlled by the pilot valve for conveying actuating fluid to and from the cylinder on opposite sides of the piston, the conduits for conveying the fluid from the cylinder having a greater effective area than those for conveying it to the cylinder, and the conduits for conveying fluid from the cylinder being connected into it through the side wall adjacent the ends thereof so that the piston in the extreme of its movement will cover such conduits.

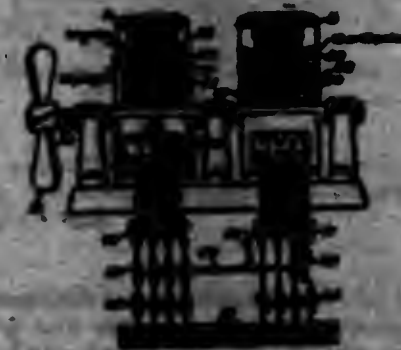
1,304,287. SHIP PROPULSION. WILLIAM L. R. EMMET, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 24, 1918. Serial No. 68,487. 5 Claims. (Cl. 115-37.)



1. The combination in a system of ship propulsion of a plurality of propellers on each side of the ship, the pro-

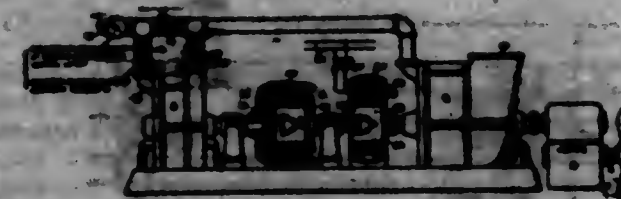
pellors on the same side of the ship being located at places where the movements of the water caused by the passage of the ship are different, means for driving all of the propellers at substantially the same speed, and means for equalizing the loads on the propellers.

1,304,288. SHIP PROPULSION. WILLIAM L. R. EMMET, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 11, 1916. Serial No. 83,641. 11 Claims. (Cl. 173-8.)



1. A system of electric ship propulsion comprising a propeller and two induction motors adapted to drive said propeller, one of said motors having means for producing primary magnetic fields of two different pole numbers and the second motor having means for producing primary magnetic fields of two different pole numbers of a smaller ratio of change than the ratio of change of the pole numbers of the other motor, the lower pole numbers of said two motors being the same.

1,304,289. SYSTEM OF SHIP PROPULSION. WILLIAM L. R. EMMET, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 15, 1916. Serial No. 84,488. 13 Claims. (Cl. 173-8.)

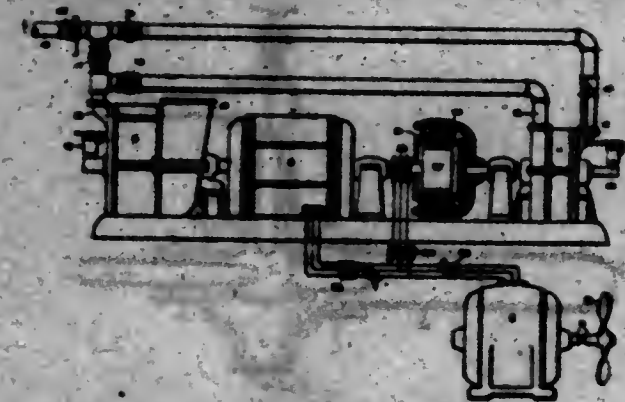


6. A system of ship propulsion comprising a propeller, a main elastic fluid turbine coupled to said propeller, an auxiliary elastic fluid turbine arranged to exhaust into said main turbine, and an electromagnetic device operatively connecting said turbines together and adapted to establish a relation between the turbines whereby the auxiliary turbine operates at a higher speed than the main turbine.

1,304,290. ELECTRIC SYSTEM OF SHIP PROPULSION. WILLIAM L. R. EMMET, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 15, 1916. Serial No. 84,696. 10 Claims. (Cl. 173-8.)

4. An electric system of ship propulsion comprising a main elastic fluid turbine, a synchronous generator coupled to said turbine, an induction generator, an auxiliary elastic fluid turbine operatively connected to drive said induction generator, a propeller, an electric motor operatively connected to said propeller and adapted to receive electric energy from each of said generators, and means for operating said main turbine and said synchronous generator at their respective high speeds by admitting elastic fluid directly to the main turbine for high speed navigation of the ship and for operating said main turbine and said

synchronous generator at relatively lower speeds by supplying the exhaust fluid of said auxiliary turbine to said



main turbine and electrically connecting said generators to deliver energy in parallel to said motor for navigating the ship at relatively lower speeds.

1,304,291. PLASTIC MANIFOLDING COMPOSITION. GEORGE FUCHTER, Butler, Pa. Filed Jan. 18, 1919. Serial No. 271,899. 2 Claims. (Cl. 104-84.)

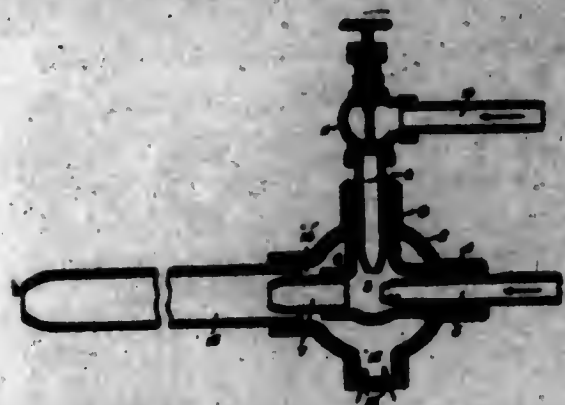
1. A plastic composition consisting of kaolin, alabaster, gypsum, white dextrin, and glycerin, in or about the proportions herein specified.

1,304,292. MAGAZINE-PEN. ALBERT L. FISCH, Racine, Wis. Filed Jan. 20, 1919. Serial No. 272,088. 2 Claims. (Cl. 120-42.)



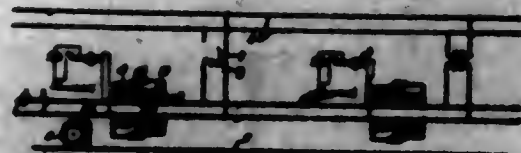
1. A pen of the class described comprising a tubular non-metallic body member, a ferrule sleeve having its lower portion disposed about the body member and having its upper portion offset therefrom, a handle member detachably engageable with said offset portion, a transversely curved pen point having its width substantially equal to the internal diameter of the body member whereby to frictionally engage within said body member and be thus held in place, a clip comprising a plate having wings at its side portions bent to embrace and frictionally engage the sides of the pen point and having its outer end portion bent to close the channel of the pen point, said clip plate forming one side of an ink chamber having its other side formed by said pen point, and a magazine supply of soluble ink material in the passageway of the pen body adapted for feeding movement into the said chamber, the inner end of the clip plate being in juxtaposition to the end of the body member to form a closure for the interior thereof preventing movement of ink material from the body member exterior of the chamber.

1,304,293. LIQUID-FUEL BURNER. BENJAMIN FOWLER, Youngstown, Ohio. Filed Dec. 31, 1917. Serial No. 209,649. 3 Claims. (Cl. 153-74.)



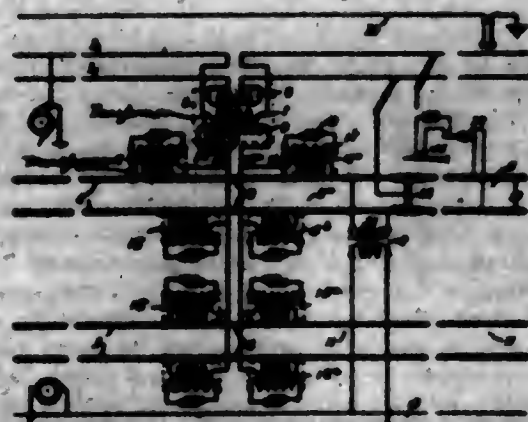
1. In a liquid fuel burner, a casing having its interior divided by walls forming an interior chamber, a high pressure fluid passageway in communication with the chamber, a liquid fuel supply passage also in communication with said chamber, tubular elements projecting from said passageways into the interior chamber, a tubular mixing chamber beyond the interior chamber, a low pressure air supply passageway in communication with the mixing chamber, and a concentrically disposed discharge nozzle in communication with the interior chamber and having an end projected into the tubular mixing chamber.

1,304,294. DOUBLE RESONANT CIRCUIT. CHARLES LE G. FORTNACUS, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 12, 1918. Serial No. 61,068. 11 Claims. (Cl. 246-87.)



1. The combination with a circuit constituting a series-resonant path for alternating-current impulses having a certain frequency, of a second circuit connected in parallel relationship therewith whereby a parallel-resonant path is established for alternating-current impulses of another frequency.

1,304,295. ELECTRIC-RAILWAY SYSTEM. CHARLES LE G. FORTNACUS, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 7, 1916. Serial No. 82,503. 6 Claims. (Cl. 246-86.)



1. In a railway system subjected to the flow of alternating currents of at least two frequencies, the combination with a trolley and a track comprising rails, of a series transformer inductively interlinking said trolley conductor and said track with each other, and means connected be-

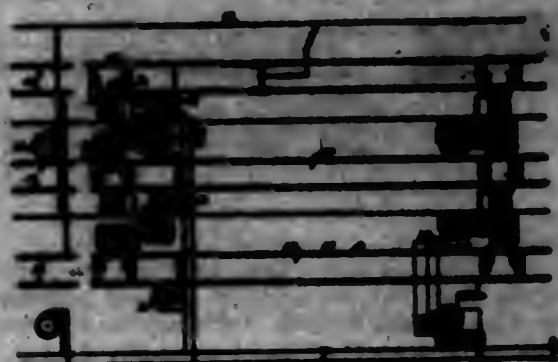
tween each rail and said series transformer to permit currents of one frequency only to flow through said series transformer and, at the same time, to prevent the existence of a potential difference of said frequency between said rails.

1,304,296. RADIO-SIGNALING SYSTEM. CHARLES LE G. FORTNACUS, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 2, 1918. Serial No. 124,004. Renewed Nov. 8, 1918. Serial No. 361,741. 7 Claims. (Cl. 250-87.)



1. In a system of radio-signaling, the combination with an alternating-current source of supply and a high-frequency oscillating circuit, of a transformer for interconnecting said circuit to said source, said transformer comprising a primary winding which is connected to said source, a secondary winding closely magnetically linked with the primary winding, a second secondary winding loosely magnetically linked with the primary winding, a condensative reactance element connected in circuit with said first secondary winding, and means for connecting the high-frequency oscillating circuit to said second secondary winding.

1,304,297. RAILWAY SIGNALING SYSTEM. CHARLES LE G. FORTNACUS, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 8, 1918. Serial No. 80,907. Renewed Mar. 21, 1919. Serial No. 364,176. 8 Claims. (Cl. 246-87.)

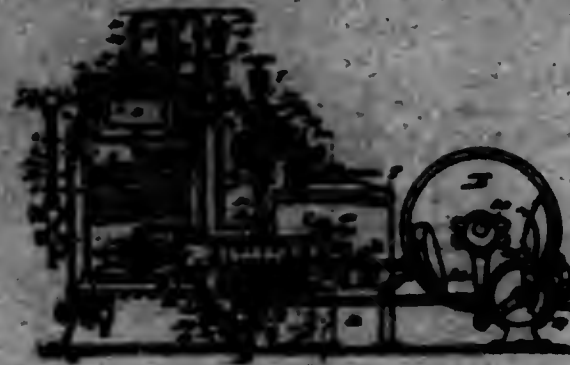


2. An electric railway comprising a track divided into a plurality of insulated track sections, and means for so connecting the track sections to one another that the propulsion current may be equally divided between the two rails of the track and current having the frequency of the propulsion current only may flow unimpeded through successive track sections.

1,304,298. POWER-DEVELOPING MACHINE. CHAS. FRANCH, New York, N. Y. Filed June 1, 1918. Serial No. 287,705. 4 Claims. (Cl. 60-86.)

1. A power developing machine comprising in combination, a boiler, a supply tank to contain liquid fuel, means for supplying said boiler with liquid fuel from said tank, a gaseous fuel burner for heating said boiler to generate gas under pressure from the liquid fuel therein, a pressure-operated engine, means for conveying the generated gas

under pressure from said boiler to said engine to operate the latter, means for directing part of the exhaust gas



from the engine to said burner to operate the same, and means for directing the remaining exhaust gas into said supply tank.

1,304,299. COMBINATION VALVE AND OIL-BURNER. LAWRENCE C. FRASER, Los Angeles, Calif., assignor of one-half to J. W. G. CURTIS, Los Angeles, Calif. Filed Sept. 12, 1918. Serial No. 283,702. 4 Claims. (Cl. 153-120.)



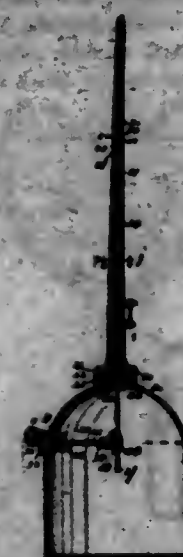
1. In a device of the class described, a bowl having passages; a block having a longitudinal bore extended part way through the block from one end thereof, the block having transverse passages communicating with the bore; pipe nipples right and left hand threaded into the passages of the bowl and the block; a removable closure for one end of the bore and mounted in the block; a conduit leading from the bowl; and a valve in the conduit.

1,304,300. STOP-ARM FOR STEERING MECHANISM. GEORGE E. FRISCH and JAMES D. WILSON, Indianapolis, Ind. Filed Feb. 3, 1919. Serial No. 274,066. 2 Claims. (Cl. 21-194.)



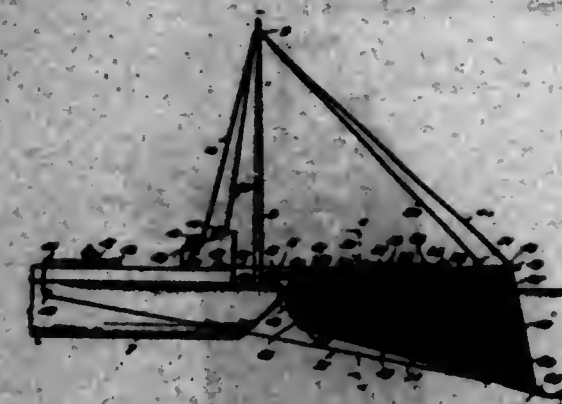
1. In combination with a vehicle frame and a steering member mounted thereupon, a stop arm attached to the frame at one end and having its other end positioned in the path of movement of said steering member to limit the extent of possible movement thereof.

1,304,301. OILER. JAMES LAWRENCE FRASER, Wellesburg, N. H., assignor to Johnson Manufacturing Company, Urbana, Ohio, a Corporation of Ohio. Filed Feb. 23, 1918. Serial No. 218,836. 3 Claims. (Cl. 221-46.)



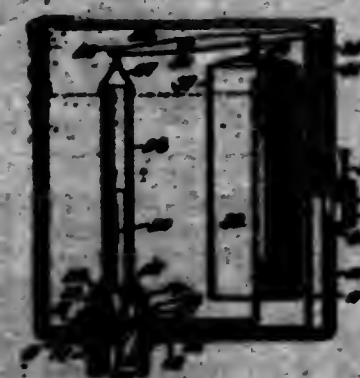
1. In an oiler, the combination with a reservoir body having a delivery spout, of a valve seat member within the spout comprising a sheet metal partition having a valve seat and an annular flange extending alongside the walls of the spout, said walls being indented to hold the seat in place, and a valve movable into and out of contact with the seat.

1,304,302. FISHING DEVICE. LOUIS R. GAGE, Sr., Hockessin, Wash. Filed June 12, 1918. Serial No. 289,006. 6 Claims. (Cl. 43-8.)



2. The combination with a supporting craft, of a pair of beams secured to the craft and normally extending forwardly thereof, a pair of beams normally under said beams respectively, a net extending from one to the other of said beams and from the latter to said beams and supported by said beams and beams, and adjustable means coöperative with said beams and beams for stretching the net.

1,304,303. VALVE FOR FLUSH-TANKS. THOMAS J. GANNON, Brooklyn, N. Y. Filed Aug. 31, 1915. Serial No. 48,154. 4 Claims. (Cl. 4-6.)



1. In a device of the character described, a bushing provided with a valve seat, a closure member adapted to rest on said valve seat in closed position of the valve, and

to be raised to open the valve, a central overflow rod extending through said closure member and adapted to be raised and lowered therewith, and means closed at the top and open at the bottom adapted to exert a supporting force on the said closure member during emptying of the water from the tank, the said means adapted to release the said valve when the water in the tank drops below the means.

1,304,304. BOTTLE OR JAR FOR DISPENSING DENTAL LIQUIDS AND THE LIKE. NATHAN K. GARRANT, Watertown, Mass. Filed Aug. 15, 1916. Serial No. 249,967. 5 Claims. (Cl. 215-18.)



1. In an article of the character described for dispensing dental liquids and the like, the combination of a bottle, a flexible disk cemented over the mouth of the bottle, the disk having an opening therein through which a dropper may be inserted into the bottle, and a dropper having a stopper adapted to seat in said opening when the dropper is inserted into said bottle.

1,304,305. MEASURING-TANK. JOHN L. GUNN, Chicago, Ill. Filed Feb. 15, 1919. Serial No. 277,262. 6 Claims. (Cl. 221-97.)

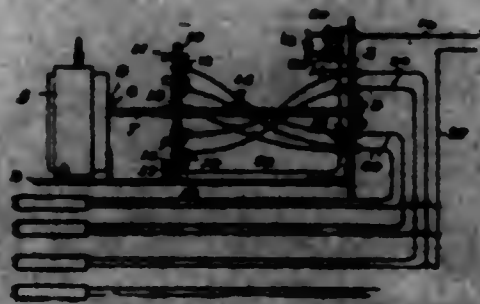


1. The combination with a tank having an opening in one side thereof, of a nozzle pivotally mounted in said opening, a counterweight normally urging said nozzle into a retracted position within said tank, and means on said nozzle adapted to support a receptacle to receive the contents of said tank through said nozzle, said nozzle being adapted, when a receptacle is placed thereon, to swing into an operative position.

1,304,306. PORTABLE SHOT-FIRING DEVICE. DUMAUS C. GENTREY, Vincennes, Ind. Filed Apr. 2, 1918. Serial No. 259,207. 2 Claims. (Cl. 161-97.)

1. A portable shot firing device embodying a supporting member, an arcuate series of contacts carried by said member, a brush to successively engage said contacts, said member and brush being mounted to rotate relatively to bring the contacts into successive engagement with the brush, a time controlled mechanism for rotating said member and brush relatively, an arcuate series of

blinding posts carried by said member adjacent to said contacts and arranged in pairs therewith, individual fuse wires bridging the contacts and blinding posts, and wires



connected to and leading from said blinding posts for connection with firing caps.

1,304,307. LOADER. OMA L. GULLILAND, Minneapolis, Minn. Filed July 24, 1918. Serial No. 249,974. 8 Claims. (Cl. 56-61.)



1. In a loader of the kind described, the combination with a truck, of a traveling pickup device, and a rake carried by the pickup device and arranged to follow thereafter.

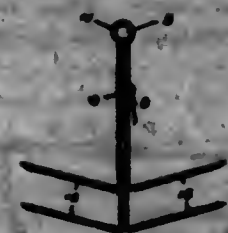
1,304,308. TELEPHONE ATTACHMENT. NORMAN GRANBAULL, New York, N. Y. Filed June 26, 1918. Serial No. 27,170. 3 Claims. (Cl. 179-122.)



1. The combination with a telephone, of a divided clamp adapted to engage and hold the telephone-post and adapted to engage the telephone receiver and to hold the same rigidly clear of the switch-hook of the telephone, and a weight equipped with a cord adapted detachably to

suspend the said weight from the switch-hook of the telephone, and a bracket affixed to the said clamp adapted to receive and hold the said weight.

1,304,309. CAKE-HANGER. THOMAS L. GUNN, Indianapolis, Ind. Original application filed Aug. 1, 1912, Serial No. 712,651. Divided and this application filed Sept. 6, 1917. Serial No. 189,974. 11 Claims. (Cl. 91-6.)



11. A cake hanger comprising a shank composed of metallic strands twisted together and having terminal portions bent from the shank at different elevations forming cake impaling prongs at different levels.

1,304,310. OCCUPANT-PROPELLED VEHICLE. JOHN HIRSHMAN, Allentown, Pa. assignor of one-half to Edwin F. Worman, Copoly, Pa. Filed May 5, 1916. Serial No. 24,926. 5 Claims. (Cl. 206-55.)



1. The combination with a wheeled vehicle of a propelling mechanism including a rockably mounted seat, means for transmitting motion from said seat to the wheels of the vehicle so as to cause rotation thereof, and a spring supporting the seat and consisting of a body portion secured at one end and having its other end portion looped to provide a spring arm disposed beneath and in parallel spaced relation with said body, and an adjustable tensioning device secured to said arm and to the seat for holding the seat in position upon the body portion of the spring, said device also serving to vary the tension of said spring arm.

2. The combination with a wheeled vehicle, of a rotary element having central gear teeth, a pinion meshing with said teeth, driving connections between said pinion and the wheels of the vehicle, said rotary element being provided with smooth rim portions located at opposite sides of the gear teeth and adapted to be engaged by braking elements, a lever provided with friction pawls engaging the rim portions of the rotary elements so as to cause rotation thereof when the lever is reared, said lever being mounted coaxially with the rotary element, an oscillatory seat, and connections between said seat and the lever for causing rocking thereof when the seat is oscillated.

1,304,311. SHOCK-ABSORBER. ARTHUR HILDEBRAND, Philadelphia, Pa. Filed May 18, 1918. Serial No. 254,927. 7 Claims. (Cl. 74-68.)

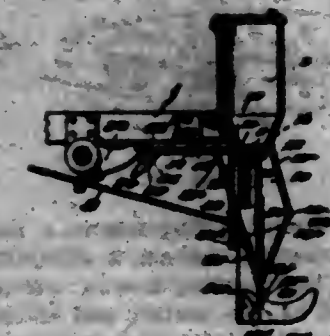
1. A shock absorber in which are combined a rigid diaphragm having therethrough a passage of contracted

area, a flexible diaphragm below said rigid diaphragm, said flexible diaphragm having a peripheral flange bolted to the peripheral portion of the fixed diaphragm, means



for imparting shock to the central portion of said flexible diaphragm, and a body of fluid contained between said fixed and flexible diaphragms.

1,304,312. SEED-BOOT FOR CORN-PLANTERS. RUFUS C. HUNTERSON, Kankakee, Ill. Original application filed Apr. 14, 1916, Serial No. 94,948. Divided and this application filed July 18, 1917, Serial No. 181,378. Renewed Mar. 7, 1919. Serial No. 281,292. 3 Claims. (Cl. 111-51.)

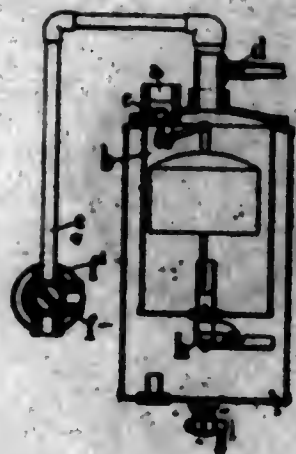


1. In seed planting mechanism of the class described, a seed hopper, a boot comprising a section extending downwardly from the hopper, a section telescopically fitting the first mentioned section, means for raising and lowering the second mentioned section upon the first mentioned section, a brace for the sections comprising pivotally connected members, a reciprocating valve plate for controlling the discharge of the seed from the hopper into the boot, means for reciprocating the said valve plate, a collecting valve plate mounted for swinging movement in the lower portion of the boot, a pin upon the lower section of the boot, and a rod pivoted at its upper end to the first mentioned valve plate and operatively connected at its lower end with the collecting valve plate, the said rod between its ends being formed with a slot receiving the said pin.

1,304,313. APPARATUS FOR RAISING LIQUIDS. JOSEPH HIGGINSON and HUBERT ARUNDEL, Stockport, England. Filed Feb. 4, 1919. Serial No. 274,972. 2 Claims. (Cl. 156-36.)

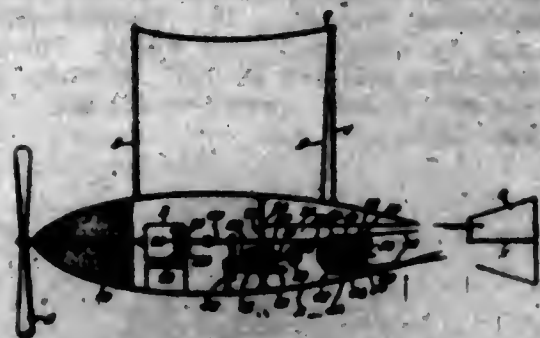
1. In apparatus for raising liquids, the combination with a vessel for the reception and distribution of the raised liquid of an inlet for the liquid, a valve for closing said inlet, a float for opening and closing said valve, an outlet for the liquid, a valve for closing said outlet, an inlet for admitting air to said vessel, a continuously open

suction pipe connected to said air inlet, a valve for opening and closing said air inlet, and mechanical means,



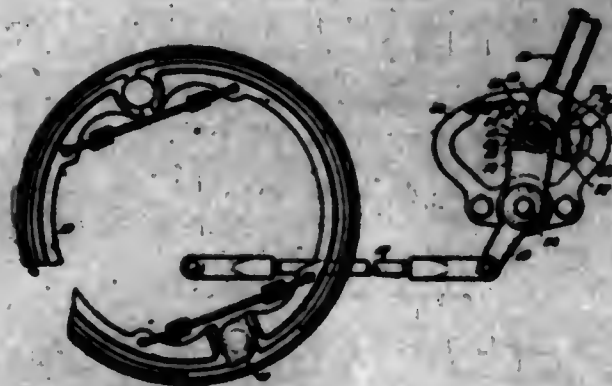
operating independent of said boat, for intermittently actuating said air inlet valve.

1,304,314. WIRELESS-CONTROLLED FLYING-TORPEDO. CLAUDE H. HILL, Quincy, Ill. Filed June 20, 1917. Serial No. 177,823. 6 Claims. (Cl. 244-1.)



3. A torpedo having propelling means, a motor for the propelling means, steering means, a differential mechanism for operating the steering means, one part of said differential operated by the motor, and electrical means for operating another part of said mechanism to actuate the steering means.

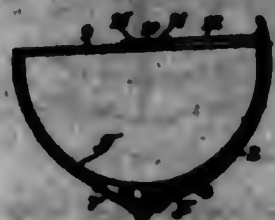
1,304,315. BRAKE-OPERATING MECHANISM. BRYAN E. HOUSE, St. Cloud, Minn., assignor to Fan Motor Company, St. Cloud, Minn., a Corporation of Delaware. Filed Jan. 4, 1918. Serial No. 210,245. 7 Claims. (Cl. 74-30.)



1. Brake operating mechanism, comprising a pivoted member adapted to have operative relation with brake mechanism, an operating lever pivotally connected at its lower end to said member, a quadrant disposed adjacent the lower end of said lever, a spring-controlled pawl pivotally mounted on the lower end of the lever and adapted

to engage with said quadrant, means secured to the lower end of the lever and disposed in the path of said pawl whereby the latter is forced out of engagement with said quadrant when the lever is moved about its pivotal connection with said member in a brake-releasing direction, and means whereby the independent movement of the lever about its pivotal connection with said member is limited and the lever and member forced to move in unison.

1,304,316. BOAT-LAUNCHING APPARATUS. JOHN L. HYLAND, St. Paul, Minn. Filed Sept. 17, 1917. Serial No. 191,663. 7 Claims. (Cl. 9-22.)



1. A boat launching apparatus comprising a removable skid constructed to receive a boat and fastening means removably supporting a boat within said skid.
7. A boat launching apparatus comprising a skid constructed to receive a boat, a yielding lining for said skid, a cable carried by said skid and extending over a supported boat and means for securing said cable in position holding a boat supported upon said skid.

1,304,317. BRAKE-LEVER SET. ARTHUR D. JACK, Winfield, Kans. Filed Sept. 17, 1918. Serial No. 254,430. 4 Claims. (Cl. 74-30.)



2. In combination, a brake lever, a curved bar concentric with the brake lever, a member mounted concentric with the brake lever, a second member pivotally connected to the outer end of the first mentioned member and having its outer portion engaging the inner edge of the curved bar, and an inclined extension at the relatively lower end of the brake lever to engage the second member and effect a lifting and a forward movement thereof when the upper end of the brake lever is moved relatively in a rearward direction.

1,304,318. SELF-PROPELLING BOAT. BENJAMIN F. JACKSON, Vermillion, Ind. Filed Sept. 27, 1918. Serial No. 265,907. 4 Claims. (Cl. 118-4.)

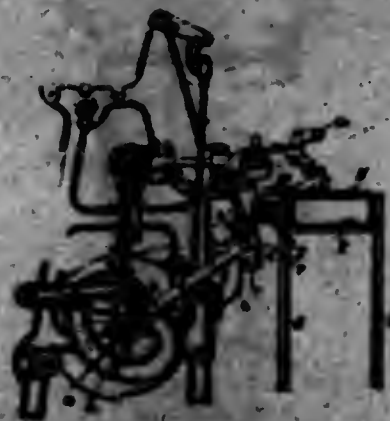
1. A self-propelling boat, comprising a plurality of boat sections connected for reciprocating motion; a frame mounted in connection with certain boat sections; a plurality of reciprocating propeller arms mounted in the frame; a plurality of propeller blades hinged to each of said propeller arms and adapted to open for edgewise for-

ward motion through the water and to close flatwise for reverse backward motion; and a plurality of power trans-



mission arms connecting said propeller arms with certain other boat sections so as to transmit the oscillating motion between the boat sections to said propeller arms.

1,304,319. BOTTLE-LABELING MACHINE. HOWARD HAMMOND, New York, N. Y. Filed Mar. 15, 1918. Serial No. 232,593. 3 Claims. (Cl. 210-57.)



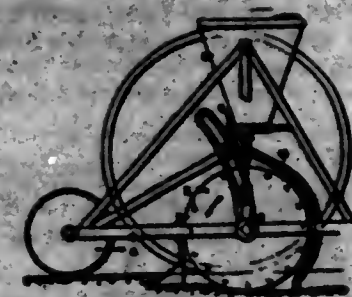
1. In a bottle labeling machine, the combination with a support adapted to hold a bottle horizontally in position for labeling, labeling means arranged to move approximately vertically toward and from the bottle, a drive shaft and means actuated by the shaft for operating the labeling means, of an ejecting member normally located above and near the back of said support and curving as a rear step for the bottle, and means actuated by said shaft for moving said member forward over said support to eject the bottle therefrom.

1,304,320. SHADE-HOLDER. JACOB T. JOHNSON, Atlanta, Ga. Filed Sept. 19, 1918. Serial No. 121,004. 4 Claims. (Cl. 240-115.)



2. A shade holder, adapted to snugly receive the out-turned attaching lip of a shade, having a gallery to snugly receive and surround the lip, a single securing screw carried by said gallery, the gallery having fixed internal means opposite the screw providing two fulcrum and supporting portions for said lip, the holder and said portions thereof being so arranged that said lip is insertible into said removable from the gallery at an acute angle behind said portions, and is extractible on said portions into and out of the holder past the screw when retracted.

1,304,321. ROTARY DRILLING OR SOWING MACHINE. CYRILUS BENOARD PAUL JULIEN, Paris, France. Filed Dec. 27, 1917. Serial No. 200,150. 3 Claims. (Cl. 275-2.)



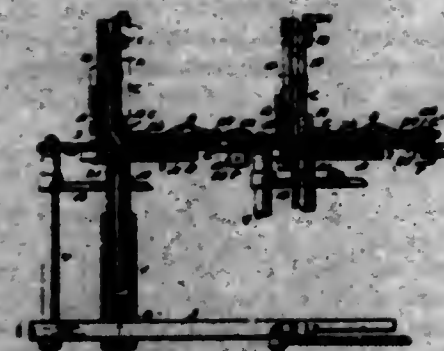
1. A rotary seed drilling and sowing machine comprising in combination a frame, an axle supported therein, a circular disk revolvably mounted on said axle, a circular series of pins projecting laterally from said disk adjacent its periphery, a hopper supported in said frame directly over said axle and above the periphery of said disk, distributing means in the lower end of said hopper, means for actuating said distributing means through the aforeaid pins, and a detachable and reversible tube communicating with said distributing means, whereby seed may be conveyed to either the front or rear of the rim of the aforeaid disk.

1,304,322. CURTAIN-WINDOW. FRANCIS O. KAEFFLER, Los Angeles, Calif. Filed Jan. 14, 1919. Serial No. 271,102. 6 Claims. (Cl. 21-230.)



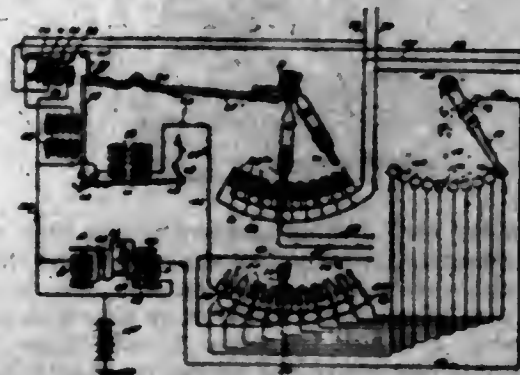
1. A curtain having a window opening, a glass plate having a groove in its edge with the curtain material extending into the groove, and means for holding the parts together.

1,304,323. CROWN-FEEDER FOR BOTTLE-CAPPING MACHINES. SAMUEL KAYE, Columbus, Miss. Filed Feb. 7, 1918. Serial No. 78,791. 8 Claims. (Cl. 118-114.)



1. A crown-feeder for bottle-capping machines comprising a stationary guide having a comparatively narrow interior which receives the caps and presents them edgewise, a vertically-disposed crown-chute, a gate therefor, which opens and closes a portion only of one side of the chute, and a reciprocating carrier at the bottom of the chute which receives and places said crown, and said reciprocating carrier having means which positively effects the opening and closing of the gate automatically.

1,304,324. INDIVIDUAL-SWITCH MECHANISM FOR AUTOMATIC TELEPHONE SYSTEMS. ALEXANDER E. KERTH, Chicago, Ill., assignor, by mesne assignments, to Automatic Electric Company, a Corporation of Illinois. Filed Apr. 29, 1905. Serial No. 268,028. Renewed Aug. 15, 1914. Serial No. 856,900. 115 Claims. (Cl. 179-18.)



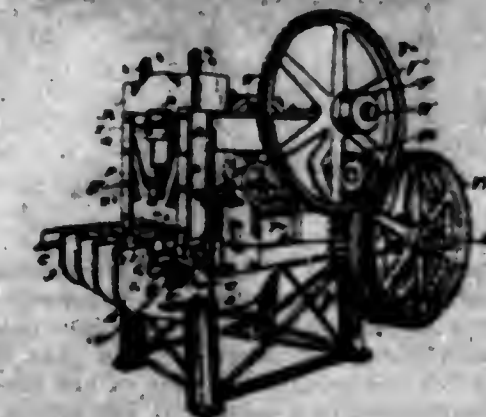
1. A telephone system comprising a calling subscriber's line, trunk lines, an "individual-switch" adapted for use by the calling subscriber to connect with any one of a number of said trunk lines, provided with a swinging and endwise-movable plunger for closing connection between said line and an idle one of said trunk-lines, and a talking circuit including said plunger.

1,304,325. EXPOSURE-IDENTIFICATION DEVICE FOR CAMERAS. ALONZO FRANCIS KELLOGG, Portage, Wis. Filed Sept. 10, 1914. Serial No. 861,029. 10 Claims. (Cl. 95-1.1.)



6. A camera casing enclosing a plate or film, in combination with means for exposing the plate or film to a light point within the casing, and means for controlling the movements of the light point.

1,304,326. BENDING-MACHINE. JAMES L. KERSHAW, Cleveland, Ohio; W. M. Baldwin, administrator of said James L. Kershaw, deceased, assignor, by direct and mesne assignments, of one-fifth to Adolphus L. Kershaw and one-fifth to Isabella Kershaw, Cleveland, Ohio. Filed Apr. 23, 1915. Serial No. 23,512. 8 Claims. (Cl. 188-42.)



1. In a machine for bending a metal bar having horizontal and vertical flanges, a bed plate upon which said

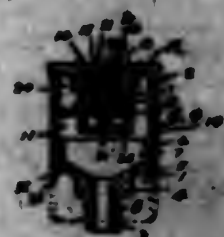
bar rests, vertically acting holding and restraining devices for said bar adapted to retain said bar in position and to overcome the tendency thereof to become distorted when horizontally bent, and subsequently and horizontally acting bending devices including a stationary control abutment engaging one edge of said horizontal flange and spaced horizontally moving members engaging the other side of said horizontal flange and engaging one face of said vertical flange.

1,304,327. DISPENSING AND MEASURING APPARATUS FOR LUBRICANTS AND THE LIKE. ABRAHAM B. KLAY, Modesto, Calif. Filed Jan. 24, 1918. Serial No. 213,882. 3 Claims. (Cl. 321-71.)



1. In a dispensing apparatus, the combination with a reservoir having discharging means movably mounted therein, of a reciprocity bar provided with a rack along one edge thereof and with a ratchet face in another portion of the same, an indicator plate mounted and shiftable on the said bar and provided with means to engage the ratchet face of the latter to hold the said plate in fixed adjusted position, the indicator plate being movable to zero position on the bar independently of the movement of said bar, an index cooperating with the indicator plate, and pinion means engaging the rack along one edge of the bar to unitarily move the bar and indicator plate.

1,304,328. GREASE-CUP. ALBERT A. KLEIN, Los Angeles, Calif., assignor of one-third to Charles H. Bown, Los Angeles, Calif. Filed July 1, 1918. Serial No. 242,932. 3 Claims. (Cl. 184-69.)

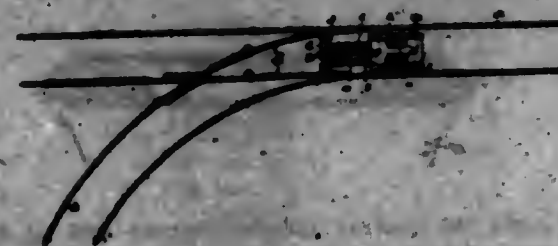


2. In a grease cup, a head having a vertical opening, a check valve casing fixed in the opening and having a screw-threaded bore and a valve seat below the bore, and a check valve plunger mounted to engage the valve seat and having a stem filling the bore and having ports leading inwardly from the periphery and discharging through the bottom.

1,304,329. RAILWAY AUTOMATIC SWITCH. CONSTANT LARIDON, Detroit, Mich. Filed Feb. 17, 1919. Serial No. 277,987. 6 Claims. (Cl. 246-322.)

1. An automatic switch, having in combination with a swinging cross-over, means on the one end to connect

tion with the cross-over for initiating the swing of the cross-over in either one of two selected positions, and



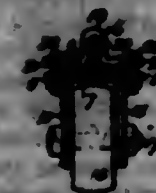
means for assisting in completing the final portion of such swing and holding it in the selected position.

1,304,330. PUMPING MECHANISM. LAURENCE A. LAURENCE, Eau Claire, Wis. Filed Nov. 24, 1915. Serial No. 63,564. 6 Claims. (Cl. 108-63.)



1. A double acting pumping apparatus of the class described comprising a working cylinder having a main piston and a separate pressure piston at either side thereof arranged in speed relation to the main piston, relatively smaller cylinders for said pressure pistons, a passage leading from the working cylinder at each side of the main piston and including an inlet and a discharge port, a discharge conduit common to said passages, a fluid pressure passage for each pressure piston whereby to actuate said pistons to discharge the contents of the cylinder from between the pressure and main pistons through the discharge passages, and means affording communication from the discharge passages to the fluid pressure passage preventing escape of the fluid from the fluid pressure passages to the discharge passage.

1,304,331. ATTACHMENT FOR SLEDS. LOUIS LECHT, Yonkers, N. Y., assignor of one-half to John Walter, Yonkers, N. Y. Filed Apr. 23, 1918. Serial No. 230,222. 1 Claim. (Cl. 21-94.)



A device of the class described comprising a plate adapted to be secured to the under side of a sled runner

of T cross section, and provided with apertured extensions projecting laterally beyond the runner, forks depending from said plate and a wheel or roller revolvably mounted between said forks, a clamp provided with a top loop engaging over the vertical web of the runner and extending downwardly at each side of and against said vertical web and thence outwardly and means for attaching said clamp to the lateral extensions of said plate.

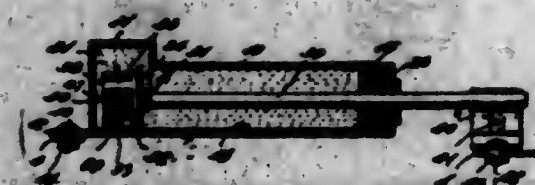
1,304,332. FUSIBLE LINK FOR AUTOMATIC SPRINKLERS. OWEN B. LEWIS, Baltimore, Md. Filed May 18, 1918. Serial No. 234,262. 8 Claims. (Cl. 100-26.)



1. A fusible link consisting of two plates placed face to face each having a cup shaped formation at its central portion which substantially registers with each other, said plates each having a projecting portion and a recessed portion with the projecting portion of one fitting in the recessed portion of the other, whereby the plates are interlocked and solder in the recess formed by the cup shaped parts, substantially as described.

6. A fusible link consisting of two sheet metal plates, each having a central depression with a groove extending therefrom in a general direction lengthwise of the plate and with a transverse extension, and having a similar rib on the other side of the central depression and on the same face of the plate, said plates being reversed in position and placed face to face with the rib on each plate fitting in the groove of the other plate, substantially as described.

1,304,333. DOOR CHECK AND CLOSER. ALBERT T. LOFTUSBAUGH, Powell, Wyo., assignor to Powell Manufacturing Company, Powell, Wyo., a Corporation. Filed July 5, 1917. Serial No. 178,732. 8 Claims. (Cl. 74-69.)



6. The combination in a liquid check, of a cylinder having a surging chamber, an open-work piston movable in the cylinder and having an apertured rear wall, a valve movable in the piston toward and from said apertured wall, and a rod connected and movable with the piston and extending through one end of the cylinder.

1,304,334. RASH-LOCK. JAMES O. LOWE, Cedar Rapids, Iowa. Filed June 4, 1918. Serial No. 32,130. 1 Claim. (Cl. 10-142.)

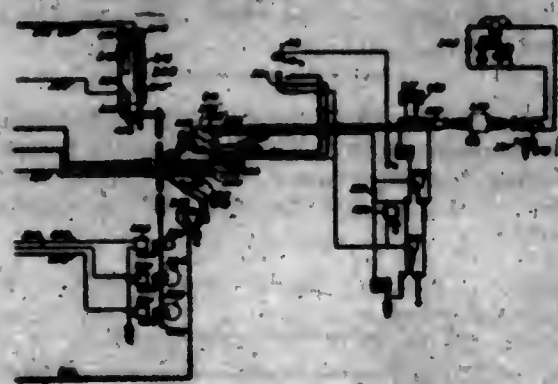
A rash lock comprising a plate having a pair of spaced apertures and pairs of spaced slots located in a plane within the apertures, a housing located on the plate and having each end open, tongues formed on the lower side edges of the housing and extending through the slots and

bent at right angles to underlie the plate for securing the housing to the plate, a pair of oppositely disposed flaps formed on the side edges of the housing and having apertures in registration with said apertures of the plate, fastening elements extending through the apertures of the plate and flaps for attaching the plate to a window sash and for further securing the housing to the plate, an up-standing tongue formed on the rear edge of the plate and intermediate the ends thereof and closing the rear end of the housing, said last named tongue having an opening,



a shank slidable in said opening, a latch head secured to the forward end of said shank and partially covered by said housing when in its normal position, a spring engaging the head and last named tongue for urging the head outwardly of the housing, a cylindrical member threaded to the outer end of the shank and engaging the last named tongue to limit the outward movement of the head from the housing and capable of adjustment on the shank to adjust the tension of the spring, and a finger grip on the cylindrical member.

1,304,335. AUTOMATIC TELEPHONE-EXCHANGE SYSTEM. ALBION R. LUNDSELL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Oct. 26, 1916, Serial No. 127,946. Renewed Mar. 6, 1919. Serial No. 281,070. 3 Claims. (Cl. 179-37.)

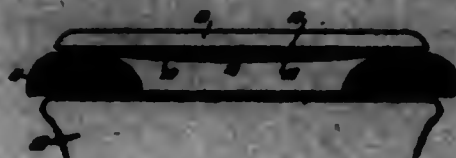


1. In a telephone exchange system, a plurality of lines, means for rendering any one of said lines busy, a switching device operable to engage any one of said lines when idle, automatic means operative upon the engagement of a busy line by said device for causing it to successively engage the other lines, releasing means for said device operated upon the engagement of the last line if such line is busy, and means operative upon the engagement of a certain one of said lines for preventing the operation of said automatic means.

1,304,336. LID FOR WATER-CLOSETS. MADON M. Lusk, Brooklyn, N. Y. Filed Mar. 21, 1918. Serial No. 223,710. 3 Claims. (Cl. 4-80.)

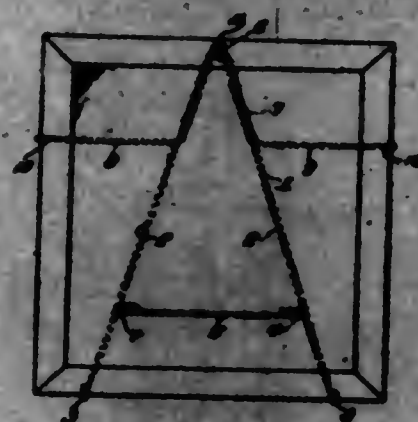
1. As an article of manufacture, a lid for water closet seats, comprising a flat annular frame having a central opening and adapted to rest on and cover the seat of the water closet, and a disinfectant holder including por-

trous top and bottom sheets the margins of which are secured to the upper and lower faces of the annular frame



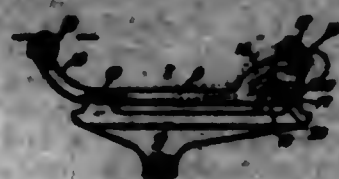
and cover the central opening thereof, and an absorbent material contained between the upper and lower sheets of the holder.

1,304,337. PICTURE-HANGER. MILAN R. McCLEGG, McClung, W. Va. Filed July 20, 1918. Serial No. 245,002. 1 Claim. (Cl. 40-145.2.)



A picture hanger comprising a body having divergent leg portions provided with parallel outstanding extremities, a rod connecting the intermediate portions of the legs together, a shoulder portion twisted upon the upper part of the leg portions and having an eye, the body portion having an eye at the union of the legs which registers with the eye of the shoulder portion, said shoulder portion having aligned outstanding arms provided with laterally disposed extremities inwardly directed.

1,304,338. CONTACT MECHANISM FOR RAILWAY SIGNAL SYSTEMS. WILLIAM M. McEWEN, Chicago, Ill. Filed Aug. 24, 1917. Serial No. 166,112. 4 Claims. (Cl. 246-240.)



1. In contact mechanism of the class described, the combination of a pair of coacting contact members, one of which is arranged at the side of the rails and the other mounted on a vehicle adapted for travel on the rails, one of said contact members comprising a bracket, a contact device shiftably mounted on said bracket and normally retracted from a position to engage said other contact member, operating means connected to said contact device and normally urged into position to engage said other member whereby the engagement of said means with said other contact member will cause said contact device to be shifted into a position to engage said other contact member, and a housing member adapted to protect said contact device and connected to said operating means so as to be shifted out of and into a position for protecting said contact device simultaneously with the shifting of said contact device into and out of position to engage said other contact member.

1,304,339. VOCALIZER-INSPIRATOR. RINGLIFE R. McCLEGG, Hot Springs, Ark. Filed Oct. 19, 1918. Serial No. 245,003. 7 Claims. (Cl. 120-100.)



1. An inspirator comprising a casing having an inhaling outlet, and a medicine chamber therein, a valve within the casing for closing said outlet, and a handle connected to the valve for pulling the valve to close said outlet and for carrying the casing.

1,304,340. SKIRT-SUPPORTER. HOWARD JOSEPH MANN, Jersey City, N. J. Filed July 16, 1918. Serial No. 245,100. 5 Claims. (Cl. 241-9.)



5. A garment supporter including a band for attachment to a skirt, a girle comprising upper and lower bands, the lower one of which is adapted to encircle the waist of the wearer, stays connecting said bands and each formed of mating sections adjustable vertically with respect to each other, one of the sections of each stay being provided with a slot and the other with a pin extending through said slot, interengaging fastening devices carried by the sections of the stays for securing the stays in different positions of vertical adjustment, and interengaging fastening devices carried by the attaching band and upper band of the girle for suspending a skirt from the girle at a point above the waist line of the wearer.

1,304,341. SPARK-PLUG. MARION MALLORY, Wichita, Kans. Filed Mar. 7, 1918. Serial No. 220,907. 1 Claim. (Cl. 120-300.)



A spark plug comprising a vertically elongated, hollow, cylindrical shell open and screw-threaded at its lower end and provided at its upper end with a contact, a one-piece, vertically elongated insulator having between its ends an internal head secured in said socket, said insulator depending from said head into said shell, substantially

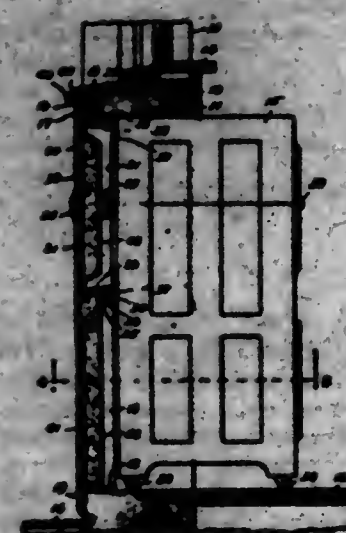
to the lower end of the latter and in spaced relation with the shell wall, said insulator having a longitudinal bore leading from its lower end wall into said head, the wall of said bore having superimposed V-shaped grooves giving thereto a zig-zag formation free of horizontal surfaces, an electrode secured in said insulator and extending through said bore, and a ground electrode extending from said shell.

1,304,342. INSULATING-COUPLING FOR FENCE WIRES. JAMES LUTHER MARTIN, Yates Center, Kans. Filed June 22, 1917. Serial No. 176,800. 2 Claims. (Cl. 173-300.)



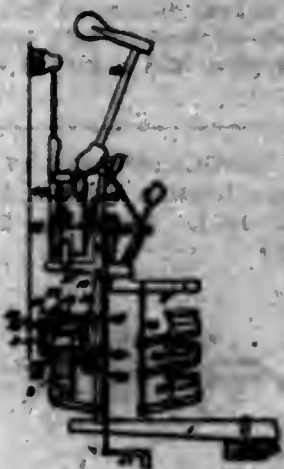
1. In a coupling of the kind set forth, the combination with a pair of looped connectors in spaced alignment and adapted for connection to the ends of fence wire sections respectively, the adjacent ends of said connectors, each having a pair of hooks curved laterally in opposite directions, the hooks of one pair corresponding in position with the hooks of the opposite pair, whereby a pair of parallel spaced rings may be positioned so that the hooks may extend therethrough spaced from the wall of the rings, with the shanks of the connectors between the rings; of an insulating body, in which the adjacent pairs of hooks and the shanks of the connectors are embedded, and a pair of spaced rings of like diameters embedded in the body on opposite sides of and spaced from the shanks of said connectors, whereby the oppositely extending lateral hooks are positioned through the rings.

1,304,343. COMBINED METAL PANEL AND DOOR CONSTRUCTION. WILLIAM D. MARTIN and HENRY SCHMIDT, Chicago, Ill. Filed June 9, 1917. Serial No. 173,717. 3 Claims. (Cl. 100-44.)



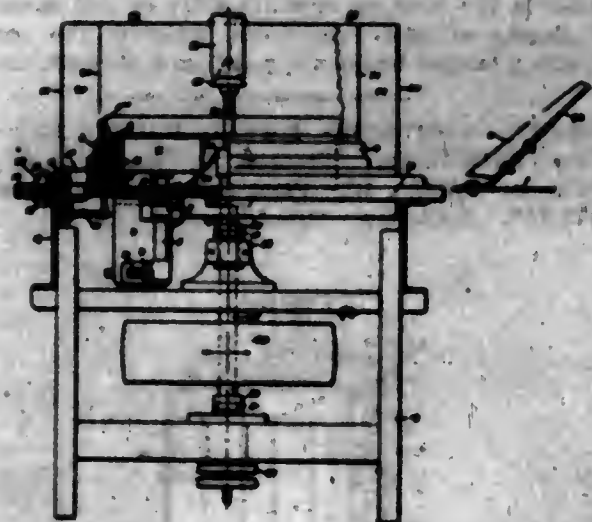
1. A metal panel of the character described, having two integral marginal flanges completely surrounding the same, one marginal flange extending outwardly from the body of the panel and adapted to bear against the front face of a building wall, and the other marginal flange extending inwardly from the rear face of said panel at the base of the outwardly extending marginal flange and being arranged at substantially right angles thereto, said panel being provided in the upper portion thereof with a doorway extending transversely therethrough, a door for closing said doorway, and heat insulating means mounted on the rear face of that portion of said panel below said doorway.

1,804,844. REED ATTACHMENT FOR PIANO-PLAYER DEVICES. AUGUST W. MERRIN, Seattle, Wash. Filed Feb. 20, 1918. Serial No. 218,183. 6 Claims. (Cl. 84-198.)



6. The combination with a player piano action of a set of reeds operable through the mechanisms which operate the piano said reeds and the strings of the piano operable by the same individual mechanisms being of different tones, and means for disconnecting either the reeds or the strings as desired.

1,804,845. GRINDING OR CRUSHING MACHINE. DONALD JOHN GUNN MILLER, Seattle, and RICHARD ARNHEIM LLOYD, Liverpool, England. Filed May 21, 1918. Serial No. 226,942. 5 Claims. (Cl. 83-45.)



1. In a mill of the character described, a relatively stationary supporting ring, a grinding ring held therein, a rotatable bottom arranged beneath the relatively stationary supporting ring, means to rotate the bottom, a plurality of upstanding shafts connected with the bottom to rotate therewith and adapted to be shifted radially with relation to the bottom, rollers carried by the shafts and arranged to contact with the grinding ring, yielding means to oppose the inward radial movement of the shafts, and feeding means to supply material to be ground to said bottom and automatically operated by the inward radial movement of the shafts.

1,804,846. TRANSMISSION MECHANISM. WILLIAM O. MILLER, San Jose, Calif. Filed May 27, 1918. Serial No. 226,000. 3 Claims. (Cl. 100-17.)

2. In a transmission mechanism of the class described, the combination of a driving shaft rotatively mounted in a suitable gear case, said driving shaft being provided with a releasing clutch positioned within said casing and a plurality of spur gears securely keyed to said shaft, the rotation of said shaft and gears being manually controlled by means of said clutch; two re-

verse pinion gears rotatively mounted a distance below and one on each side of the driving shaft and meshing with one of the gears on said driving shaft; two driven shafts rotatively mounted in the same plane, parallel with and one on each side of the driving shaft, said driven shafts each being provided with manually operated



sliding gear members and clutches, the sliding gear members being adapted to be brought into engagement with the spur gears on the driving shaft as selected or into engagement with the reverse pinion gears, as selected, each driven shaft being provided with a manually operated brake band adapted to hold the working end of either driven shaft from revolving when desired, substantially as shown and described.

1,804,847. TRACTOR-TRUCK MECHANISM. WILLIAM O. MILLER, San Jose, Calif. Filed May 27, 1918. Serial No. 226,007. 4 Claims. (Cl. 100-0.)

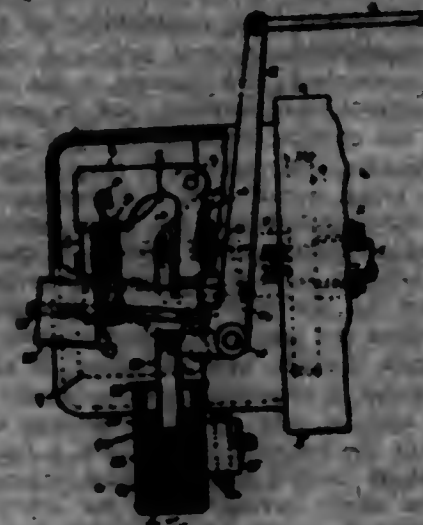


3. In a tractor truck mechanism of the class described comprising a plurality of track members formed into oblong races; means for fastening the track members in place and to a central bearing; a shaft attached to the frame of a tractor on which said bearing is turnably secured; a plurality of rollers adapted to roll on said tracks; guide rails adapted to hold the rollers in place on the tracks; an idler pulley wheel positioned a distance forward of the track members and supported on arms turnably secured to the shaft; a sprocket wheel turnably secured to the frame of a tractor a distance to the rear of the track members, and power operative means for revolving said sprocket wheel; a chain track, adapted to engage the sprocket wheel, idler pulley wheel and rollers, said chain track having tread members fastened to the lower edges thereof forming widened flat bearing surfaces, adapted to engage the ground thereby forming a chain track, over which the rollers may roll and means for causing the rollers to automatically place themselves in position in front of the track members and on the chain track substantially as and for the purpose set forth.

1,804,848. GOVERNOR. LOUIS J. MONAHAN, Oshkosh, Wis., assignor to Universal Motor Company, Oshkosh, Wis. Filed Sept. 18, 1918. Serial No. 252,911. 2 Claims. (Cl. 204-4.)

1. The combination with a rotatable shaft, of a collar slidably mounted on said shaft, a member fixed to said shaft and having projecting arms, weights pivotally connected to said arms, levers integral with said weights and engageable with one side of said collar, springs connecting said weights for normally drawing the same toward each other, a rock shaft extending at right angles to said shaft, a forked member fixed to the rock shaft and engageable with the opposite side of said collar, a bell-crank lever fixed to said rock shaft, a dash pot cylinder mounted adjacent said rock shaft, a piston movable in said cylinder and having a rod pivotally connected to one arm of the bell-crank lever, a lever fixed to the other

arm of the bell-crank lever, and a weight mounted on the fixed lever and tending to force said forked member to



move said collar as the speed of the shaft increases but to oppose the movement of the collar as the speed decreases.

1,804,850. MEANS FOR PRODUCING HYDROCARBON FUEL SUITABLE FOR USE IN INTERNAL-COMBUSTION ENGINES. FLORENCE J. MOORE and CHARLES F. MINOR, Chicago, Ill. Filed Oct. 1, 1918. Serial No. 254,000. 2 Claims. (Cl. 200-107.)



1. In an apparatus for producing liquid fuel suitable for use in explosive engines, a stirrer, comprising a rotatable shaft, a disk mounted on said shaft, said disk having a series of through-openings radially disposed in said disk and spaced 90 degrees apart, angularly disposed vanes on the lower surface of said disk, vertically disposed vanes on the upper surface of said disk, said vanes being located at one of the edges of each through opening, and means for rotating said shaft.

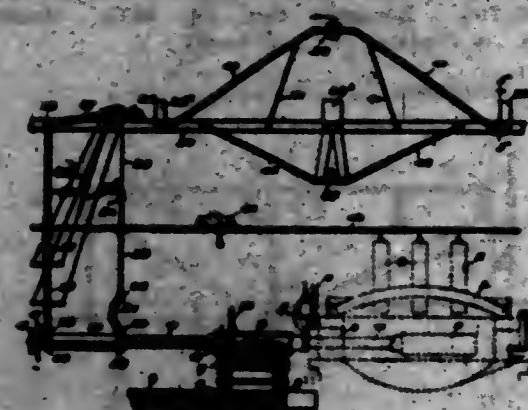
1,804,851. ELECTRIC FURNACE. WILLIAM H. MOORE, Pittsburgh, Pa. Filed June 11, 1917. Serial No. 174,910. 6 Claims. (Cl. 204-64.)



1. A metallurgical furnace having means to heat the same electrically and comprising a rotator, means on

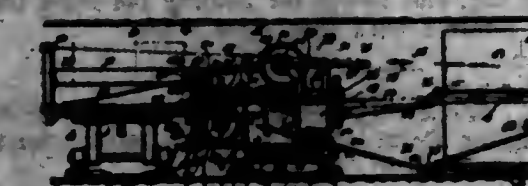
which said rotator is mounted, traction rollers supporting said rotator and carrying the entire weight of the furnace, and means to drive said rollers to tilt said furnace.

1,804,852. FURNACE-CHARGING APPARATUS. WILLIAM H. MOORE, Pittsburgh, Pa. Filed Aug. 24, 1917. Serial No. 188,048. 17 Claims. (Cl. 214-31.)



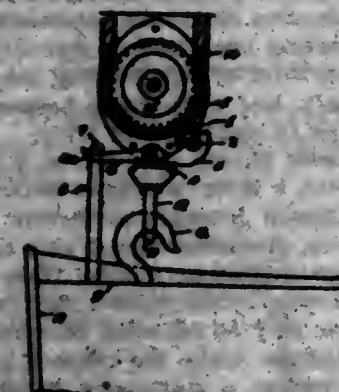
1. A furnace charging apparatus, comprising a support rotatably mounted on a vertical axis passing through the furnace charging opening, and charging means suspended from said support and movable toward and away from the furnace opening.

1,804,853. APPARATUS FOR MINING. EDMUND C. MONAHAN, Chicago, Ill. Filed July 5, 1918. Serial No. 277,000. Renewed Oct. 4, 1918. Serial No. 254,915. 51 Claims. (Cl. 302-12.)



1. The combination of a device for supporting a block of coal, a loading machine adapted to be positioned intermediate a car and said device and forming a guideway, means associated with said loading machine for pulling the said supporting device along said guideway and on the car, and means for adjusting the elevation of the receiving end of said loading machine without altering the elevation of the delivery end.

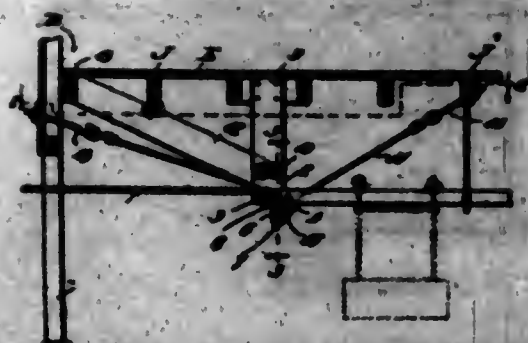
1,804,854. LAUNCHING OF SHIPS' BOATS. WILLIAM EDWARD MOSE, Liverpool, England. Filed Feb. 12, 1919. Serial No. 278,402. 6 Claims. (Cl. 9-22.)



1. A brake mechanism for controlling the launching of a ship's boat on an even keel, comprising, fall ropes, a pulley around which the fall ropes pass, a brake mechanism adapted to retard the passage of the ropes around

the pulley, and means for controlling the brake mechanism operated by the pivotal action of the beam when inclining about its point of suspension from the full rope.

1,304,334. CONNECTOR FOR OVERHEAD TRACKER. MALCOLM B. MOTEN, Montevideo, Minn., assignor to Moyer Manufacturing Company, Montevideo, Minn., a Corporation of Minnesota. Filed Dec. 6, 1917, Serial No. 306,793. Renewed Oct. 14, 1918. Serial No. 258,108. 4 Claims. (Cl. 104-97.)



1. A cable and rigid track connector comprising a horizontal plate and means for anchoring the same, a pair of lugs rising from opposite edges of said plate and each having a cable receiving groove in its upper end, the grooves of said lugs being parallel, a third lug depending from said plate between said pair of lugs, said third lug having a cable receiving groove in its lower end and extending at right angles to the aforesaid grooves, the cable track being adapted to pass over said pair of lugs and under said third lug, and means for holding the rigid track in operative relation with said cable track.

1,304,335. ROCK CRUSHER. EDWARD HENRY MOTEN, Los Angeles, Calif. Filed Apr. 19, 1918. Serial No. 22,404. 10 Claims. (Cl. 50-53.)



1. In a rock crusher, a plurality of spaced plates, having fulcrum ways, bearing blocks in said ways, a fulcrum shaft in said bearing blocks, a breakable thrust bar behind each bearing block, means to adjust each thrust bar to regulate the fineness of the materials acted on without stopping the crushing operation, a plurality of solid and yielding plates in front of said bearing blocks, a lever on said fulcrum shaft, and a die plate between said spaced plates, and means to operate said lever.

2. A rock crusher having side plates, a fixed die plate spacing them apart, a lever fulcrumed between said plates and having fulcrumed journals projecting through openings in said plates, breakable thrust bars for limiting the movement of each fulcrumed journal from said fixed die plate, and adjustable means behind said breakable bars, whereby the lever may be adjusted to crush materials to greater or less fineness while the crusher is operating.

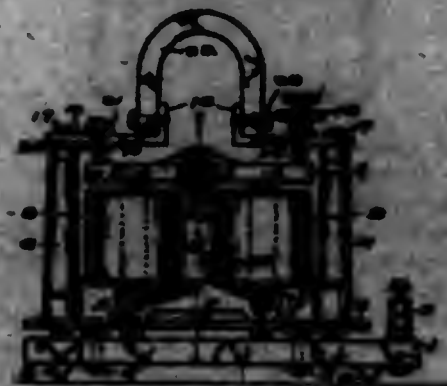
4. In a rock crusher, a stationary die plate carried by side walls, a lever mounted opposite to the die plate, a fulcrum shaft for the lever, bearing blocks for the fulcrum shaft, elongated seats in side walls for bearing blocks, and adjustable and breakable thrust bars arranged in a slotted way at one side of bearing blocks, means for

adjusting each end of thrust bar, a resilient plate at other side of bearing blocks, and means for operating said lever.

9. In a rock crusher the combination of a frame, a movable fulcrumed crushing jaw having a lower curved face surface concentric to the fulcrum, a die mounted on the frame opposite the crushing jaw in such relation thereto that the opening between the jaw and die contracts downwardly, the concentric curved face of the crushing jaw being struck from a center above the fulcrum of the crushing jaw, and the lower opposite face of the die having a similar curved surface of greater eccentricity with relation to said fulcrum, a breakable thrust member behind the jaw fulcrum, and adjustable supporting means behind the breakable thrust member.

14. In a rock crusher and pulverizer, a plurality of spaced side plates, a removable stationary die plate fastened to the ends of side plates, a concave and convex curved crushing die fastened to die plate, a fulcrum shaft and a drive shaft carried by said plates, a lever fastened to the fulcrum shaft having means for operating same, an irregular shaped shoe fastened to lever, bearing blocks mounted in spaced side plates for carrying the ends of fulcrum shaft, an adjustable and breakable thrust bar arranged in slotted ways for contacting and adjusting the bearing blocks of fulcrum shaft, means for applying a transverse stress on breakable thrust bars when the rock crusher is in operation and the shoe and die contacting each other, means for connecting lever and drive shaft, and means for operating the drive shaft.

1,304,336. TELEGRAPH-BOUNDER. THOMAS J. MURPHY, Rochester, N. Y., assignor of one-half to James P. E. Duffy, Rochester, N. Y. Filed Nov. 20, 1917. Serial No. 204,022. 4 Claims. (Cl. 175-96.)



1. In an alternating current telegraph bouncer, a permanent magnet, a centrally pivoted sounding member controlled by the permanent magnet, coils at the opposite ends of the pivoted member for operating the pivot member, an E-core, the coils surrounding the outer legs of the E-core, the pivoted member supported centrally in proximity to the central leg of the E-core.

1,304,337. GROUTER FOR ENDLESS-CHAIN TRACKS. EMIL F. WONGLIVA, Peoria, Ill., assignor to The Holt Manufacturing Company, Stockton, Calif., a Corporation of California. Filed Nov. 19, 1918. Serial No. 192,000. 7 Claims. (Cl. 21-100.)



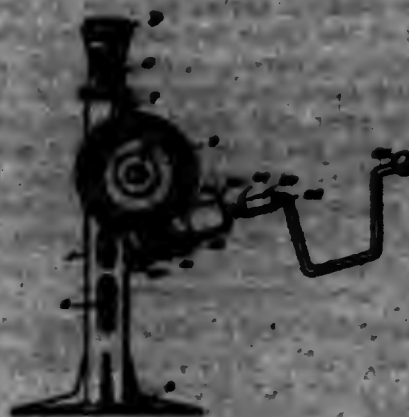
1. In a self-laying track tractor, the combination with an endless chain track having articulated link sections, of

deep ground-engaging means on each link to resist lateral and longitudinal movement of the chain track relatively to the surface traveled on while permitting automatic discharge of accumulated dirt and preventing jarring and tearing of the links, said means comprising flanges extending diagonally across each link, forming an acute angle with each other, the apex of the said angle being rearwardly disposed when on the ground.

4. In a self-laying track tractor, the combination with an endless chain track having articulated link sections, of deep ground-engaging means on each link to resist lateral and longitudinal movement of the chain track relatively to the surface traveled on while permitting automatic discharge of accumulated dirt and preventing jarring and tearing of the links, said means comprising a groove detachably secured to each link and comprising an anchoring plate having an outwardly protruding narrow flange thereon, V shape in plan and formed with transversely extending depressions near the apex and base thereof, and provided with an opening intermediate the ends of each leg whereby to receive fastening means and an outwardly protruding narrow flange formed on the plate and also made V shape in plan.

7. In a self-laying track tractor, the combination with an endless chain track having articulated link sections, of deep ground-engaging means on each link to resist lateral and longitudinal movement of the chain track relatively to the surface traveled on while permitting automatic discharge of accumulated dirt and preventing jarring and tearing of the links, said means comprising an anchoring plate V shape in plan and formed with transversely extending depressions near the apex and base thereof, and provided with an opening intermediate the ends of each leg whereby to receive fastening means and an outwardly protruding narrow flange formed on the plate and also made V shape in plan.

1,304,338. LIFTING JACK. OLAF A. BUELIN, Williamsport, Pa. Filed June 10, 1918. Serial No. 240,000. 6 Claims. (Cl. 254-87.)



1. A lifting jack for automobiles provided with an upright body containing lifting mechanism, said body having a fixed socket located near its upper end and a rotatable socket connected to the lifting mechanism and located lower than the fixed socket, and a bar or rod interchangeably insertible into the sockets for actuating the lifting mechanism when introduced into the rotatable socket and for transporting the jack as a whole when introduced into the fixed socket.

1,304,339. HOISTING APPARATUS. ALMON H. NORMAN, Brooklyn, Mass. Filed July 11, 1918. Serial No. 102,710. 20 Claims. (Cl. 215-61.)

7. In a hoisting apparatus, the combination with a trolley of a bucket contained thereby, a trolley rope and

rope winding drum, a reversing motor for turning said drum, a controller to start, stop and reverse said motor, a



lead links interposed between the motor and trolley rope winding drum, and means for controlling the bucket.

1,304,340. PISTON-RING. JOHN E. HONWEG, Baltimore, Md. Filed Aug. 14, 1918. Serial No. 240,732. 2 Claims. (Cl. 121-100.)



1. The combination of a piston having an annular groove in its outer surface provided with apertures leading to the inside of the piston and a smaller annular groove at the back of the first named annular groove and also provided with apertures leading from said smaller groove to the inside of the piston, a piston ring fitted in the said first named annular groove, and a supplemental ring fitted in said smaller annular groove and impinging against the piston ring.

1,304,341. ATTACHMENT FOR CAMERAS. AUGUST J. GUMPERT, Chicago, Ill. Filed Dec. 12, 1918. Serial No. 60,410. 7 Claims. (Cl. 95-1.1.)



1. In a camera, the combination with a camera box, of a conditioned-member supporting-frame adapted to contact

with and define the exposure area of a contained sensitized member, said box having a slot opening through one wall thereof, said slot extending parallel to and in close proximity to the plane of such sensitized member, means for obstructing the entrance of light through said slot, a printing slide adapted to be inserted through said slot and to project into the exposure area, said slide comprising an opaque, light obstructing part of a length equal to that of said slot, and a translucent extension adapted to project into the exposure area, said extension being capable of being written upon, and means for limiting the insertion movement of said printing slide.

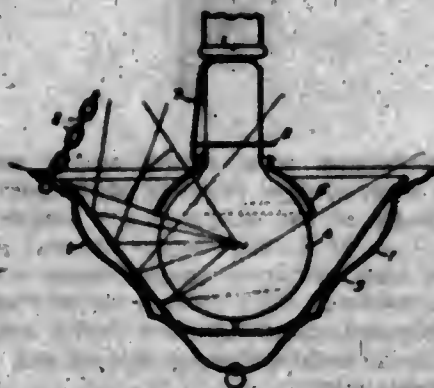
1,804,362. CONFECTION-COATING MACHINE. PANAYIOTIS D. PANOUJIAS, Jersey City, N. J. Filed Aug. 20, 1918. Serial No. 260,634. 6 Claims. (Cl. 91-3.)



1. In a confectionery-coating machine having means for supplying coating to the confections, the combination with a belt for conveying the coated confections, the said belt being composed of longitudinal strands, of means for elevating certain of the strands in the upper course to form compartments or stalls for the confections to prevent lateral displacement, and means for individually tensioning each of the strands in a lower course.

4. In a confectionery-coating machine having means for supplying coating to the confections, the combination with a belt having a substantially horizontal upper course for conveying the confections, the said belt being composed of longitudinal strands, of a series of individual tensioning devices cooperating with the several strands in their lower courses.

1,804,363. INDIRECT AND SEMI-INDIRECT FIXTURE. ROBINALD F. FRICKMAN, Rugby, England, assignor to General Electric Company, a Corporation of New York. Filed Mar. 28, 1917. Serial No. 188,001. 5 Claims. (Cl. 240-92.)



1. In indirect and semi-indirect lighting fixtures, the combination of a bowl and a light source therein with a plurality of suspending devices for the bowl attached at one end to the bowl and at the other end to the ceiling support above the light source and a transparent cover for the lamp having bands of diffusing material incorporated therein situated directly between the light source and the suspending devices for intercepting and diffusing the shadow-casting rays, all other rays passing freely to the ceiling without loss by diffusion.

1,804,364. OIL-DRILL. NOAH C. PHILLIPS and THOMAS W. HUNT, Houston, La. Filed Feb. 14, 1919. Serial No. 277,018. 1 Claim. (Cl. 265-23.)

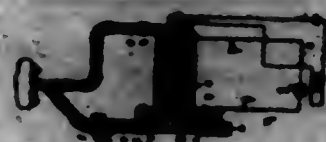
The combination, with an oil drill pipe having a drill bit at its lower end and a valve seat at its upper part, of a valve adapted to close the said valve seat, a coupling stem engaging with the drill bit, a cable of twisted wires

having its end portions secured to the said valve and coupling stem, and a casing tube secured around the middle portions of the cable thereby stiffening the said middle portions.



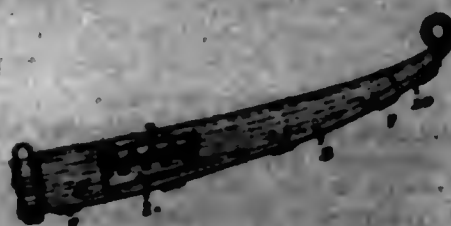
die portions and preserving the cable from change of length, the end portions of the said cable being exposed at the ends of the casing tube and being free to bend laterally when the drill bit is displaced.

1,804,365. MOTOR-HEATER AND LIKE DEVICE. WALTER BENTHAM POWELL, Quebec, Quebec, Canada. Filed Jan. 28, 1918. Serial No. 216,236. 4 Claims. (Cl. 219-32.)



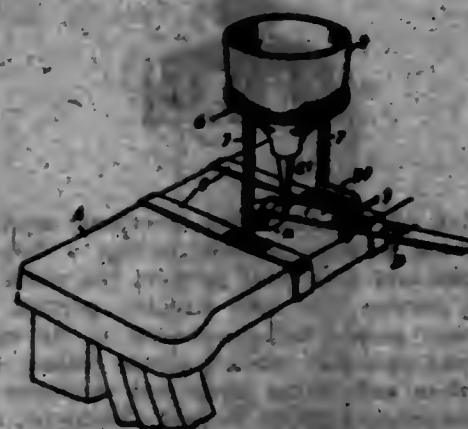
2. In a device of the class described, an annular metal inclosed water chamber having an inlet at the lower end and an outlet at the upper end and surrounding a center of non-conducting material, a heating coil surrounding said center and insulated from said metal inclosure, a heating coil between said metal chamber and said core and insulated from the former, means for energizing one coil apart from the local installation, means for energizing the other coil within the local installation, and pipes connecting said water chamber to a water circulating system.

1,804,366. SPRING BOOT AND OILER. GEORGE B. PRICE, Tropic, Utah. Filed July 22, 1918. Serial No. 246,066. 1 Claim. (Cl. 267-23.)



A spring boot made of flexible material and adapted to be fitted around a leaf spring, said boot having facing openings at opposite sides and being provided with a lining one side of which projects beyond one side of the boot and to underlap and cover the lining, the boot being also provided on its outer side with a flap which is secured to the center of the boot longitudinally and projects beyond the same side of the boot to the extension of the lining, said flap being provided at its outer side and the said boot being provided at the opposite side with fastenings to enable said flap and boot to be drawn together and around the spring.

1,804,367. RIBBON-REINFORCING ATTACHMENT FOR TYPE-WRITERS. RICHARD H. PUGH, Whiston-Gates, N. C. Filed Apr. 6, 1918. Serial No. 257,303. 1 Claim. (Cl. 197-371.)



An attachment for typewriters for re-inking the ribbons thereof comprising a bracket attached to the frame of the typewriter, an ink reservoir supported by said bracket and provided with a discharge tube adapted to conduct the ink from the reservoir to the ribbon, and a pair of rollers between which said ribbon passes after the ink is deposited thereon, whereby the ink is evenly distributed, substantially as set forth.

1,804,368. FOLDING TABLE-CHAIR. EDWARD L. FENCHILL, Toledo, Ohio. Filed Mar. 8, 1919. Serial No. 260,212. 4 Claims. (Cl. 138-22.)



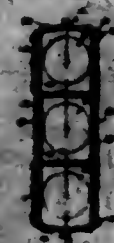
1. In a foldable table chair, a channel member secured to the underside of the table top, a guide rod fitting the channel member and slidably supported in the channel member, a chair back pivotally secured to one side of the rod and supported by the rod when the rod is slid underneath the table top, a seat pivoted to the chair back, a link connecting the seat and the rod for supporting the seat when the chair is drawn from beneath the table and for swinging the seat into the plane of the chair back and the guide rod when the chair back is turned into the plane of the guide rod.

1,804,369. TELEPHONE SYSTEM. ARTHUR J. RAY, Liverpool, England, assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 26, 1918. Serial No. 4,578. Renewed Aug. 26, 1918. Serial No. 361,541. 33 Claims. (Cl. 173-6.)



1. In a telephone system, a motor, a plurality of differential relays, and a circuit for said motor controlled by any one of said relays.

1,804,370. DIRECTION INDICATOR AND MIRROR. CHARLES L. RAY, Los Angeles, Calif. Filed Mar. 8, 1919. Serial No. 260,389. 2 Claims. (Cl. 60-132.)



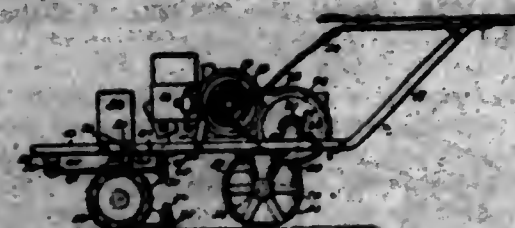
1. A direction indicator and mirror comprising an indicator and mirror construction adapted to be mounted upon the left-hand side of a wind shield frame, and have the lettering Left showing from the front and letterings Right, Left and Stop showing from the rear, the rear side being silvered to serve as a mirror, and there being means for illuminating the lettering.

1,804,371. MACHINE FOR PRODUCING PISTON-RINGS. FANNUSCK RAY, Short Hills, N. J. Filed June 12, 1918. Serial No. 168,793. Renewed Oct. 12, 1918. Serial No. 257,884. 13 Claims. (Cl. 29-1.)



1. In a ringing machine for producing rings which exert a uniform radial pressure, the combination of a chuck for holding the ring, a ringing tool and means for varying the load on said tool in accordance with a predetermined law.

1,804,372. LAWN-MOWER. MATTHEW HOWARD REED, Chicago, Ill. Filed July 15, 1918. Serial No. 244,867. 12 Claims. (Cl. 56-25.)

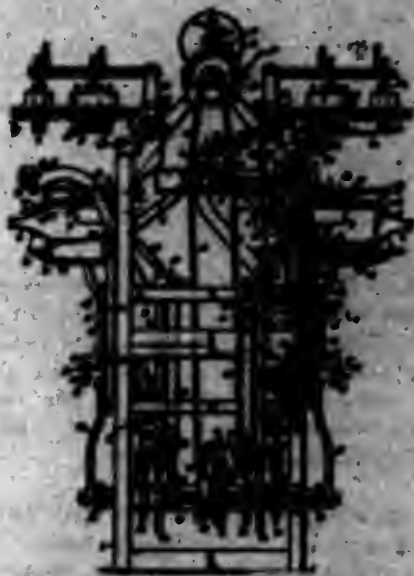


2. In a mowing machine having a ground support upon which it travels and upon which the machine swings bodily in steering, a cutting element having a freely trailing connecting with the machine forward of said ground support, and means independent of said cutting element for steering the machine.

1,804,373. BOTTLE-LABELING MACHINE. GEORGE E. HARRIS, Worcester, Mass., assignor to Maffre Machine and Tool Company, Worcester, Mass., a Corporation of Massachusetts. Filed June 12, 1917. Serial No. 174,540. 20 Claims. (Cl. 216-2.)

3. In a bottle labeling machine of the type embodying a bottle support, a label magazine, and a reciprocating

picker for carrying a label from the magazine to a bottle on said support, means for actuating the picker comprising a toggle operatively connected at one end to the



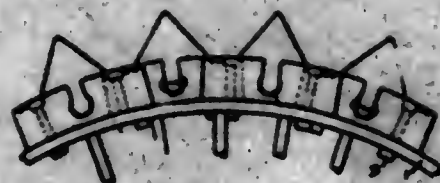
picker, and a reciprocatory member operative upon the toggle to vary the degree of flexing thereof and thereby cause reciprocation of the picker.

1,904,374. AIR-INLET DEVICE. WILLIAM BENJAMIN ROSSON, Port Huron, Mich., assignor of one-half to William Inkerman Gear, Montreal, Quebec, Canada. Filed Feb. 28, 1918. Serial No. 210,067. 20 Claims. (Cl. 251-145.)



3. In a device of the class described, the combination of a fuel supply pipe for internal combustion engine, a valve operable by the suction of the engine for controlling the admission of air to said conduit, and resilient means for normally yielding opposing the opening of said valve, said means being adapted by a predetermined adjustment thereof irrespective of its strength to be rendered non-yielding to opening movement of said valve.

1,901,375. TRACTOR NON-SKID TREAD MEMBER AND LUG. CLARENCE O. ROBINET, Toledo, Ohio. Filed Dec. 30, 1918. Serial No. 208,893. 1 Claim. (Cl. 21-218.)



In a tractor wheel, a plurality of tread members located in spaced relation and in two rows, the tread members of one row being located in staggered relation with respect to the tread members of the other row, each of the tread members having a tapered bore extending transversely through the tread members, and a channel also extending transversely through the tread member and connecting the bore with the top of the tread member, wedge shaped tractor lugs having shanks and tapered heads fitting the channels and the bores and extending across the width of the tread members and means for locking the wedge shaped lugs in position in the tread members.

1,904,376. ELECTRO-CURRENT MEASUREMENT. MIGUEL DOMESTI DOMESTI, Madrid, Spain. Filed Dec. 22, 1917. Serial No. 208,493. 2 Claims. (Cl. 175-200.)



2. A switch of the character described, comprising a casing provided with a chamber having a deep central square portion and a circular portion, the walls between the square portion and the circular portion forming shoulders, said casing being provided in its upper end with a central opening; contact plates formed L-shaped in cross section and fitting upon said shoulders; screws attaching the contact plates to said shoulders; a handle having a vertical depending shank rotatable within said opening and having a transverse slot formed through the lower end thereof; a substantially C-shaped spring having its intermediate portion fitting loosely within the transverse slot; and a transverse pin carried by the lower end of the shank and passing across the slot to retain the spring in place.

1,904,377. ELECTRIC SWITCH. EVAN J. BOHNE, Minneapolis, Minn. Filed Oct. 1, 1917. Serial No. 194,170. 8 Claims. (Cl. 175-207.)



4. An electric switch including two normally separated spring contacts, a switch lever having a shoulder adapted to engage one of said contacts and move the same into engagement with the other of said contacts, said other contact arranged to yieldingly hold the lever in a switch closed position.

1,904,378. LIGHTING-FIXTURE. THOMAS W. BULPH and WILLIAM FRANK MITCHELL, Cleveland, Ohio, assignors to General Electric Company, a Corporation of New York. Filed May 16, 1916. Serial No. 97,799. 5 Claims. (Cl. 240-62.)



1. An outer globe particularly adapted for housing a high efficiency tungsten lamp comprising a lower section and an upper section in combination with a middle section extending from the lower edge of said upper section to the upper edge of said lower section and composed of a denser and less transparent medium than either of the other sections.

1,904,379. EVAPORATOR, FRESH-WATER HEATER, AND THE LIKE. HOWARD E. BOW and HOWARD C. DAVIS, Elizabeth, N. J., assignors to American Marine Equipment Corporation, New York, N. Y., a Corporation of Delaware. Filed Mar. 14, 1917. Serial No. 154,672. 8 Claims. (Cl. 207-300.)



1. Apparatus of the character described, comprising a vertical shell having a doorway in its side, a door hinged at one vertical edge to said shell for closing said doorway, upper and lower manifolds secured to the inner surface of said door and exposed at their outer ends to receive pipe connections, and vertical corresponding interchangeable coils connecting said manifolds, said manifolds and the bank of coils being of arcuate outline and extending, when said door is closed, along one side of the chamber within said shell, thereby subdividing said chamber so that a large space is left therein at one side of the said vertical coils and a smaller space is formed at the other side thereof.

1,904,380. WASTE-FUEL BURNER. WALTER JACOB SANFORTH, Seattle, Wash. Filed June 13, 1917. Serial No. 174,861. 4 Claims. (Cl. 110-104.)

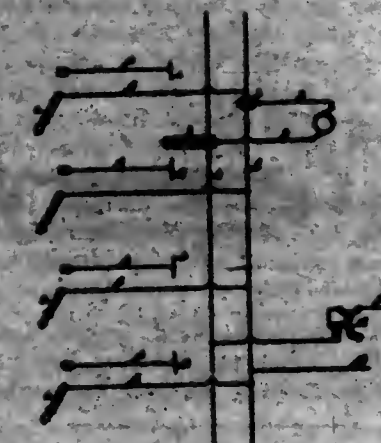


3. A powdered fuel burner comprising an elbow, a pipe discharging into one end of said elbow for supplying powdered fuel thereto, a nozzle communicating with the other end of said elbow, and a fluid pressure inlet directed across the corner or angle of said elbow for carrying the fuel through the nozzle in suspension and to prevent lodging of said fuel in said elbow.

1,904,381. CRANE SAFETY DEVICE. ROBERT H. SCHUMMER, Cincinnati, Ohio. Filed Oct. 4, 1918. Serial No. 206,787. 2 Claims. (Cl. 104-140.)

1. A crane safety device comprising, a crane runway, a bridge fitted to travel thereon, a pair of conductors arranged parallel with the runway, shoes carried by the bridge and adapted to traverse the two conductors, conductors adapted to lead current from the shoes to a motor carried by the bridge, means connected with the pair of conductors, a series of short conductors arranged along the runway and adapted to be engaged by one of the shoes of the bridge as the bridge reaches one of the short conductors, stations arranged accessible from the floor

along under the runway, conductors leading from the stations to the respective short conductors and to one of



the pair of conductors, and a switch arranged at each station to control the action of the short conductors, combined substantially as set forth.

1,904,382. COMBINED VEST AND BELT ATTACHMENT. MAURICE H. SCHILLER, Chicago, Ill. Filed Oct. 7, 1916. Serial No. 124,312. 6 Claims. (Cl. 2-61.)



2. In combination, a coat having openings therein; a belt member having its ends extending through said openings; and a vest attachment attached to the ends of the belt member.

1,904,383. ADJUSTABLE SHADE-ROLLER. DAVID E. SCHIMMEL, Brooklyn, N. Y. Filed Oct. 10, 1918. Serial No. 237,833. 4 Claims. (Cl. 150-55.)

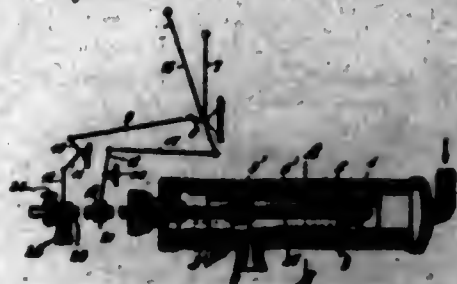


1. A shade roller comprising a hollow tube, a pipe extending through said tube, a guiding member connected with the tube engaging the pipe so that the tube will be rotatably mounted in the pipe, a spring connected at one end with said pipe, means for connecting the other end with said tube, a pawl, a locking sleeve for locking the roller against rotation, and adjustable means arranged at each end of the pipe for pressing against the window casing when the device is in use.

1,904,384. REGULATING DEVICE FOR ROAD-SPRINKLERS. GUYARD SCHLATTER, St. Gallen, Switzerland, assignor to the Firm of Adolph Sauer, Arbon, Switzerland. Filed Oct. 4, 1916. Serial No. 122,642. 8 Claims. (Cl. 137-64.)

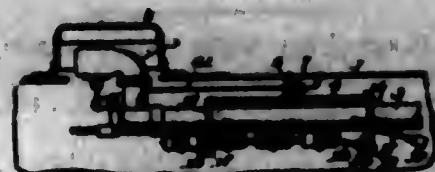
5. A sprinkler head having means for the ingress and the egress of the liquid, a valve movable lengthwise of said head and also mounted to turn relatively thereto, and controlling said egress means, said valve comprising a

plurality of cylinders and sectors connecting them, said cylinders and the sectors as well having cylindrically



curved surfaces controlling said egress means, and the sectors connecting adjacent cylinders being in duplicate and arranged diametrically opposite each other.

1,304,385. BOILER-SKIMMER. Nonsner Schumann, Lincoln, Ill., assignor to American Steam Boiler Cleaner Co., San Antonio, Tex., a Corporation of Texas. Filed June 21, 1916. Serial No. 104,907. 14 Claims. (Cl. 122-388.)



1. A device of the class specified comprising a stationary frame provided with a horizontally arranged pipe having its opposite ends provided with laterally extending horizontal cross pipes, a movable frame consisting of a pair of pipes extending longitudinally of said horizontally arranged pipe and provided with skimming apertures and floats and connections between said frames consisting of pipe members extending between the opposite ends of said skimming pipes and the ends of said cross pipes and pivotally connected with the same.

1,304,386. SPACE-BAND CLEANER. WILLIAM H. SCHUMANN, Detroit, Mich. Filed July 17, 1916. Serial No. 100,702. 23 Claims. (Cl. 91-40.)

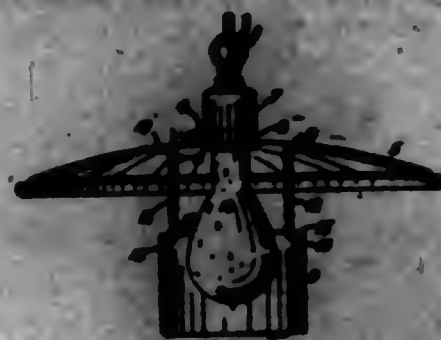


1. In a device of the kind described and in combination, a movable space-band support, a rotatable rubbing member, a cutting member below the rubbing member and in alignment therewith, and means for maintaining the band and rubbing member in close contact.

1,304,387. LIGHTING-FIXTURE. ALBERT SCHRIER, Denver, Colo. Filed June 25, 1918. Serial No. 241,744. 3 Claims. (Cl. 240-92.)

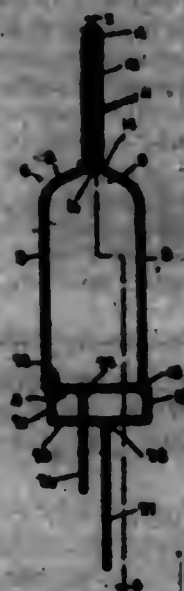
1. A lighting fixture comprising a lamp, a socket therefor, a reflector perforated to receive the socket, the lamp

extending below the reflector, a white enameled open ended metal member surrounding the lamp, and chains threaded through the perforations in the reflector, the said



chains having buttons at their upper extremities to engage the upper surface of the reflector and hooks at their lower ends to engage openings with which the metal member is provided.

1,304,388. COW-YOKE. ALVIN L. SHANNON, Galtry, Ohio. Filed May 24, 1917. Serial No. 179,088. Renewed Feb. 13, 1919. Serial No. 278,808. 1 Claim. (Cl. 110-188.)

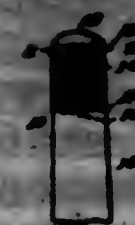


The combination in a yoke of a body portion comprising a pair of side members having their upper ends contracted producing a support and extending above said support, a rod pivoted to the extension of the yoke above the support and having a lower sharpened end, a loop connecting the said members above the support and having rearwardly directed prongs forming a guide for the pivoted rod, a lower end member connecting the opposite side members, and a second member spaced from the lower end member, rearwardly directed prongs extending from the yoke at the juncture of the side and lower end members, and hooks pivotally connected to and depending from the lower end members and spaced therefrom.

1,304,389. CUB-TIP. CALVIN A. SNOW and WILLIAM BURNIP, South Wellington, British Columbia, Canada. Filed Apr. 18, 1917. Serial No. 102,961. 1 Claim. (Cl. 40-9.)

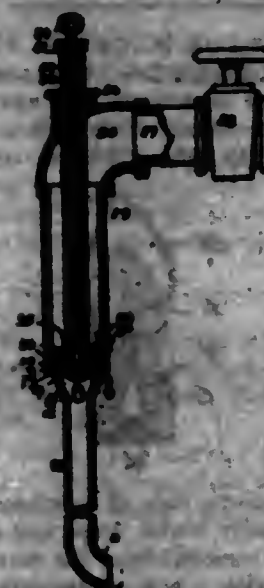
The combination with the tapered tip carrying end of a cue having an annular counterbore portion near the end thereof and also provided with an angularly extending groove projecting laterally from the outer end of the counterbore portion to a point adjacent the opposite side thereof and further provided with another opening extending from the inner end of the counterbore portion downwardly on the opposite side thereof, a ferrule arranged about the counterbore portion and formed from a single piece of flexible wire, one end of which is inserted

in the groove, the main portion of the wire being coiled closely about the counterbore portion so as to be flush with the adjacent portion of the cue while the remaining



terminal portion of the wire is inserted in the other opening and bent and locked so as to prevent it from having accidental displacement.

1,304,390. TAP FOR BARRELS, DRUMS, OR KETCH-TACLES CONTAINING GASOLINE. SAUL D. SUMMERS and HYMAN L. ABRAHAMOVITZ, Pittsburgh, Pa. Filed July 17, 1917. Serial No. 180,973. 10 Claims. (Cl. 235-2.)



1. In a tap of the character described, an adjustable bung element, an adjustable discharge element, one of said elements having a projection and the other an opening to receive the projection, and an element extending through the discharge element for coupling the bung element to the discharge element.

1,304,391. BOILER HAND-HOLE PLATE. JOHN C. SUMMAY, Seattle, Wash., assignor to Sherry Water Tube Boiler Co., Seattle, Wash., a Corporation of Washington. Filed May 1, 1918. Serial No. 231,789. 10 Claims. (Cl. 230-134.)



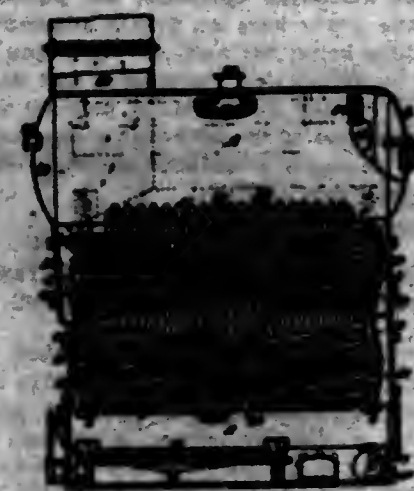
1. A hand-hole plate for boilers and the like, comprising an inner and an outer head member, said inner head member comprising a circular disk having a diameter slightly less than the opening to be closed, a pair of opposite lugs forming a portion of said disk, each of said lugs having an outer face forming a portion of a circle of larger diameter than the hole to be closed, an inner head section adapted to be received by the outer head sec-

tion consisting of a disk having a diameter larger than the opening to be closed and conforming to the circle forming the outer faces of the lugs formed on the outer head, a pair of cut-away portions formed on each side of the inner head, the faces of said cut-away portions forming sections of circles and also conforming to the inner faces of the lugs formed on the outer head, and a bolt carried by the inner head adapted to draw the head sections in unison against the inner face of the plate in which the hand-hole is formed.

5. A hand-hole closure including members each having a pair of similar and oppositely disposed complementary depressions and projections, and securing means turnably carrying each member whereby said members may be turned while on said securing means through approximately 90° so as to be insertible through the hole in one position and in a second position to conjointly form a closure extending beyond the margin of the hole.

10. In a hand-hole closure, securing means, and sectional closing means carried by the securing means and formed so as to be insertible through the hole and then moved through approximately 90° to close the latter.

1,304,392. STEAM-BOILER. JOHN C. SUMMAY, Seattle, Wash., assignor to Sherry Water Tube Boiler Co., Seattle, Wash., a Corporation of Washington. Filed May 1, 1918. Serial No. 231,790. 3 Claims. (Cl. 122-345.)

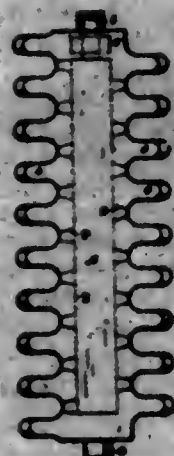


1. In a steam generating boiler, a central upper steam drum, a pair of lower circulating drums arranged on opposite sides of and outwardly beyond the outer sides of the upper drum, a front and a rear header, said headers each having the sides of their upper ends contracted and said ends connected to the bottom of the upper drum and having their lower corners connected to the lower drums, inclined heating tubes connected to the headers, and two series of vertical circulating tubes at each side of the boiler and forming sides for the latter, said series being each disposed beyond the heating tubes and at the sides of the headers and being arranged with one set in advance of the other and with spaces between the tubes of one set with which spaces the tubes of the other set register, the circulating tubes each having their upper ends curved inwardly to correspond to the contraction of the header sides and having their lower ends connected to the lower drums.

1,304,393. GRATE-BAR. JOHN C. SUMMAY, Seattle, Wash., assignor to Sherry Water Tube Boiler Co., Seattle, Wash., a Corporation of Washington. Filed May 1, 1918. Serial No. 231,791. 2 Claims. (Cl. 110-74.)

1. A furnace grate embodying a plurality of parallel bars each having a longitudinal air chamber and a series of lateral air discharge openings, a series of spaced fingers on each side of the bars arranged respectively on opposite sides of the discharge openings, the portions of the side walls of the grate bars at points adjacent said air discharge openings inclining upwardly and outwardly, and down-

wardly and outwardly inclined walls formed on the outer ends of the fingers and disposed opposite to and in spaced substantially parallel relation to said upwardly and outwardly inclined side wall portions of the adjacent grate bars whereby to form upwardly and outwardly inclined passages in conjunction therewith.



2. A furnace grate embodying a plurality of parallel bars each having a longitudinal air chamber and a series of lateral air discharge openings, a series of spaced fingers on each side of the bars arranged respectively on opposite sides of the discharge openings, the portions of the side walls of the grate bars at points adjacent said air discharge openings being flat and corresponding flat walls formed on the outer ends of the fingers and disposed opposite to and in spaced substantially parallel relation to said side wall portions of the adjacent grate bars whereby to form vertical passages of uniform width in conjunction with said side wall portions.

1,304,304. DOOR-BRACE. JAMES D. SMYER, Detroit, Mich. Filed Dec. 6, 1918. Serial No. 305,504. 2 Claims. (Cl. 16—184.)



1. A device of the character described comprising a V-shaped body including tubular leg portions and a plate connecting said leg portions, rods connected with said leg portions and engageable with a door, a plate member formed on the upper end of said body and provided with a recess engageable with the shank of a door knob, and a clamping member carried by said second named plate and adapted for embracing engagement with the shank of the door knob.

1,304,305. APPARATUS FOR DISPLAYING ANNOUNCEMENTS, ADVERTISEMENTS, OR THE LIKE. CHARLES SHAPIRO, Liverpool, England. Filed Jan. 4, 1919. Serial No. 300,679. 1 Claim. (Cl. 40—125.) Apparatus for advertising and display purposes comprising in combination a frame, a plurality of interchangeable slats some of which are of one color and others of different colors so mounted in the frame as to collectively

form an interchangeable background of variegated colors, each slat having pierceable edges, and display elements



having apertures at the back thereof which can be impaled into the said pierceable edges of the slats so as to hold them in position.

1,304,306. FORMER FOR MATRICES FOR USE IN THE RESTORATION OF TEETH. WILLIAM C. SMITH, Milford, Del., assignor to The L. D. Cook Company, Milford, Del., a Corporation of Delaware. Filed Jan. 28, 1917. Serial No. 143,905. 1 Claim. (Cl. 18—88.)



A core for the manufacture of matrices for use in tooth restoration of normally stable form and capable of deformation to enable its removal from the matrix formed thereon in combination with a bar constituting a carrier for a plurality of such cores and a detachable connection including coating fastening members carried by said core and bar respectively.

1,304,307. INSECT-TRAP. EMMETT G. SWAN, Birmingham, Ala. Filed Jan. 16, 1919. Serial No. 371,457. 3 Claims. (Cl. 40—7.)

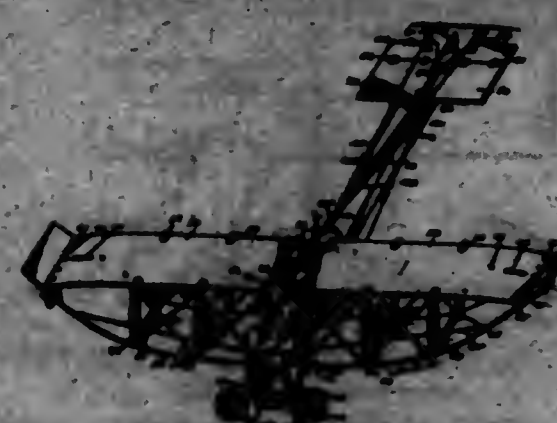


1. A trap of the character described including a receiving receptacle, a funnel mounted on and communicating with the top of the receptacle, a rigidly mounted carbid receiving and generating cup, a pipe leading from the cup and arranged over the funnel, a jet at the terminal of the pipe, and a reflector on the pipe for reflecting the rays from the flame which issues from the jet against the funnel.

1,304,308. FLYING-MACHINE. EMMETT G. SWAN, Birmingham, Ala. Filed Dec. 15, 1917. Serial No. 307,360. 3 Claims. (Cl. 94—14.)

1. In a flying machine having a body, the combination with an axial member intersecting the longitudinal axis of

the said body at a bending point between its forward and rear ends, of centrally pivoted vertical members supporting tilting frames mounted upon said axial member upon the respective sides of said body, outwardly extended upwardly curved lower planes, and outwardly extended upper planes connected together at their outer ends, and hav-



ing their inner ends connected respectively with the respective upper and lower members of said frames, connecting devices connecting the planes on the tilting frames on the respective sides of the body with each other, and frame tilting devices on said body connected with the said frames, for obtaining a tilting movement of the planes and a pivot of the body in respect to the planes.

1,304,309. MEANS FOR COOLING AND LUBRICATING ENGINES. JAMES EDWARD SCOTTCOCKER, Birmingham, England. Filed Feb. 25, 1919. Serial No. 379,319. 1 Claim. (Cl. 120—104.)

The process of cooling the interior of walls of internal combustion engines, which comprises introducing into the cylinder a dilute alkaline water emulsion of oil containing at least 90% of water.

1,304,400. DRIVING MECHANISM FOR DRYING AND AERATING MACHINES. JONAS A. SPARKS, CHARLES E. CLARK, and WILLIAM M. CLARK, III, City, Kans. Original application filed June 22, 1917, Serial No. 179,440. Divided and this application filed Jan. 16, 1919. Serial No. 312,121. 6 Claims. (Cl. 74—7.)

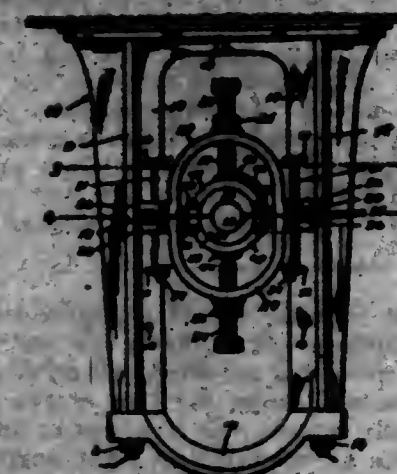


1. A ratchet mechanism of the character described including a shaft, a gear element mounted upon the shaft and free with respect thereto, a cam fixed to the shaft and provided with a shoulder, and a pawl normally gravitating upon the said element to engage with said shoulder for coupling the gear element with the shaft.

1,304,401. SHAFT-HANGER. JACOB LAWRENCE SPARKS, Bay City, Mich., assignor of one-half to Adam Schaeffer, Bay City, Mich. Filed Mar. 15, 1918. Serial No. 222,000. 6 Claims. (Cl. 64—14.)

1. In a device of the class described, a frame including a plurality of parallel guides, a plurality of yoke members

operable between said guides, means for securing the yoke members in various adjusted positions with reference to



the guides, a box constituting a bearing, and means for adjustably mounting the box within the yoke members.

1,304,402. COMBINED OIL AND GAS BURNER. WILLIAM H. BRUNN, Cleveland, Ohio. Filed Sept. 24, 1917. Serial No. 192,977. 6 Claims. (Cl. 158—11.)



2. In a burner, a casing, a fitting connected to said casing and extending at an angle to the axis thereof, said fitting being formed with a closed portion extended beyond said casing; a second casing; a mixing chamber, said two casings being arranged to discharge into the latter and longitudinally thereof, said fitting and said second-mentioned casing being arranged to communicate with a source of gaseous medium and a source of liquid fuel, respectively.

1,304,403. SAFETY KEY-HOLDER. SAMUEL BROCK and HYMAN GELLMAN, New York, N. Y. Filed Jan. 6, 1919. Serial No. 300,730. 3 Claims. (Cl. 24—2.)



1. In a safety key holder, the combination with a rigid strip having its end portions bent in opposite directions to overlap opposite surfaces of the intermediate portion of the strip, there being a slot in said intermediate portion of the strip, of a spring strip having its intermediate portion secured to the intermediate portion of the rigid strip, one end portion of the spring strip extending through said slot and cooperating with one bent end portion of the rigid strip to form a snap hook for holding a key ring, the other end portion of the spring strip conforming to the other bent end portion of the rigid strip, and means carried by said last mentioned end portion of the rigid strip for actuating said last mentioned end portion of the spring strip to form a garment clamp between it and the intermediate portions of said strips.

1,304,404. TALKING-MACHINE. ALFRED J. SWINE, Cincinnati, Ohio. Filed July 28, 1916. Serial No. 111,922. 3 Claims. (Cl. 274-23.)



1. In a talking machine a tone arm provided with a transmitting diaphragm and stylus at one end to engage a record and by traversing the record groove to guide the tone arm transversely across the face of the record, a journal to rotatably support said tone arm at its opposite end upon an axis at substantially right angles to the plane of movement of said stylus, and means to angularly adjust the axis of rotation of said tone arm to counter-balance the weight of the tone arm against its inertia to movement under the guiding influence of the stylus.

1,304,405. TRIVET. CLINTON J. YATZ, Benton, Minn. Filed Oct. 2, 1917. Serial No. 194,887. 1 Claim. (Cl. 126-30.)



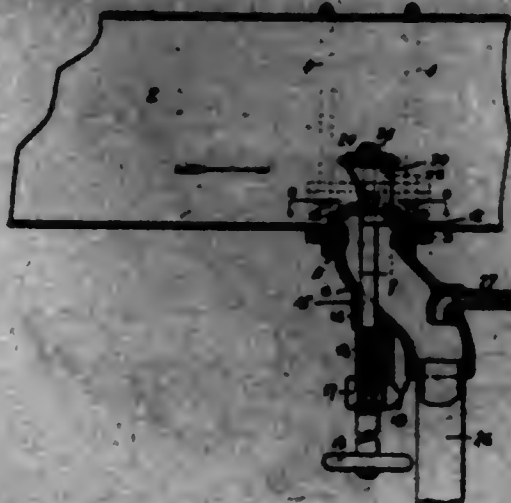
In a device of the character described, an annular band, arms depending from said band, rivets securing said arms to said band, said arms having shoulders formed on their inner sides for engaging the under side of the said band whereby said rivets are relieved of all strain, the lower portion of said arms being flattened and provided with apertures, legs having the upper portions apertured and flattened, pivot elements extending through the apertures of said arms and legs, and shoulder carried by said arms and adapted for limiting the outward movement of said legs.

1,304,406. PIVOT-MOUNTING FOR PINS OF BROOCHES AND THE LIKE. WILLIAM H. TAYLOR, Providence, R. I. Filed Feb. 21, 1918. Serial No. 218,553. 4 Claims. (Cl. 24-100.)



3. In jewelry, a housing for pivotally mounting a pin with a flat circular eye at one end, comprising side members spaced apart to closely embrace the sides of the eye of the pin, and a top, a bottom and one end portion integrally coupling the corresponding portions of the side members, and a flap at the other end of the housing fast to one side member and constituting a lid for the corresponding marginal portion of the housing to permit the introduction of the eye end of the pin into the housing.

1,304,407. FEED-REGULATOR FOR POWDERED COAL. HANCOCK THOMAS and JOHN DUNLOPSON, Pittsburgh, Pa. Filed Nov. 27, 1916. Serial No. 204,329. 6 Claims. (Cl. 198-10.)



1. In a feed regulator for powdered fuel, the combination of a supply pipe for conveying the air and powdered fuel having a discharge opening, and a deflecting member at said opening in the path of said air and fuel and movable to and from said opening whereby a portion of the air and fuel in its passage through said supply pipe is discharged through said opening.

1,304,408. TINNING-MACHINE. HUBERT SPENCE THOMAS, Llandaf, Wales, WILLIAM ROBERT DAVIES, Whitchurch, near Cardiff, Wales, and RICHARD BEAUMONT THOMAS, deceased, Englefield Green, England, by Nora Constance Beaumont Thomas, Englefield Green, England; Henry Robert William Anderson, London, England, and Charles Bathurst, Lydney, England, executors of said Richard Beaumont Thomas, deceased. Original application filed Aug. 6, 1917, Serial No. 184,768. Divided and this application filed May 12, 1918. Serial No. 234,202. 2 Claims. (Cl. 91-30.2.)



1. In a tinning machine or apparatus having a width proper to take a series of plates or sheets abreast or side-by-side, the combination of divided rolls arranged end to end or in line, housing supporting the adjacent or presented ends of the rolls, said housings being arranged along or near the middle line of the machine, and driving means for the said divided rolls for insuring their rotation in unison.

1,304,409. FLUID-PRESSURE VALVE. GEORGE S. THOMPSON, Hochstadt, Del. Filed Sept. 29, 1914. Serial No. 984,067. 6 Claims. (Cl. 251-77.)

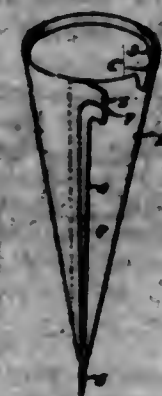
2. A valve of the character designated, comprising a cylindrical valve seat, a cylindrical valve piston for contacting therewith formed of interlocking members one slidable within the other and with a peripheral fluid-packing of suitable compressible material, and with a split ring packing in front of said fluid packing adapted to protect the latter from contact with solid matter suspended in a fluid vehicle, means for advancing and re-

tracting said valve piston, a protective lining sleeve normally held against the valve by fluid pressure and means



for limiting the movement of said lining just prior to the opening of communication between the inlet port and the discharge port for the purpose described.

1,304,410. SANITARY ICE-CREAM CONE. JOHN A. THOMPSON, Sault Ste. Marie, Mich., assignor of one-third to Stewart E. Moran and one-third to Hugh M. Moran, Sault Ste. Marie, Mich. Filed Mar. 5, 1918. Serial No. 220,970. 3 Claims. (Cl. 220-1.)



1. A sanitary wrapper for pastry, ice cream cones, comprising a conical receiver for the cone made of sheet material having its upper and larger end plaited or inwardly folded.

1,304,411. FLUID-OPERATED PUMPING MECHANISM. GEORGE JAMES TUNN, Monmouth, Wis., assignor to Laurin Automatic Pump Co., Monmouth, Wis., a Corporation of Wisconsin. Filed July 22, 1917. Serial No. 182,180. 3 Claims. (Cl. 100-68.)



1. In a device of the class described the combination of a pump, comprising two end sections and an intermediate section having sliding chambers with connected pistons

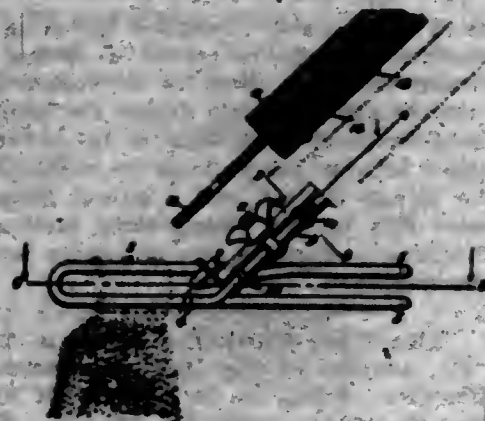
therein and a pair of corresponding passageways, which afford communication from end to end of the pump, and with the opposite ends of the piston chamber of the intermediate section, an inlet valve for each passageway at one end of the pump and an outlet valve for each passageway at the other end of the pump, a pair of said conduits, one of which is connected to the outer end of the piston chamber in one of the end sections and the other of which is connected to the outer end of the piston chamber in the other end section, and means operable at a distance from the pump for creating fluid pressure alternately in said conduits.

1,304,412. NOZZLE FOR STEAM-TURBINES. JUNTA TOTOKAWA, Katsukawa, Tokyo, Japan. Filed Oct. 9, 1917. Serial No. 195,520. 6 Claims. (Cl. 253-78.)



1. In a steam or gas turbine nozzle, a nozzle, in combination with means for controlling the passage of steam through said nozzle, and automatic means for regulating the controlling means to thus regulate the expansion of the steam in proportion to the pressure thereof.

1,304,413. FLOOR-POLISHING MOP. ALEXANDER TRAILL, Vancouver, British Columbia, Canada. Filed June 20, 1918. Serial No. 241,026. 2 Claims. (Cl. 15-12.)



1. A floor polishing mop head, comprising in combination, a central attaching portion provided with means for attachment of the same to a handle, a frame of wire doubled vertically from each end toward the center and the doubled ends doubled horizontally from the center toward one another and in the same plane each doubled end bent outward and backward beyond the end of the central loop and then outward and forward to bring the two free looped ends into proximity, the central loop and the adjacent ends of the wire being secured to the central attaching portion, and means for removably securing a handle to the central portion.

1,304,414. BOILER-TUBE CONNECTION. WILLIAM F. THOMPSON, Grand Junction, Colo. Filed Sept. 6, 1918. Serial No. 282,991. 1 Claim. (Cl. 285-55.)

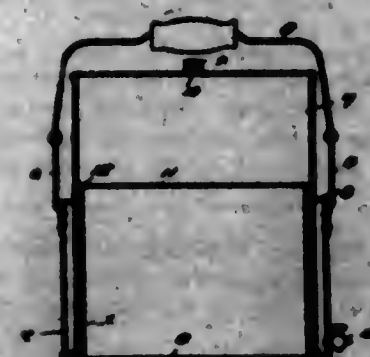
A boiler tube connection comprising in combination a flue sheet provided with an opening surrounded by an inwardly extending integral flange, the inner portion of said opening being cylindrical and threaded, the inter-

diate portion of said opening being frusto-conical and of greater diameter than said cylindrical portion, the outer portion of said opening being counterbored, a boiler tube having its end threaded through said cylindrical portion and having its extremity extending to the outer surface of said flange sheet, a gasket of relatively soft material surrounding the threaded end of said tube and disposed



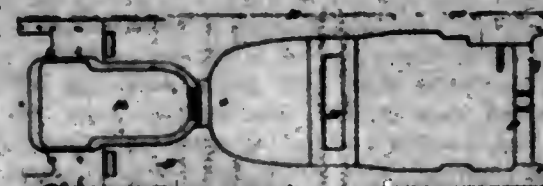
within the smaller end of said frusto-conical portion of the opening, an internally threaded thimble engaged upon the threaded end of the tube and having a frusto-conical outer periphery conformingly engaging within said frusto-conical portion of the opening, and an outwardly extending annular flange on said thimble seating within the counterbored portion of said opening.

1,304,415. PAINTER'S PAIL AND BRUSH-CONTAINER. ROBERT C. TUCKER, Parkersburg, W. Va. Filed Nov. 13, 1917. Serial No. 201,505. 1 Claim. (Cl. 230-17.)



A device of the character described including a double walled receptacle adapted to receive a sealing fluid between the walls thereof, a cover for the receptacle having the sides thereof approximately double the height of the walls of said receptacle, the sides of the cover adapted to be arranged between the walls of the receptacle and to rest on the bottom thereof, and a lateral flange carried on the outer side of the intermediate portions of the sides of the cover engageable over the space between the walls of the receptacle.

1,304,416. TRACTION-ENGINE. WILLIAM TOWNSEND, Peoria, Ill., assignor to The Holt Manufacturing Company, Stockton, Calif., a Corporation of California. Filed May 25, 1918. Serial No. 236,521. 15 Claims. (Cl. 100-17.)



1. In a self-propelled vehicle, a main frame, a transmission mechanism carried thereby, a housing for the transmission mechanism, the lower portion of which forms an integral part of the main frame, a detachable cover for said housing, and a change speed gear set forming part of the transmission mechanism within said housing carried by the cover and removable therewith.

2. In a self-propelled vehicle, a main frame, a transmission mechanism carried thereby, a housing for the transmission mechanism, the lower portion of which forms an integral part of the main frame, a detachable cover for said housing, a change speed gear set forming part of the transmission mechanism carried within said housing and

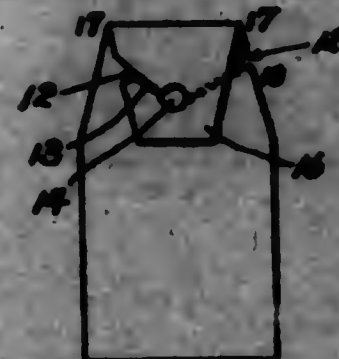
supported upon the cover, a power shaft carried also upon said cover within the casing, and means for operatively connecting said power shaft with the transmission mechanism.

3. In a self-propelled vehicle, a main frame forming a part of a base portion of a gear housing, sprocket driving wheels journaled in the lower portion of the housing, a detachable cover for the housing, and a transmission mechanism carried by the cover, including a change speed gear set for driving said sprockets.

4. In a self-propelled vehicle, a main frame forming a part of a base portion of a gear housing, a pair of sprocket driving wheels journaled independently of each other, one on each side of the gear housing, a detachable cover for the housing, a transmission mechanism, including a set of change speed gears carried within the housing upon said cover, and removable therewith, and individual friction clutch members exterior of and carried by the cover for driving each sprocket.

5. In a self-propelled vehicle, a main frame forming a part of the lower portion of a gear housing, final driving gears for rear wheels on the vehicle journaled in the lower portion of said housing, a detachable cover for the casing, and a transmission mechanism carried on said cover for transmitting power from said transmission to drive the driving gears.

1,304,417. INDICATING-TAG. FRANCIS G. UNTERWIES, Philadelphia, Pa. Filed Jan. 17, 1917. Serial No. 142,915. 1 Claim. (Cl. 40-80.)



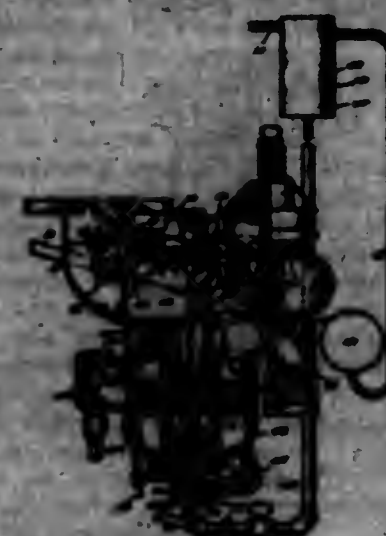
A tag of the character stated comprising a body portion terminating at its top in an integral tapered extension, which extension is provided with aligned apertures, there being a slit leading from each aperture to an edge of the tapered extension, said slits being oppositely disposed, and a weakened line for said tapered portion interposed between said apertures whereby the flange of said tapered portion may be caused to engage with a suitable object and the folding part of said extension may be folded upon said weakened line downward, so that the other aperture and slit may be caused to engage said object to interlock the tapered portions of said tag together with the body portion of the tag projected from said interlocked parts, said slits in the folded position of the tag parts being in a plane entirely below the top edge of said tag.

1,304,418. CARBURTER. LILBURN HOWARD VAN BUREN, Indianapolis, Ind. Filed May 22, 1918. Serial No. 201,190. 25 Claims. (Cl. 201-18.)

1. In combination, a carburter having a fuel nozzle, two sources of liquid fuel supply at different substantially constant levels, and a valve for connecting said nozzle to either of said sources as desired.

2. In combination, a carburter having a fuel nozzle and a throttle valve and an automatic secondary air inlet valve and a chamber member for shutting opening of said secondary air inlet valve, two sources of fuel supply, a valve for connecting said nozzle to either of said sources as desired, a nozzle controlling the effective size of said nozzle, and connections for operating said nozzle by the operation of either said throttle valve, said chamber member, or said fuel controlling valve.

15. In combination, a carburter having a fuel nozzle, a fuel bowl supplied with high grade fuel and provided with means for maintaining the fuel level within it at substantially the nozzle level, a vacuum fuel feed system supplied with lower grade fuel and including an intermediate tank in which the fuel is maintained at a level substantially higher than the nozzle level, and a valve for connecting said fuel nozzle to either said fuel bowl or to said intermediate tank as desired.



16. In combination, a carburter having a fuel nozzle, a source of high grade fuel, a source of lower grade fuel, and a valve for connecting said fuel nozzle to either of said sources and to both said sources simultaneously as desired, said first source when connected to said nozzle producing no static pressure at the nozzle discharge so that section is necessary to cause fuel discharge, and said second source when so connected producing a static pressure at the nozzle discharge so that a fuel discharge occurs independently of section.

1,304,419. END OR COT. FREDERICK H. VAN VOLKENSEN, Mpls., Minn. Filed Dec. 4, 1918. Serial No. 235,251. 3 Claims. (Cl. 5-6.)

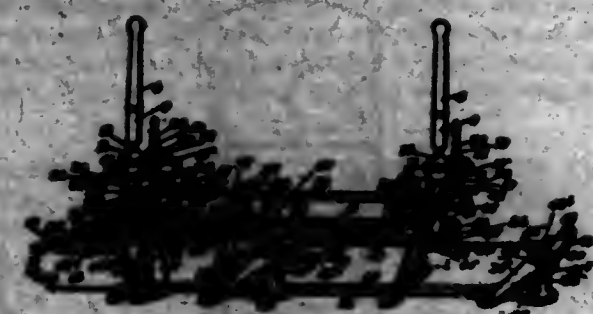
1. A cot of the character described comprising right side bars each provided at one end with means whereby it may be engaged with an extraneous support, said side bars for suspending the free ends of the side bars, a transversely disposed stretcher bar shaped to abut against the free ends of the side bars, and a slot structure resting loosely upon said side bars when in use and having means at one end whereby it may be engaged with said extraneous support, and provided at its other end with yieldable means also attached to said stretcher bar, whereby said stretcher bar is yieldably maintained in position and a yielding tension is applied to the slot structure.

1,304,420. AIRCRAFT CONTROL. JAMES FRANCIS VERNER, Toronto, Ontario, Canada, assignor to Herman Clark Anderson, Toronto, Ontario, Canada. Filed Aug. 20, 1918. Serial No. 232,972. 21 Claims. (Cl. 244-28.)



1. In an airplane control mechanism, the combination with a manually controlled lever and a foot controlled

lever and rocking shaft on which the manually controlled lever is carried, a rod carried by and extending



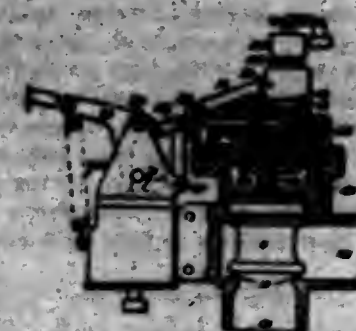
longitudinally of the rocking shaft, and means operated by the longitudinal movement of the rod for disengaging the control levers from the control mechanism.

1,304,421. WATCH-CRYSTAL. LOUIS E. F. WACHTER, New York, N. Y. Filed Nov. 13, 1918. Serial No. 202,405. 8 Claims. (Cl. 59-61.)



1. A crystal formed of two portions secured together, the outer portion being of hard, non-resisting transparent material, and the under portion being of transparent, flexible, substantially non-breakable material.

1,304,422. MEANS FOR CUTTING OFF THE SUPPLY OF AIR TO TORPEDO-TUBES. WILLIAM HART WADSWORTH and ARTHUR TAYLOR, Newcastle-upon-Tyne, England, assignors to Mr. W. G. Armstrong, Whitworth and Company, Limited, Newcastle-upon-Tyne, England. Filed Feb. 14, 1919. Serial No. 277,500. 4 Claims. (Cl. 114-200.)

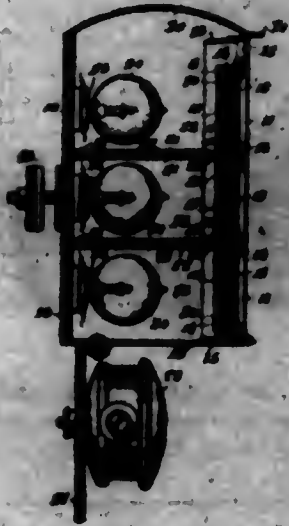


1. In a torpedo discharging mechanism, an air reservoir, a diaphragm, one side of which is always open to the pressure in the air reservoir, firing mechanism, and an interrupter in the firing mechanism actuated by the diaphragm.

1,304,423. AUTOMOBILE SIGNALING DEVICE. STURGEON G. WALKER, Memphis, Tenn. Filed Aug. 14, 1917. Serial No. 196,194. 4 Claims. (Cl. 40-122.)

1. In a signaling device, a casing, illuminating means arranged within the casing, a door for the casing, a frame mounted on the door, said frame carrying a colored glass panel, and a ground glass panel exteriorly of the latter, said colored glass panel having a black coating on its inner face with a signal cut out of the

said coating, whereby the ground glass panel conceals the signal when the device is not lighted and also avoids



reading said signal when a bright light is directed onto the front thereof.

1,304,424. DUST-CAP FOR TIRE-VALVES. JOHN T. WASH, Los Angeles, Calif. Filed Apr. 19, 1918. Serial No. 239,488. 1 Claim. (Cl. 183-12.)



The combination of a base portion of a tire valve dust cap having a cylindrical upper end, a peripheral channel being formed therein adjacent the upper face, the upper wall of said channel having notches extending there-through and recesses between said notches, a cap for said stem having a bore with lugs extending inwardly and disposed to pass through said notches and rest within said recesses, said lugs being spaced above the lower edge of the cap so that the latter will telescope over the cylindrical part of said base portion, a ring slidably disposed within said bore, and a compression spring resting against said ring tending to hold said ring upon said lugs.

1,304,425. ELECTRIC FURNACE. HAROLD G. WHEBEN-THAL, Cleveland, Ohio, assignor to The James H. Heron Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 16, 1918. Serial No. 262,789. 18 Claims. (Cl. 294-84.)



8. In an electric furnace, a bath, conducting elements embracing said bath, a plurality of independently re-

movable resistance elements arranged in upright position around said bath with their lower ends resting upon said conducting elements, and other conducting elements engaging and connecting together the upper ends of said resistance elements.

1,304,426. POWER DROP-HAMMER. WILLIAM H. WELCH, Salem, Ohio. Filed Dec. 29, 1917. Serial No. 208,728. 16 Claims. (Cl. 73-30.)



1. In a drop hammer, a hammer, a shaft, a drum loose on said shaft and connected with said hammer, a brake for said drum, a clutch for connecting said drum with said shaft, and means to variably actuate or release said clutch and to simultaneously release or actuate said brake whereby the length of stroke of the hammer may be varied.

1,304,427. BRACE AND BRACKET FOR LADDER. JOHN NILES WHEELER, Groves, Ill. Filed Jan. 24, 1917. Serial No. 144,219. 4 Claims. (Cl. 230-68.)



1. A ladder bracket and brace comprising a supporting portion and a hanger portion formed relatively at right angles to one another, said hanger portion having extended ears for engagement with the front and rear edges of the leg of a ladder, one of said ears being directed below the plane of the supporting portion and the other ear being directed above said plane, all of said portions being formed integrally.

1,304,428. TRACTOR-TRUCK MECHANISM. HANDED C. WHITE, Stockton, Calif., assignor to The Holt Manufacturing Company, Stockton, Calif., a Corporation of California. Filed June 12, 1917. Serial No. 174,807. 11 Claims. (Cl. 21-180.)



1. In a vehicle, the combination with a main frame, of an endless flexible traction member, a truck within the traction member, a shaft on which the truck is fulcrumed intermediate its ends, a driving sprocket wheel for the traction member on the main frame and an idler wheel for

said traction member journaled on the truck and rollers on said truck resting on the ground run of the traction member and equally disposed on opposite sides of the fulcrum point.

2. In a vehicle, the combination with a main frame, of an endless flexible traction member, a truck within the traction member, a shaft on which the truck is fulcrumed intermediate its ends, a driving sprocket wheel for the traction member on the main frame and an idler wheel for said traction member journaled on the truck and a spring interposed between the main frame and the truck adjacent each end of the latter.

11. In a vehicle, the combination with a main frame, of an endless traction member, a truck within the traction member, a shaft on which the truck is fulcrumed, said truck comprising longitudinally extending spaced channel bars fitted with rollers bearing upon the ground run of the traction member, a bearing bar between the channel bars connected thereto and receiving said shaft, a laterally extending plate member connected to the inner channel bar and carrying at its end a bearing bar also receiving said shaft, said shaft being supported on the main frame at a point intermediate said bearing bars, a rear driving wheel for the traction member journaled on the main frame, a thrust bar connection between the axle of said driving wheel and the outer end of said shaft and an idler wheel for the forward portion of the traction member journaled upon said truck between the forward ends of the channel bars.

1,304,429. RIFLING-TOOL. HOWARD L. WHITE, Brooklyn, N. Y. Filed May 15, 1918. Serial No. 234,004. 3 Claims. (Cl. 90-22.1.)



1. A rifling tool comprising a head having a forward central cylindrical portion of reduced diameter, a hollow sleeve longitudinally slidable on said portion, radial guides surrounding the sleeve, cutters in said guides, and slidable connections between each cutter and the sleeve, the parts of said sleeve with which the cutters are connected being inclined to the direction of movement of the sleeve.

1,304,430. END-THRUST ROLLER-BEARING. ELMER H. WICKHAMMAN, Stockton, Calif., assignor to The Holt Manufacturing Company, Stockton, Calif., a Corporation of California. Filed Jan. 24, 1918. Serial No. 232,671. 6 Claims. (Cl. 64-30.)



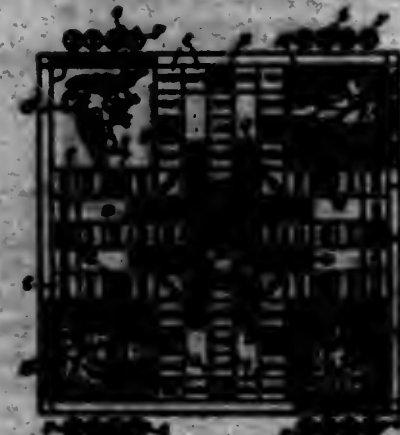
1. An anti-friction bearing comprising relatively rotatable supporting and supported members, cylindrical rollers interposed between said members, and intermeshing means carried by each of said members to prevent lateral movement of said members relatively to one another, said means comprising a flanged sleeve secured to one of said members and extending within and engaging a flange secured in the other member at the ends of the rollers.

4. An anti-friction bearing comprising relatively rotatable supporting and supported members, cylindrical rollers interposed between said members, means to pre-

302 O. G.-20

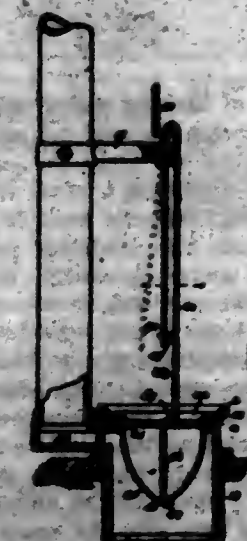
vent relative lateral movement of said members, comprising a flanged sleeve secured to one of said members and extending within and engaging a flange secured in the other member at the end of the rollers, and means to prevent loss of lubricant from and admission of dust to the bearing, said means comprising a collar embracing the flanged sleeve and provided with an oil retaining washer.

1,304,431. BOARD-GAME AND APPLIANCES THEREFOR. JENNIFER WILLIAMS, Aberystwyth, Wales. Filed Oct. 20, 1918. Serial No. 200,412. 2 Claims. (Cl. 68-64.)



1. A board racing game and appliances for playing same, comprising pieces representing some type of racer; dice; a distinguishing device to be applied to the racing pieces to indicate that they have traveled over a certain length of their course; and a board having small squares arranged to form a course for the race and marked with the names of geographical entities and instructional data, certain of the small squares at regular intervals being distinctively colored; four large corner squares differing from each other in color and provided with indications of educational value relative to the geographical entities represented by the small squares; a center square divided into four triangles colored to correspond to the large corner squares; and oblong areas of a distinctive color abutting on the said central triangles and marked to the type of racing pieces.

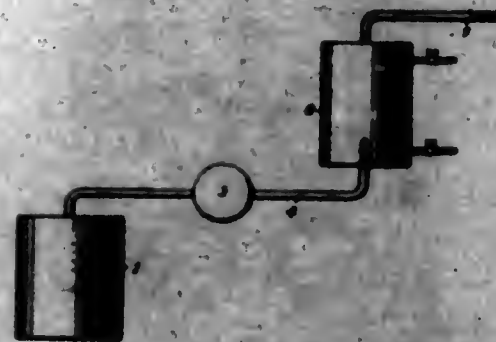
1,304,432. FLUSH-TANK VALVE. SAMUEL S. WILLIAMSON, Philadelphia, Pa. Filed July 17, 1917. Serial No. 181,046. 4 Claims. (Cl. 4-5.)



2. A flush tank valve comprising a flexible member diaphragm having a hub formed therewith, a hollow seat into the mouth of which said hub fits, a stop shield having a depressed bottom, said depression fitting inside the hub, and

a ball comprising an off set for bearing upon the top of the stop shield, a shank passing through the shield, the ball member and seat and removably attached to the bottom of the seat, an upright section, a loop formed in this upright and a prong for engagement with the lift wire and guide bracket of the tank, the free end of said prong adapted to latch into said loop.

1,304,433. MANUFACTURE OF HYDROCARBON LIQUIDS FOR USE IN INTERNAL-COMBUSTION ENGINES. CHARLES F. WINCH, New York, N. Y. Filed Mar. 7, 1917. Serial No. 183,908. 3 Claims. (Cl. 44-8.)



1. The improvement in the manufacture of hydrocarbon liquids consisting in heating a carbonized product of the vegetable kingdom sufficiently only to expel the lighter gases therefrom and constituting the same producing elements and exposing petroleum to the lighter gases to produce a hydrocarbon liquid suitable for use in internal combustion engines.

1,304,434. DOLL. MARTHA ST. CLAIR WINGERT, Los Angeles, Calif. Filed Dec. 16, 1918. Serial No. 307,004. 3 Claims. (Cl. 46-40.)



1. The method of making a doll which consists in cutting a stocking straight across the instep, stuffing the two pieces of the stocking, securing the cut edges together to hold the stuffing, applying a cord around the center to form a neck and separate the head from the base, cutting a second piece from the stocking, said second piece extending from the ankle upwardly, laying the piece flat, cutting a slit from one end to the center through both sides, securing the cut edges together, thereby producing leg and foot portions, turning a portion of the material inwardly around the opposite cut edge from the leg and foot portions to form a reinforcement, passing a thread through the material at the head to produce a necker string, stuffing the body including the leg and foot portions and leaving a space in the upper part to receive the base, inserting the base into the space until the necker string reaches to the neck, taking scraps from the stocking and forming casings for the arms, stuffing the casings, taking the upper part of the stocking and making the body of a jacket, taking more scraps of the stocking and making sleeves for the jacket, and placing the stuffed arm casings in the sleeves.

1,304,435. MUSICAL INSTRUMENT. SHUMAN & WITKOWSKI, Indianapolis, Ind., assignors to Lundy Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana. Filed Mar. 27, 1918. Serial No. 20,572. 4 Claims. (Cl. 24-21.)



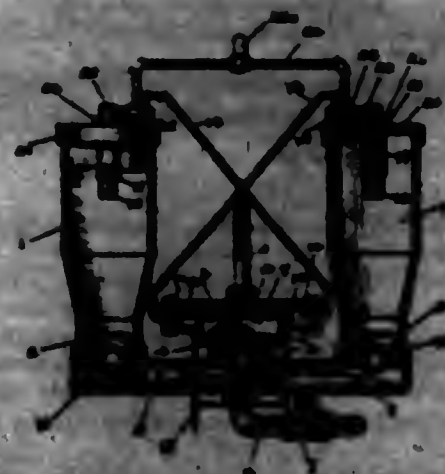
1. A musical instrument comprising a vibratile member with a suitable support therefor, and a plurality of resonators associated with said vibratile member cooperatively adjacent antinodes of different overtones of said member.

1,304,436. METHOD OF MAKING RAKES. WITKOWSKI & WITKOWSKI, Jackson, Mich., assignors to The American Fork & Hoe Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 18, 1917. Serial No. 183,404. 2 Claims. (Cl. 70-111.)



1. In a method of making rakes, the steps which consist in mounting a series of U-loops in a rake head with the spaced ends parallel to each other and in the same plane, and constituting lines, integrally joining strips of metal to one end of each of two of such lines, and then bending such joined strips into loops projecting forwardly and rearwardly from the plane of such lines.

1,304,437. PURVEYING DEVICE. GRAMER N. WOODWARD, Portland, Oreg. Filed July 10, 1917. Serial No. 180,864. 1 Claim. (Cl. 221-114.)



A purveying device for liquids comprising a pair of reservoirs; a valve intermediate said reservoirs; a dis-

charge pipe; a piston connected to said valve and operating within a cylinder; a body connecting said reservoir and having therein suitable ports connecting with said valve for the purpose of simultaneously connecting one of said reservoirs with the source of supply of said liquid and the other of said reservoirs with said discharge pipe; a valve chamber upon each of said reservoirs, said valve chambers being connected to said cylinder upon opposite sides of said piston; an air pipe connecting said valve chambers; a float valve within each of said valve chambers adapted to close said air pipe; an expandable and contractible member within each of said reservoirs; and float valves at the points whereat said reservoirs connect with the port within said body.

1,304,438. PROCESS FOR PURIFYING SUGAR JUICES OR SYRUPS. PHILIP L. WOODMAN, Yonkers, N. Y. Filed Jan. 17, 1918. Serial No. 72,400. 5 Claims. (Cl. 157-15.)

1. The process of purifying raw sugar material which consists in adding to said material a small proportion of earthy filtering material and without the addition of lime passing the mixture through a filter.

1,304,439. AIR-COMPRESSOR. CECIL C. YENAGA, Houston, Tex. Filed June 8, 1918. Serial No. 268,981. 7 Claims. (Cl. 290-57.)



1. In an air compressor, the combination with a tank having a valved outlet, a pump whose cylinder is mounted alongside the tank, and means for reciprocating the pump-platen; of a pair of supports for one end of the tank to which it is pivotally attached, the pivot pin being removable, and a third support for the remote end of the tank adapted to receive the same pin when removed from one of said first-named supports.

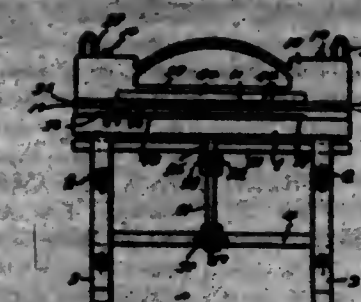
1,304,440. CAMPING OUTFIT. FRANK KACHMAYER, Bay City, Mich. Filed Feb. 25, 1918. Serial No. 218,101. 10 Claims. (Cl. 5-60.)



1. A camping outfit including a case designed to be mounted on an automobile or other vehicle and upper and lower berths having side base or members hinged at the lower ends to the case and composed of inner and outer sections hinged together at their upper edges and the upper berth being arranged to fold inwardly and downwardly and the lower berth inwardly and upwardly into

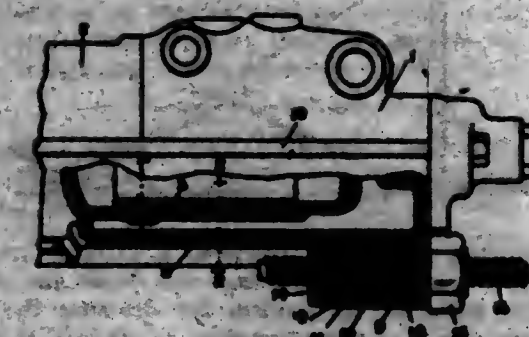
overlapping relation, foldable legs supporting the lower berth and foldable braces extending from the lower berth to the upper berth and carried by one of the said berths.

1,304,441. PERFORATING-MACHINE. CHARLES BURTON BARTON, Albany, Ala. Filed June 24, 1918. Serial No. 241,004. 3 Claims. (Cl. 104-92.)



1. The combination with a frame, of a bed plate mounted thereon, a female die having a row of perforations counter-sunk in the bed plate, a punch guiding plate superimposed and spaced from the female die and having a row of perforations registering with the first perforations, a pair of guides mounted on the bed plate, a depressible bar mounted on said guides and provided with a row of projections, adapted to pass through the perforations of the punch guiding plate and female die, spring tensioning means between the depressible bar and the punch guiding plate, and means carried by the frame and connected to the depressible bar and adapted to be operated from either side of the bed plate for depressing the bar against the action of the spring means, said operating means comprising a bar underneath the bed plate and connected to the depressible bar, said connections carrying the spring means, a pair of foot levers mounted upon the frame, an oscillatory bar connected to the bar beneath the bed plate, and links connecting the foot levers and said oscillatory bar.

1,304,442. CYLINDER AND GUIDE CONSTRUCTION FOR HAMMER-DRILLS. LEWIS C. BATES and FRED M. BATES, Boston, Pa., assignors to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Sept. 19, 1918. Serial No. 264,782. 6 Claims. (Cl. 205-61.)



1. In a cylinder and guide construction for hammer drills, a cylinder having portions engaging a guide throughout its length said guide attached to said cylinder at one end whereby said cylinder and guide are held rigidly together.

1,304,443. SCAVENGING OF INTERNAL-COMBUSTION ENGINES. PAUL BERTAVIN, Petrograd, Russia, and CHARLES GEORGE ROBERTSON, Barrow-in-Furness, England. Filed Aug. 1, 1917. Serial No. 186,321. 3 Claims. (Cl. 120-68.)

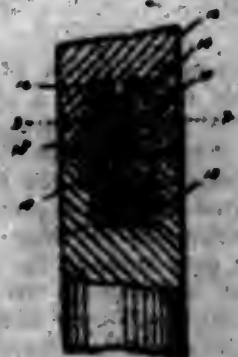
1. Means for scavenging the cylinder of a two-stroke internal combustion engine, comprising air admission and exhaust ports placed at the same side of the cylinder, the said air admission ports being so formed and disposed as

to direct the incoming air diagonally to the opposite upper corner of the cylinder and to displace the exhaust



gases diagonally from this corner in a reverse direction toward the exhaust, for the purpose specified.

1,304,444. REINFORCED JOINT FOR CARBON ELECTRODES. WILLIAM P. BIDEKMAN, Los Angeles, Calif. Filed Oct. 1, 1918. Serial No. 234,463. 3 Claims. (Cl. 204-65.)



1. The combination of two lengths of carbon electrodes provided at their joining ends with threaded cylindrical sockets; a threaded carbon core fitting in said sockets, said adjacent ends of the carbon electrodes forming a smooth joint; a metal rod extending through the longitudinal axis of said carbon core; and means for holding said rod in position.

1,304,445. LOADING-MACHINE. CHARLES L. BLOWETT, Kingsley, Iowa. Filed Aug. 12, 1918. Serial No. 240,392. 9 Claims. (Cl. 214-82.)

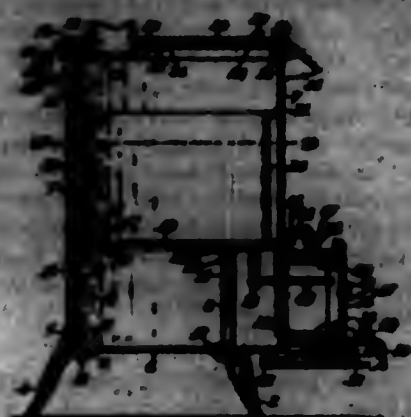


1. A loading machine comprising a suitable frame, a scoop adapted to be drawn toward the frame and thereby filled with material, mechanism for drawing the scoop toward the frame, a boom operable to elevate the scoop as the latter is drawn toward the frame, and means on the frame adapted to engage and support the scoop in its elevated position.

1,304,446. COLONY-BROODER. FRANK E. BOWERS, Indianapolis, Ind. Filed Nov. 12, 1917. Serial No. 201,468. 6 Claims. (Cl. 237-3.)

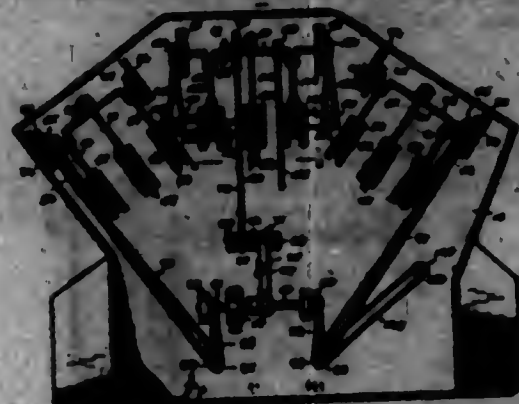
4. A heating appliance comprising a flat bottom, a side wall on the bottom having an aperture therein adjacent to the bottom, a neck secured to the wall at said aperture and having an inlet port in the upper portion thereof, a top plate on the side wall, a fire-grate supported above said bottom, a shaker arm connected to the fire-grate and extending into said neck below said part, a closure on the front of said neck, legs secured to said bottom and to said side wall, a deflector having support on said top

plate and extending downward over the upper portion of said neck, an inlet valve arranged in said neck above said



shaker arm, and a thermostatic device arranged adjacent to said side wall and having operative connection with said valve.

1,304,447. SHOE-POLISHING MACHINE. GIOVANNI BOSNOLA, Philadelphia, Pa. Filed Sept. 5, 1917. Serial No. 188,791. 10 Claims. (Cl. 15-61.)



5. In a machine of the class described, a crank shaft, a vertically mounted shaft driven thereby, a pivotally mounted bracket, a shaft mounted for rotation therein, a brush carried by the shaft, a piston connected with the bracket and with the crank shaft, and means for rotating the shaft within the bracket from the vertical shaft while said bracket is being oscillated.

1,304,448. COOKING UTENSIL. WILLIAM E. BROWN, 1284, Wellsville, N. Y. Filed Jan. 26, 1918. Serial No. 218,806. 4 Claims. (Cl. 55-8.)

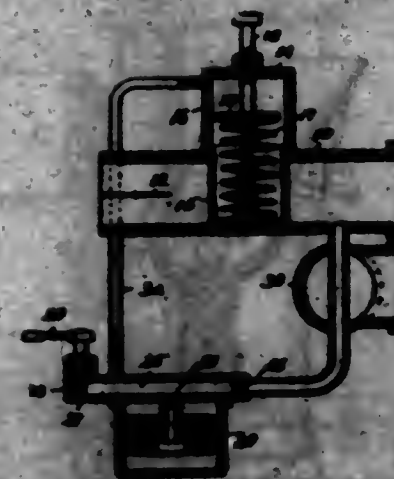


2. A cooking utensil comprising a vessel having an annular shoulder, an annular flange forming an upward continuation of said shoulder, an inner cover provided with perforations and fitted within said flange and resting upon said shoulder and an independent outer cover fitted within said flange and having its periphery resting upon said inner cover, said covers being spaced apart at their intermediate portions.

1,304,449. CARBURTER. ALANSON P. BROWN, Detroit, Mich. Filed June 27, 1917. Serial No. 177,193. 5 Claims. (Cl. 238-12.)

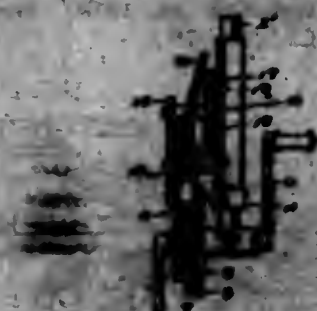
4. In a carburetor, the combination of an air tube, a cylinder in open communication therewith, an auto-

matically closing piston valve movably supported in said cylinder and adapted to extend across and close said air tube, a fuel tube connected with said air tube between the discharge end thereof and said valve, a fuel jet mov-



ing in communication with a source of fuel supply which discharges into said fuel tube, a pipe connecting said fuel tube with said cylinder, there being in said fuel tube a valve-controlled air opening for the admission of air into the same.

1,304,450. BICYCLE FRAME. HERMAN BOWLER, Chicago, Ill. Filed Jan. 15, 1919. Serial No. 271,942. 1 Claim. (Cl. 288-154.)

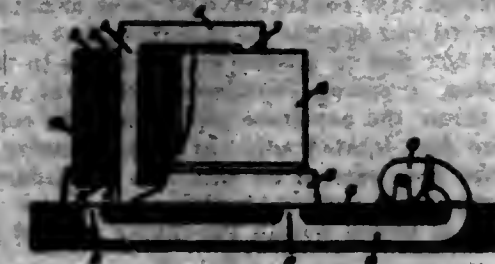


In a bicycle, the combination with the crank thereof, of a gear wheel secured to said crank, a second gear wheel loosely mounted on said crank, a chain wheel connected to said second gear wheel, a bar connected with the frame of the bicycle, an upper gear wheel carried by said bar, a chain wheel connected with said upper gear wheel, said upper gear wheel being out of alignment with the lower gear wheel, large and small chains which on the hub of the rear wheel, a pair of chains connecting the chain wheels on the bar with the chain wheel on the crank and the chain wheel connected with the upper gear wheel, an intermediate gear wheel of double the thickness of the other gear wheels in mesh with the gear wheel secured to the crank and means for shifting said intermediate wheel into mesh with either the upper gear wheel or the second gear wheel on the crank.

1,304,451. TRANSFORMER. LOCKE H. BOWMAN, Pittsburg, Mass., assignor to General Electric Company, a Corporation of New York. Filed Jan. 20, 1917. Serial No. 145,121. 9 Claims. (Cl. 178-262.)

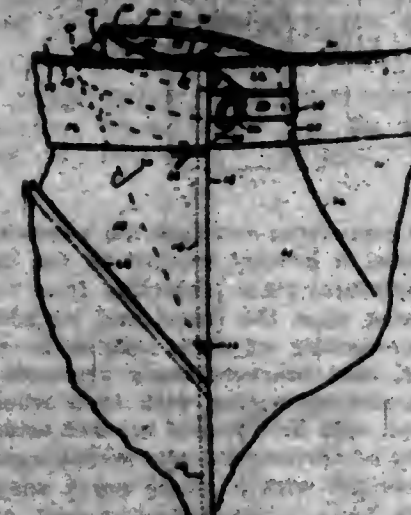
1. The combination with a core of a plurality of coiled windings axially mounted to surround a leg of said core, means for supplying a stream of a cooling and insulating medium to said windings, and means relatively

close to the edges of said windings for causing said stream to be divided into currents moving substantially



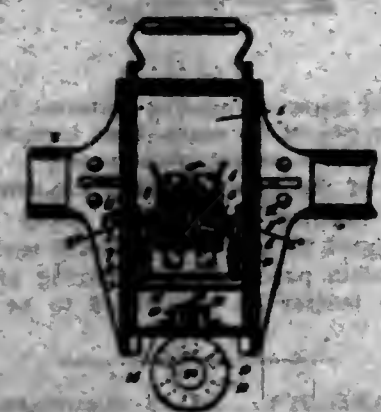
parallel to the winding axis and passing over both the inner and outer edges of said windings.

1,304,452. GARMENT WITH ADJUSTABLE WAISTBAND. JOHN BURACKER, Utica, N. Y., assignor of one-half to Henry Hoffmann, Utica, N. Y. Filed June 12, 1918. Serial No. 239,964. 4 Claims. (Cl. 2-143.)



1. In an adjustable-waistband garment, the combination of two garment portions joined together at their edges by a seam extending toward the waist but unattached at the waistband and for some distance therebelow, the unattached edge of the first portion overlapping the opposite edge of the second portion, a waistband section fastened to the second garment portion at its lateral edge and again back therefrom and a vertically arranged loop on the inside upper corner of the first garment portion and slidably inclosing therein the free part of the waistband of the second garment portion.

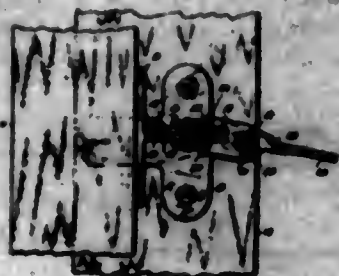
1,304,453. ELECTROMAGNETIC LOCKING DEVICE. LOUIS CASSENET, Paris, France. Filed May 27, 1914. Serial No. 841,237. 3 Claims. (Cl. 70-60.)



1. In an electromagnetic locking device, the combination of a casing, a removable box adapted to be set within said casing, a coil located within said box and adapted

to receive electric current, a movable member or armature of magnetic material arranged adjacent to said coil to be within its attractive influence when the coil is energized, a pivoted arm connected with said armature and having a curved end adapted to pass through a slot in the wall of said box and to project into a recess in the wall of said casing, a spring connected with said arm and tending to throw the armature away from the coil, a rotary recessed disk located adjacent to said casing, and a spring-pressed bolt carried by said box and adapted for locking engagement with said disk at a recess thereof when the box is locked within the casing by said pivoted arm.

1,304,454. ADJUSTING AND SECURING DEVICE FOR CLOSURES. FRANK H. CARLSON, White River Junction, Vt. Filed July 6, 1918. Serial No. 248,572. 1 Claim. (Cl. 10-110.)



A device for supporting and securing a closure upon its frame, comprising a bracket secured to the closure and including a horizontal plate projecting from the bracket, a bracket secured upon the frame and including a horizontal plate projecting at right angles to the second named bracket, said brackets being arranged in superposed relation and contacting with each other and pivotally connected, said first named bracket being provided with a plurality of notches and said second named bracket plate being provided with a single notch adapted to be registered with by a selected one of said first named notches, a vertically swingable latch member pivoted upon said second named bracket and formed at one end with a weighted handle and at the other end with a head adapted to be passed partially through registering notches, the weighting of said handle and assembly tending to bring said head into engagement with the registering notches, and the sides of said head being cam shaped whereby to hold said plates against relative movement.

1,304,455. RETAINER. CHARLES H. CONNOR, East Stroudsburg, Pa. Filed Apr. 4, 1918. Serial No. 220,684. 6 Claims. (Cl. 120-1.)



1. A sheet of paper or similar material folded along a line parallel to two of its edges, thus forming four pages, and having a pocket on alternate pages.

4. A device of the type described comprising pocketed sheets bound together the pockets being on alternate pages and adapted to hold a disk record each, the pocket flap and the plain page facing it bearing printed matter related to the matter on the record to be kept in the pockets.

1,304,456. SAND TOY. MARCO COSTOPASS, Pittsburgh, Pa. Filed May 3, 1918. Serial No. 232,224. 3 Claims. (Cl. 40-40.)

1. A sand toy comprising means to provide the representation of a human figure including a pair of arms, an

oscillatory lever pivotally supported by said means and having said arms connected therewith, said arms having means to provide the representation of hands, a rod pivotally supported from the figure and carrying a spherical member at its outer end adapted to be alternately en-



gaged by the representation of the hands to shift said member in opposite directions, a rotor operated by a change of sand and including a shaft, and an operative connection between said lever and said shaft for oscillating the lever.

1,304,457. MOTOR-CYCLE STAND. WALTER L. CHAM, Washington, D. C. Filed Feb. 10, 1918. Serial No. 276,076. 2 Claims. (Cl. 300-78.)

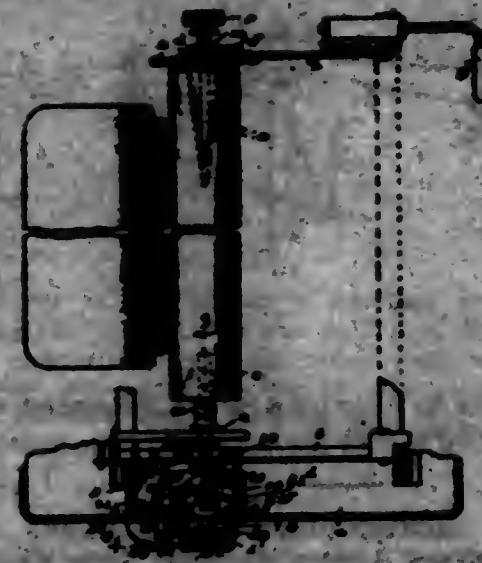


1. In combination with a motorcycle, of a substantially U-shaped stand pivotally secured to the rear axle thereof, said stand having its connecting portion centrally notched to provide two spaced contact surfaces, segmental members secured to the sides of the stand, members pivoted for sliding movement on the machine and hingedly connected to said segmental members, brace means between the pivoted members, a rack engaged by one of said members, said rack having an outer guard plate, a shoulder below the teeth of the rack, and a spring influenced pressure plate below said shoulder.

1,304,458. LINE-INDICATOR AND SIGNAL FOR TYPE-WRITING MACHINES. HOWARD BOYD BENN, Washington, D. C. Filed Aug. 12, 1918. Serial No. 45,289. 10 Claims. (Cl. 107-120.)

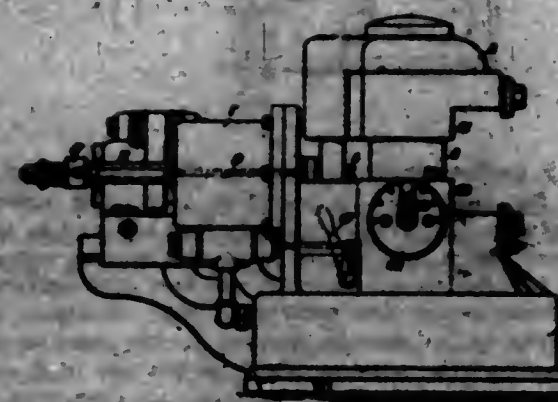
1. In a typewriting machine, the combination with a paper carriage having a platen roll and banding supports therefor, of a self-contained line-indicating mechanism comprising a shaft adapted to be connected to the platen

roll and to operatively engage one of the said banding supports, thereby operatively connecting the indicating



mechanism to the platen roll and affording a working support both for said mechanism and said roll.

1,304,459. DRILL-SHARPENER. JAMES DUNN, Littleton, Colo., assignor to The J. Geo. Layner Engineering Works Company, Littleton, Colo., a Corporation of Colorado. Filed Feb. 10, 1917. Serial No. 140,032. 2 Claims. (Cl. 70-5.)

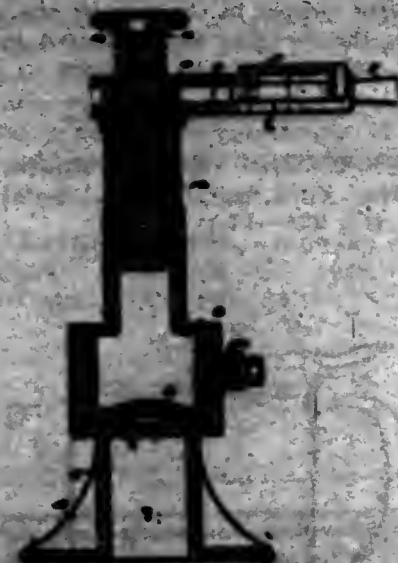


1. In a planing out device for drill steels mounted upon a drill sharpener base, a platen adapted to reciprocate within a cylinder, said platen carrying a pin, and a fluid operated planing out vice mounted upon said sharpener base, said planing out vice having a movable jaw member, a stationary jaw member and an adjustable jaw member inserted within said stationary jaw member and adapted to cooperate with said pin whereby drill steels of different diameter may be held in alignment with said pin.

1,304,460. AUTOMOBILE-JACK. JOHN C. DETMERS, Goldsfield, Nev. Filed May 1, 1918. Serial No. 231,914. 1 Claim. (Cl. 234-68.)

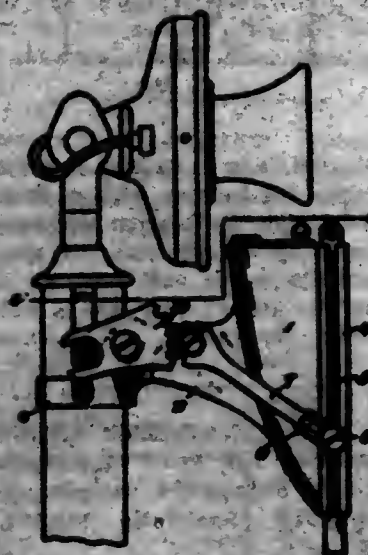
In a jack of the character described, a stand, lifting means arranged in the stand, means for raising and lowering said lifting means, an enlarged wedge shaped foot on the lower end of the stand and having the opposed inclined sides and lower faces coplanar, and a base having a wedge shaped pocket in its upper end designed to snugly

and removably receive the correspondingly shaped foot, and means mounted in the base and extending through



one wall of the pocket and engageable with the foot to releasably hold the foot against accidental displacement.

1,304,461. TELEPHONE ATTACHMENT. GUYMON DUNN, Seattle, Wash. Filed Apr. 30, 1918. Serial No. 230,798. 3 Claims. (Cl. 170-185.)



1. An attachment for telephones, comprising a tank, containing an antiseptic, a screen therein, and means for automatically positioning said screen in front of the mouth-piece when the receiver is removed from its fork.

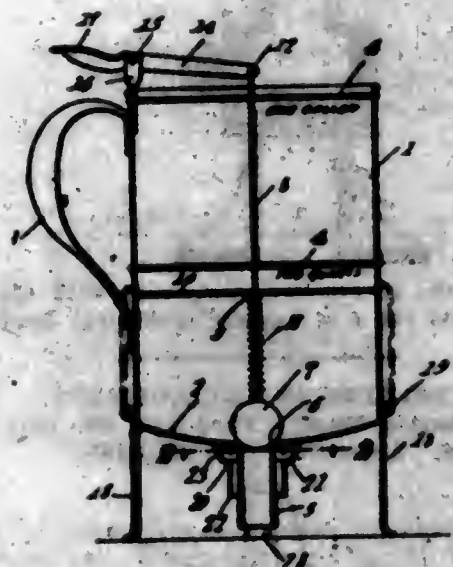
1,304,462. SPARK-PLUG. FRANK L. DYER, Montclair, N. J. Filed Jan. 24, 1918. Serial No. 212,070. 3 Claims. (Cl. 120-100.)



1. In a spark plug, an integral or one-piece porcelain or other refractory insulator therefor and a composite central electrode therein, comprising a nickel section lo-

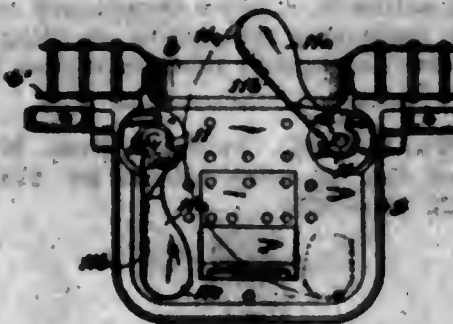
cated in the bore of the insulator and which is subjected to the effect of sparking, and a steel section connected thereto and also located in the bore of the insulator, the joint between the sections being located in the bore of the insulator, substantially as set forth.

1,304,463. DISPENSING VESSEL. ROBERT H. ELLIOTT, Carthage, Mo. Filed Sept. 6, 1918. Serial No. 252,948. 2 Claims. (Cl. 221-17.)



1. A device of the class described, comprising a receptacle provided upon its bottom with a discharge spout; a casing assembled with the bottom and surrounding the spout, the casing being spaced from the spout and being provided adjacent its upper end with an air outlet; a valve controlling the spout; and means actuated by an operator for moving the valve.

1,304,464. MECHANICAL-STOKER SHOVEL. ALBERT G. ELVIN, Flanahan, and ADAM R. FAHNESTOCK, Great Neck, N. Y.; said Fahnestock assignor to said Elvin. Filed Dec. 28, 1918. Serial No. 268,887. 3 Claims. (Cl. 110-112.)

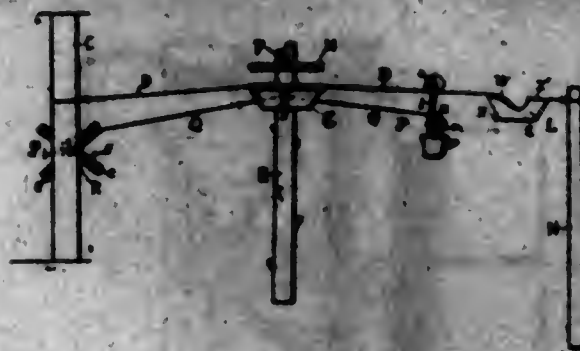


1. A mechanical stoker shovel comprising a stock or body; a bottom plate projecting therefrom; and a back plate projecting upwardly from the bottom plate; and having a curved vane, of relatively reduced height, at its outer end.

1,304,465. SELF-ADJUSTABLE WATER-HOIST CONVEYER. JOHN W. EMERSON, Scotland, Ark. Filed Apr. 15, 1918. Serial No. 91,422. 3 Claims. (Cl. 212-97.)

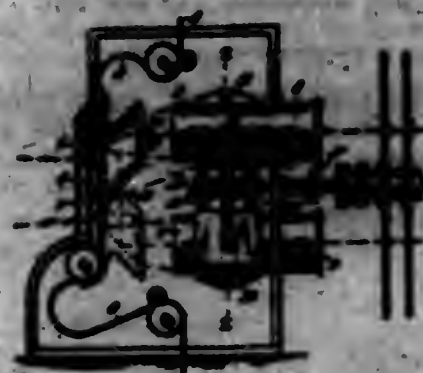
1. In a self-adjustable water-hoist conveyor, a single double inclined track having stationary supports at its

ends and a fixed pole at its apex and a long frame having a cover attached to the fixed pole and provided with a



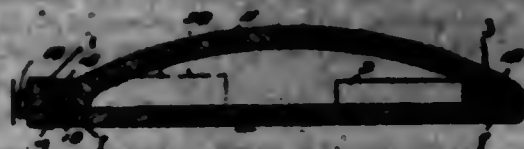
single pulley for directing a cord in the manner set forth for the purposes stated.

1,304,466. MOTION-PICTURE APPARATUS. HENRY RICHARD EVANS, London, England; Adele Kean Evans executrix of said Henry R. Evans, deceased. Filed Apr. 17, 1918. Serial No. 22,028. 6 Claims. (Cl. 88-16.6.)



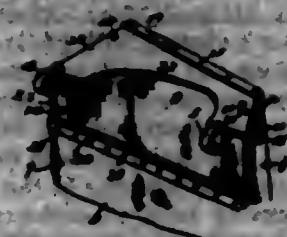
1. In a motion-picture apparatus the combination of a window for the film, an objective lens, and reflecting means between the window and the lens adapted to reflect the picture twice and having first and second reflecting surfaces parallel to one another, the first said surface being so dimensioned and positioned that divergent light rays falling on its margin nearest to the window from that margin of the window which is nearest to it, is reflected up to the said second surface and thence to that extreme useful margin of the lens which is toward the said first surface.

1,304,467. SWITCH-BOX. ADAM FAHNESTOCK, Washington, D. C. Filed Mar. 1, 1918. Serial No. 219,887. 4 Claims. (Cl. 230-94.)



1. In a switch box, a base, a channelled segmental shoulder arranged on the base adjacent one marginal portion thereof, a curved lip extending laterally from the cover engageable with the shoulder, and means engageable with the free ends of said base and cover for preventing relative movement of the same.

1,304,468. CARTRIDGE-RECEIVING RECEPTACLE. ANSEL FERNANDEZ, Mexico, Mexico, assignor to Juan V. Torres, San Luis Potosi, Mexico, and Antonio Herrejon Lopez, Mexico, Mexico. Filed Nov. 1, 1918. Serial No. 266,786. 4 Claims. (Cl. 234-9.5.)



1. A device of the character described including a flexible bag-like body having one side wall cut-away at the top, a metallic reinforcing frame right angular in cross section secured to the top and the cut-away side wall and provided with a cartridge shell receiving opening in its side, and attaching means carried by the frame.

1,304,469. OIL-FILLED LEAD-BUSHING. JOHN J. FRANK, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 30, 1918. Serial No. 128,428. 6 Claims. (Cl. 172-311.)



1. The combination with insulating members, of a sleeve for spacing said members apart, clamping rings rigidly affixed to said members, and means for securing said rings to said sleeve in an airtight manner.

1,304,470. WASHING-MACHINE. WILLIAM G. GIBBINS, St. Louis, Mo.; Henry Gibbins executor of said William G. Gibbins, deceased. Filed Oct. 4, 1918. Serial No. 122,697. 13 Claims. (Cl. 69-18.)



1. In a washing machine, a carrier for the material to be washed, a squeezer carried by said carrier, means for

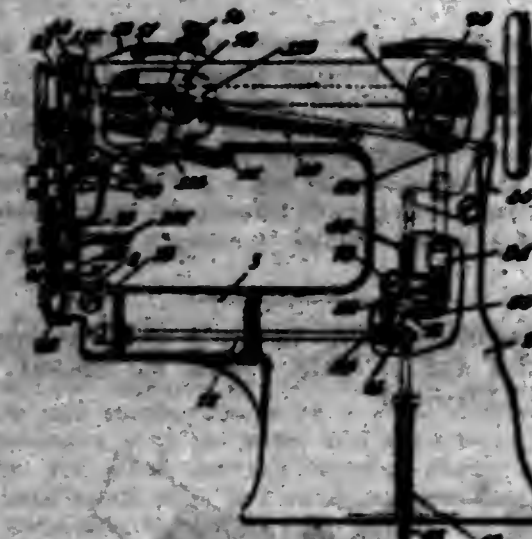
moving said squeezer toward and away from a portion of said carrier so as to squeeze said material while the carrier is in motion, said means including a guide for directing said squeezer toward and away from said portion of the carrier, and an operating device for shifting said guide to vary the movements of said squeezer, said operating device being movable independently of said carrier so as to shift said guide while the carrier is in motion.

1,304,471. CLOSING DEVICE. EDWARD L. GIFFORD, Alameda, Calif. Filed Nov. 25, 1916. Serial No. 122,500. 2 Claims. (Cl. 106-34.)



1. In a device of the class described a pair of movable closure members parallelly arranged and a roller carried by one member and engaging the face of the other member, said roller having pointed ends for engaging the inclined part of the face of said other member.

1,304,472. FOLDING-MACHINE. PERLEY R. GLASS, Brookline, Mass., assignor to P. R. Glass Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1918. Serial No. 6,248. 14 Claims. (Cl. 12-54.)

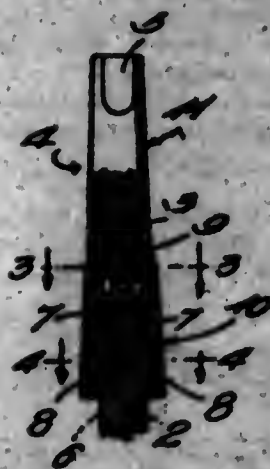


1. In a machine of the class described, slitting mechanism, intermittent feed mechanism, a member manipulation of which controls the operation of the slitting mechanism, a second member manipulation of which varies the extent of the movements of the intermittent feed mechanism, and means for connecting said members in different relative positions to determine the spacing of the slits.

1,304,473. DRILL AND TAP DRIVER. JOHN C. GARDNER, Highland Park, Mich. Filed June 20, 1917. Serial No. 178,866. 3 Claims. (Cl. 279-108.)

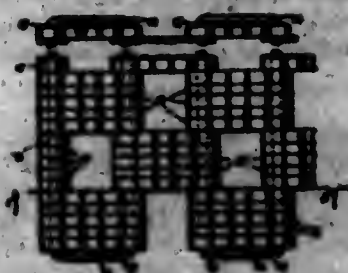
1. A tool driver comprising a body having a slot extending diametrically therethrough at one end thereof and bifurcating ends and portions, forming jaws having opposing faces to clamp the tool between them, said body being

longitudinally tapered to a coarse degree from the outer ends of the jaws to a point in advance of the inner ends



of the jaws, and thence tapered to a finer degree toward the opposite end of the body.

1,304,474. MAT. CHARLES R. GOLDSMITH, New York, N. Y. Filed Apr. 11, 1918. Serial No. 237,890. 2 Claims. (Cl. 20-78.)



1. A mat of the character described, comprising a plurality of units each consisting of superposed plates or disks having perforations near their opposite ends, hollow fastening means passing through said perforations and securing the plates or disks of each unit together independently of the plates or disks of any other units, and elongated connecting means passing through the hollow fastening means of a series of units to connect the latter together.

1,304,475. SMOKING-PIPE. EDWIN R. GRACE, Memphis, Tenn. Filed Apr. 10, 1918. Serial No. 238,804. 1 Claim. (Cl. 131-12.)



A smoking pipe having a saliva well formed in the neck portion thereof and a tapered vertical bore in said neck portion communicating with the well and the bowl of the pipe, a tapered valve rotatably mounted in said bore formed with a way adapted to communicate, at times, with said well and opening outwardly adjacent the lower side of said neck portion, said valve having an obliquely disposed way therethrough for establishing communication between the stem and bowl portions of the pipe bowl and the upper portion of the rotatable valve extending from a distance above the upper side of the neck portion of the pipe,

and a spring arm carrying a plug on the free end thereof engageable in the outer end of the way formed in the valve communicating with the saliva well.

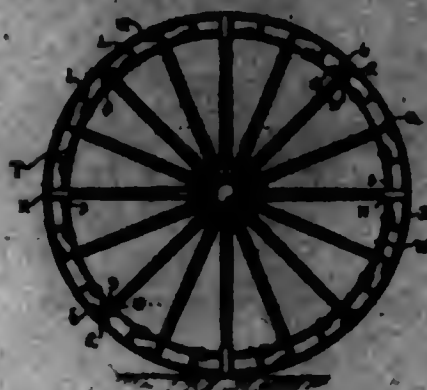
1,304,476. METHOD OF MANUFACTURING SHOES. GEORGE R. CHAMBERLAIN, Hudson, Mass. Filed Dec. 20, 1917. Serial No. 260,218. 1 Claim. (Cl. 12-148.)

That improvement in the art of manufacturing shoes, which consists in impregnating the shoe sole with a material hard at ordinary temperatures but capable of being softened by heat and which is adapted to increase the wearing and waterproofing properties of the sole but which renders the sole relatively hard at ordinary temperature, softening the sole by subjecting it to heat and moisture, securing the sole to the upper of the shoe while it is so softened, and thereafter allowing the sole to cool and harden.

1,304,477. LUBRICANT FOR NON-METALLIC GEAR-WHEELS. EUGENE J. QUAY, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 2, 1918. Serial No. 264,978. 2 Claims. (Cl. 37-8.)

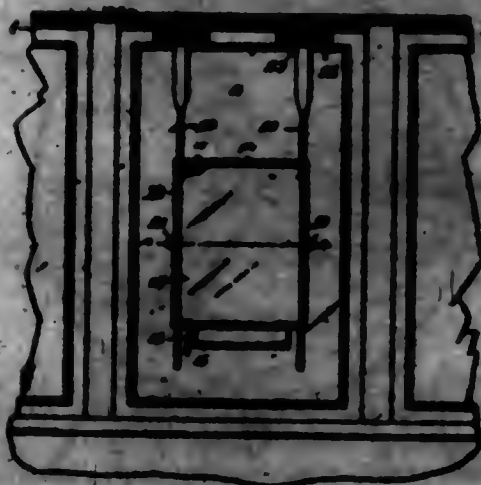
1. As a lubricant for non-metallic gear wheels, a mixture of graphite and a resinous binder.

1,304,478. WHEEL ATTACHMENT. GEORGE LOCKWOOD HARVEY, Port Huron, Mich. Filed Jan. 20, 1919. Serial No. 278,892. 5 Claims. (Cl. 21-217.)



1. The combination with a wheel having grooves on its tire, of an endless band with a smooth tread surface; means for interlocking the band to the tire against transverse and circumferential play; and radially acting fastening means attached to the band, adapted for adjustment against the tire.

1,304,479. WINDOW ATTACHMENT. FRANK E. HAWK, Moonsooth, Ill. Filed Oct. 18, 1918. Serial No. 264,161. 1 Claim. (Cl. 20-49.5)



The combination with a window, of a frame, a band upon one side of said frame, cushioning means within said

band contacting with the glass in said window, a flange at the opposite side of said frame, a glass engaged by said flange, a pair of spaced rods on which said frame is mounted to slide which rods lie between said band and flange, and brackets on the upper wall of said window with which said rods are slidably connected.

1,304,480. SUPERHEATER CONSTRUCTION FOR BOILERS. JOHN H. HUNNAN, Phoenixville, Pa., assignor, by mesne assignments, to Heine Safety Boiler Company, Phoenixville, Pa. Filed Apr. 20, 1917. Serial No. 163,066. 5 Claims. (Cl. 122-471.)



1. A boiler including a casing, two headers, a plurality of superimposed rows of tubes connecting said headers within the casing, a baffle interposed between certain of the rows of tubes, said baffle having two portions spaced apart, one above the other, and extending partway of the length of the tubes, the upper one of said portions having a part extending longitudinally beyond the adjacent end of the lower portion to prevent the products of combustion from passing directly from the fire box of the casing to the uppermost of said tubes, said portions of the baffle extending transversely from one side wall of the casing toward the opposite side wall of the casing and stopping short thereof, said baffle also having an upright portion extending longitudinally of the tubes and between said first and second portions, said third mentioned portion being spaced between said side walls of the casing, another baffle portion bulging the space between said upright portion and said opposite side wall of the casing, and a superheater extending longitudinally from said first mentioned side wall and between said first two portions of the baffle, substantially as described.

1,304,481. BRAKE-LINING. GEORGE FRANCIS HOLLIN, Pittsburgh, Pa. Filed Mar. 9, 1917. Serial No. 163,499. 2 Claims. (Cl. 74-12.)



1. As an article of manufacture, a non-metallic brake lining having alternating ridges and depressions extending across the wearing surface, the entire lining being homogeneous.

1,304,482. FLOODING APPARATUS FOR WATER-CLOSERS AND THE LIKE. ALBERT EDWARD HENRY, Sney, Wales. Filed July 3, 1918. Serial No. 248,886. 2 Claims. (Cl. 4-5.)

1. In the herein described flooding apparatus, the combination, with a cistern and water inlet and air

outlet connections provided thereon, of a two-part flushing chamber arranged at the bottom of the said cistern and communicating with same, a bracket casing attached to the flushing chamber and having slotted extensions, a slidable and spring-controlled valve spindle mounted within the bracket casing, a disk valve secured to the



inner end of said spindle and projecting into the flushing chamber and opposite a conical valve seat provided in the partition of said chamber, means to regulate the compression of the spring of the valve spindle, and means to control in unison the water inlet and the flushing valve, all substantially as set forth and for the purpose shown.

1,304,483. PROCESS OF MANUFACTURING ASPHALTIC PLATES AND ASPHALTIC ARTICLES OF A SIMILAR NATURE. HISAKAZU INOUE, Kyoto, Japan, assignor to Gohsei Nakamura, Kobe, Japan. Filed June 23, 1917. Serial No. 177,194. 4 Claims. (Cl. 18-42.)



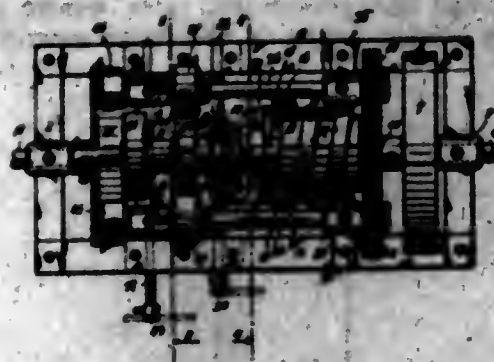
1. The process of manufacturing asphaltic plates combined with cement or concrete slabs, consisting in making the concrete or cement slab with a porous surface and shaping the same to fit a mold to be used in connection with the same, said slab being in a completely dry state, pouring liquefied asphaltic mixture into said mold in a hot condition and then inserting said slab into the mold with said porous surface disposed downward to contact with the upper surface of the asphaltic mixture for combining and afterward removing the same, said slab having recesses therein receiving said mixture.

1,304,484. TRANSMISSION MECHANISM. ALFRED E. JOHNSON, Denver, Colo. Filed Sept. 12, 1916. Serial No. 119,664. 5 Claims. (Cl. 74-20.)

1. Power transmission mechanism comprising a driving shaft, a driven shaft, a member having an internal friction surface fixedly secured to said driven shaft, a second member slidably carried on said driven shaft and having an external friction surface, and friction means operable through said driving shaft for imparting movement to either of said friction surfaces to produce different speeds.

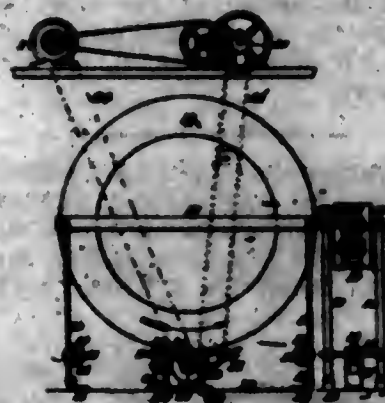
2. Power transmission means comprising a driving shaft, a driven shaft, clutch mechanism for directly connecting said shafts with each other, a friction wheel

fixedly secured to said driven shaft, a friction wheel non-rotatably carried on said driven shaft, and friction means operable through said driving shaft for impart-



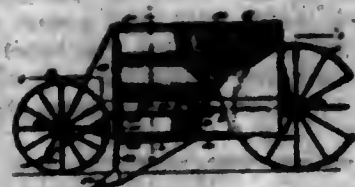
ing rotary motion to said driven shaft through any of said friction wheels when the clutch is inoperative, said friction wheels being of sizes to give different speeds in connection with said friction means.

1,304,485. TIRE GROOVING AND FINISHING MACHINE. ROBERT H. KRAYON, San Francisco, Calif. Filed Dec. 27, 1917. Serial No. 260,071. 14 Claims. (Cl. 51-5.)



1. A machine for grooving tires which consists in a rotary cutter operating in a plane parallel with that of the tire, means for supporting a tire in said parallel plane and for rotating the tire to intermittently bring the outer circumference of the cutter and tire into contact to produce a successive series of grooves extending circumferentially of the tire.

1,304,486. BEET-HARVESTER. FOREST D. KNITH, Oshkosh, Nebr. Filed May 11, 1918. Serial No. 223,971. 7 Claims. (Cl. 55-107.)



1. In a machine of the class described, a wheel supported frame, a casing mounted thereon and having an opening at its front end, forwardly and downwardly extending top guides adjacent to the sides of the opening, standards extending downwardly from the front end of the frame, and an inclined digger supported by said standards beneath the opening for coaction with the top guides.

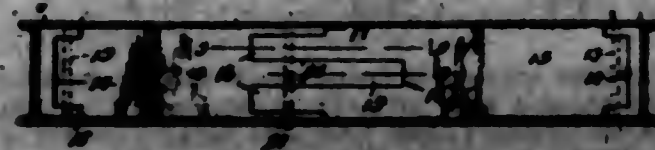
5. In a machine of the class described, the combination with lifting means and a pair of foliage engaging rollers, of a topping mechanism including a vertical shaft having a radially extending knife and means whereby said shaft will be intermittently rotated.

1,304,487. PROCESS OF MAKING TRACK-TORPEDOES. HENRY WILLIAMSON KELLY, Providence, R. I., assignor of one-half to Aubrey Love, Ridgewood, N. Y. Filed Dec. 2, 1917. Serial No. 265,124. 10 Claims. (Cl. 28-28.)



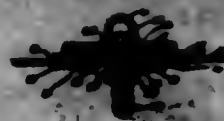
1. The process of making track torpedoes, which comprises the preparation of a charge of detonating material, placing the same within a mass of rubber or rubber-containing material so disposed as to wholly inclose such detonating charge, and finally applying heat and pressure to shape the rubber or rubber-containing material into a homogeneous shell of the desired form and simultaneously inclose the charge of detonating material.

1,304,488. COLLAPSIBLE RIM. WILLIAM C. KING, Beaumont, Tex. Filed Sept. 22, 1917. Serial No. 191,006. 1 Claim. (Cl. 152-2.)



A collapsible rim comprising a pair of pivotally connected sections, a toggle link pivotally connected to the confronting extremity of each section, a pair of spaced apertured fingers formed on the meeting end of one of said toggle links defining therebetween a groove, a tongue formed on the adjacent end of the opposite link section and presenting a pair of grooves, the fingers of the first mentioned toggle link engaging in the grooves of the second mentioned link section when both of the link sections are in a spread or open position, and a locking bolt detachably insertible in the apertures of the fingers and tongue of both sections for locking the toggle link sections against inward movement.

1,304,489. CURTAIN-FASTENER. JOHN KIRSCHBAUM, Waterbury, Conn., assignor, by mesne assignments, to The Chase Companies, Incorporated, Waterbury, Conn. Filed Jan. 9, 1918. Serial No. 270,288. 7 Claims. (Cl. 24-218.)



7. In a curtain-fastener, the combination with a post-member having an annular recess the outer edge of which forms a guard shoulder, of a button-member having an oblong opening for the reception of the said post-member, and a locking spring comprising two arms adapted to enter the said recess in the post-member and normally standing across the ends of the oblong opening of the button-member at a right-angle to the major axis thereof whereby the pulling of the button-member in one direction or the other in line with the major axis of the said oblong opening and substantially at a right angle to the axis of the said post-member, is a condition precedent to the removal of the button-member from the post-member.

1,304,490. ARRANGEMENT FOR CHANGING THE GAUGE OF RAILWAY-VEHICLES. EDWARD KROCHT and JAMES SCHWANN, Northampton, Switzerland. Filed Mar. 3, 1918. Serial No. 228,884. 6 Claims. (Cl. 104-32.)

1. An arrangement for changing the gauge of railway vehicles, comprising means arranged in the transition

portion of the track between the lines of rails, two running wheels mounted on each axle of the vehicle, a member in connection with each axle arranged between the two running wheels and engaging with said means when the vehicle is passing along the transition portion of the track, and means effecting such an operative connection



on each of said members and the two running wheels mounted on the same axle that the running wheels cannot so rotate relatively to said member while the vehicle is moved along the transition portion of the track and rolling of its rails are simultaneously moved in the axial direction of the rails.

1,304,491. QUICK-SERVICE ATTACHMENT-PLUG. ALBERT C. KONE and WAN CHENG KAM, Honolulu, Hawaii. Filed Nov. 24, 1918. Serial No. 294,286. 2 Claims. (Cl. 178-302.)



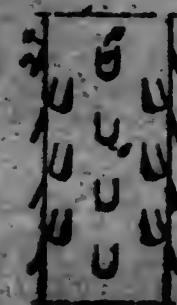
1. An attachment plug comprising insulating members connected together, one of said members having a passage for wires and the other member having longitudinal openings therethrough and also having a radial recess, a contact band surrounding the second-named member and having an aperture coincident with said recess, a spring-biased element disposed in said recess and aperture and projecting beyond the band, terminals connected to the inner end of the first-named member for the connection of wires and having contact strips disposed in the longitudinal openings of the second-named member, a contact strip arranged in one of the said longitudinal openings in lapped relation to one of the first-named strips and having an end portion abutting against the end of the second-named member and electrically connected with the band, a contact strip arranged in the other of the longitudinal openings in lapped relation to the other of the first-named strips and having an end portion abutting against the end of the second-named member, and contact means connecting said portion and said member.

1,304,492. STOCK-RACK FOR TIRE-BUILDING MACHINE. CURT KURNIEN, Youngstown, Ohio, assignor, by mesne assignments, to The Goodyear Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Nov. 16, 1918. Serial No. 26,684. 14 Claims. (Cl. 211-18.)



1. A stock-rack comprising a carriage; an instrumentality for moving the carriage means for locking the carriage in predetermined positions; and a connection between the locking and moving means whereby the unlatching of the carriage effects actuation of the carriage-moving instrumentality.

1,304,493. METHOD OF FORMING SEPARATORS FOR WELLS. ORVILLE A. LAYNE, Los Angeles, Calif. Filed Nov. 22, 1918. Serial No. 121,022. Renewed Mar. 21, 1919. Serial No. 268,364. 12 Claims. (Cl. 112-114.)



1. The herein described method of changing the form of a casing or the like, embodying first locally weakening the casing walls in a manner and form corresponding to the change of form desired in the casing, filling the casing with liquid, and then subjecting it to internal liquid transmitted pressure to displace the weakened parts.

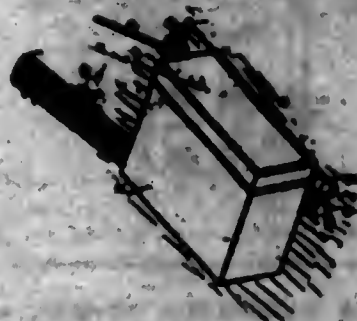
1,304,494. HILLAGRAPH. JOHN McNEIL, Glasgow, Scotland. Filed Jan. 4, 1918. Serial No. 268,572. 6 Claims. (Cl. 88-89.)



1. An improved hilagraph comprising essentially a guide bar-member, a scribing point moving thereon,

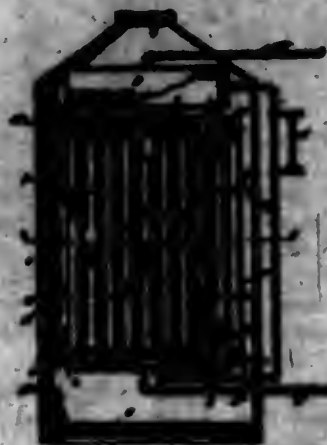
three variable throw parallel cranks engaging the bar for guidance there by, two in a direction parallel with the bar and one in a direction at right angles thereto, and gearing interconnecting and driving the cranks in parallelism.

1,304,498. FUEL CONTROL FOR AUTOMOBILES. HARRY MONTGOMERY MACK, Calgary, Alberta, Canada. Filed Sept. 7, 1918. Serial No. 248,714. 1 Claim. (Cl. 137-129.)



A motor fuel controlling device comprising a needle valve having a disk provided with holes near its periphery mounted normal to the axis of the valve, a hand lever mounted on the steering post, a system of levers removably connected with the said disk and said lever by a bent end of said rod being inserted in one of the said holes, means for supporting said levers, and means for retaining the rod in any desired position, all substantially as described.

1,304,499. FIRE-TUBE BOILER. JOHN D. MACLACHLAN, Chadwick, Mo. Filed May 7, 1918. Serial No. 233,120. 1 Claim. (Cl. 123-300.)



A water tube boiler, comprising an upright casing, brackets extending inwardly from the walls of the casing at different elevations, upper and lower headers, each embodying upper and lower sections formed with abutting flanges, rods forming ties between the headers and connecting them to the lowermost set of brackets, nuts on the rods clamping the sections of the respective headers and securing them to the lowermost brackets, water pipes connecting the water spaces of the headers, tubes passing through the water pipes and headers and secured to the outer walls of the latter, annular disks supported upon the upper brackets and having the outer water pipes and the tie rods passing therethrough and an intermediate disk having the inner water pipes passing therethrough and supported thereon.

1,304,497. ROTARY ENGINE. JOSE A. MAXAM, Denver, Colo. Filed Jan. 28, 1918. Serial No. 214,197. 7 Claims. (Cl. 131-51.)

1. The combination of a rotor having rotary disks mounted therein, projections on said disks extending

from the rotor, roller bearings on the edges of said projections, and a casing in which said rotor operates having



a groove in which said projections travel and against the walls of which said bearings work.

1,304,496. LUBRICATING DEVICE FOR INTERNAL-COMBUSTION ENGINES. CHARLES JAMES HENNING and LOUIS FRIEDMAN, Geneva, Switzerland. Original application filed Sept. 15, 1916, Serial No. 130,314. Divided and this application filed Oct. 25, 1917. Serial No. 196,004. 2 Claims. (Cl. 124-11.)



1. In a lubricating apparatus for internal combustion engines and the like, the combination with a casing having an oil chamber therein, and a device for automatically feeding oil thereto to maintain a predetermined quantity of oil therein, of a plurality of receptacles into each of which a connecting rod dips in the operation of the engine, and in the side of each receptacle there is an overflow opening, a weir for each receptacle, and means on which all the said weirs are mounted and are separately secured and by which all the said weirs are simultaneously adjustable to positions in relation to the overflow openings in the said receptacles.

1,304,495. CONVERTIBLE BOILER. HOWARD C. MUMM, Phoenixville, Pa.; CHARLOTTE I. MEYER, administratrix of said Howard C. Meyer, deceased, assignor to Helme Safety Boiler Company, Phoenixville, Pa., a Corporation of Missouri. Filed Apr. 25, 1917. Serial No. 194,614. 11 Claims. (Cl. 123-300.)

1. A convertible boiler comprising two drums, a set of tubes connecting said drums, a box header, a set of tubes connecting said box header with one of said drums, and a neck connecting and secured to the other of said drums and said header to prevent longitudinal movement of said neck with respect to either said latter drum or header, said neck serving as a spacing and supporting means for

either said latter drum and its connected tubes or the header and its connected tubes when the boiler is set in various positions in which the said latter drum is above said header or said header is above said latter drum, substantially as described.



2. A boiler including a cross drum made in sections and joined together, tubes extending adjacent to and in the direction of said seams, and means for supplying water to said tubes to keep the latter cool so as to provide a heat-protecting means for said seams portion of the drum, substantially as described.

1,304,494. HEADER CONSTRUCTION FOR BOILERS. HOWARD C. MUMM, Phoenixville, Pa.; CHARLOTTE I. MEYER, administratrix of said Howard C. Meyer, deceased, assignor to Helme Safety Boiler Company, Phoenixville, Pa., a Corporation of Missouri. Filed July 9, 1917. Serial No. 179,538. 4 Claims. (Cl. 123-300.)



1. A substantially rectangular box header for water tube steam boilers of the character described, including two sections cut from continuous lengths of sheet metal which has top and bottom flanges abruptly bent in opposite directions substantially at right angles to the main portions of said sections and secured together, said main portions of one of the sections having a plurality of tube holes extending therethrough; and independent heads secured to the ends of said main sections, substantially as described.

1,304,501. COMBINED RULER AND COMPASS. JEROME L. MANN and ALFRED E. FLAUSCHINSKY, Philadelphia, Pa. Filed Dec. 8, 1918. Serial No. 266,554. 3 Claims. (Cl. 30-32.)

1. An instrument of the class described comprising a bar having a graduated edge, a pencil receiving element

slidably thereon, a spring arm projecting longitudinally from one end of said bar, and a prong carried by said



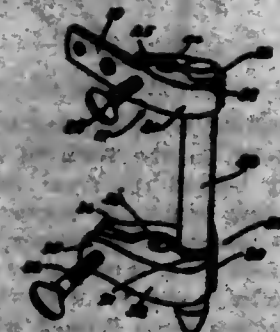
arm and normally held thereby in inoperative position out of alignment with the graduated edge of the bar.

1,304,502. LUGGAGE-CARRIER FOR AUTOMOBILES. MAX MEYER and PAUL W. QUANSMAN, Los Angeles, Calif. Filed May 20, 1918. Serial No. 266,618. 3 Claims. (Cl. 224-30.)



1. In combination with a vehicle body provided with a running board, of an extensible rack, and a plurality of rack supporting standards each pivotally secured at a single point to said rack intermediate its ends, the lower ends of said standards being provided with clamps adapted to secure said extensible rack to the running board of a vehicle.

1,304,503. CARBON-HOLDER FOR ELECTRIC-ARC LIGHTS. RALPH C. MILLER, Los Angeles, Calif. Filed Nov. 7, 1917. Serial No. 200,800. 1 Claim. (Cl. 170-119.)



In an electric arc light, carbon holder, an extension holder having a straight cylindrical shank adapted to fit one of the carbon holders, a fixed gripping jaw secured to the lower end of the shank, a movable gripping jaw pivoted to the fixed gripping jaw, said fixed jaw and said movable jaw having mating extensions and set screw curved-ends through one of the extensions and engaging the other extension for operating the movable jaw so that a short carbon may be held in place by the movable jaw and against the end of the cylindrical shank and so that there will be a space alongside the short carbon between the point of the fixed jaw and the point of the movable jaw.

1,304,504. FILTER. CHARLES H. MOWSON, Butler, Kans. Filed June 14, 1918. Serial No. 260,590. 1 Claim. (Cl. 210-18.)

A device of the character described comprising a pair of horizontally disposed tubular members threaded together, plugs threaded into and closing the outer ends of said members and provided with openings, a gasoline inlet pipe disposed in one of said openings, a gasoline

outlet pipe disposed in the other of said openings, a pair of screens disposed within one of said tubular members, spacing sleeves disposed between said screens and between one of said screens and the adjacent plug for holding said screens in spaced relation to each other and to the adjacent plug, the end of the other tubular member holding said screens and said sleeves in clamping relation, said screens defining within said tubular members,



a primary, secondary and tertiary sediment chamber, said primary sediment chamber being relatively large, a drain cock connected with one of said tubular members, and communicating with said primary sediment chamber, a tubular extension on one of said members communicating with said primary sediment chamber, and a closure cap secured upon said tubular extension.

1,904,505. HEAD-LAMP ADJUSTER. JOHN ARTHUR OSMANSON, Calgary, Alberta, Canada, assignor of thirty-three and one-third one-hundredths to Jeremiah Wilfred Hoffmann, Edmonton, Alberta, Canada. Filed March 5, 1918. Serial No. 230,525. 2 Claims. (Cl. 240-48.4.)



1. The combination with a head lamp, of an opaque screen substantially in the form of one-half of a disk arranged directly behind the front glass or lens of the lamp and extending below the center of the light bulb, an inverted dish shaped reflector carried by and extending rearwardly from said screen over the light bulb and having its rear edge in contact with the main reflector of the lamp, said screen being formed with a display opening above the main opening, said dish shaped reflector being formed with light transmission openings to provide for the illumination of that portion of the screen having the display opening.

1,904,506. LOCKING-VALVE. FRED L. FRANKSON, Sioux City, Iowa. Filed Mar. 29, 1917. Serial No. 158,472. 12 Claims. (Cl. 251-4.)



1. A locking valve comprising a casing member having an opening therein for the passage of fluid, a valve member movable within the casing to open and close the opening, and a lock carried by one of said members in-

cluding a plurality of pairs of plungers each movable in opposite directions alternately with respect to its mate, one plunger of each pair being normally engaged with the other of said members to prevent movement of the valve member, and the other plunger of each pair being key-controlled and operable to withdraw its mate from the engaged member.

1,904,507. OPTICAL INSTRUMENT. HARRY H. PAGE, Cambridge, Mass., assignor, by direct and mesne assignments, of one-half to Pure River Shipbuilding Corporation, Quincy, Mass., then-assignor to Arthur K. Post, Boston, Mass., and one-eighth to Howell A. Thompson, Jr., Shanghai, China. Filed Oct. 23, 1916. Serial No. 127,064. 15 Claims. (Cl. 88-32.)



2. An optical instrument having, in combination, a telescope objective, a telescope eye-piece, a housing therefor, said housing extending beyond said telescope objective in the form of a cone toward the nodal point of said telescope objective.

1,904,508. COOKING UTENSIL. SAMUEL H. PETER, Los Angeles, Calif. Filed June 2, 1916. Serial No. 101,236. 1 Claim. (Cl. 53-7.)



The combination with a receptacle having a handle projecting laterally therefrom, of a cover including a body having a downwardly bent marginal portion, a laterally projecting shoulder formed at the lower portion of the marginal portion, an annular flange depending from the under surface of the shoulder in proximity to the upper portion of the shoulder, a handle comprising a strip of material offset medially of its ends, one portion of the handle being secured to the body of the cover the other portion being adapted to lie over the handle of the receptacle, and a leg depending from the terminal of the free offset portion and connecting with the handle of the receptacle near the outer end thereof.

1,904,509. MEANS FOR REMOVING SAND-BARS AND OTHER WATER ACCUMULATIONS. JOSEPH P. FORTIN, Portland, Ore. Filed Mar. 15, 1917. Serial No. 155,085. Renewed Dec. 12, 1918. Serial No. 207,497. 2 Claims. (Cl. 37-34.)

1. Means for removing sand bars and other accumulations from water beds or bottoms, consisting of flexibility

jointed pipe sections provided with members extending horizontally outwardly uniformly along one side of the sections at intervals, said members partially projecting into the pipe sections and each having a trap chamber on its



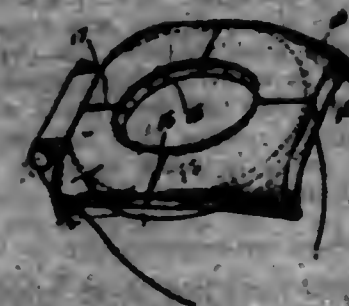
inner end to prevent sand passing through the member from entering the pipe section in which the member is located, means for retaining the pipe sections in applied position, and means for forcing water through the pipe sections and members.

1,904,510. DETACHABLE WHEEL. JOHN VANNOY PRATT, Coventry, England, assignor, by mesne assignments, to Wire Wheel Corporation of America, a Corporation of New York. Filed July 10, 1913. Serial No. 710,481. 4 Claims. (Cl. 21-31.)



1. In a vehicle, the combination of an axle, an inner hub part at each end thereof, said hub parts being externally threaded, the threads on the hub part at one end of the axle being of different diameter from those at the other, an outer hub part fitting over either inner hub part, and a nut rotatably mounted on said outer hub part to engage the threaded surface of either inner hub part and hold the outer hub part in position.

1,904,511. SANITARY TOILET-SEAT COVER. FARRIS R. QUACKENBUSH, Cochen, N. Y. Filed May 10, 1917. Serial No. 100,710. 1 Claim. (Cl. 4-18.)



A cover of the class described, comprising a continuous sheet of material scored in two places to provide openings, said sheet being folded to cause the scored portions to register, and certain of the meeting edges of the sheets

262 O. G.—30

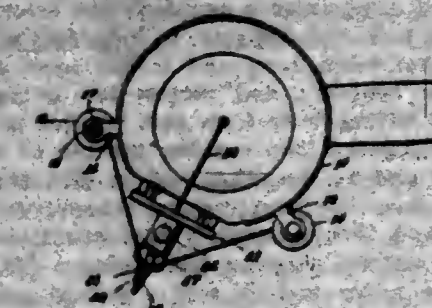
being secured together, and being folded transversely of the score lines, the folds dividing each score line into curved lines of equal length, said curved lines being superimposed when the sheet is folded.

1,904,512. CULTIVATOR. CHARLES T. RAY, Louisville, Ky., assignor to B. F. Avery & Sons, Louisville, Ky., a Corporation of Kentucky. Original application filed June 20, 1912, Serial No. 704,732. Divided and this application filed July 5, 1917. Serial No. 178,006. 25 Claims. (Cl. 97-7.)



6. In a tillage implement, a beam, a head carried by the beam and having a plurality of chambers extending therethrough and each larger at one end than the other, said chamber being arranged with the narrower end of one adjacent the wider end of the other and being separated from each other by an apertured dividing wall which extends diagonally across the head, the head also having openings registering with the aperture in said dividing wall, a standard adapted to be received by either chamber, said standard carrying a tillage element and having a plane surface, a block having a plane surface and a diagonal surface similarly adapted to either chamber, and a wedge key having a plane surface to engage the plane surface of the standard and a diagonal surface to engage the diagonal surface of the block, said key extending through the head, transversely of the latter, and being mounted in either aperture in the dividing wall.

1,904,513. PHONOGRAPH ATTACHMENT. ARTHUR G. REXHILL, Philadelphia, Pa. Filed Feb. 1, 1918. Serial No. 214,967. 5 Claims. (Cl. 274-36.)



1. In a device of the class described, the combination with a needle and mounting means therefor, of a fibrous thread, and a guiding device carried by the needle for guiding the thread across the operative end thereof.

1,904,514. SHAFT-KILN. HENRY SCHMIDTKE, New York, N. Y. Filed July 13, 1914. Serial No. 851,742. Renewed Oct. 11, 1918. Serial No. 207,798. 8 Claims. (Cl. 223-3.)

1. In a shaft-kiln the combination of a short cooling shaft or draw-pit, with vertical walls from the fire-arches to the draw openings, with partitions projecting from a

horizontal line near the center of the draw-opening of the shaft beyond the lining of the turning-shaft toward



the center of the shaft, leaving a wide opening in the center.

1,304,515. LIFTING-JACK. FRITZ SCHWABER, St. Gallen, Switzerland. Filed Dec. 31, 1913. Serial No. 209,111. 1 Claim. (Cl. 254-112.)



In a lifting jack, in combination, an oblong hollow standard having an elongated slot in the one narrow wall, and a bracket bearing extending from said standard at its upper end above said wall slot; a weight sustaining member operatively fitting the hollow of said standard, rows of ratchet teeth on the opposite narrow faces of said weight sustaining member; means for stepwise raising said weight sustaining member relative to said standard comprising a double-armed lever, whose inner end is pointed and designed to cooperate with the one of said ratchet teeth rows and whose outer free end is rectangularly bent-off; and means for swingingly suspending said lifting lever from said bracket bearing comprising an elongated loop member pivoted at one end on said bracket and at the other end in said double armed lifting lever near its inner pointed extremity; means for supporting and locking said weight sustaining member against inadvertent lowering comprising a flat spring secured at the lower end to said standard and with its upper rectangularly bent-off portion designed to cooperate with the other one of said ratchet teeth rows; the rectangularly bent extremity of said lifting lever adapted to be inserted between said standard and said spring for temporarily forcing the latter out of cooperation with said weight sustaining member; and means for permanently keeping said lock spring out of operative contact with said weight sustaining member comprising guide cheeks extending from said standard, a bolt threading into the standard and passing freely through said lock spring, a flange head to said bolt, and a helical compression spring surrounding said bolt and interposed between said lock spring and said bolt head for normally retaining the lock spring pressed against the standard, but with capability of allowing the lock spring under outwardly directed pressure to recede far enough on its retaining bolt to be swung sidewise clear of the guide cheeks.

1,304,516. STEERING-WHEEL LOCK. SHARON G. SHARON, Detroit, Mich., assignor to Edward J. Sharon, Detroit, Mich., a Corporation of Michigan. Filed Oct. 2, 1913. Serial No. 206,719. 3 Claims. (Cl. 70-150.)



1. In a device of the character described, the combination of a steering post fixed against longitudinal movement, a gear case carried by said post, a removable cover secured to said case, a steering wheel supported by a stub shaft adapted for longitudinal movement with reference to the steering post, planetary gearing housed in the case for operably connecting the stub shaft with the post, means for maintaining the steering wheel in an operative or inoperative relation to the post, a reciprocating bolt supported in the gear case, adapted to enter between the gears to prevent their operation, and a separate spring pressed latch member cooperatively connected with the bolt and actuated by the alternate reciprocating movement of the stub shaft for controlling the operation of the bolt.

1,304,517. OPTICAL APPLIANCE FOR TWO-COLOR HELIOGRAPHY. FRANK TWYMAN, London, England, and HAROLD WORKMAN, Glasgow, Scotland. Filed Nov. 21, 1913. Serial No. 122,500. 2 Claims. (Cl. 90-1.)



1. A combined lens and prism system of the class described comprising a direct lens and a side lens, a partially transmitting and partially reflecting compound prism block in front of the direct lens, a reflecting prism at the side of the compound prism block in front of the side lens, the effective or reflection-transmission surfaces of said compound prism block being decanted relatively to the axis of the direct lens in a direction away from the axis of the side lens, and said compound prism block having a plain glass extension on that side of it giving toward, that is to say, having apex toward the produced axis of the side lens into which extension the transmission reflection surface does not enter, said extension and said reflecting prism in front of the side lens being optically integral.

1,304,518. SELF-LOCKING MAT. STEPHEN G. VAN DUNNICK, Hackensack, N. J., assignor to Ho Ho Mat Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 15, 1913. Serial No. 120,907. 1 Claim. (Cl. 15-62.)

The combination in a mat, of a frame, tubular portions formed at one of the edges of each member of the frame, a pocket formed at the other edge of each of

said members, a cover for each pocket, a body portion for the mat bearing upon the said tubular portions and



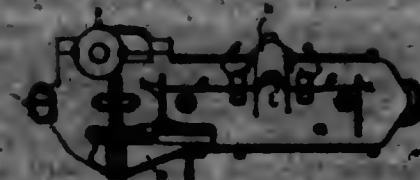
entering the accompanying pockets, the said cover forcing said body portion into said pocket and covering it therein.

1,304,519. VALVE. WILLIAM E. WALKER, Syracuse, N. Y. Filed Aug. 13, 1917. Serial No. 136,000. 1 Claim. (Cl. 284-126.)



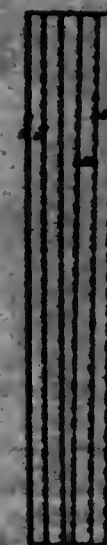
In combination with a valve case having a longitudinal passage therethrough and a valve seat intermediate the ends of the passage and at right angles to the axis thereof, a rock-shaft journaled in the case in approximately the plane of the valve seat and at one side thereof, a rock arm secured to the rock shaft within the case, a valve mounted on the rock arm and movable therewith to and from the valve seat, a U-shaped crank arm on the outer end of the rock shaft and a tension spring extending in the same general direction as the passage and having one end attached to said crank-arm at one side of the axis of the rock-shaft and its other end attached to a portion of the case at a point beyond the valve seat so as to exert its tension in the direction of opening movement of the valve, the intermediate portion of said spring being movable across and to opposite sides of the axis of the shaft as the latter is moved in reverse directions to yieldingly hold the valve in both its closed position and in its open position.

1,304,520. CASING FOR CYLINDRICAL DISTRIBUTING-VALVE. HENRY O. WILKINSON, Peterborough, England. Filed Oct. 11, 1913. Serial No. 124,904. 4 Claims. (Cl. 120-30.)



1. In a valve casing, the combination with a working cylinder for the reception of the valve having ports in its periphery in connection with the cylinder of the engine to which the casing is attached, of a side chamber divided by means of a fine space separating the material of each side in a longitudinal direction approximately over the region of the port area and partially in a transverse direction at the ends of this region, means for slightly contracting the side thus rendered flexible and fastening it in a rigid manner, and rigid cylindrical ends at each extremity of the casing beyond the transverse divisions, substantially as set forth.

1,304,521. SILO. HOWARD E. BAKER, Ash, Oreg. Filed Sept. 4, 1913. Serial No. 208,831. 1 Claim. (Cl. 29-1.4.)



In a silo, a hopper, a tapering body portion secured in watertight relation to the base and comprising a plurality of series of staves arranged on circular arcs, each series being formed of a multiplicity of similar and interchangeable staves having parallel sides, and single staves having tapering sides inserted between the series of staves having parallel sides so that the body portion is larger at the top than at the bottom, all the said staves being of substantially equal thickness, and hoops encircling the body portion and clamping all the staves together.

1,304,522. ELECTRIC REGULATOR. JOSEPH BLUM, New York, N. Y., assignor, by mesne assignments, to Bijur Motor Appliance Company, a Corporation of Delaware. Filed Aug. 12, 1914. Serial No. 264,875. 4 Claims. (Cl. 171-312.)

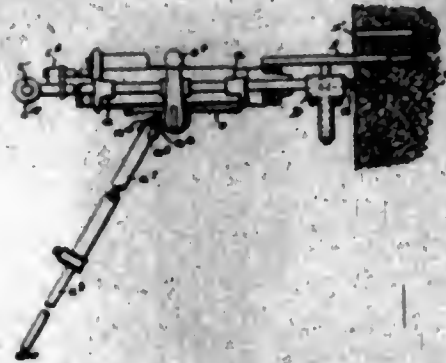


1. Apparatus of the character described, comprising in combination, an induced generator, electro-magnetic control apparatus therefor, a box including said apparatus, a plurality of cooperating plug and socket electrical connectors connecting said apparatus to said generator, and mechanically retaining said box against turning with respect to the casing of said generator, and means for positively retaining said box against removal from said generator.

1,304,523. ROCK-DRILL. ALBERT BALL and THOMAS O'FICKE, Claremont, N. H., assignors to Sullivan Machinery Company, Claremont, N. H., a Corporation of Massachusetts. Original application filed July 24, 1904. Serial No. 212,900. Divided and this application filed Aug. 12, 1914. Serial No. 45,998. 3 Claims. (Cl. 208-51.)

1. A mining machine comprising in combination, a drill bit, a cylinder, a said actuated piston reciprocable in said cylinder for imparting drilling power to said drill bit, a pivotal support eccentric with said drill bit and disposed in a generally horizontal direction parallel with

the axis of said cylinder, effect means operatively connecting said support with said cylinder whereby a pre-



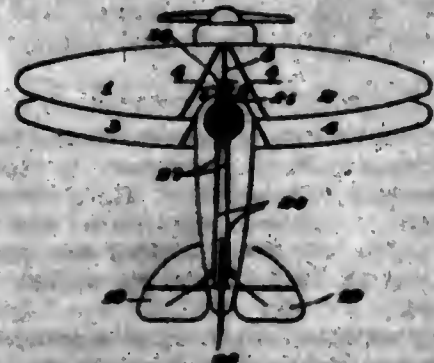
determined eccentricity may be maintained while permitting arcuate movement of said drill relative to said support.

1,304,524. CHANNELING-MACHINE. HENRY H. MANCER, Claremont, N. H., assignor to Sullivan Machinery Company, a Corporation of Massachusetts. Continuation in part of application Serial No. 744,847, filed Jan. 27, 1913. This application filed July 6, 1913. Serial No. 243,631. 10 Claims. (Cl. 302-16.)



1. A reversible track channeling machine having a main track support, a platform rotatably mounted thereon having a centrally depressed portion, tool feeding and track propelling devices mounted on said platform in said depressed portion, channeling means carried by said platform including a supporting standard, a channeling tool, and tool actuating means, said platform being completely reversible on said track support whereby the tool may be caused to overhang and cut a groove at either side of the trackway.

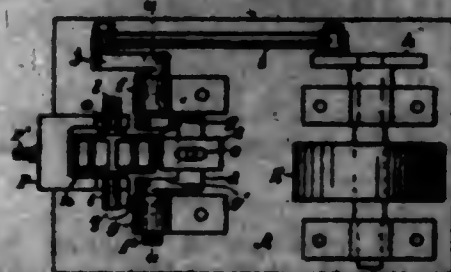
1,304,525. AIRPLANE. THOMAS P. LEAMAN, Ithaca, N. Y. Filed July 1, 1913. Serial No. 242,725. 4 Claims. (Cl. 244-20.)



1. An airplane having supporting wings engaged by co-acting longitudinal and angular chordwise blades,

whereby said wings are movable to variable angles of incidence substantially without change in lateral equality.

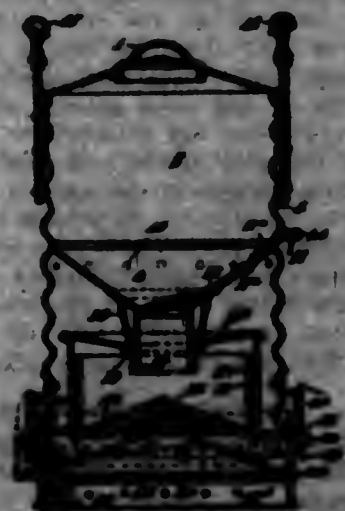
1,304,530. OSCILLATING-BUR MACHINE. CHARLES S. LOCKWOOD, Newark, N. J., assignor to Hyatt Roller Bearing Division, United Motors Corporation, Harrison, N. J., a Corporation of New York. Filed Dec. 2, 1913. Serial No. 205,954. 8 Claims. (Cl. 30-76.)



1. The means for dressing out a socket closed by cheeks at its opposite ends, which consists of a cylindrical bur adapted to enter the socket between the said cheeks, means for oscillating the bur, and means for moving the bur and socket relatively toward one another.

REISSUES.

14,648. CHARCOAL-BURNER. WILLIAM M. BARTER, Chicago, Ill., assignor, by direct and mesne assignments, to William H. Kluener, Dubuque, Iowa. Filed Mar. 14, 1913. Serial No. 228,831. Original No. 1,135,000, dated June 27, 1910. Serial No. 787,310, filed Mar. 31, 1913. 9 Claims. (Cl. 126-75.)



1. In a heater, in combination, a combustion chamber having a grated bottom, double side walls spaced from each other, and a top closure wall overlying the upper edge of the double side walls and extending forwardly toward the vertical center of the combustion chamber, a support for the combustion chamber, a fuel magazine provided with an outlet for communication with the combustion chamber, a casing connecting the fuel magazine with the support for the combustion chamber spaced from the latter and provided with inlets to permit air to enter at points below the combustion chamber and for circulation through the space between said combustion chamber and the casing and provided with outlets to permit the escape of gases from the inclosure.

14,649. BOX-SEAL. HOWARD J. BACON, East Orange, N. J. Filed Mar. 10, 1913. Serial No. 203,651. Original No. 325,451, dated June 22, 1909. Serial No. 494,000, filed Mar. 26, 1909. 4 Claims. (Cl. 70-101.)

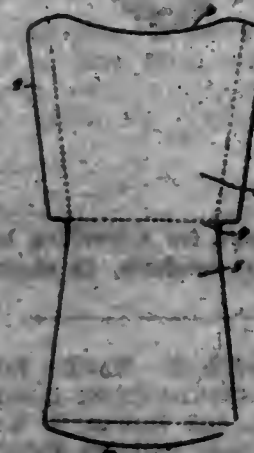
1. A pallium metallic box-seal comprising: a box strap of sheet metal the ends of which are under tension in over-

lapped and superposed relation, a sealing member having the form of a flat sleeve of substantially the width of the strap to admit endwise its overlapped and superposed ends and to embrace laterally both edges of both strap ends.



said member formed with parallel rectangular bands and constructed with a top portion the metal of which is, by a purchasing operation, permanently interlocked with the ends of the strap.

14,650. DRINKING-CUP. HENRY B. COOLAY, Kensington, Conn., assignor to The American Paper Goods Company, Montclair, N. J., a Corporation of New Jersey. Filed Oct. 16, 1913. Serial No. 229,054. Original No. 1,149,160, dated July 27, 1913. Serial No. 539,490, filed Apr. 4, 1914. 6 Claims. (Cl. 220-53.)



1. A drinking cup consisting of a front and back flap, a stiffening piece overturned on the outside of one of said flaps at the upper edge thereof and extending thereacross, and means overlapping each end of said stiffening piece to secure it in place.

14,651. PASTRY-MAKING APPARATUS. HOWARD H. LAMIER, Cincinnati, Ohio. Filed Sept. 20, 1913. Serial No. 203,325. Original No. 1,307,697, dated Feb. 26, 1915. Serial No. 490,000, filed Dec. 10, 1908. 70 Claims. (Cl. 107-55.)



1. In a pastry molding apparatus the combination of a plurality of carriers each provided with a plurality of cores, means for applying batter in a liquid condition to said cores, a plurality of carriers having sockets therein, and means for directing the carriers in courses to bring the cores into and then out of the sockets.

14,652. FLOOR OR WALL SCREEN. THOMAS Z. MANNING, Omaha, Neb., assignor, by direct and mesne assignments, to United States Spot Ground Corporation, Omaha, Neb., a Corporation. Filed Dec. 29, 1913. Serial No. 229,712. Original No. 1,171,452, dated Feb. 15, 1916. Serial No. 24,570, filed Apr. 26, 1915. 20 Claims. (Cl. 72-105.)



2. As an article of manufacture, a plate of material having inclined abutments standing out from one side, and a penetrable block having inclined sides complementary to and retained by and extending beyond the inclined abutments.

DESIGNS.

53,323. AUTOTRAILER. CHARLES A. BEHLEN, Cincinnati, Ohio. Filed Mar. 19, 1913. Serial No. 223,246. Term of patent 14 years.



The ornamental design for an autotrailer, as shown.

53,324. RADIATOR-VALVE CASING AND HANDLE. JOSEPH F. BRIGHTMAN, Syracuse, New York, assignor to the Syracuse Faucet and Valve Company, Syracuse, New York, a Corporation of New York. Filed Feb. 7, 1913. Serial No. 76,904. Term of patent 3 1/2 years.



The ornamental design for a radiator valve casing and handle, substantially as shown and described.

53,300. SIFTER-TOP CAN OR SIMILAR RECEPTACLE. MARTHA HALOVELL Connor, Baltimore, Md., assignor to The Decorating Company of Baltimore, Baltimore, Md., a Corporation of New York. Filed Feb. 27, 1919. Serial No. 279,065. Term of patent 7 years.



The ornamental design for a sifter top can or similar receptacle, as shown.

53,301. RUBBER TIRE. JOHN G. GATZ, Denver, Colo., assignor to The Gates Rubber Company, Denver, Colo., a Corporation of Colorado. Filed Dec. 20, 1918. Serial No. 266,777. Term of patent 14 years.



The ornamental design for a rubber tire as shown.

53,302. REDUCING-BUSHING BASE FOR FITTINGS FOR ELECTRICAL-CONDUCTOR CONDUITS. CHAS. R. HUMANN, Baden, and MORRIS G. KREWMAN, Edgeworth, Pa., assignors to National Metal Molding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 4, 1918. Serial No. 232,642. Term of patent 14 years.



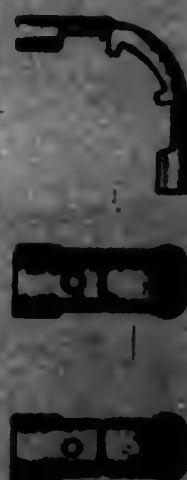
The ornamental design for a reducing bushing base for fittings for electrical conductor conduits, as shown.

53,303. BUSHING-BASE FOR FITTINGS FOR ELECTRICAL-CONDUCTOR CONDUITS. CHAS. R. HUMANN, Baden, and MORRIS G. KREWMAN, Edgeworth, Pa., assignors to National Metal Molding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 4, 1918. Serial No. 232,644. Term of patent 14 years.



The ornamental design for a bushing base for fittings for electrical conductor conduits, as shown.

53,304. INTERNAL-ELBOW BASE FOR FITTINGS FOR ELECTRICAL-CONDUCTOR CONDUITS. CHAS. R. HUMANN, Baden, and MORRIS G. KREWMAN, Edgeworth, Pa., assignors to National Metal Molding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 4, 1918. Serial No. 232,645. Term of patent 14 years.



The ornamental design for an internal elbow base for fittings for electrical conductor conduits, as shown.

53,305. INTERNAL-ELBOW CAP FOR FITTINGS FOR ELECTRICAL-CONDUCTOR CONDUITS. CHAS. R. HUMANN, Baden, and MORRIS G. KREWMAN, Edgeworth, Pa., assignors to National Metal Molding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 4, 1918. Serial No. 232,646. Term of patent 14 years.



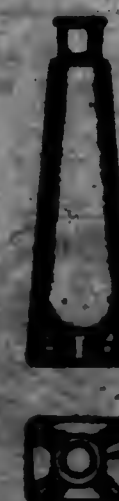
The ornamental design for an internal elbow cap for fittings for electrical conductor conduits, as shown.

53,306. PUMP-CASING. EVERETT P. LANE, Dayton, Ohio, assignor to The Burnett-Lane Manufacturing Company, Dayton, Ohio, a Corporation of Ohio. Filed Feb. 12, 1918. Serial No. 78,055. Term of patent 14 years.



The ornamental design for a pump casing, as shown.

53,307. BOTTLE. WALTON R. LEACH, Baltimore, Md. Filed Feb. 24, 1919. Serial No. 278,900. Term of patent 7 years.



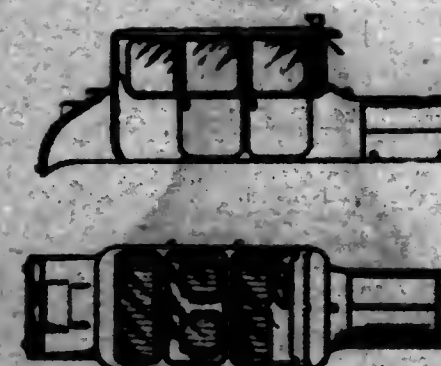
The ornamental design for a bottle, as shown.

53,308. AUTOMOBILE-BODY. WILLIAM J. P. MOORE, New York, N. Y. Filed Jan. 6, 1917. Serial No. 161,641. Term of patent 7 years.



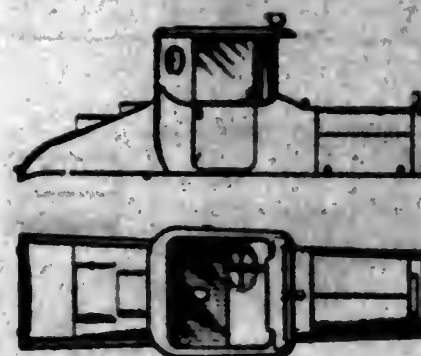
The ornamental design for an automobile body, as shown.

53,309. AUTOMOBILE-BODY. WILLIAM J. P. MOORE, New York, N. Y. Filed Mar. 7, 1917. Serial No. 158,303. Term of patent 7 years.



The ornamental design for an automobile body, as shown.

53,340. AUTOMOBILE-BODY. WILLIAM J. P. MOORE, New York, N. Y. Filed Mar. 7, 1917. Serial No. 153,204. Term of patent 7 years.



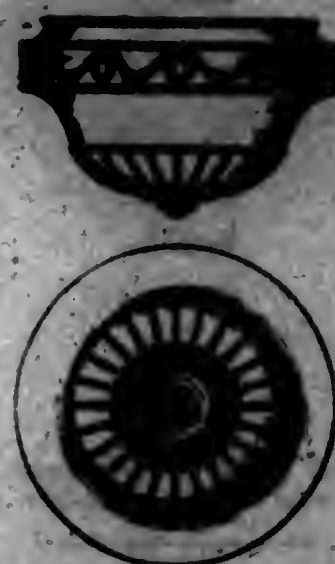
The ornamental design for an automobile body, as shown.

53,341. SHADE FOR LIGHTING-FIXTURES. ROBERT NEUMER, Hollywood, Ill., assignor to Beardslee Chandler Manufacturing Company, Chicago, Ill., a Corporation of Delaware. Filed Feb. 24, 1919. Serial No. 278,902. Term of patent 7 years.



The ornamental design for a shade for lighting fixtures as shown.

53,342. BOWL FOR LIGHTING-FIXTURES. ROBERT NEUMER, Hollywood, Ill., assignor to Beardslee Chandler Manufacturing Company, Chicago, Ill., a Corporation of Delaware. Filed Feb. 24, 1919. Serial No. 278,903. Term of patent 7 years.



The ornamental design for a bowl for lighting fixtures as shown.

53,343. TOY. HENRY G. BUNN, Rochester, N. Y., assignor of one-half to Charles L. Townsend, Rochester, N. Y. Filed Mar. 18, 1919. Serial No. 290,490. Term of patent 14 years.



The ornamental design for a toy, as shown.

53,344. BUTTON. WILLIAM F. BONDY, New York, N. Y. Filed Jan. 16, 1919. Serial No. 271,527. Term of patent 3 1/2 years.



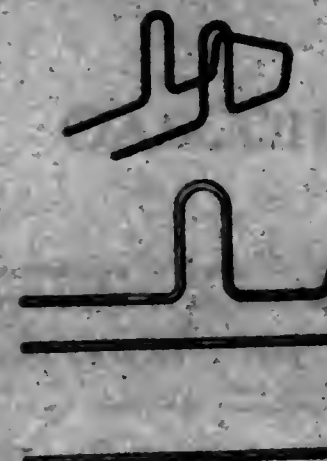
The ornamental design for a button, as shown.

53,345. BUTTON. WILLIAM F. BONDY, New York, N. Y. Filed Jan. 16, 1919. Serial No. 271,528. Term of patent 3 1/2 years.



The ornamental design for a button, as shown.

53,346. LOOSE-LEAF PAD-CALENDAR HOLDER. FRANK A. WILKES, Plainfield, N. J. Filed Feb. 21, 1919. Serial No. 278,549. Term of patent 14 years.



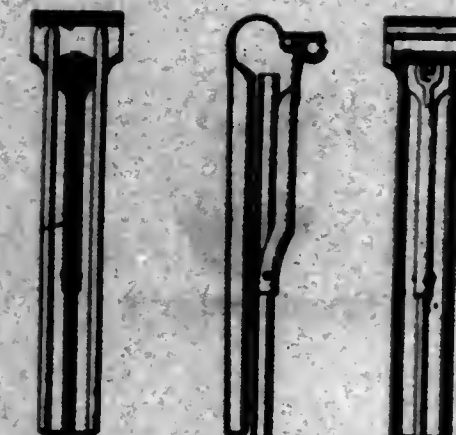
The ornamental design for a loose-leaf pad-calendar holder, as shown.

53,347. BOWL-HOOK FOR LIGHTING-FIXTURES. LESTER E. WELLMAN, Chicago, Ill., assignor to United Metal Manufacturing Co., Norwich, Conn., a Corporation. Filed Feb. 21, 1919. Serial No. 278,520. Term of patent 7 years.



The ornamental design for a bowl hook for lighting fixtures, as shown.

53,348. WIND-SHIELD CLEANER. JOHN F. WHITE, Chicago, Ill., assignor, by mesne assignments, to White Products Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 5, 1918. Serial No. 215,543. Term of patent 14 years.



The ornamental design for a wind shield cleaner, as shown.

TRADE-MARKS

OFFICIAL GAZETTE, MAY 20, 1919.

[PUBLISHED MAY 22, 1919.]

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 99,897. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) FRED C. BROWN, Cleveland, Ohio. Filed Nov. 25, 1914.

GASCOIL

Particular description of goods.—Electrical Heating Element for Attachment to an Internal-Combustion Engine.

Claims are made about Apr. 1, 1916.

Ser. No. 100,945. (CLASS 26. CLOTHING.) CAMDEN, FRANK, SCOTT & CO., Chicago, Ill. Filed Jan. 22, 1917.

Childhood

Particular description of goods.—Children's and Infants' Apparel—Hats, Dresses, Suits, Petticoats, Blouses, Undershirts and Drawers, Union-Suits, Gowns, Sleeping-Garments, Nightgowns, Bedcovers, Caps, Hosiery, Wrappers, Bath-Robes, Shawls, Rubber Pants, and Knit Hosiery.

Claims are made about Aug. 24, 1916.

Ser. No. 101,307. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ARTHUR HALL BAKER, New York, N. Y. Filed Feb. 9, 1917.

LUMINATOR

Particular description of goods.—Dry Batteries.

Claims are made the 1st day of October, 1916.

Ser. No. 101,874. (CLASS 2. RECEPTACLES.) STEPHEN MERRITT, New York, N. Y. Filed Feb. 21, 1917. Under ten-year proviso.



Stephen Merritt

The picture is a portrait of Stephen Merritt, now deceased.

Particular description of goods.—Coffins, Caskets, Rough Boxes for Burial Purposes.

Claims are made on or about the 1st day of January, 1876.

Ser. No. 101,875. (CLASS 2. RECEPTACLES.) STEPHEN MERRITT, New York, N. Y. Filed Feb. 21, 1917. Under ten-year proviso.



Rev. Stephen Merritt

The picture is a portrait of Rev. Stephen Merritt, now deceased.

Particular description of goods.—Coffins, Caskets, Rough Boxes for Burial Purposes.

Claims are made on or about the 1st day of January, 1876.

Ser. No. 101,576. (CLASS 2. RECEPTACLES.) STEPHEN MERRITT, New York, N. Y. Filed Feb. 21, 1917. Under ten-year proviso.



The picture is a portrait of Rev. Stephen Merritt, now deceased.

Particular description of goods.—Coffins, Caskets, Rough Boxes for Burial Purposes.
Claims use since on or about the 1st day of January, 1876.

Ser. No. 101,577. (CLASS 2. RECEPTACLES.) STEPHEN MERRITT, New York, N. Y. Filed Feb. 21, 1917. Under ten-year proviso.

REV. STEPHEN MERRITT

Particular description of goods.—Coffins, Caskets, Rough Boxes for Burial Purposes.
Claims use since on or about the 1st day of January, 1876.

Ser. No. 102,141. (CLASS 15. OILS AND GREASES.) THEO. H. GARY CO., New York, N. Y. Filed Mar. 14, 1917.

"FULL-SPEED"

Particular description of goods.—Lubricating-Oil and Lubricating-Greases.
Claims use since Feb. 21, 1917.

Ser. No. 104,825. (CLASS 20. CLOTHING.) NEWSTADTER BROS., San Francisco, Calif., and Portland, Oreg. Filed June 7, 1917.



No claim is made to the words "All-in-Won" apart from the dog and the plate.

Particular description of goods.—Combined Pants and Coats.
Claims use since Oct. 21, 1916.

Ser. No. 104,880. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) AUGUSTE FRANÇOIS PAUL DE POER, New York, N. Y., assignor to The De Poer Food Products Company, Incorporated, a Corporation of Maryland. Filed July 5, 1917.



The crest constituting the trade-mark reads more or less as follows: Between three lions passant guardant, one in chief, one in base. The upper and lower horizontal sections are red, the intermediate horizontal section is gold, and the lions are white. Beneath the crest is a scroll having thereon the words "Prudentia et Labor." The lining shown on the drawing does not represent color, but is for shading only.

Particular description of goods.—Concentrated Vegetable Soup and Paste Tablets, also Bouillon and Consommé Tablets.
Claims use since June 23, 1917.

Ser. No. 107,301. (CLASS 10. PAINTS AND PAINTER'S MATERIALS.) CARPENTER-MORTON CO., Boston, Mass. Filed Nov. 12, 1917.

CARMOTE

Particular description of goods.—Ready-Mixed Paints; Enamel Paint; Painters' Stains; Varnishes; Finishes and Lacquers in the Nature of Varnish for Floors, Linoleum, and Interior Surfaces; and Polishes in the Nature of Furniture-Polish for Automobiles, Floors, Furniture, and Interior Finish in General.
Claims use since Oct. 1, 1899.

Ser. No. 107,329. (CLASS 48. BEVERAGES, NON-ALCOHOLIC.) THE HAN-SON LABORATORY CO., Cleveland, Ohio, assignor to The Cleveland and Sandusky Brewing Company, a Corporation of Ohio. Filed Dec. 8, 1917.

BO-LO

Particular description of goods.—A Syrup Composed of Gentian, Cola, Wintergreen, Sarsaparilla, and Sugar-Syrup, Flavored by the Addition of a Slight Amount of Celery, Yellow Dock, and Tealea, Containing Eleven-One-Hundred-and-Twentieths of One Per Cent. of Alcohol, and Used in Making a Beverage Composed of the Above Syrup and Either Distilled or Charged Water and Sold as a Soft Drink.
Claims use since May 1, 1899.

Ser. No. 106,024. (CLASS 25. BELTING, ROPE, MACHINERY PACKING, AND NON-METALLIC TIRES.) PHILIP S. DONS, Babylon, N. Y. Filed Feb. 16, 1918.

MANGATITE

Comprising the word "Mangattite."
Particular description of goods.—Composition Packing.
Claims use since the 20th day of January, 1918.

[Vol. 302. No. 2.]

Ser. No. 100,204. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ARTHUR C. TYMOS, Salt Lake City, Utah. Filed Feb. 21, 1918.



Particular description of goods.—Caterpillar-Type Tractors.
Claims use since the 10th day of January, 1918.

Ser. No. 100,223. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AVI CHEMICAL COMPANY, INC., Jersey City, N. J. Filed Feb. 27, 1918.



The representations of the human figures being fanciful, no claim being made to the exclusive use of the words "Stero-Talc" apart from the mark as shown in the drawing.

Particular description of goods.—A Baby-Talc and Toilet Powder.
Claims use since June 16, 1918.

Ser. No. 100,330. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) VERNAL PRODUCTS MANUFACTURING COMPANY, Detroit, Mich. Filed Feb. 26, 1918.

SPERATOR

Particular description of goods.—Speed-Controlling Mechanisms for Internal-Combustion Engines.
Claims use since about July, 1917.

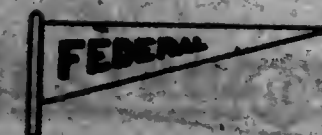
Ser. No. 100,550. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JEAN L. FRIEDMAN, New York, N. Y. Filed Mar. 14, 1918.



Particular description of goods.—Toy Dolls.
Claims use since Nov. 2, 1917.

[Vol. 302. No. 2.]

Ser. No. 100,591. (CLASS 20. CLOTHING.) THE FEDERAL RUBBER COMPANY, Cadaby, Wis. Filed Mar. 16, 1918.



Particular description of goods.—Composition Soles and Heels.
Claims use since Feb. 24, 1918.

Ser. No. 100,592. (CLASS 20. CLOTHING.) THE FEDERAL RUBBER COMPANY, Cadaby, Wis. Filed Mar. 16, 1918.

RUGGED

Particular description of goods.—Composition Soles and Heels.
Claims use since Nov. 4, 1914.

Ser. No. 100,758. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) REIN DRIVE TRACTORS, LIMITED, Toronto, Ontario, Canada. Filed Mar. 22, 1918.



No claim is made to the exclusive use of the words "Rein Drive Tractors" apart from the mark shown in the drawing.

Particular description of goods.—Tractors.
Claims use since April, 1917.

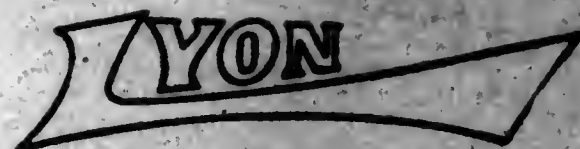
Ser. No. 110,002. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CARR FASTER COMPANY, Cambridge, Mass. Filed Apr. 10, 1918.

DOT

The word "Dot" shown on the accompanying drawing.
Particular description of goods.—Snap-Fasteners.
Claims use since Aug. 18, 1918.

[Vol. 302. No. 2.]

Ser. No. 110,104. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LION MANUFACTURING COMPANY, Montgomery, Ill. Filed Apr. 10, 1918.



Particular description of goods.—Gear-Castings Used on Machinery and Work-Benches.
Claims use since about the 1st day of December, 1918.

Ser. No. 110,292. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LILLIAN CARTER, St. Louis, Mo. Filed Apr. 18, 1918.



No claim being made to the word "Lustrine" apart from the mark shown in the drawing.
Particular description of goods.—A Liquid Nail-Polish.
Claims use since Jan. 5, 1918.

Ser. No. 111,101. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CARRIE CHOCKETT, Topeka, Kans. Filed May 22, 1918.

CARRIE

Particular description of goods.—Hair-Tonic, Shampooing-Balm, and So-Called Pressing-Oil—i. e., Oil for Use in Straightening Kinky and Curly Hair.
Claims use since Feb. 15, 1918.

Ser. No. 111,204. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) FOREST PRODUCTS CHEMICAL COMPANY, Memphis, Tenn. Filed May 31, 1918.

RED-SEAL

"Red-Seal."
Particular description of goods.—Charcoal.
Claims use since May 1, 1918.

Ser. No. 111,077. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) RANS MANUFACTURING AND MANUFACTURING CO., Belleville, Ill. Filed June 18, 1918.



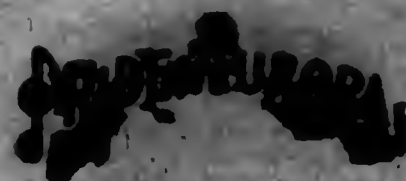
No claim is made to the word "Little" or the word "Simplicity" apart from the combination shown.
Particular description of goods.—Flour-Milling Machinery—Namely, Flour-Mills of the Concentrated or Self-Contained Type and Otherwise Known as a Short-System Mill.
Claims use since Feb. 12, 1918.

Ser. No. 111,704. (CLASS 35. BELTING, ROSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) HUFF AND CUTLER, Boston, Mass. Filed June 24, 1918.



No claim is made to the words "Tire Patch Supreme" nor to the representation of the automobile-tire apart from the mark shown in the drawing.
Particular description of goods.—Tire-Repair Outfits and Tire-Patches.
Claims use since May 18, 1918.

Ser. No. 111,833. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) F. R. BOWEN & COMPANY, INC., Aurora, Ill. Filed June 26, 1918.



Particular description of goods.—Balled Oats, Dried Codfish, Rice, Currants, Powdered Sugar, Celery-Salt, Coffee, Tea, Canned Salmon, Raisins, Macaroni, Spaghetti, Spices—Namely, Cloves and Mustard.
Claims use since Mar. 24, 1918.

[Vol. 208. No. 2.]

Ser. No. 112,301. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) H. L. HARRIS MILLING CO., Cuba, Ill. Filed July 24, 1918.



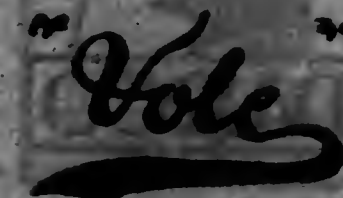
"Red H" being printed in red.
Particular description of goods.—Horse and Mule Feed.
Claims use since the month of March, 1914.

Ser. No. 112,778. (CLASS 12. HARDWARE AND PLUMBING AND STRAIN-FITTING SUPPLIES.) JULIAN ARMSTRONG, Evanston, Ill. Filed Aug. 19, 1918.



Particular description of goods.—Wire Fencing.
Claims use since Aug. 1, 1918.

Ser. No. 112,908. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VOLK COLLIER, Nashville, Tenn. Filed Aug. 31, 1918.



Particular description of goods.—Shampoo-Jelly, Hair-Grower; Tangle-Grower, the Name Being a Hair-Grower of Greater Strength for Use Especially on the Temple or Forehead Where Hair is Especially Thin or Lacking; Hair and Scalp Tonic, and Pressing-Oil for Preparing Curly or Wavy Hair for a Straightening Process, Liquid Shampoo, and Dandruff-Outward.
Claims use since the year 1914.

Ser. No. 112,978. (CLASS 22. MEASURING AND SCIENTIFIC APPLIANCES.) EDUCATIONAL MOTION PICTURE MACHINE AND FILM COMPANY, St. Louis, Mo. Filed Sept. 3, 1918.

EDUCATOR

Particular description of goods.—Motion-Picture-Projecting Machines and Parts Thereof.
Claims use since about Oct. 1, 1918.

[Vol. 208. No. 2.]

Ser. No. 112,978. (CLASS 22. MEASURING AND SCIENTIFIC APPLIANCES.) EDUCATIONAL MOTION PICTURE MACHINE AND FILM COMPANY, St. Louis, Mo. Filed Sept. 3, 1918.

INSTRUCTOR

Particular description of goods.—Motion-Picture-Projecting Machines and Parts Thereof.
Claims use since about May 1, 1918.

Ser. No. 112,984. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NITRATE AGENCIES COMPANY, New York, N. Y. Filed Oct. 10, 1918.



The word "Brand" is disclaimed apart from the mark shown in the drawing.
Particular description of goods.—Drugs Consisting of Egg-Preservatives and Insecticides.
Claims use since July 1, 1918.

Ser. No. 112,722. (CLASS 35. BELTING, ROSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) REMILER RUBBER CO., Ashland, Ohio. Filed Oct. 14, 1918.

REMILER

Particular description of goods.—The Following-Named Articles Made of Rubber and Fabric—Namely, Tires, Casings, and Belting.
Claims use since July 14, 1918.

Ser. No. 114,040. (CLASS 35. BELTING, ROSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GATES RUBBER COMPANY, Denver, Colo. Filed Nov. 4, 1918.

VULCO-CORD

No claim being made to the word "Cord" apart from the mark shown in the drawing.
Particular description of goods.—Belts, the Belts Composed of Layers of Rubberized Woven Fabric, Especially Adapted for Use as Automobile-Fan Belts and for Driving the Electrical Generators Employed in Connection with Automobiles.
Claims use since about October, 1918.

[Vol. 208. No. 2.]

Ser. No. 114,151. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CONTINENTAL AUTO PARTS COMPANY, Knightstown, Ind.; San Francisco, Calif., and New York, N. Y. Filed Nov. 13, 1918.



Particular description of goods.—Valve Grinders, Garage-Jacks, Grease-Guns, Arbor-Presses, and Small Power and Hand Presses Used for Forcing Gears Off of Shafts and for Similar Work, Motor-Stands, Assembly and Welding Tables, Stands for Handling Storage Batteries, and Axle-Stands.
Claims use since 1908.

Ser. No. 114,229. (CLASS 43. THREAD AND YARN.) NAAMLOOSE VERMOEDEN: J. A. CARP'S GARN-FABRIEKEN, Helmond, Netherlands. Filed Nov. 13, 1918.

JAC

Particular description of goods.—Thread and Yarn.
Claims use since the 1st of November, 1917.

Ser. No. 114,296. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SOUTHERN COTTON OIL COMPANY, Jersey City and Bayonne, N. J.; New York, N. Y.; Gretna, La.; Savannah, Ga., and Chicago, Ill. Filed Nov. 22, 1918.

22

The trade-mark consists of the figure "22," as shown in the accompanying drawing.
Particular description of goods.—An Edible Oil Composed of Fatty Oleaginous or Uctuous Food Substances.
Claims use since about Sept. 2, 1903.

Ser. No. 114,297. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SOUTHERN COTTON OIL COMPANY, Jersey City and Bayonne, N. J.; New York, N. Y.; Gretna, La.; Savannah, Ga., and Chicago, Ill. Filed Nov. 22, 1918.

44

The trade-mark consists of the figure "44," as shown in the accompanying drawing.
Particular description of goods.—An Edible Oil Composed of Fatty Oleaginous or Uctuous Food Substances.
Claims use since about September, 1901.

Ser. No. 114,298. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SOUTHERN COTTON OIL COMPANY, Jersey City and Bayonne, N. J.; New York, N. Y.; Gretna, La.; Savannah, Ga., and Chicago, Ill. Filed Nov. 22, 1918.

77

The trade-mark consists of the figure "77," as shown in the accompanying drawing.
Particular description of goods.—An Edible Oil Composed of Fatty Oleaginous or Uctuous Food Substances.
Claims use since about September, 1901.

Ser. No. 114,299. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SOUTHERN COTTON OIL COMPANY, Jersey City and Bayonne, N. J.; New York, N. Y.; Gretna, La.; Savannah, Ga., and Chicago, Ill. Filed Nov. 22, 1918.

88

The trade-mark consists of the figure "88," as shown in the accompanying drawing.
Particular description of goods.—An Edible Oil Composed of Fatty Oleaginous or Uctuous Food Substances.
Claims use since about September, 1901.

Ser. No. 114,319. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RESINING PRODUCTS CORPORATION, New York, N. Y. Filed Nov. 22, 1918.



Particular description of goods.—Decolorizing-Carbon for Use in Decolorizing and Clarifying Materials.
Claims use since on or about Nov. 15, 1918.

Ser. No. 114,331. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ANTOINE HERMANN-MARIA, New Rochelle, N. Y. Filed Dec. 10, 1918.

COLORGRAPH

Particular description of goods.—Photographic-Film Products.—Namely, Motion-Picture Films, Photographic Transparencies, Raw or Unexposed Films, Negatives, Positives, Single-Coated Films, Double-Coated Films, Films Coated on Both Sides, Exposed and Developed Films Suitable for Projection, Cartoon-Films, Colored Films, Stencil-Films, Hand-Colored Films, Stereoscopic Films, Title-Films, Silhouette-Films, Scientific and Educational Films, Dramatic Films, Photoplay-Films, Comic and Panoramic Films.
Claims use since May 1, 1912.

[Vol. 292. No. 2.]

Ser. No. 114,337. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CARMES C. BOOTH, Youngstown, Ohio. Filed Dec. 14, 1918.

Parasoul

Consisting of the word "Parasoul."
Particular description of goods.—An Antiseptic and Germicide.
Claims use since the 1st day of October, 1918.

Ser. No. 114,343. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROBERT ANDERSON CORPORATION, New York, N. Y. Filed Dec. 14, 1918.



Applicant hereby disclaims the descriptive word "Dye" as part of the trade-mark.
Particular description of goods.—A Combination of Different Chemicals Used in the Dyeing of Dyes from Cotton, Wool, and Silk Fabrics in Dyeing Operations.
Claims use since the year 1917.

Ser. No. 114,392. (CLASS 26. CLOTHING.) ROSSMAN FRY COMPANY, New York, N. Y. Filed Dec. 17, 1918.

THE PEDESTRIAN

Consisting of the words "The Pedestrian."
Particular description of goods.—Leather Shoes for Men.
Claims use since June 5, 1915.

Ser. No. 114,377. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) NAUTICAL INSTRUMENTS MFG. CO. INC., New York, N. Y. Filed Jan. 2, 1919.



Particular description of goods.—Marine Compasses, Sextants, Protractors, Parallel-Rulers, and Tachist-Log.
Claims use since Nov. 25, 1918.

292 O. G.—31

[Vol. 292. No. 2.]

Ser. No. 114,399. (CLASS 26. CLOTHING.) CHICAGO MERCHANTS COMPANY, Chicago, Ill. Filed Jan. 15, 1919.



The words "Children's and Misses' Laura Coyne Hats" are hereby disclaimed apart from the mark shown on the drawing.
Particular description of goods.—Women's Hats.
Claims use since Nov. 13, 1918.

Ser. No. 115,272. (CLASS 15. VEHICLES, NOT INCLUDING ENGINES.) WIRE WHEEL CORPORATION OF AMERICA, Buffalo, N. Y. Filed Jan. 17, 1919.

HOUSE

Particular description of goods.—Vehicle Road-Wheels and Parts Thereof.
Claims use since Dec. 8, 1915.

Ser. No. 115,281. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS DELJEAT, Newark, N. J. Filed Jan. 18, 1919.

Thomas Deljeat

The trade-mark consisting of the applicant's name in his own handwriting.
Particular description of goods.—Insecticide.
Claims use since July 1, 1918.

Ser. No. 115,230. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) UTILITY MACHINE APPLIANCE CO., INC., New York, N. Y. Filed Jan. 20, 1919.



Particular description of goods.—Vices of All Kinds, Dividing-Heads for Indexing for General Uses, and Milling Appliances for Metal-Working Machines and Parts Thereof, Consisting of Dividing-Heads for Indexing, Bore Transfer, Outboard Center Bars and Centers, Indexing-Disks, Arbors for Holding Work, Cutter-Arbores, Angle-Plates, Clamps and Bolts, Chucks, Vices and Attachment-Adapters Therefor.
Claims use since December, 1917.

[Vol. 292. No. 2.]

Ser. No. 115,305. (CLASS 25. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) TIMES SQUARE AUTO SUPPLY CO. INC., New York, N. Y. Filed Jan. 23, 1919.

TIMESCO

Particular description of goods.—Automobile Rubber Tires and Rubber Tubes.
Claims use since the year 1913.

Ser. No. 115,509. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN F. ROBERTSON, Pittsburgh, Pa. Filed Jan. 20, 1919.

LITTLE GIANT

Particular description of goods.—Extractors of Boiler Tubes.
Claims use since the 9th day of September, 1909.

Ser. No. 115,731. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) THE HOME SPECIALTY COMPANY, Cleveland, Ohio. Filed Feb. 10, 1919.

LAUN-DRY-ETTE

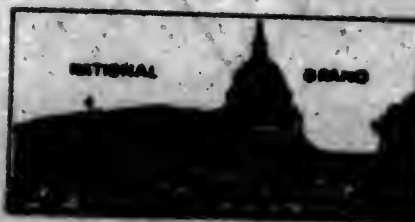
Particular description of goods.—Combination Washing and Wringing or Extracting Machines for Laundry Clothing and Fabrics.
Claims use since about June 23, 1916.

Ser. No. 115,734. (CLASS 39. CLOTHING.) LORSTEE CORSET CO., Chicago, Ill. Filed Feb. 10, 1919.

May-O Belt

Particular description of goods.—Corsets.
Claims use since Feb. 6, 1919.

Ser. No. 115,955. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARONIZ H. KERN, Raleigh, N. C. Filed Feb. 15, 1919.



The word "Brand" is hereby disclaimed apart from the mark as shown in the drawing.
Particular description of goods.—A Medicinal Preparation Used as a General Conditioner and Tonic for Hogs.
Claims use since Feb. 15, 1919.

[Vol. 302. No. 2.]

Ser. No. 115,965. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) A. ALLAN & SON, Harrison, N. J. Filed Feb. 16, 1919. Under ten-year proviso.



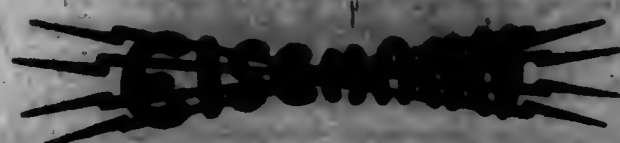
Particular description of goods.—Non-Ferrous Alloys—viz., Bearing-Brasses, Babbitt Metals, and Antifriction Metals.
Claims use since 1891.

Ser. No. 116,030. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENFELD & CO. INC., New York, N. Y. Filed Feb. 20, 1919.

Unimak

Particular description of goods.—Pile Fabrics in the Floor.
Claims use since the 16th day of November, 1913.

Ser. No. 116,064. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) EISENMANN MAGNETO COMPANY, Brooklyn, N. Y. Filed Feb. 24, 1919.



Particular description of goods.—Magneto, Spark-Coils, and Electrical-Impulse Starters for Internal-Combustion Engines.
Claims use since May 1, 1917.

Ser. No. 116,068. (CLASS 37. PAPER AND STATIONERY.) GORNER ENVELOPE COMPANY, Minneapolis, Minn. Filed Feb. 24, 1919.

Fiberope

Particular description of goods.—Mailing-Envelopes.
Claims use since the 1st day of January, 1919.

Ser. No. 116,304. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) NORMAN MALLABRUE IRON COMPANY, St. Paul, Minn. Filed Feb. 24, 1919.



Particular description of goods.—Malleable-Iron Castings and Forgings.
Claims use since Aug. 15, 1917.

Ser. No. 116,114. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE GEORGE E. THOMPSON LIGHTING CO. INC., Orono, Minn. Filed Feb. 24, 1919.



Particular description of goods.—Lighting-Rods.
Claims use since the 5th day of February, 1917.

Ser. No. 116,175. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE FOSBICK MACHINE TOOL COMPANY, Cincinnati, Ohio. Filed Feb. 27, 1919.



Particular description of goods.—Radial and Upright Drills.
Claims use since May 20, 1918.

Ser. No. 116,210. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE FERRIS CHEMICAL COMPANY, Chicago, Ill. Filed Feb. 20, 1919.

ENOZ

Particular description of goods.—Hand-Sprayers for the Application of a Liquid Moth Preventive and Exterminator.
Claims use since Apr. 10, 1918.

[Vol. 302. No. 2.]

Ser. No. 116,340. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STANLEY D. SUDSIN CHEM. CO., Philadelphia, Pa. Filed Mar. 1, 1919.



Particular description of goods.—Oil for Saturating, for Softening Purposes, Cotton, Wool, and Silk.
Claims use since January, 1917.

Ser. No. 116,245. (CLASS 12. CONSTRUCTION MATERIALS.) THE AGASOTE MILLBOARDS CO., Ewing township, Mercer county, N. J. Filed Mar. 3, 1919.

STEELASOTE

Particular description of goods.—Building and Structural Material Consisting Principally of Wood Fiber and Pitch and Used as a Substitute for Wood, Steel, or Similar Construction Material.
Claims use since about Jan. 15, 1919.

Ser. No. 116,248. (CLASS 17. TOBACCO PRODUCTS.) THE AMERICAN TOBACCO CO., New York, N. Y. Filed Mar. 2, 1919.



Particular description of goods.—Cigarettes.
Claims use since May 6, 1902.

Ser. No. 116,352. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BAILLION IRON WORKS, Brillon, Wis. Filed Mar. 3, 1919.

TRAC O PACKER

Particular description of goods.—Soil-Pulverizers and Tractors.
Claims use since Feb. 5, 1919.

Ser. No. 116,297. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE AMERICAN CONDUIT MANUFACTURING COMPANY, Pittsburgh, Pa. Filed Mar. 5, 1919.



Particular description of goods.—Electrical-Wiring Conduits.
Claims use since Jan. 10, 1918.

[Vol. 302. No. 2.]

Ser. No. 116,819. (CLASS 8. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. C. AYER Co., Lowell, Mass. Filed Mar. 6, 1919. Under ten-year proviso.

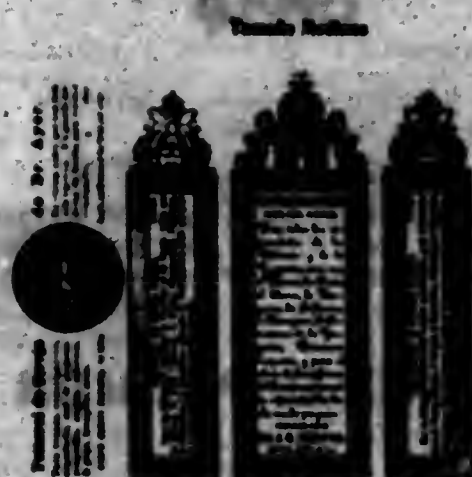


No claim is made to the exclusive use of any of the wording appearing on the drawing apart from the mark as shown in the drawing except the name and signature "J. C. Ayer & Co." and the words "Ayer's Hair Vigor," appearing in several languages.

Particular description of goods.—Hair-Tonic.

Claims use for trade-mark, excepting the circular seal, since about the year 1864, and on circular seal since about the year 1888, and has been used as a part of the mark since that time.

Ser. No. 116,820. (CLASS 8. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. C. AYER Co., Lowell, Mass. Filed Mar. 6, 1919. Under ten-year proviso.



No claim is made to the exclusive use of any of the wording appearing on the drawing apart from the mark as shown in the drawing except "Pectoral de Curon del Dr. Ayer," appearing in several languages, "Dr. J. C. Ayer & Co.," and the signature "J. C. Ayer & Co."

Particular description of goods.—A Preparation for the Treatment of the Various Affections of the Lungs and Throat—Such as Colds, Coughs, Croup, Asthma, Influenza, Hoarseness, Bronchitis, and Incipient Consumption—and for the Relief of Consumptive Patients in Advanced Stages of the Disease.

Claims use for trade-mark, excepting the circular seal, since about the year 1864, the circular seal since about the year 1888, and has been used as a part of the mark since that time.

[Vol. 288. No. 2.]

Ser. No. 116,821. (CLASS 8. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. C. AYER Co., Lowell, Mass. Filed Mar. 6, 1919. Under ten-year proviso.



No claim is made to the exclusive use of any of the wording appearing on the drawing apart from the mark as shown in the drawing except "Bartagarrilla Del Dr. Ayer," appearing in several languages, "Dr. J. C. Ayer & Co.," and the signature "J. C. Ayer & Co."

Particular description of goods.—A General Tonic and Preparation for the Treatment of All Those Diseases Arising from Impure Blood, from Thin Blood, from Debility of the Nervous System, and from Weakness of the Digestive Organs.

Claims use for trade-mark, excepting the circular seal, since about the year 1868, and on the circular seal since about the year 1888, and has been used as a part of the mark since that time.

Ser. No. 116,822. (CLASS 2. RECEPTACLES.) CLINTON ELLIOTT, New York, N. Y. Filed Mar. 6, 1919.



Particular description of goods.—Paper or Cardboard Boxes and Cartons and Paper Containers for Packing Food Products, More Particularly Candies and Confectioneries.

Claims use since Feb. 28, 1919.

Ser. No. 116,494. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE ESCAMPE-SCOTT Co., New York, N. Y. Filed Mar. 8, 1919.

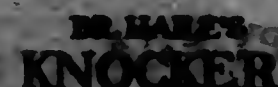


No claim being made to the word "Toys" apart from the mark shown.

Particular description of goods.—Children's Caneing and Riding Toys and Children's Toy Vehicles.

Claims use since about Sept. 20, 1917.

Ser. No. 116,442. (CLASS 8. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Dr. T. J. HARRIS & COMPANY, St. Louis, Mo. Filed Mar. 10, 1919.



No claim is made to the name "Dr. Harris" apart from the mark shown in the drawing.

Particular description of goods.—A Liquid Preparation for Indigestion, Colds, and La Grippe and a Tonic for General Debility.

Claims use since Oct. 20, 1916.

Ser. No. 116,454. (CLASS 43. FOODS AND INGREDIENTS OF FOODS.) ANHEUSER-BUSCH BREWING ASSOCIATION, St. Louis, Mo. Filed Mar. 11, 1919.



Particular description of goods.—Animal Feed, Specifically Steam-Dried Brewers' Grains.

Claims use since Mar. 8, 1919.

Ser. No. 116,498. (CLASS 43. FOODS AND INGREDIENTS OF FOODS.) ANHEUSER-BUSCH BREWING ASSOCIATION, St. Louis, Mo. Filed Mar. 11, 1919.



Particular description of goods.—An Animal Feed, Specifically Steam-Dried Brewers' Grains.

Claims use since Mar. 1, 1901.

Ser. No. 116,499. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE OGDEN CORPORATION, Binghamton, N. Y. Filed Mar. 11, 1919.



Particular description of goods.—Carburetors for Use with Internal-Combustion Engines and Rebuilding Automobiles for Use in Connection with Carburetors of the Type Mentioned.

Claims use since June 20, 1918.

[Vol. 288. No. 2.]

Ser. No. 116,491. (CLASS 7. CORDAGE.) PLATO C. DUNHAM, Des Moines, Iowa. Filed Mar. 12, 1919.



The name "P. C. Dunham," forming a part of the mark, is the facsimile signature of applicant. No claim is made to the illustration of a ball of twine, the use of the words "Twine," "Grass Hopper and Cricket Proof," and "Trade Mark" apart from the trade-mark as shown.

Particular description of goods.—Twine.

Claims use since Jan. 20, 1919.

Ser. No. 116,494. (CLASS 8. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARTHUR A. KAYE, Milwaukee, Wis. Filed Mar. 12, 1919.



Particular description of goods.—Cough Remedies and Ointments Having Local Counter-Irritant and Anesthetic Properties.

Claims use since Feb. 1, 1919.

Ser. No. 116,527. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CATMO-KOLA Co., Portland, Oreg. Filed Mar. 13, 1919.



The words "Tip Top Bracer" are disclaimed apart from their use in the special form in which the trade-mark is claimed.

Particular description of goods.—Non-Intoxicating Non-Alcoholic Maltless Syrup Sold as a "Soft Drink."

Claims use since Nov. 6, 1918.

Ser. No. 116,562. (CLASS 8. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE LUCAS LABORATORIES, INC., New York, N. Y. Filed Mar. 14, 1919.

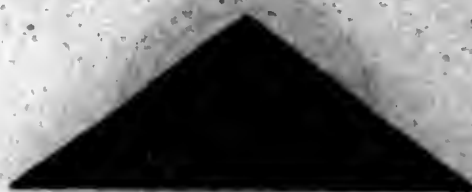


Particular description of goods.—Intravenous Injections for Use in Connection with the Treatment of Tuberculosis, Leucocythemia, Prandoleucemia, Anemia and Allied Affections, Amenorrhea, Asthma, Chorea, Eczema and Allied Diseases, Impotence and Functional Sterility, Neuritis, Syphilis, Pthiasis, Gout, Spanish Influenza, Orchitis, Psoriasis, Gout, Lumbago, Rheumatism, Chronic Rheumatism, and Malaria.

Claims use since Mar. 1, 1919.

[Vol. 288. No. 2.]

Ser. No. 116,602. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LASHNE, WHITMAN & Co., Inc., New York, N. Y. Filed Mar. 15, 1919.



Particular description of goods.—A Fabric Made with a Cotton Warp and a Filling of Wool or Alpaca or Mohair, Singly or Combined.
Claims use since Feb. 1, 1919.

Ser. No. 116,614. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Mar. 15, 1919.

WESTMINSTER

Particular description of goods.—Bicycles.
Claims use since Oct. 28, 1908.

Ser. No. 116,615. (CLASS 31. FILTERS AND REFRIGERATORS.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Mar. 15, 1919. Under ten-year proviso.

SIBERIA

Particular description of goods.—Refrigerators.
Claims use since Nov. 1, 1909.

Ser. No. 116,621. (CLASS 15. OILS AND GREASES.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Mar. 15, 1919.

Gasoline

Particular description of goods.—Lubricating-Oil for Guns, Revolvers, Bicycles, Cutlery, Sewing-Machines, Type-Writers, Tools, Skates, Delicate Instruments, Light Machinery, and Similar Articles.
Claims use since June 4, 1902.

Ser. No. 116,657. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM G. LENTZ, West Hoboken, N. J. Filed Mar. 18, 1919.



Particular description of goods.—Fumigating-Candles.
Claims use since the 1st day of January, 1906.

[Vol. 298. No. 2.]

Ser. No. 116,692. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) WOLFFHARDT & COMPANY, Grand Rapids, Mich. Filed Mar. 15, 1919.

PT-E-TA

Particular description of goods.—A Filling for Pies, Puddings, and Desserts.
Claims use since Mar. 1, 1919.

Ser. No. 116,729. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) M. E. SMITH & Co. Inc., Omaha, Neb. Filed Mar. 19, 1919.

Prarie Blossom

Particular description of goods.—Handkerchiefs.
Claims use since Feb. 15, 1919.

Ser. No. 116,740. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) CLARENCE A. CRANE, Cleveland, Ohio. Filed Mar. 20, 1919.

SANTE FE TRAIL

Particular description of goods.—Candy.
Claims use since Feb. 19, 1919.

Ser. No. 116,745. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) GRAND UNION TEA CO., Brooklyn, N. Y. Filed Mar. 20, 1919.

GRAND UNION

Particular description of goods.—Bouillon-Cubes, Peanut-Butter, and Gelatin Jelly-Powder.
Claims use since about Jan. 20, 1919.

Ser. No. 116,746. (CLASS 43. THREAD AND YARN.) MONOTUCK SILK COMPANY, Northampton, Mass. Filed Mar. 20, 1919.

YANKOLA

Particular description of goods.—Thread and Yarn.
Claims use since about Nov. 8, 1918.

Ser. No. 116,769. (CLASS 26. PRINTS AND PUBLICATIONS.) HOWARD T. FLEMING & Sons, Philadelphia, Pa. Filed Mar. 21, 1919.

THE TRUCK OWNER

The trade-mark consists of the title "The Truck Owner."
Particular description of goods.—A Trade Magazine Published Biweekly.
Claims use since Mar. 8, 1919.

Ser. No. 116,770. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK A. GIBSON, Boston, Mass. Filed Mar. 21, 1919.

NERVURA

The word "Nervura."
Particular description of goods.—Medicinal Preparation in Liquid and Pill Form Used as a Nerve-Tonic.
Claims use since June 7, 1907.

Ser. No. 116,778. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) KANTSLIP COMPANY, Marshall, Colo. Filed Mar. 21, 1919.

KANTSLIP

No claim being made to the word "Kantslip" apart from the mark shown.
Particular description of goods.—Self-Vulcanizing Patches for Patching Pneumatic Tires.
Claims use since Jan. 10, 1912.

Ser. No. 116,782. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LEWISTON BLACKBURN AND DYE WORKS, Lewiston, Me. Filed Mar. 21, 1919.

LOUNAIN

Particular description of goods.—Cotton Piece Goods.
Claims use since Mar. 1, 1919.

[Vol. 298. No. 2.]

Ser. No. 116,800. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) J. L. STIRREL & Sons, Wheeling, W. Va. Filed Mar. 21, 1919.



Particular description of goods.—Prints, Drills, and Denims in the Piece.
Claims use since April, 1909.

Ser. No. 116,825. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH THERRIER, Rumford, Me. Filed Mar. 22, 1919.

INSKOOT

Particular description of goods.—A Liniment for External Use in the Treatment of Sprains, Lame Back, Rheumatism, Sore Throat, and Cold on the Lungs.
Claims use since the 17th day of March, 1919.

Ser. No. 116,900. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) G. A. KROUTER COMPANY, Chicago, Ill. Filed Mar. 25, 1919.

HUBBINS

Particular description of goods.—Nut-Candy.
Claims use since November, 1918.

Ser. No. 116,909. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) GEORGE ZANFARINO, Sherman, Tex. Filed Mar. 26, 1919.

SENIRAD

Particular description of goods.—Candy.
Claims use since about Dec. 1, 1918.

[Vol. 298. No. 2.]

Ser. No. 116,940. (CLASS 40. FOODS AND INGREDIENTS OF FOODS.) GEORGE KARPAKIS, Boston, Tex. Filed Mar. 26, 1919.



Particular description of goods.—Candy.
Claims use since about Dec. 1, 1918.

Ser. No. 116,945. (CLASS 33. PRINTS AND PUBLICATIONS.) ATLAS CRUCIBLE STEEL COMPANY, Dunkirk, N. Y. Filed Mar. 27, 1919.

HIGH SPEED

Particular description of goods.—A Monthly Publication.
Claims use since the 5th day of March, 1919.

Ser. No. 116,947. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES J. BONHAM, Boston, Mass. Filed Mar. 27, 1919.



Particular description of goods.—A Disinfectant.
Claims use since January, 1908.

Ser. No. 116,965. (CLASS 37. PAPER AND STATIONERY.) MASTA PENCIL COMPANY, New York, N. Y. Filed Mar. 27, 1919.



The trade-mark consists of the representation of an eagle with outstretched wings and pencils in beak and talons, as shown in the drawing, no claim being made to the representation of pencils except as associated with the rest of the mark.

Particular description of goods.—Lead-Pencils, Penholders, Rubber Erasers, Fountain-Pens.

Claims use since the year 1879 in connection with lead-pencils, penholders, and rubber erasers; since the year 1890 in connection with fountain-pens.

Ser. No. 117,010. (CLASS 10. VEHICLES, NOT INCLUDING ENGINES.) HARLEY-DAVIDSON MOTOR CO., Milwaukee, Wis. Filed Mar. 29, 1919.



Particular description of goods.—Motor-Cycles.
Claims use since Nov. 9, 1916.

Ser. No. 117,022. (CLASS 42. KNITTED, KNITTED, AND TEXTILE FABRICS.) ROYAL KNITWEAR WORKS, NABAT & FLEISCHER, New York, N. Y. Filed Mar. 31, 1919.

DOMINETTE

Consisting of the word "Dominette."
Particular description of goods.—Artificial-Silk Fabrica.
Claims use since Sept. 20, 1918.

Ser. No. 117,035. (CLASS 40. FOODS AND INGREDIENTS OF FOODS.) D. GHIRARDELLI CO., San Francisco, Calif. Filed Apr. 2, 1919. Under ten-year proviso.



Particular description of goods.—Chocolate.
Claims use since June 1, 1881.

Ser. No. 117,038. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) THE RIDGELY TRIMMER COMPANY, Springfield, Ohio. Filed Apr. 1, 1919.



Particular description of goods.—Painters' and Decorators' Tools and Supplies—to wit, Wire Brushes, Brushes for Waxing Floors, Rubbing-Pads for Painters.
Claims use since Mar. 1, 1907.

Ser. No. 117,121. (CLASS 40. FOODS AND INGREDIENTS OF FOODS.) MASON, AU & MACDONALD CORP. MFG. CO., Brooklyn, N. Y. Filed Apr. 2, 1919.

KHUFU

Particular description of goods.—Candies and Chocolates.
Claims use since Mar. 1, 1919.

Ser. No. 117,152. (CLASS 40. FOODS AND INGREDIENTS OF FOODS.) CLARK, LIMITED, Battersea, London, England. Filed Apr. 4, 1919.



Particular description of goods.—A Concentrated Albuminous Food Prepared from Milk.
Claims use since the 25th of Mar. 1908.

[Vol. 292. No. 3.]

Ser. No. 117,187. (CLASS 38. MUSICAL INSTRUMENTS AND SUPPLIES.) PATHE FRERES PHONOGRAPH COMPANY, Brooklyn, N. Y. Filed Apr. 4, 1919.



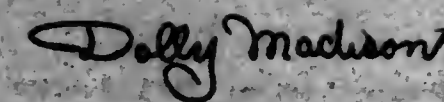
Particular description of goods.—Phonographs.
Claims use since Dec. 18, 1918.

Ser. No. 117,173. (CLASS 40. FOODS AND INGREDIENTS OF FOODS.) CHARLES J. BOLONI, Baltimore, Md. Filed Apr. 5, 1919.



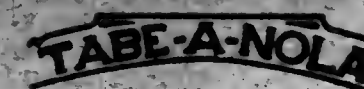
Particular description of goods.—Live Poultry Fresh from the Shell.
Claims use since Feb. 15, 1919.

Ser. No. 117,193. (CLASS 33. PRINTS AND PUBLICATIONS.) MAIL AND EXPRESS COMPANY, New York, N. Y. Filed Apr. 5, 1919.



Particular description of goods.—Newspaper Section Devoted to News of Society.
Claims use since Sept. 3, 1918.

Ser. No. 117,257. (CLASS 34. MUSICAL INSTRUMENTS AND SUPPLIES.) THE TABE-A-NOLA PHONOGRAPH COMPANY, Reading, Pa. Filed Apr. 7, 1919.



Particular description of goods.—Phonographs.
Claims use since Nov. 22, 1918.

[Vol. 292. No. 3.]

TRADE-MARK REGISTRATIONS GRANTED

MAY 20, 1919.

125,574. FOUNTAIN-PENS. ADAMS, CUSHING & FOSTER, Inc., Boston, Mass.
Filed June 1, 1918. Serial No. 111,309. PUBLISHED JULY 16, 1918.

125,575. PAMPHLETS AND COUPONS OR CERTIFICATES TO BE USED AS MEDIUMS OF EXCHANGE. ALLEN AND BLACK, Cleveland, Ohio.
Filed March 11, 1918. Serial No. 93,445. PUBLISHED FEBRUARY 11, 1919.

125,583. COTTON PIECE GOODS. AMERICAN BLEACHED GOODS COMPANY, New York, N. Y.
Filed January 10, 1919. Serial No. 118,062. PUBLISHED FEBRUARY 11, 1919.

125,591. CERTAIN NAMED MEDICINES AND PHARMACEUTICAL PREPARATIONS. AMERICAN BROTHERS COMPANY, Sioux City, Iowa.
Filed August 8, 1918. Serial No. 112,621. PUBLISHED FEBRUARY 12, 1919.

125,592. CERTAIN NAMED FANCY GOODS, FURNISHINGS, AND NOTIONS. ARNSKA WEDDING COMPANY, Boston, Mass.
Filed July 26, 1918. Serial No. 112,574. PUBLISHED JANUARY 20, 1919.

125,593. WATCH-GLASSES. ASSOCIATED INDUSTRIES OF JAPAN, LIMITED, Vancouver, British Columbia, Canada.
Filed September 24, 1918. Serial No. 112,422. PUBLISHED JANUARY 20, 1919.

125,594. COSETS. AURORA COSET COMPANY, Aurora, Ill.
Filed June 18, 1918. Serial No. 111,557. PUBLISHED JANUARY 14, 1919.

125,595. SELF-PROPELLED BICYCLES AND TRICYCLES ADAPTED TO CARRY THE RIDER IN A STANDING OR SEATED POSITION. AUTO-PAC COMPANY OF AMERICA, Long Island City, N. Y.
Filed November 13, 1918. Serial No. 99,363. PUBLISHED JANUARY 23, 1919.

125,596. FERTILIZING-CARTRIDGE DESIGNED FOR INSTANT USE. ALBERT J. AVERELL, Madford, Oreg.
Filed September 22, 1918. Serial No. 112,506. PUBLISHED FEBRUARY 11, 1919.

125,597. CATTLE, SHEEP, AND HORSE DIPS. BAIRD & MCGUIRE, Inc., Holbrook, Mass.
Filed December 20, 1918. Serial No. 114,734. PUBLISHED FEBRUARY 4, 1919.

125,598. LADIES' SHIRT-WAISTS. WILLIAM J. HALL, Portland, Oreg.
Filed November 20, 1918. Serial No. 114,412. PUBLISHED FEBRUARY 4, 1919.

125,599. CERTAIN PHARMACEUTICAL PREPARATIONS FOR TOILET USE. BOLA BAKER, St. Louis, Mo.
Filed November 4, 1918. Serial No. 114,381. PUBLISHED FEBRUARY 11, 1919.

125,600. WIRE FENCING, WIRE-GAUZE, BARBED WIRE, WIRE SCREENING, WIRE WINDOW-GUARDS, AND WIRE-NETTING. BARNES WIRE & IRON WORKS, Chicago, Ill.
Filed February 14, 1918. Serial No. 109,619. PUBLISHED JANUARY 23, 1919.

125,601. PREPARATION FOR ECZEMA, AN OINTMENT FOR THE TREATMENT OF SKIN DISEASES, BLOOD-TONIC. BARNOW CHEMICAL COMPANY, Shawnee, Ohio.
Filed April 4, 1917. Serial No. 102,679. PUBLISHED FEBRUARY 4, 1919.

125,602. WALL-PAPER. BECKER, SMITH & PAGE, INC., Philadelphia, Pa.
Filed December 9, 1918. Serial No. 114,555. PUBLISHED FEBRUARY 11, 1919.

125,603. SCOTCH WHISKY. ARTHUR KINROSS BELL, Perth, Scotland.
Filed January 9, 1918. Serial No. 108,371. PUBLISHED FEBRUARY 11, 1919.

125,604. PIANOS AND PLAYER-PIANOS. CHARLES E. BELLAN, Philadelphia, Pa.
Filed December 2, 1918. Serial No. 114,461. PUBLISHED FEBRUARY 4, 1919.

125,605. CERTAIN NAMED FOOT-COVER FOR MEN, WOMEN, AND CHILDREN. MOSS BROTHERS, New York, N. Y.
Filed November 11, 1918. Serial No. 114,127. PUBLISHED JANUARY 23, 1919.

125,606. AUTOGRAPHIC REGISTERS. JOHN F. BRADY, Providence, R. I.
Filed April 24, 1917. Serial No. 102,342. PUBLISHED FEBRUARY 11, 1919.

125,607. CERTAIN NAMED CLOTHING FOR MEN, WOMEN, AND BOYS. BENJAMIN BUSIER, New York, N. Y.
Filed November 15, 1918. Serial No. 114,173. PUBLISHED FEBRUARY 11, 1919.

125,608. METAL-WORKING MILLING-MACHINES AND METAL-WORKING GRINDING-MACHINES. THE BRISTOL MACHINE TOOL CO., Bristol, Conn.
Filed November 20, 1918. Serial No. 114,260. PUBLISHED JANUARY 23, 1919.

125,609. ELECTROLYTIC OXYGEN. THE BURGOTT OXYGEN COMPANY, Denver, Colo.
Filed July 2, 1917. Serial No. 104,790. PUBLISHED FEBRUARY 4, 1919.

125,610. CERTAIN NAMED CLOTHING FOR MEN, WOMEN, AND CHILDREN. PUTNAM BROTHERS, Chicago, Ill.
Filed November 23, 1918. Serial No. 114,390. PUBLISHED JANUARY 23, 1919.

125,611. SILK FABRICS. CHENEY BROTHERS, South Manchester, Conn.
Filed September 26, 1918. Serial No. 113,462. PUBLISHED DECEMBER 31, 1918.

125,612. SILK FABRICS. CHENEY BROTHERS, South Manchester, Conn.
Filed September 26, 1918. Serial No. 113,463. PUBLISHED JANUARY 21, 1919.

125,613. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn.
Filed December 24, 1918. Serial No. 114,302. PUBLISHED FEBRUARY 11, 1919.

125,614. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn.
Filed December 24, 1918. Serial No. 114,304. PUBLISHED FEBRUARY 11, 1919.

125,615. AIR, VACUUM, COMPRESSION PUMPS, COMBINATION VACUUM AND COMPRESSION PUMPS, LIFT-PUMPS, AND HYDRAULIC PRESSURE. CHICAGO APPARATUS COMPANY, Chicago, Ill.
Filed December 24, 1918. Serial No. 114,306. PUBLISHED FEBRUARY 4, 1919.

125,616. TABLE-WATER AND CERTAIN NAMED SOFT DRINKS. CLYMIC BEVERAGE CO., New York, N. Y.
Filed March 14, 1918. Serial No. 109,554. PUBLISHED FEBRUARY 11, 1919.

125,407. CERTAIN NAMED ENAMELED WARE FOR HOUSEHOLD USE. COLUMBIAN ENAMELING & STAMPING COMPANY, Terre Haute, Ind. Filed June 11, 1916. Serial No. 111,493. PUBLISHED JANUARY 28, 1919.

125,408. PERIODICAL PUBLICATIONS ISSUED SEMI-MONTHLY. CONTRACTING PUBLISHING CORPORATION, New York, N. Y. Filed September 4, 1917. Serial No. 109,922. PUBLISHED FEBRUARY 11, 1919.

125,409. COTTON PIECE GOODS. CONVERSE & COMPANY, New York, N. Y. Filed May 18, 1918. Serial No. 111,942. PUBLISHED AUGUST 20, 1919.

125,410. CERTAIN NAMED WELDED BRONZE AND STEEL PRODUCTS. COPPER CLAD STEEL CO., Baskin borough, Pa. Filed May 12, 1918. Serial No. 110,990. PUBLISHED JANUARY 28, 1919.

125,411. CERTAIN NAMED WELDED BRASS AND STEEL PRODUCTS. COPPER CLAD STEEL CO., Baskin borough, Pa. Filed May 12, 1918. Serial No. 110,990. PUBLISHED JANUARY 28, 1919.

125,412. LENSES TO BE USED IN LAMPS. CORNING GLASS WORKS, Corning, N. Y. Filed November 25, 1918. Serial No. 114,939. PUBLISHED JANUARY 28, 1919.

125,413. STEEL IN CERTAIN NAMED FORMS. COLUMBIAN STEEL COMPANY OF AMERICA, Pittsburgh, Pa. Filed August 26, 1918. Serial No. 112,908. PUBLISHED JANUARY 28, 1919.

125,414. STEEL IN CERTAIN NAMED FORMS. COLUMBIAN STEEL COMPANY OF AMERICA, Pittsburgh, Pa. Filed August 26, 1918. Serial No. 112,908. PUBLISHED JANUARY 28, 1919.

125,415. SOCIAL REGISTERS OR DIRECTORIES ISSUED ANNUALLY. FREDERICK W. DAY, New York, N. Y. Filed November 5, 1918. Serial No. 114,932. PUBLISHED FEBRUARY 11, 1919.

125,416. YARNS AND THREADS SPUN FROM COTTON, JUTE, FLAX, AND HEMP. CHAMBERLAIN & DAVIS, Chicago, Ill. Filed August 12, 1918. Serial No. 112,909. PUBLISHED JANUARY 28, 1919.

125,417. CERTAIN NAMED KNITTED, NETTED, AND TEXTILE FABRICS. DUNSTON LINGER COMPANY, New York, N. Y. Filed November 4, 1918. Serial No. 114,934. PUBLISHED FEBRUARY 4, 1919.

125,418. AXES, SAWS, HAMMERS, CHISELS, RASPS, DRILLS, AUGERS, GIMLETS, HATCHETS. DEWEE TOOL CO., Inc., New York, N. Y. Filed October 5, 1918. Serial No. 112,906. PUBLISHED JANUARY 28, 1919.

125,419. ASH-SIFTERS. CHARLES M. DENKWAER, Kokomo, Ind. Filed April 23, 1918. Serial No. 110,990. PUBLISHED JANUARY 28, 1919.

125,420. COLD-CREAM, FACE-LOTION, FACE-POWDER, LIQUID ROUGE, GREASELESS FACE-ROUGE, AND MASSAGE-CREAM. MCLENNAN'S BEAUTIFUL COMPANY, Seattle, Wash. Filed September 23, 1918. Serial No. 112,911. PUBLISHED FEBRUARY 11, 1919.

125,421. SERVICE-PINS, SCARF-PINS, BAR-PINS, BROOCH-PINS, LINK-BUTTONS, FOBBS, LOCKETS, AND BRACELETS. EMBROIDERY MANUFACTURING COMPANY, St. Louis, Mo. Filed August 29, 1918. Serial No. 112,972. PUBLISHED JANUARY 28, 1919.

125,422. DYES. BEEHIVE BROTHERS, New York, N. Y. Filed June 19, 1918. Serial No. 111,000. PUBLISHED OCTOBER 1, 1919.

125,423. SNAP-FASTENERS AND FLACKET-FASTENERS. FEDERAL SNAP FASTENER CORPORATION, New York, N. Y. Filed December 22, 1918. Serial No. 114,702. PUBLISHED FEBRUARY 11, 1919.

125,424. PREPARATION FOR THE TREATMENT OF COAL-ASKING FOR INCREASING THEIR COMBUSTIBILITY. CHARLES H. PROSEYER, Salem, Mass. Filed December 9, 1918. Serial No. 114,906. PUBLISHED FEBRUARY 11, 1919.

125,425. CANNED SARDINES. FISHERMAN'S CANNING CORPORATION, Monterey, Calif. Filed November 24, 1918. Serial No. 114,936. PUBLISHED FEBRUARY 11, 1919.

125,426. PALLIATIVE FOR VENEREAL DISEASES AND TISSUE-BUILDER. ORANGE FLORES, Dayton, Ohio. Filed December 20, 1918. Serial No. 114,749. PUBLISHED FEBRUARY 4, 1919.

125,427. CIGARETTES. FRANK AMERICAN CIGARETTE & TOBACCO COMPANY, Louisville, Ky. Filed October 18, 1918. Serial No. 113,794. PUBLISHED FEBRUARY 11, 1919.

125,428. PEANUT-BAR. WILLIAM CHARLES GAGNON, Huron, S. D. Filed December 31, 1918. Serial No. 114,908. PUBLISHED FEBRUARY 4, 1919.

125,429. CERTAIN NAMED NON-ALCOHOLIC BEVERAGES. GARNETT AND COMPANY, INCORPORATED, Penn Yan, N. Y. Filed October 21, 1918. Serial No. 113,934. PUBLISHED FEBRUARY 11, 1919.

125,430. CERTAIN NAMED NON-ALCOHOLIC BEVERAGES. GARNETT AND COMPANY, INCORPORATED, Penn Yan, N. Y. Filed October 21, 1918. Serial No. 113,934. PUBLISHED FEBRUARY 11, 1919.

125,431. CIGARE. GENERAL CIGAR CO., Inc., New York, N. Y. Filed December 17, 1917. Serial No. 109,000. PUBLISHED FEBRUARY 11, 1919.

125,432. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF. GODDARD & GODDARD COMPANY, Detroit, Mich. Filed November 4, 1918. Serial No. 114,000. PUBLISHED JANUARY 28, 1919.

125,433. SILICATE OF SODA. THE GRASSBELL CHEMICAL COMPANY, Cleveland, Ohio. Filed April 26, 1917. Serial No. 108,937. PUBLISHED FEBRUARY 11, 1919.

125,434. INFANTS', CHILDREN'S, MEN'S, AND WOMEN'S HOSIERY. GUTTENBERG, ROSENFIELD & COMPANY, New York, N. Y. Filed November 27, 1918. Serial No. 114,905. PUBLISHED JANUARY 28, 1919.

125,435. YEAST. P. L. HALEY, Marion, Ark. Filed November 20, 1918. Serial No. 114,974. PUBLISHED FEBRUARY 4, 1919.

125,436. CHECK-WRITING MACHINES. HALL-WELSH COMPANY, Inc., Rochester, N. Y. Filed October 31, 1918. Serial No. 113,967. PUBLISHED JANUARY 28, 1919.

125,437. VISE. C. & J. HAMPTON, LIMITED, Sheffield, England. Filed April 4, 1918. Serial No. 109,901. PUBLISHED JANUARY 28, 1919.

125,438. INFILTRATOR. CHRISTIAN E. HANSEN, San Diego, Calif. Filed October 2, 1918. Serial No. 112,921. PUBLISHED FEBRUARY 11, 1919.

125,439. PERSONAL AND BUSINESS WRITING-PAPER, BILL-HEADS, INVOICE-HEADS, BLANK CHECKS. MARK HANSEN, New York, N. Y. Filed August 29, 1918. Serial No. 112,905. PUBLISHED JANUARY 28, 1919.

125,440. COTTON PIECE GOODS. C. B. HAYWARD & CO., Inc., New York, N. Y. Filed October 4, 1918. Serial No. 113,978. PUBLISHED FEBRUARY 4, 1919.

125,441. COTTON PIECE GOODS. C. B. HAYWARD & CO., Inc., New York, N. Y. Filed October 4, 1918. Serial No. 113,978. PUBLISHED FEBRUARY 4, 1919.

125,442. COTTON PIECE GOODS. C. B. HAYWARD & CO., Inc., New York, N. Y. Filed October 4, 1918. Serial No. 113,977. PUBLISHED FEBRUARY 11, 1919.

125,443. COTTON PIECE GOODS. C. B. HAYWARD & CO., Inc., New York, N. Y. Filed October 4, 1918. Serial No. 113,978. PUBLISHED FEBRUARY 4, 1919.

125,444. CERTAIN NAMED CANNING MACHINERY AND CANNING SUPPLIES. HARRINGTON & AYER MFG. CO., Portland, Oreg. Filed June 20, 1918. Serial No. 111,911. PUBLISHED JANUARY 28, 1919.

125,445. CERTAIN NAMED RECEPTACLES. J. D. HOLMES & COMPANY, Chicago, Ill. Filed August 2, 1918. Serial No. 112,923. PUBLISHED FEBRUARY 11, 1919.

125,446. CERTAIN NAMED CLOTHING FOR WOMEN. WILLIAM HOLLINS & COMPANY, LIMITED, London, England. Filed August 14, 1918. Serial No. 112,904. PUBLISHED FEBRUARY 11, 1919.

125,447. CERTAIN NAMED CLOTHING FOR WOMEN. WILLIAM HOLLINS & COMPANY, LIMITED, London, England. Filed August 14, 1918. Serial No. 112,904. PUBLISHED FEBRUARY 11, 1919.

125,448. EXTRACT WHITE PINE COMPOUND. J. L. HOPKINS & COMPANY, New York, N. Y. Filed November 14, 1918. Serial No. 114,104. PUBLISHED FEBRUARY 4, 1919.

125,449. CANNED SARDINES AND CANNED TUNA FISH. K. HOVEN CO., Monterey, Calif. Filed December 21, 1918. Serial No. 114,909. PUBLISHED FEBRUARY 4, 1919.

125,450. CANNED SARDINES AND CANNED TUNA FISH. K. HOVEN CO., Monterey, Calif. Filed December 21, 1918. Serial No. 114,907. PUBLISHED FEBRUARY 4, 1919.

125,451. TOILET CREAM. HOWARD EDDY, CHEM. CO., Buffalo, N. Y. Filed November 20, 1918. Serial No. 114,418. PUBLISHED FEBRUARY 11, 1919.

125,452. HAIR-PIN. THE HUMP HAIR PIN MFG. CO., Chicago, Ill. Filed November 21, 1917. Serial No. 107,908. PUBLISHED JANUARY 14, 1919.

125,453. STOCK FOOD-TONIC. INTERNATIONAL STOCK FOOD CO., Minneapolis, Minn. Filed May 15, 1918. Serial No. 110,906. PUBLISHED FEBRUARY 11, 1919.

125,454. DYNAMOMETER. JENNINGS & COMPANY, Inc., Boston, Mass. Filed December 4, 1918. Serial No. 114,479. PUBLISHED FEBRUARY 4, 1919.

125,455. DYNAMOMETER. JENNINGS & COMPANY, Inc., Boston, Mass. Filed December 4, 1918. Serial No. 114,480. PUBLISHED FEBRUARY 4, 1919.

125,456. CERTAIN NAMED UNDERWEAR FOR MEN, WOMEN, BOYS, GIRLS, AND INFANTS. KNITH-O'BRIEN COMPANY, Salt Lake City, Utah. Filed April 20, 1918. Serial No. 110,998. PUBLISHED JANUARY 28, 1919.

125,457. MEDICINE FOR THE TREATMENT OF RHEUMATISM AND A BLOOD-PURIFIER. CHARLES P. KNIGHT, Huntington, Ind. Filed December 4, 1918. Serial No. 114,909. PUBLISHED FEBRUARY 11, 1919.

125,458. HAIR FOR MEN. KNITH O'BRIEN COMPANY, Inc., New York, N. Y. Filed October 21, 1918. Serial No. 113,971. PUBLISHED JANUARY 28, 1919.

125,459. COTTON PIECE GOODS. LANCASTER MILLS, Clinton, Mass. Filed December 23, 1918. Serial No. 114,908. PUBLISHED FEBRUARY 11, 1919.

125,460. LEATHER BOOTS AND SHOES. LEONARD & BARNETT, Middleboro and Boston, Mass. Filed February 9, 1918. Serial No. 109,903. PUBLISHED FEBRUARY 11, 1919.

125,461. TALCUM POWDER. FLORENCE M. LEWIS, New York, N. Y. Filed November 21, 1918. Serial No. 114,909. PUBLISHED FEBRUARY 4, 1919.

125,462. COTTON PIECE GOODS. TWO P. LANCE CO., Inc., New York, N. Y. Filed June 14, 1918. Serial No. 111,971. PUBLISHED JANUARY 28, 1919.

125,463. COTTON GOODS BY THE PIECE. LOWMEALS COMPANY, Providence, R. I. Filed January 24, 1918. Serial No. 109,919. PUBLISHED OCTOBER 14, 1919.

125,464. EFFERVESCENT AND LAXATIVE SALT. MCCORMICK & CO., Baltimore, Md. Filed December 17, 1918. Serial No. 114,909. PUBLISHED FEBRUARY 4, 1919.

125,465. CANNED TOMATOES, CANNED PEACHES, CANNED APRICOTS, AND CANNED PLUMS. MARSHALL PACIFIC CO., Manteca, Calif. Filed December 21, 1918. Serial No. 114,912. PUBLISHED FEBRUARY 4, 1919.

125,466. CANNED SARDINES. MARINE PRODUCTS COMPANY, Terminal, Calif. Filed December 21, 1918. Serial No. 114,914. PUBLISHED FEBRUARY 4, 1919.

125,467. CERTAIN NAMED DRAPERIES AND DECORATIVE FABRICS. MARSHALL FIELD & COMPANY, Chicago, Ill. Filed July 28, 1918. Serial No. 112,904. PUBLISHED FEBRUARY 11, 1919.

125,468. STEEL BEARING-BALLS. THE METAL SPRING MFG. CO., Waterbury, Conn. Filed October 31, 1918. Serial No. 113,900. PUBLISHED JANUARY 28, 1919.

125,469. SILK GOODS IN THE PIECE AND COTTON GOODS IN THE PIECE. J. A. MILES, Inc., New York, N. Y. Filed November 1, 1918. Serial No. 114,901. PUBLISHED JANUARY 28, 1919.

125,470. CERTAIN NAMED LADIES' AND MISSES' OUTER GARMENTS. J. A. MILES, Inc., New York, N. Y. Filed November 1, 1918. Serial No. 114,902. PUBLISHED JANUARY 28, 1919.

125,471. SILK GOODS IN THE PIECE AND COTTON GOODS IN THE PIECE. J. A. MILES, Inc., New York, N. Y. Filed November 1, 1918. Serial No. 114,903. PUBLISHED JANUARY 14, 1919.

125,472. CERTAIN NAMED CLOTHING FOR LADIES AND MISSES. J. A. MILES, Inc., New York, N. Y. Filed November 1, 1918. Serial No. 114,904. PUBLISHED FEBRUARY 4, 1919.

- 125,472. BROAD SILK IN THE PIECE. J. A. Mace, Inc., New York, N. Y.
Filed January 11, 1919. Serial No. 115,128. PUBLISHED FEBRUARY 11, 1919.
- 125,474. COTTON PIECE GOODS. Pacific Mills, Lawrence and Boston, Mass.
Filed October 31, 1918. Serial No. 107,884. PUBLISHED JANUARY 8, 1919.
- 125,475. TOBACCO PRODUCTS COMPRISING NOS. 1, 2, AND 3 OF COARSE AND FINE CUT SMOKING TOBACCO. Minnesota Tobacco Company, Duluth, Minn.
Filed August 3, 1918. Serial No. 112,400. PUBLISHED FEBRUARY 12, 1919.
- 125,476. HOSIERY AND WOVEN AND KNIT UNDERWEAR FOR MEN, WOMEN, AND CHILDREN. Mojo-Sentry Co., Inc., New York, N. Y.
Filed November 14, 1918. Serial No. 114,100. PUBLISHED JANUARY 21, 1919.
- 125,477. PERIODICAL PUBLICATION ISSUED QUARTERLY. Molins Flow Company, Molins, Ill.
Filed December 10, 1918. Serial No. 114,563. PUBLISHED FEBRUARY 11, 1919.
- 125,478. HEADACHE AND NERVE-PAIN CAPSULES. Thomas F. Monaghan, Philadelphia, Pa.
Filed May 15, 1918. Serial No. 110,907. PUBLISHED FEBRUARY 4, 1919.
- 125,479. WASHING-POWDER. George Morrison, Santa Paula, Calif.
Filed June 10, 1918. Serial No. 111,072. PUBLISHED FEBRUARY 11, 1919.
- 125,480. COTTON DUCK. Mount Vernon-Woodbury Mills, Incorporated, Baltimore, Md.
Filed January 10, 1917. Serial No. 100,747. PUBLISHED MARCH 12, 1919.
- 125,481. COTTON DUCK. Mount Vernon-Woodbury Mills, Incorporated, Baltimore, Md.
Filed January 25, 1917. Serial No. 100,980. PUBLISHED MARCH 12, 1919.
- 125,482. SCRUB, DISH, SALOON-BAR-CLEANING, FACE CLOTHS, GLASS AND KITCHEN TOWELS, TEXTILE-FABRIC MACHINERY-WIPERS. Muehmann & Struss, New York, N. Y.
Filed May 27, 1918. Serial No. 111,321. PUBLISHED JANUARY 21, 1919.
- 125,483. HIGH-SPEED TWIST-DRILLS. NATIONAL DEVICE AND DRILL COMPANY, Ypsilanti, Mich.
Filed November 21, 1918. Serial No. 114,274. PUBLISHED JANUARY 28, 1919.
- 125,484. CERTAIN NAMED ENAMELED METAL WARE. NATIONAL ENAMELING & STAMPING CO., New York, N. Y.
Filed February 5, 1918. Serial No. 108,838. PUBLISHED JANUARY 28, 1919.
- 125,485. CIGARS. Morris D. Neumann & Company, Philadelphia, Pa.
Filed November 29, 1918. Serial No. 114,422. PUBLISHED FEBRUARY 12, 1919.
- 125,486. WOVEN COTTON PIECE GOODS. Neuss, Hunslein & Co., New York, N. Y.
Filed November 1, 1918. Serial No. 114,007. PUBLISHED JANUARY 28, 1919.
- 125,487. WOVEN COTTON PIECE GOODS. Neuss, Hunslein & Co., New York, N. Y.
Filed November 1, 1918. Serial No. 114,008. PUBLISHED JANUARY 28, 1919.
- 125,488. WOVEN COTTON PIECE GOODS. Neuss, Hunslein & Co., New York, N. Y.
Filed November 1, 1918. Serial No. 114,009. PUBLISHED JANUARY 28, 1919.
- 125,489. WOVEN COTTON PIECE GOODS. Neuss, Hunslein & Co., New York, N. Y.
Filed November 1, 1918. Serial No. 114,011. PUBLISHED JANUARY 28, 1919.
- 125,490. CANNED SARDINES. Nissman & Kitten Canning Co., Ltd., East San Pedro, Calif.
Filed December 31, 1918. Serial No. 114,919. PUBLISHED FEBRUARY 4, 1919.
- 125,491. CANNED SARDINES. Nissman & Kitten Canning Co., Ltd., East San Pedro, Calif.
Filed December 31, 1918. Serial No. 114,920. PUBLISHED FEBRUARY 4, 1919.
- 125,492. CANNED SARDINES AND CANNED MACKEREL. Nissman & Kitten Canning Co., Ltd., East San Pedro, Calif.
Filed December 31, 1918. Serial No. 114,921. PUBLISHED FEBRUARY 4, 1919.
- 125,493. OINTMENT OR SALVE FOR DISEASES OF THE SKIN. John Nippard, Chicago, Ill.
Filed August 5, 1918. Serial No. 112,804. PUBLISHED FEBRUARY 12, 1919.
- 125,494. POWDERED TALC AND POWDERED MICA. THE NORTHWESTERN CHEMICAL CO., Marietta, Ohio.
Filed April 27, 1918. Serial No. 110,498. PUBLISHED JANUARY 28, 1919.
- 125,495. EYE-WASH. THE OTTOLAND CO., Richmond, Va.
Filed July 30, 1918. Serial No. 112,335. PUBLISHED FEBRUARY 4, 1919.
- 125,496. FRESH FRUITS—NAMESLY, STRAWBERRIES, BLACKBERRIES, RASPBERRIES, CHERRIES, AND GRAPES. OAKS' FRUIT GROWERS' ASSOCIATION, Springfield, Mo.
Filed May 15, 1918. Serial No. 98,151. PUBLISHED NOVEMBER 19, 1918.
- 125,497. CANNED OLIVE-OIL. JOSE LLOPIS PINEDES, New York, N. Y.
Filed November 18, 1917. Serial No. 107,400. PUBLISHED FEBRUARY 4, 1919.
- 125,498. TRADE JOURNALS PUBLISHED MONTHLY. PENNSYLVANIA PUBLISHING COMPANY, Chicago, Ill.
Filed February 12, 1919. Serial No. 115,845.
- 125,499. SODIUM SILICATE. PHILADELPHIA QUARTZ COMPANY, Philadelphia, Pa.
Filed December 4, 1918. Serial No. 114,483. PUBLISHED FEBRUARY 4, 1919.
- 125,500. MILKING-MACHINES. PINE TREE MILKING MACHINE CO., Chicago, Ill.
Filed November 12, 1918. Serial No. 114,148. PUBLISHED JANUARY 28, 1919.
- 125,501. CLEANING AND POLISHING CREAM FOR IVORY, IMITATION IVORY, AND SILVER. PATRICK BROTHERS, New York, N. Y.
Filed November 8, 1918. Serial No. 114,104. PUBLISHED FEBRUARY 11, 1919.
- 125,502. CERTAIN NAMED THREADS AND YARNS. THE PRISCILLA PUBLISHING CO., Boston, Mass.
Filed June 14, 1918. Serial No. 111,578. PUBLISHED OCTOBER 15, 1918.
- 125,503. MEDICINAL PREPARATION FOR NERVE AND BLOOD. FRANCISCO P. QUINTANA, New York, N. Y.
Filed June 7, 1918. Serial No. 111,489. PUBLISHED FEBRUARY 4, 1919.
- 125,504. ANTISEPTIC, DISINFECTANTS, AND GERMICIDES. HENRI RAMOSINO, Levallois-Perret, Paris, France.
Filed August 21, 1917. Serial No. 108,770. PUBLISHED JULY 9, 1918.
- 125,505. CERTAIN NAMED WOVEN OVERCOATINGS AND SUITINGS. THE JAMES J. REAGAN MFG. CO., Rockville, Conn.
Filed September 7, 1918. Serial No. 112,008. PUBLISHED JANUARY 14, 1919.
- 125,506. CANNED TOMATOES. JAMES J. REAGAN, Philadelphia, Pa.
Filed September 23, 1918. Serial No. 112,474. PUBLISHED JANUARY 28, 1919.

- 125,507. CERTAIN NAMED WEARING-APPAREL AND FURNISHINGS FOR MEN, WOMEN, AND CHILDREN. ROBERT BROS & CO., New York, N. Y.
Filed October 31, 1918. Serial No. 112,907. PUBLISHED JANUARY 21, 1919.
- 125,508. TYPE-WRITING MACHINES. REMINGTON TYPEWRITER COMPANY, Ilion and New York, N. Y.
Filed October 1, 1918. Serial No. 112,811. PUBLISHED JANUARY 28, 1919.
- 125,509. CARBON-PAPER. REMINGTON TYPEWRITER COMPANY, Ilion and New York, N. Y.
Filed November 10, 1918. Serial No. 114,344. PUBLISHED FEBRUARY 11, 1919.
- 125,510. SALVE FOR FILLS, BURNS, SORES, AND OTHER SKIN ERUPTIONS. JOHN BROS & CO., Astoria, N. Y.
Filed December 11, 1918. Serial No. 114,809. PUBLISHED FEBRUARY 12, 1919.
- 125,511. CERTAIN NAMED FURNITURE AND UPHOLSTERY. O. W. RICHARDSON & CO., Chicago, Ill.
Filed August 21, 1918. Serial No. 112,818. PUBLISHED DECEMBER 24, 1918.
- 125,512. CLEANING AND POLISHING CLOTHS. JOHN C. O. RITZENTHALER, New York, N. Y.
Filed November 27, 1918. Serial No. 114,408. PUBLISHED FEBRUARY 11, 1919.
- 125,513. HOSIERY FOR MEN AND BOYS. ROBERT BROS COMPANY, New York, N. Y.
Filed October 23, 1918. Serial No. 112,806. PUBLISHED JANUARY 28, 1919.
- 125,514. WOVEN OR KNITTED DRESS FABRICS CONSTRUCTED OF WOOL, WORSTED, SILK, ARTIFICIAL SILK, AND COTTON. ROYAL EMBROIDERY WORKS, MADAY & FLEISCHER, New York, N. Y.
Filed July 20, 1918. Serial No. 112,304. PUBLISHED JANUARY 28, 1919.
- 125,515. TRAVELING-BAGS—NAMESLY, TOURIST KITS. HERMAN SCHUBERT & SONS, Brooklyn, N. Y.
Filed December 21, 1918. Serial No. 114,772. PUBLISHED FEBRUARY 11, 1919.
- 125,516. CHEMICAL PREPARATION FOR PURIFYING GASOLINE AND INCREASING ITS EFFICIENCY. SEALERS DISTRIBUTING COMPANY, Chicago, Ill.
Filed September 19, 1918. Serial No. 112,308. PUBLISHED FEBRUARY 11, 1919.
- 125,517. CLOCKS AND WATCHES. SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo.
Filed January 8, 1918. Serial No. 108,279. PUBLISHED FEBRUARY 11, 1919.
- 125,518. CERTAIN NAMED CUTLERY MADE WHOLLY OR IN PART OF PRECIOUS METAL. SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo.
Filed June 14, 1918. Serial No. 111,578. PUBLISHED JANUARY 14, 1919.
- 125,519. GRINDSTONE-DISKS, OILSTONES, KNIFE-SHARPENING STONES, SCYTHE-STONES, SAND-PAPER, EMERY-PAPER, EMERY-CLOTH, EMERY-SHEETS, LAWN-MOWER-SHARPENING PASTE, RAZOR-STROPS, AND RAZOR-HONERS. SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo.
Filed June 14, 1918. Serial No. 111,582. PUBLISHED FEBRUARY 11, 1919.
- 125,520. WOMEN'S ATHLETIC UNION-SUITS. CHARLES E. SHREVE & SONS, Philadelphia, Pa.
Filed December 30, 1918. Serial No. 114,702. PUBLISHED FEBRUARY 4, 1919.
- 125,521. FOOD-PREPARING PRESSURES—NAMESLY, POTATO-PRESSURES, FRUIT-PRESSURES, MEAT-PRESSURES, AND BEEF-TRIP-PRESSURES. SILVER & CO., New York and Brooklyn, N. Y.
Filed March 8, 1918. Serial No. 109,444. PUBLISHED JANUARY 28, 1919.
- 125,522. TOWELS, TABLE-LINEN, TABLE-COVERS, AND TABLE-NAPKINS. GEORGE F. SIMMONS, Peoria, Ill.
Filed July 22, 1918. Serial No. 98,700. PUBLISHED FEBRUARY 4, 1919.
- 125,523. CARTONS. CHARLES A. SAMPSON, Chicago, Ill.
Filed September 21, 1918. Serial No. 112,392. PUBLISHED FEBRUARY 12, 1919.
- 125,524. TONE-CONTROLLING ATTACHMENT FOR PLAYER-PIANOS. THE SOLAMON CO., INC., New York, N. Y.
Filed September 24, 1918. Serial No. 112,804. PUBLISHED FEBRUARY 4, 1919.
- 125,525. CANNED TUNA FISH AND CANNED SARDINES. SOUTHERN CALIFORNIA FISH CO., East San Pedro, Calif.
Filed December 31, 1918. Serial No. 114,920. PUBLISHED FEBRUARY 4, 1919.
- 125,526. PERFUMES, TOILET WATERS, FACE-POWDERS, AND SACHETS. SOUTHERLAND PERFUMES COMPANY, Jacksonville, Fla.
Filed November 22, 1918. Serial No. 98,480. PUBLISHED FEBRUARY 11, 1919.
- 125,527. NEWSPAPER-SECTION. STAB COMPANY, New York, N. Y.
Filed December 19, 1918. Serial No. 114,721. PUBLISHED FEBRUARY 11, 1919.
- 125,528. COFFEE. STETSON-BARRETT CO., Los Angeles, Calif.
Filed November 26, 1918. Serial No. 114,351. PUBLISHED FEBRUARY 4, 1919.
- 125,529. FEED-WATER CONTROLLERS USED IN CONNECTION WITH STEAM-BOILERS. GEORGE W. STETSON, Boston, Mass.
Filed November 19, 1918. Serial No. 114,248. PUBLISHED JANUARY 28, 1919.
- 125,530. CERTAIN NAMED FOODS AND INGREDIENTS OF FOODS. STEVENSON & HOWELL, LIMITED, London, England.
Filed August 8, 1918. Serial No. 112,038. PUBLISHED FEBRUARY 4, 1919.
- 125,531. COTTON PIECE GOODS. ROBERT A. SUFFERN, New York, N. Y.
Filed September 28, 1918. Serial No. 112,476. PUBLISHED DECEMBER 31, 1918.
- 125,532. COTTON PIECE GOODS. ROBERT A. SUFFERN, New York, N. Y.
Filed October 12, 1918. Serial No. 112,704. PUBLISHED DECEMBER 31, 1918.
- 125,533. CANVAS AND DUCK IN THE PIECE. SCUNDE & D'EVENS CO., Seattle, Wash.
Filed July 14, 1917. Serial No. 105,051. PUBLISHED DECEMBER 4, 1917.
- 125,534. HAMS, BACON, AND SHOULDERS. SWIFT AND COMPANY, Chicago, Ill.
Filed October 18, 1918. Serial No. 112,797. PUBLISHED FEBRUARY 4, 1919.
- 125,535. RIBBON PIECES MADE OF SILK AND COTTON AND SILK. E. CLARK TAYLOR, Chicago, Ill.
Filed May 14, 1918. Serial No. 110,908. PUBLISHED JANUARY 14, 1919.
- 125,536. CANNED VEGETABLES—NAMESLY, CANNED STRING-BEANS AND CANNED TOMATOES. TAMAL PACKING CO., San Francisco, Calif.
Filed October 31, 1918. Serial No. 112,908. PUBLISHED FEBRUARY 4, 1919.
- 125,537. ASBESTOS AND RUBBER PACKING FOR PISTON-RODS, WATER-JOINTS, STEAM-JOINTS, AND OTHER PIPE-JOINTS. JAMES H. TAYLOR, Baltimore, Md.
Filed October 12, 1918. Serial No. 112,705. PUBLISHED JANUARY 28, 1919.

- 125,538. WHEAT-FLOUR. TEXAS STATE FLOUR MILLS, Galveston, Tex. Filed November 18, 1918. Serial No. 99,989. PUBLISHED FEBRUARY 4, 1919.
- 125,539. CARDBOARD. THAMES PAPER COMPANY, LTD., Farnham, England. Filed October 4, 1918. Serial No. 118,582. PUBLISHED FEBRUARY 11, 1919.
- 125,540. BOOTS AND SHOES MADE OF LEATHER AND CANVAS. THOMPSON SHOE COMPANY, ST. PAUL, Minn. Filed December 24, 1917. Serial No. 106,126. PUBLISHED FEBRUARY 11, 1919.
- 125,541. MONTHLY MAGAZINE PUBLICATION. VANITY FAIR PUBLISHING CO., NEW YORK, N. Y. Filed December 11, 1918. Serial No. 114,092. PUBLISHED FEBRUARY 4, 1919.
- 125,542. SEMIMONTHLY PUBLICATION. THE VOICE COMPANY, NEW YORK, N. Y. Filed July 26, 1918. Serial No. 112,851. PUBLISHED FEBRUARY 11, 1919.
- 125,543. COMBINATION HAIR-CUTTERS AND SAFETY-RAZORS. THOMAS YEDMAN, NEW YORK, N. Y., assignor to Satimo Corporation, New York, N. Y., a Corporation of New York. Filed August 30, 1917. Serial No. 106,764. PUBLISHED NOVEMBER 5, 1918.
- 125,544. BOXBOARD CONTAINERS SPECIALLY DESIGNED FOR PACKAGING RUBBER TIRES. EDWIN J. YOUNG, WADSWORTH AND HITTMAH, OHIO. Filed December 21, 1918. Serial No. 114,773. PUBLISHED FEBRUARY 11, 1919.
- 125,545. OVERHAULS AND WORK-CHUTES. THE HESS COMPANY, CINCINNATI, OHIO. Filed August 6, 1917. Serial No. 104,944. PUBLISHED APRIL 22, 1918.
- 125,546. BUFFING COMPOUNDS. THE GEMMA RUBBER COMPANY, HANNAH, N. J., and CHICAGO, ILL. Filed November 4, 1918. Serial No. 114,946. PUBLISHED FEBRUARY 11, 1919.
- 125,547. LEADS FOR MECHANICAL PENCILS. THE WARD COMPANY, CHICAGO, ILL. Filed November 4, 1918. Serial No. 114,989. PUBLISHED FEBRUARY 11, 1919.
- 125,548. PRINTING-PAPER. A. D. WARREN COMPANY, BOSTON, MASS. Filed September 9, 1918. Serial No. 112,999. PUBLISHED FEBRUARY 11, 1919.
- 125,549. RUBBER HEELS FOR SHOES. FRANK WHARTON, MYRTLE, OHIO. Filed July 12, 1918. Serial No. 112,989. PUBLISHED FEBRUARY 11, 1919.
- 125,550. FLANNELS IN THE PIECE. JAMES N. WILLIAMSON & SONS CO., DARTMOUTH, N. C. Filed September 9, 1918. Serial No. 112,998. PUBLISHED JANUARY 21, 1919.
- 125,551. HAIR-TONIC. M. M. WOOD, KIDDER, W. VA. Filed December 22, 1918. Serial No. 114,794. PUBLISHED FEBRUARY 4, 1919.
- 125,552. EXTERNALLY-APPLIED MEDICINE FOR ALLEVIATING RHEUMATISM, CATARRH, AND GOUT. STANLEY WOLFKE, PORTLAND, OREG. Filed October 11, 1918. Serial No. 112,769. PUBLISHED FEBRUARY 11, 1919.

TRADE-MARK REGISTRATIONS RENEWED.

- 16,438. BAKING-POWDER. PRICE BAKING POWDER COMPANY, CHICAGO, ILL.; ROYAL BAKING POWDER COMPANY, assignee. Registered April 2, 1899. Renewed April 2, 1919.
- 16,443. TOILET AND MEDICINAL SOAP AND A TOILET CREAM. BLONDIAU & CO., LONDON, ENGLAND; VINELLA COMPANY LIMITED (INCORPORATED 1899). Registered April 2, 1899. Renewed April 2, 1919.
- 16,499. A GRANULAR EFFERVESCENT SALT. ISAAC E. SUMMERS, BALTIMORE, MD.; SUMMERS DRUG COMPANY OF BALTIMORE CITY, assignee. Registered May 21, 1899. Renewed May 21, 1919.

LABELS

REGISTERED MAY 20, 1919.

- 21,225.—Title: "MAPLE CREST." (For Butter.) HENRY D. BATES, CANTON, OHIO. Filed April 11, 1919.
- 21,226.—Title: "BEACH'S 'ALL LEATHER' POCKET-BOOKS, 'BEST FOR YOUR MONEY.'" (For Pocket-Books.) THE BEACH LEATHER COMPANY, COBBECTON, OHIO. Filed March 24, 1919.
- 21,227.—Title: "BABY BUNTING'S CASTILE SOAP." (For Castile Soap.) THE CARLTON CO., NEW YORK, N. Y. Filed April 4, 1919.
- 21,228.—Title: "QUAIL." (For Fresh Pears.) COOK & MCKENNA, MONTICELLO, CALIF. Filed March 12, 1919.
- 21,229.—Title: "EAGLE AND CRESCENT." (For Brooms and Mops.) CRESCENT BROOM COMPANY, INC., NEW ORLEANS, LA. Filed February 17, 1919.
- 21,230.—Title: "MADONNA." (For Wrist-Rosary.) EISENHART MFG. CO., ST. LOUIS, MO. Filed February 7, 1919.
- 21,231.—Title: "ETTER'S GOUT REMEDY." (For Gout Remedy.) CHARLES E. ETTER, HARTVILLE, OHIO. Filed February 23, 1919.
- 21,232.—Title: "HARMONY SNAP FASTENER DISPELS DRESSING DISCORD." (For Snap-Fasteners.) FERRIS SNAP FASTENER CORPORATION, NEW YORK, N. Y. Filed February 14, 1919.
- 21,233.—Title: "ECONOMY." (For a Detergent Washing Compound.) FITZPATRICK BROS., CHICAGO, ILL. Filed March 24, 1919.
- 21,234.—Title: "SERVICISED." (For Reading and other Building Materials.) A. C. FISCHER, CHICAGO, ILL. Filed September 22, 1917.
- 21,235.—Title: "BAKER'S COCONUT." (For Package-Coconut.) THE FRANKLIN BAKER COMPANY, PHILADELPHIA, PA. Filed March 21, 1919.
- 21,236.—Title: "BREAD WRAPPER." (For Bread.) EMILS FRISCH, CHICAGO, ILL. Filed February 17, 1919.
- 21,237.—Title: "MAY-O BELT." (For Corsets.) LORENZO CORSET CO., CHICAGO, ILL. Filed April 11, 1919.
- 21,238.—Title: "INDIAN SAGE O HAIR GROWER." (For Indian Sage O Hair Grower.) MADAM M. L. GRIFFIN, WEST PALM BEACH, FLA. Filed November 8, 1918.
- 21,239.—Title: "A PURE SOFT BEVERAGE." (For a Non-Intoxicating Beverage.) S. LEHMANN'S SONS, INC., BROOKLYN, N. Y. Filed March 12, 1919.
- 21,240.—Title: "PACKAGE ELECT." (For Boxes Containing Candy.) MILWAUKEE PAPER BOX COMPANY, MILWAUKEE, WIS. Filed March 17, 1919.
- 21,241.—Title: "MONEY BACK." (For Tube, Casing and Tube Patches.) MONEY-BACK LABORATORIES, INC., OKLAHOMA, OKLA. Filed December 7, 1918.
- 21,242.—Title: "FRESHNESS." (For Canned Salmon.) NORTHWESTERN FISHERIES CO., SEATTLE, WASH. Filed January 12, 1919.
- 21,243.—Title: "COAT OF ARMS BRAND." (For Canned Salmon.) NORTHWESTERN FISHERIES CO., SEATTLE, WASH. Filed January 12, 1919.
- 21,244.—Title: "THE CHIEF NUT." (For Nut and Fruit Bars.) THE NUT HOUSE INCORPORATED, SEATTLE, WASH. Filed March 10, 1919.
- 21,245.—Title: "'SUM' 25,400,000 QUALITY." (For Nut and Fruit Bars.) THE NUT HOUSE INCORPORATED, SEATTLE, WASH. Filed March 10, 1919.
- 21,246.—Title: "COLD SEAL." (For a Non-Intoxicating Beverage.) THE OHIO BEVERAGE COMPANY, COLUMBUS, OHIO. Filed February 1, 1919.
- 21,247.—Title: "THE OTTUMWA CIGAR O. K." (For Cigars.) FALGSTER BROS., OTTUMWA, IOWA. Filed April 2, 1919.
- 21,248.—Title: "BLUE LABEL PENICK & FORD'S BEEHIVE BRAND." (For Pure Country-Made Ribbon-Cane Syrup.) PENICK & FORD, LRA., NEW ORLEANS, LA. Filed March 12, 1919.
- 21,249.—Title: "PURISOL." (For Soaps.) PURISOL PRODUCTS CORPORATION, BROOKLYN, N. Y. Filed April 5, 1919.
- 21,250.—Title: "GERMOSOL." (For Antiseptic Germicide and Deodorant.) MAX REIMANN, NEW YORK, N. Y. Filed April 11, 1919.
- 21,251.—Title: "MOTHER HUBBARD BREAD." (For Bread.) ROBERTSON PAPER COMPANY, BELLFLOWERS, VA. Filed March 12, 1919.
- 21,252.—Title: "ROM-BAW POLISH THE BIG IDEA." (For a Polish for Dressing Varnished Surfaces.) ROM-BAW CHEMICAL CO., INC., CLINTON, N. Y. Filed April 4, 1919.
- 21,253.—Title: "NATIVE SON." (For Grapes.) L. RUSCONI, WAHOTOKE, CALIF. Filed March 12, 1919.
- 21,254.—Title: "OUR PRIDE." (For Grapes.) L. RUSCONI, WAHOTOKE, CALIF. Filed March 12, 1919.
- 21,255.—Title: "WILLIAM TELL." (For Grapes.) L. RUSCONI, WAHOTOKE, CALIF. Filed March 12, 1919.
- 21,256.—Title: "RUSSIAN STYLE FRUIT KARAMEL." (For Candy.) THE RUSSIAN CANDY COMPANY, CHICAGO, ILL. Filed April 11, 1919.
- 21,257.—Title: "RUSSIAN STYLE FRUIT KARAMEL." (For Candy.) THE RUSSIAN CANDY COMPANY, CHICAGO, ILL. Filed April 11, 1919.
- 21,258.—Title: "RUSSIAN STYLE FRUIT KARAMEL." (For Candy.) THE RUSSIAN CANDY COMPANY, CHICAGO, ILL. Filed April 11, 1919.
- 21,259.—Title: "RUSSIAN STYLE FRUIT KARAMEL." (For Candy.) THE RUSSIAN CANDY COMPANY, CHICAGO, ILL. Filed April 11, 1919.
- 21,260.—Title: "RUSSIAN STYLE FRUIT KARAMEL." (For Candy.) THE RUSSIAN CANDY COMPANY, CHICAGO, ILL. Filed April 11, 1919.
- 21,261.—Title: "SIGNODE SYSTEM." (For Reinforcing-Seals.) SIGNODE SYSTEM, INC., CHICAGO, ILL. Filed April 3, 1919.
- 21,262.—Title: "RUSSIAN MAID." (For Wheat-Flour.) SMITH & NUGGS COMPANY, INC., NEW YORK, N. Y. Filed March 24, 1919.
- 21,263.—Title: "MILLIONAIRE HARRY." (For Cigars.) HARRY H. SNOVEL, VAN Wert, OHIO. Filed March 10, 1919.
- 21,264.—Title: "TOURNAINE." (For Candy.) THE TOURNAINE COMPANY, BOSTON, MASS. Filed March 25, 1919.
- 21,265.—Title: "TOURNAINE CHOCOLATES BOSTON MADE." (For Candy.) THE TOURNAINE COMPANY, BOSTON, MASS. Filed March 25, 1919.
- 21,266.—Title: "GARDEN GATE." (For Toilet Water.) WILSON'S CHEMICAL COMPANY, BUFFALO, N. Y. Filed April 9, 1919.
- 21,267.—Title: "ABSORBINE, JR. THE ANTISEPTIC LINIMENT." (For Absorbine, Jr. Liniment.) W. F. YOUNG, INC., SPRINGFIELD, MASS. Filed April 5, 1919.

PRINTS

REGISTERED MAY 20, 1919.

- | | |
|---|---|
| <p>5,089.—Title: "LICENSE PLATE HOLDER." (For License-Plate Holders.) AVFA SPECIALTY CO., Worcester, Mass. Filed January 27, 1919.</p> <p>5,090.—Title: "THE DOUGHBOY'S RETURN." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed April 7, 1919.</p> <p>5,091.—Title: "THE CANTEN THAT 'SURE COMES CLEAN.'" (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed April 7, 1919.</p> <p>5,092.—Title: "DIXIE DIAMOND COAL." (For Coal.) CHICAGO COAL & MINING COMPANY, Chicago, Ill. Filed February 26, 1919.</p> <p>5,093.—Title: "FROM CHILDHOOD TO OLD AGE—DR. SWETT'S ROOT BEER." (For Root-Beer.) THE DR. SWETT ROOT BEER COMPANY, Boston, Mass. Filed March 23, 1919.</p> <p>5,094.—Title: "COUNCIL MEATS, A MEAT MARKET ON YOUR PANTRY SHELF." (For Canned Meat.) INDIAN PACKING COMPANY, Green Bay, Wis. Filed February 10, 1919.</p> <p>5,095.—Title: "COUNCIL MEATS FROM THE WISCONSIN COUNTRY TO YOU." (For Canned Meats.) INDIAN PACKING COMPANY, Green Bay, Wis. Filed March 5, 1919.</p> <p>5,096.—Title: "ABOVE ALL." (For Kirk's Flake Soap.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed April 10, 1919.</p> <p>5,097.—Title: "YOU'LL LIKE IT." (For Kirk's Jap Rose Soap.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed April 10, 1919.</p> | <p>5,098.—Title: "LOVED BY CHILDREN." (For Kirk's Jap Rose Soap.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed April 10, 1919.</p> <p>5,099.—Title: "WHY BUY NEW BLANKETS?" (For Kirk's Flake White Soap.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed April 10, 1919.</p> <p>5,100.—Title: "JUST LIKE NEW-AGAIN!" (For Kirk's Flake Soap.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed April 10, 1919.</p> <p>5,101.—Title: "SHU-RAIN." (For Wind-Shields of Automobiles.) THE MAR-ED NATIONAL AUTO SUPPLY CO., Baltimore, Md. Filed March 12, 1919.</p> <p>5,102.—Title: "BALL BEARINGS." (For Ball-Bearings.) THE NEW DEPARTURE MANUFACTURING COMPANY, Bristol, Conn. Filed February 26, 1919.</p> <p>5,103.—Title: "CALIFORNIA FRUITS." (For Fruit.) PENNYN FRUIT CO., PENNYN, CALIF. Filed February 1, 1919.</p> <p>5,104.—Title: "THE HOME TRINITY." (For Electric Washing, Sweeper, and Ironing Machine.) F. C. SILBERHORN, Chicago, Ill. Filed February 7, 1919.</p> <p>5,105.—Title: "RADIUM LIGHTED DIALS." (For Watch and Clock Dials.) TRAVELER MFG. CO., Philadelphia, Pa. Filed March 26, 1919.</p> <p>5,106.—Title: "SPOT SLIDE." (For Garment-Spotter.) J. F. BENDICK, Portsmouth, Ohio. Filed February 17, 1919.</p> |
|---|---|

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS

U. S. Circuit Court of Appeals—Third Circuit.

J. E. BAKER CO. v. KENNEDY REFRACTORIES CO. et al.
Decided November 28, 1918.
[283 Fed. Rep., 739.]

- PATENTABILITY—INVENTION—MATERIAL KNOWN AS "MAGNOLITE."**
The Baker patent, No. 1,003,102, for a material for use in making up, repairing, and replacing linings, etc., of metallurgical furnaces, known as "magnolite," which consisted of a product having new characteristics produced by successive burnings of dolomite by two old methods, held valid, showing invention.
- INFRINGEMENT—PRODUCTS SIMILAR IN FUNCTION, BUT OF DIFFERENT CHARACTERIZATION.**
The Baker patent, No. 1,003,102, for a material for use in making up, repairing, and replacing linings, etc., of metallurgical furnaces, which consisted in a double-burned dolomite known as "magnolite," having certain specified characteristics, held not infringed by a product known as "bondymag," which had different characteristics, although it accomplished substantially the same results.
- SALES—PRODUCT PATENT—IDENTITY.**
Where the issue of infringement arises on a product patent, the processes are immaterial, except as they show characteristics of the two products that are either identical or different.

APPEAL from the District Court of the United States for the Eastern District of Pennsylvania; Oliver B. Dickinson, judge.

Suit by the J. E. Baker Company against the Kennedy Refractories Company and H. A. Kennedy. From a decree for defendants (244 Fed., 812), complainant appeals. Modified and affirmed.

Mr. Frederick P. Fish, Mr. J. L. Stockpole, and Cyrus N. Anderson for the appellant.

Mr. J. H. Brickenstein and Mr. Joseph C. Freley (Messrs. Freley & Paul on the brief) for the appellees.

Before BUFFINGTON, McPHERSON, and WOOLLEY, Circuit Judges.

WOOLLEY, Cir. J.:

This suit is on Letters Patent No. 1,003,102 for "material for use in making up, repairing, and replacing linings, etc., of metallurgical furnaces," issued May 27, 1913, to John E. Baker. The claims involved are 2, 3, 4 and 5; the issues, validity and infringement. The district court found the claims invalid, and indicated in its opinion, that, if valid,

Vol. 283.

they are not infringed. (244 Fed., 812.) The plaintiff appealed.

The succinct statement of the prior art and of the invention appearing in the patent specification, and the thorough discussion of both in the court's opinion, make an extended presentation of the case unnecessary.

(1) For linings of metallurgical furnaces and particularly of basic open-hearth steel-furnaces, a material that is both basic and refractory is required. The basic quality of the material enhances metallurgical reactions; the refractory quality sustains the furnace-lining and prolongs its life. Prior to the patent, various kinds of basic and refractory products were used. They were calcined or burned minerals containing magnesia, lime, alumina, silica, and iron. Of these substances, magnesia is the most basic; it is also intensely refractory. Its purest form occurs in magnesite. The best grade of this mineral is found in Austria.

Magnesite contains a large percentage of magnesia and very little lime. In preparing it for use as a furnace-lining, it is subjected to a temperature equal at least to the temperature of the furnace in which it is to be placed, in order to expel all volatiles and consume all combustible ingredients. Before the patent, Austrian magnesite was the only satisfactory material used for lining bottoms of basic open-hearth steel-furnaces.

In addition to foreign magnesites, a rock found in the United States and known commercially and chemically as dolomite is used in repairing furnace-linings. Dolomite is a magnesian limestone, containing in varying proportions the same chemical ingredients as magnesite, but differing radically from magnesite in the preponderance of the relatively low basic element of lime over the high basic element of magnesia. The principal objection to a lime base is its tendency to absorb atmospheric moisture, and in consequence to slake, thereby interfering with its proper behavior in the open-hearth furnace.

Dolomite, either in its raw state or burned, has long been used for repairing and patching furnace-linings under certain conditions, but, being open to objections arising from its lime base, it never has been regarded even remotely as a substitute for Austrian magnesite.

No. 2.]

Dolomite, like all furnace-lining materials, must be burned before it is used. Prior to the patent, dolomite was burned by two methods, a cupola method and a rotary-kiln method. In the cupola method the furnace was charged with alternate layers of coke and raw dolomite-rock. After the heat had driven off the moisture, carbonic-acid gas, and other volatiles, the material was taken from the furnace and reduced by grinding to the desired granular size. This method was imperfect because it left in the product powdered material, coke-breeze, cinder, ash, and a small quantity of volatiles. The results were that the product absorbed moisture readily and slaked quickly and combustion of the unconsumed ingredients continued after it was placed in the furnace-lining.

Burning in a rotary-roasting-kiln likewise failed to expel all volatiles from the rock and likewise left the product readily pervious to moisture and consequent slaking. For these reasons, dolomite, burned by one or the other of the trade methods, contained such objectionable features that it was not considered in the same class with Austrian magnesite, either chemically or commercially. The way the art regarded their relative values is shown by the prices it paid for them. Burned dolomite sold for about four dollars a ton, while Austrian magnesite sold for about thirty dollars a ton.

Baker conceived a new method of burning dolomite. Its novelty consisted, not in disregarding and breaking away from either of the old methods, but in employing both of them. On first view this would seem a simple and a natural expedient, whereby the advantages of each method are aggregated in a thoroughly-burned product. The result, however, was more than this; it was startling and revolutionary.

In making the product of the patent by his method, Baker first ground the rock to the size of railroad-ballast and burned it by the cupola method. He got a product lacking uniformity in the expulsion of volatiles and containing the objectionable ingredients of ash and cinder. This product he ground to the proper size for use in the furnace and then burned it by the rotary-kiln method. The double burning produced several novel and highly-valuable results. It uniformly condensed the product, uniformly expelled all volatiles, completely eliminated combustible ingredients, and coated at least the surface of its condensed grains or particles by reaction of its chemical constituents in a manner that made them resistant to moisture for a longer time than single-burned dolomite and made them correspondingly slow to slake. By the apparently simple expedient of double burning, the patentee got a product chemically and commercially unlike any dolomite product theretofore known, which the metallurgical art, notwithstanding the predominating lime base of the product, accepted at once as the equal of and a fair substitute for Austrian magnesite with its magnesia base. It is manufactured and sold under the trade-name of "magdolite."

[Vol. 208,

The patent in issue being a product patent, we are not concerned with the process by which the product is produced; that forms the subject of another patent to Baker (No. 1,088,012). The first question, therefore, is: Does this product involve patentable invention?

The claims in issue described the patented product in the following terms, differences in the claims being indicated by the bracketed portions:

As a new article of manufacture, burned dolomite in the form of a granulated mass, the particles (or substantially all of the particles) of which are uniformly substantially free from volatiles (and cinder) and are uniformly condensed (having a substantially uniformly condensed surface part) and (being of a uniform physical character) rendering the mass slow to absorb moisture.

The defendant challenged the validity of the claims on two grounds: first, that the patented product is an improvement upon the old article only in degree and excellence; and, second, that the qualities claimed for it are the natural results of thorough burning, and, in consequence, are the mere results of the operation of natural causes. It was on the latter ground that the claims were held invalid. In reaching this decision the learned trial judge realized, and very frankly said, that the issue of invention is so evenly balanced that he yielded with some hesitation to his inclination that invention is wanting. We also realize that in some aspects the issue is close; but after giving the case very full and deliberate consideration we are inclined to the opposite view.

Being of opinion that the product of the patent involves invention and that the claims in issue are valid, it is not necessary to state the grounds of our opinion with the elaboration of which the subject is capable. It is sufficient to say, that, though nothing is added to dolomite-rock when it is manufactured into magdolite, so much is taken from it that it is freed of its objectionable features, and it is so transformed that new characteristics, both physical and chemical, are given it, with the result that the product is raised from the low level in which dolomite was regarded by the art as a material for repairing furnace-linings to the high level of equality with Austrian magnesite, admittedly the best furnace-lining known. We regard magdolite as "a new article of manufacture" in the sense at least of being wholly different from any article previously manufactured and from anything existing in nature, containing elements of novelty and utility in such a degree that its effect upon the arts to which it directly and indirectly relates was immediate and immensely beneficial. While the chemical and commercial values of magdolite were established by its introduction and use as a substitute for Austrian magnesite before the war, its use as a substitute since Austrian magnesite has become unobtainable, has contributed, it may safely be said, in no small measure to the ability of the steel industry of this country to meet the demands which the war has made upon it.

(2, 3) The claims of the patent in issue being valid, the remaining question is one of infringement.

[Vol. 208,

The alleged infringing product is made by the defendant under a patent with which we are not here concerned. It is sold in competition with the product of the patent under the trade-name of "kandy-mag" and is offered to the metallurgical art for the same uses, under representations and warranties that it is the equal of Austrian magnesite.

So different are the processes of the two products that they bear no resemblance to each other. As the issue of infringement arises on a product patent, the processes are of course not material, except as they show characteristics of the two products that are either identical or different and that bear accordingly on the issue of infringement.

Kandy-mag like magdolite is made from dolomite. The rock used is not the run of the quarry but is selected with a regard to its chemical composition. It is then ground to an impalpable powder. During the pulverization process there is added a definite and substantial amount of iron oxide usually in the form of rolling-mill scale. The pulverized mass is then fed into an inclined rotary kiln, such as is used in the cement art, and is subjected to a temperature equal to that of an open-hearth furnace. The pulverized materials travel down the kiln through progressively-increasing temperatures and become aggregated by fusion and chemical reaction into nodules of increasing size until they are discharged. The nodules are then ground to commercial size and the process ends.

For proof of infringement, the plaintiff relies on the identity of the characteristics of the two products. It claims broadly, that in both magdolite and kandy-mag the same ingredients, in whatever condition they are, make up a material that has the same character of an artificial substitute for Austrian magnesite. This contention, though true, obviously cannot alone sustain the charge of infringement, for it does not follow that invention of the first substitute for Austrian magnesite confers upon the inventor a monopoly over all substitutes subsequently invented, without regard to considerations of their distinguishing characteristics of composition and performance.

The plaintiff goes farther, however, and claims identity of characteristics specifically, in that both products are used for the same purposes and accomplish the same results; each is made by burning the same kind of rock, whereby each is condensed, made uniformly free from volatiles and uniformly non-hygroscopic.

Referring generally to the plaintiff's claims of identity, it is true that the two products are made from the same rock and are used for the same purposes, but we are persuaded that they do not accomplish just the same results. Kandy-mag accomplishes more results. While each is "uniformly free" from volatiles when made, that is, while all parts of the same material are uniformly free from volatiles, each material as compared with the other does not remain equally free from volatiles. Kandy-mag main-

[Vol. 208,

tains a greater freedom from volatiles for a longer time. Each is not uniformly condensed when in the form in which it is intended to be used. Kandy-mag is not condensed at all; it is enlarged. While each is uniformly non-hygroscopic, in the sense of uniformity in its own parts, the two products are not equally non-hygroscopic. In differences arising from the lack of equality in essential characteristics, we discern lack of identity.

In considering the defendant's contention that its product differs in structure and physical characteristics from that of the plaintiff, we find differences that are obvious. Magdolite retains substantially the solid crystalline structure of its initial dolomite rock; but kandy-mag loses the crystallization of the initial dolomite in the process of burning and is transformed into a material that is amorphous and porous. Its substance is composed not of the original rock crystallization, but of clinkers built into nodulous masses, the particles of which are aggregated by chemical reactions, in which, not only each nodule but every grain or particle of each nodule is made resistant to moisture, not temporarily as in magdolite, but almost permanently so. This difference goes directly to the qualities of the products as articles of commerce to be transported and stored and to the manner of their performance as furnace-linings.

Incident to its crystalline structure, a characteristic of magdolite claimed by the patent is that it—

is much heavier, volume for volume, than any manufactured dolomite heretofore produced, which has rendered the product available for purposes for which it has heretofore been thought impossible to use dolomite. This characteristic is obtained by condensing the rock when volatiles are expelled. But the defendant's product, instead of being condensed in the process, is enlarged into a porous structure, with the result that, instead of its weight being increased, it is decreased, and, volume for volume, it is about twenty-eight per cent. lighter than the patented product. It was shown, however, that when both products are finely ground they are of the same specific gravity. But the metallurgical art does not use the products in a ground state. Grinding or pulverization is the very thing the art desires to avoid. On an issue of infringement, we are concerned only with identity of characteristics of two products in the form in which they are intended for use.

We incline also to the contention of the defendant that there is a difference in the chemical composition of the two products.

It is not clear just what chemical reactions take place in the processes of burning. It is known that certain of the constituent chemicals—silica, alumina, iron—are fluxes, and, in their fusion, cause chemical reactions which transform the rock in some unexplained way into moisture-resistant and refractory products. In the magdolite process, the patentee first relied solely on the natural fluxing contents of the rock for chemical reactions, seeking, however, to keep the silica content at a low level of from four to six per cent. Acting on an oppo-

site theory, the defendant in producing kendymag seeks a high silica content running from twelve to fourteen per cent, and to the natural iron content of less than one per cent, adds about four and one-half per cent. of iron, whereby it is claimed that ferrates of lime and magnesia are formed which cover the myriads of clinkers and give to its product the characteristic of persistent resistance to the action of moisture. This characteristic admittedly it contains, and by it there is eliminated almost permanently the highly objectionable feature of slaking, which occurs promptly in single-burned dolomite, and which occurs after a time in the double-burned dolomite of the patent.

Although the chemistry of this subject justified the elaborate discussion in the evidence and briefs, its repetition in this opinion is not necessary to the decision. We are inclined to the opinion that the iron added to the defendant's product, and added after the invention to a portion of the plaintiff's product—the main controversial point in the chemistry of the case—performs an important chemical function in aiding the formation of nodules in the defendant's product and in facilitating in both the chemical reaction that takes place between lime and silica. Iron is a flux, and it is a flux which very certainly tends to regulate and equalize the other fluxes. We are of opinion that the chemical composition of the two products is not identical.

Considering the question of identity a step farther, it is to be observed that the defendant's process for making its product was taken evidently from the cement art. Kendymag is not dolomite, unless it can be said that Portland cement is limestone, or is blast-furnace slag. Here as there, one thing is the product of the other. They are not the same thing. The material out of which kendymag is made is dolomite, but in the process of making it dolomite with its rocklike and crystalline characteristic is destroyed and a new product is obtained having no resemblance to the original. Though radically transformed in its making, magdolite still is dolomite; it is described as such throughout the specifications and the claims of the patent, where it is referred to as "manufactured dolomite," "burned dolomite," "double burned dolomite." If kendymag is not dolomite, it cannot infringe the patented product, which is dolomite. If, however, it should be that the defendant's material because initially dolomite remains dolomite in its ultimate form, and, in consequence, both materials are dolomite, then, in our opinion, the distinguishing characteristics of the two dolomitic materials in their structure, physical properties and chemical composition are such as preclude infringement.

The decree below, when modified in accordance with this opinion, is affirmed.

ADJUDICATED PATENTS

(U. S. D. C. Conn.) The Brooke patent, No. 723,983, for an automatic device for cutting or sep-

arating a flowing stream of molten material, particularly glass, *Held not infringed.* *Honey Brooke Glass Co. v. Hartford-Fairmont Co., 255 Fed. Rep., 901.*

(U. S. D. C. Ill.) The Kane patent, No. 1,280,105, for electrical ignition device for internal-combustion engines, claims 2, 7, and 8 *Held valid and infringed.* *Webster Electric Co. v. Podlesak, 255 Fed. Rep., 907.*

(U. S. D. C. Ill.) The Podlesak patents, Belarus No. 12,575 (original No. 1,005,975) and No. 1,101,954, for electrical ignition devices, *Held infringed.* *Webster Electric Co. v. Podlesak, 255 Fed. Rep., 907.*

(U. S. C. C. A. Pa.) The Young patent, No. 992,908, for controller for mechanical medical instruments, *Held valid and infringed.* *Cunningham Piano Co. v. Asolton Co., 255 Fed. Rep., 897.*

Changes in Classification.

(Class No. 2,451.)

DEPARTMENT OF THE INTERIOR,

UNITED STATES PATENT OFFICE,

Washington, D. C., April 22, 1919.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 122, Liquid Heaters and Vaporizers, (Division XVIII.) establish the following subclasses and definitions:

Feeders—

Automatic—

451.1. Thermally controlled—

451.2. Pressure-operated valve.

Safety devices—

504.1. Fusible control.

504.2. Alarms or indicators.

504.3. Fire-extinguishers.

504.4. Fusible control.

451.1. FEEDERS, AUTOMATIC, THERMALLY CONTROLLED. Devices for automatically controlling flow of feed-water to a boiler by thermal responsive means, usually a thermostat, of the expanding-solid type, which is exposed more or less to the steam as the water-level varies.

Search this class, subclass 504.2, for thermal means which operate a valve, on drop of water-level below a certain limit, to operate an alarm or indicator.

451.2. FEEDERS, AUTOMATIC, THERMALLY CONTROLLED, PRESSURE-OPERATED VALVE. Devices for automatically controlling flow of feed-water to a boiler by thermal responsive means, usually a thermostat, which is exposed more or less to the water-level varies, but in which the controlling-valve is operated by fluid-pressure means, which may be the pressure generated in a thermostat of the expanding-solid type.

504.1. SAFETY DEVICES, FUSIBLE CONTROL. Safety devices for boilers containing a fusible element which fuses, generally when the water-level falls below a certain limit, and sounds an alarm or allows the steam-pressure to fall.

504.2. SAFETY DEVICES, ALARMS OR INDICATORS. Devices which operate an alarm or indicator should dangerous conditions arise in the boiler, usually by a thermally-operated means which is exposed to the steam when the water-level falls below a certain limit.

Search this class, subclass 504.1.

504.3. SAFETY DEVICES, FIRE-EXTINGUISHERS, FUSIBLE CONTROL. Devices controlled by fusible means for extinguishing steam or water to the fire-box or otherwise extinguishing or dampening fire.

Search Class 122—Metallic receptacles, subclass 50. Attachments, Frangible or fusible.

No. 2.]

The patents contained in these subclasses have been taken for the most part from class 236, Dampers, Automatic, subclasses 12, Expansion, Liquid-level; 13, Expansion, Liquid-level, Separate conduit; 14, Expansion, Liquid-level, Separate conduit, Pressure-operated valve, and 15, Fusible, hereinafter abolished.

In class 122, Stoves and Furnaces, (Division XIX.) establish the following subclasses and definitions:

Dampers—

257.5. Fusible release.

257.5. DAMPERS, FUSIBLE RELEASE. Includes patents for dampers for stoves or furnaces with fusible means for holding them in inoperative position, but which when the temperature reaches a certain limit fuses and allows the damper to move in position to check the fire.

The patents contained in this subclass have been taken from class 236, Dampers, Automatic, subclass 15, Fusible, hereinafter abolished.

In class 122, Stoves and Furnaces, (Division XIX.) in subclass 251, Water-heaters, Gaseous or Liquid fuel, Automatic, abolish the existing definition and establish in lieu thereof the following definition:

251. WATER-HEATERS, LIQUID OR GASEOUS FUEL, AUTOMATIC. Water-heaters in which the flow of fuel to the burner is automatically cut off when the temperature of the water reaches a certain limit. Has ordinarily to be reset by hand.

Search Classes—

122—LIQUID HEATERS AND VAPORIZERS, and 250, AUTOMATIC TEMPERATURE AND HUMIDITY REGULATION, subclass 20, Closed Solid-heaters, and the subclasses indicated thereunder.

In class 251, Gas and Liquid Contact Apparatus, (Division XXXII.) change the title of subclass 50, Fluid distribution, Valved, Hygrostatic or thermostatic, to read:

Fluid distribution—

Valved—

Thermostatic.

abolish the existing definition, and establish in lieu thereof the following definition:

25. FLUID DISTRIBUTION, VALVED, THERMOSTATIC. Including thermostatic control of valves.

In class 236, Dampers, Automatic, (Division XIX.) change the title of the class to read Class 255, Automatic Temperature and Humidity Regulation, abolish the existing subclass titles, and establish in lieu thereof the following subclasses and definitions:

255. AUTOMATIC TEMPERATURE AND HUMIDITY REGULATION—Continued.

1. Miscellaneous.

2. Insulator type of heater—

Electric.

Thermostatic—

Expanding fluid.

Expanding solid.

Insulator type of heater.

Red iron type.

Atmospheric type of burner.

Combined heater and apartment controlled.

Hot-air furnace—

Air and fire control.

Fluid-mixture—

Piston type.

Combined boiler and furnace controlled.

Furnace-controlled.

Combined draft and check control.

Exchange-heater—

Pressure-operated.

Thermostatic—

Expanding fluid.

Expanding solid.

Closed fluid-heater—

Safety cut-out.

Radiator type.

Combined thermostat and flow controlled—

One valve.

Two or more valves.

Flow-controlled.

Pressure-operated—

With balancing pressure-chamber.

Stroke-retarding.

Relay, puppet.

Bourdon type.

Floot.

Thermostatic—

Expanding fluid.

Expanding solid.

Cooling-radiators—

Air control.

Establish, in Division XIX, class 257, Thermostats and Humidistats, with the following subclasses and definitions, the patents contained in this class having been taken for the most part from class 236, Dampers, Automatic, hereinafter abolished:

257. THERMOSTATS AND HUMIDISTATS—

STATS—Continued.

Thermostats—

Expanding fluid—

6. Floot or piston operation.

Balanced.

Bellows type.

Wafer type.

Bourdon type.

Expanding solid—

Multiple element.

Conduit.

Concentric elements.

Concentric bar—

Coil.

7. Floot or piston operation.

Balanced.

Bellows type.

Wafer type.

Bourdon type.

Expanding solid—

Multiple element.

Conduit.

Concentric elements.

Concentric bar—

Coil.

251. WATER-HEATERS, LIQUID OR GASEOUS FUEL, AUTOMATIC. Water-heaters in which the flow of fuel to the burner is automatically cut off when the temperature of the water reaches a certain limit. Has ordinarily to be reset by hand.

Search Classes—

122—LIQUID HEATERS AND VAPORIZERS, and 250, AUTOMATIC TEMPERATURE AND HUMIDITY REGULATION, subclass 20, Closed Solid-heaters, and the subclasses indicated thereunder.

In class 251, Gas and Liquid Contact Apparatus, (Division XXXII.) change the title of subclass 50, Fluid distribution, Valved, Hygrostatic or thermostatic, to read:

Fluid distribution—

Valved—

Thermostatic.

abolish the existing definition, and establish in lieu thereof the following definition:

25. FLUID DISTRIBUTION, VALVED, THERMOSTATIC. Including thermostatic control of valves.

In class 236, Dampers, Automatic, (Division XIX.) change the title of the class to read Class 255, Automatic Temperature and Humidity Regulation, abolish the existing subclass titles, and establish in lieu thereof the following subclasses and definitions:

255. AUTOMATIC TEMPERATURE AND HUMIDITY REGULATION—Continued.

1. Miscellaneous.

2. Insulator type of heater—

Electric.

Thermostatic—

Expanding fluid.

Expanding solid.

Insulator type of heater.

Red iron type.

Atmospheric type of burner.

Combined heater and apartment controlled.

Hot-air furnace—

Air and fire control.

Fluid-mixture—

Piston type.

Combined boiler and furnace controlled.

Furnace-controlled.

Combined draft and check control.

Exchange-heater—

Pressure-operated.

Thermostatic—

Expanding fluid.

Expanding solid.

Closed fluid-heater—

Safety cut-out.

Radiator type.

Combined thermostat and flow controlled—

One valve.

Two or more valves.

Flow-controlled.

Pressure-operated—

With balancing pressure-chamber.

Stroke-retarding.

Relay, puppet.

Bourdon type.

Floot.

Thermostatic—

Expanding fluid.

Expanding solid.

Cooling-radiators—

Air control.

Establish, in Division XIX, class 257, Thermostats and Humidistats, with the following subclasses and definitions, the patents contained in this class having been taken for the most part from class 236, Dampers, Automatic, hereinafter abolished:

257. THERMOSTATS AND HUMIDISTATS—

STATS—Continued.

Thermostats—

Expanding fluid—

6. Floot or piston operation.

Balanced.

Bellows type.

Wafer type.

Bourdon type.

Expanding solid—

Multiple element.

Conduit.

Concentric elements.

Concentric bar—

Coil.

7. Floot or piston operation.

Balanced.

Bellows type.

Wafer type.

Bourdon type.

Expanding solid—

Multiple element.

Conduit.

Concentric elements.

Concentric bar—

Coil.

7. Floot or piston operation.

Balanced.

Bellows type.

Wafer type.

Bourdon type.

Expanding solid—

Multiple element.

Conduit.

Concentric elements.

Concentric bar—

Coil.

7. Floot or piston operation.

Balanced.

Bellows type.

Wafer type.

Bourdon type.

Expanding solid—

Multiple element.

Conduit.

Concentric elements.

Concentric bar—

Coil.

J. T. NEWTON, Commissioner.

[Vol. 255. No. 2.]

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 23, 1919.

Item No.	Divisions and subjects of invention.	Oldest new application and date of action by applicant awaiting other action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Closure Operators; Pumps; Gates; Harrows and Diggers; Plows; Planting; Sintering Unbedded; Trees, Plants, and Flowers.	Mar. 21	Apr. 5	249
126	2. Bee Culture; Carman; Shades, and Screens; Dairy; Paper Fills and Binders; Modifiers; Pneumatics; Pressing; Frames; Tools; Containers; Umbrellas; and Cases; Tobacco.	Jan. 3	Feb. 26	594
173	3. Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Forming; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Mar. 21	Dec. 17	180
204	4. Conveyors; Elevators; Excavating; Hoisting; Material or Article Handling; Pneumatic Dispatch; Packing and Pulling Implements; Railway Mail Delivery; Store-Servics; Traveling Mobs.	Jan. 2	Apr. 17	245
167	5. Book-Making; Books, Strips and Leaves; Harvesters; Jewelry; Manufacturing; Masts; Printed Matter; Tying Cords or Strands.	Mar. 6	Jan. 10	174
315	6. Blowing and Drying; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Proprietary.	Feb. 6	Feb. 3	237
312	7. Educational Apparatus; Games and Toys; Optical; Velocipeds.	Apr. 1	Apr. 2	281
121	8. Beds; Chairs; Flexible-Sheet Securing Device; Furniture; Kitchen and Table Articles; Store Furniture; Scaffolds.	Mar. 24	Apr. 5	197
221	9. Air and Gas Pumps; Hydraulic Motors; Injectors and Ejectors; Motors, Fluid; Motors, Fluid-Circuit; Pumps.	Jan. 3	Mar. 25	245
203	10. Carriages and Wagons; Motor Vehicles.	Feb. 21	Apr. 17	241
154	11. Boots and Shoe Making; Boots, Shoes, and Legwear; Bottoms, Soles, and Swole Soles; Harnam; Leather Making; Laces; Making and Repairing; Binding Devices; Whips and Whip Apparatus.	Feb. 24	May 2	245
322	12. Journal Boxes, Pulleys, and Shafts; Machine Elements.	Dec. 5	Nov. 6	603
209	13. Ammunition and Explosive Charge Making; Bolt, Nail, Nut, Rivet, and Screw Making; Bottom Making; Chain, Cable, and Hoisting Making; Driven, Racked, and Screw-Threaded Fastenings; Gear Cutting, Making, and Finishing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements; Making; Metal Working; Nails and Pin Making; Nut and Bolt Locks; Taps.	Jan. 3	Apr. 25	654
208	14. Compressed Tools; Cutting and Punching Shears and Bars; Fasteners; Metal-Bending; Packaging; Lamps; Sheet-Metal Wire Making; Tools; Wire Fabric and Structures; Wire-Working.	Jan. 21	Mar. 7	179
206	15. Bread, Pastry, and Confection Making; Cakes; Fats; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Sheet and Earthenware Apparatus; Plastics.	Jan. 13	Mar. 3	470
112	16. Radiant Energy; Telegraphy; Telephony.	Jan. 4	Jan. 2	625
307	17. Label Fastening and Paper Handling; Ornamentation; Paper Manufactures; Printing; Type Casting; Sheet Material Association; Tinting; Book Binding or Delivering; Type Setting.	Mar. 25	Apr. 14	222
220	18. Fluid-Pressure Regulators; Liquid Motors and Valves; Power Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Dec. 27	Mar. 1	595
166	19. Dampers; Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels.	Mar. 15	Mar. 12	272
170	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Laths and Lathes; Saws; Undertaking.	Apr. 16	Apr. 20	205
313	21. Brakes and Claws; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Oil; Spinning; Weaving; Windmills and Boats.	Nov. 3	Feb. 15	244
205	22. Aerostats; Pneumatics; Ordnance.	Feb. 3	Apr. 12	229
217	23. Acoustics; Gas Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Counting Methods.	Mar. 24	Apr. 4	245
144	24. Apparel; Apparel Apparatus; Garment Supporters; Sewing Machines.	Sept. 25	Jan. 21	472
311	25. Agitating; Boasting; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separators.	Apr. 16	Apr. 11	127
165	26. Electricity, Generation; Motive Power; Prime Mover and Dynamo Plants.	Nov. 6	Jan. 6	600
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Mar. 15	Mar. 20	420
223	28. Internal-Combustion Engines.	Jan. 10	Mar. 6	525
167	29. Boring and Drilling; Chains or Belts; Couplings; Fire-Hoses; Ladders; Rods, Shafts or Components; Wheelwright-Machines; Wooden Buildings; Wood-Saving; Wood-Turning; Woodworking; Woodworking Tools.	Jan. 2	Feb. 12	605
120	30. Illuminating; Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 5	May 2	207
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oil, Fat, and Gas; Sugar and Salt.	Feb. 27	Feb. 16	205
378	32. Gas and Liquid Contact Apparatus; Heat Exchangers; Refrigeration.	Dec. 2	Mar. 10	670
70	33. Bridges; Hydraulic and Earth Engineering; Masonry and Concrete Structures; Metals Building Structures; Paving; Roads and Pavements; Roads.	Jan. 25	Feb. 14	235
304	34. Railway; Railway Rails and Joints; Railway Rolling Stock; Railway Switches and Signals; Railway Ties and Fasteners; Railway Wheels and Axles; Tread-Shoes; Vehicle-Fenders.	Feb. 27	Mar. 11	200
37	35. Bunkies, Bottoms, Chops, Etc.; Card, Picture, and Sign Exhibiting; Signals; Tents.	Apr. 21	Apr. 26	212
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Photo Mounting.	Apr. 7	Mar. 4	525
167	37. Electric Lamps; Electricity; Circuit Makers and Breakers; Electricity, General Applications.	Jan. 25	Jan. 25	637
375	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Mining; Quarrying, and Ice-Harvesting; Stationary; Stone Working; Walls.	Apr. 29	Apr. 21	220
220	39. Joint Fastenings; Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Valved Pipe Joints or Couplings; Valves; Water Distribution.	Dec. 25	Dec. 7	510
373	40. Receptacles; Bottles and Jars; Check-Overhead Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Stamping and Stamping Vessels; Packages and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Mar. 21	Mar. 24
126	41. Railway Draft Apparatus; Roadway Ties and Wheels.	Feb. 6	Mar. 9	261
114	42. Electricity, Conductors; Electricity-Transmission to Vehicles; Electricity, Conductors; Electric Signaling.	Jan. 6	Jan. 22	445
222	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Fireworks; Surgery; Water Purification.	Apr. 6	Feb. 20	194
225	44. Air-Over, Catalysts, and Turbines; Ammunition and Explosive Devices; Boats and Barges; Ships.	Mar. 5	Apr. 11	192
370	45. Clutches; Lubrication; Motors; Railway Brakes.	Mar. 3	Apr. 15	220

Oldest new case, Sept. 25; oldest amended, Nov. 2.
Total number of applications awaiting action.....

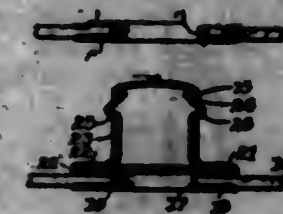
15,955

100	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Apr. 15	May 3	1925
	Designs.....	Apr. 1	Apr. 22	241
	Labels and Prints.....	Apr. 16	Apr. 20	277

PATENTS

GRANTED MAY 27, 1919.

1,304,337. CURTAIN-FASTENER. WALTER ALLENBERG, Chicago, Ill., assignor of one-third to Edward Smart, Chicago, Ill., and one-third to Francis E. Edwards, Crystal Lake, Ill. Filed Mar. 9, 1918. Serial No. 221,870. 6 Claims. (Cl. 24-215.)



1. In a fastener for curtains and the like, a stud member comprising a shell, a flange on said shell, a detent spring within said shell, an eyelet in one of the curtains, said flange and said eyelet being curled together, said spring being confined between its ends between said flange and said eyelet and secured thereby.

1,304,338. LOG-SPLITTING MACHINE. LEWIS ANDERSON, Hemlock, Oreg., assignor of one-half to Lee Tittle, Hemlock, Oreg. Filed June 1, 1918. Serial No. 227,511. 14 Claims. (Cl. 144-198.)

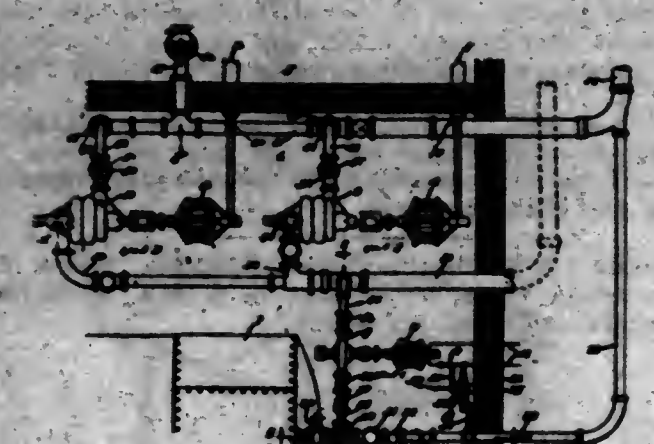


1. An apparatus of the class described comprising a log support, a guide member, means for rotating the log on said support, a wedge device, means for maintaining said wedge device movable relatively to said guide member, a hammer device, means for maintaining said hammer device movable relatively to said guide member and in position for its force to be applied to the wedge device, and means for actuating said hammer device.

1,304,339. WATER-SUPPLY SYSTEM. THOMAS HAN-SOLPH ANDERSON, Langdon, N. D. Filed May 23, 1918. Serial No. 226,204. 7 Claims. (Cl. 157-72.)

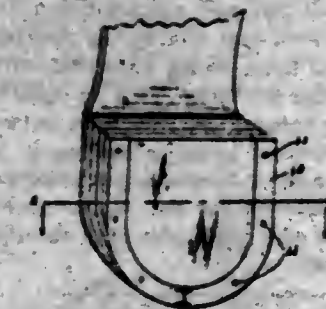
1. The combination with a water supply system including a suitable source of supply, and a distributing main,

of a low pressure pump and a high pressure pump arranged to draw water from the source of supply and deliver the same into the distributing main, means for starting and stopping the high pressure pump, at will, and an electrically operated controller for automatically stopping



the low pressure pump when the high pressure pump is started.

1,304,340. HEEB-PLATE. ANDREW BARAN, Fabryan, Conn. Filed Dec. 24, 1917. Serial No. 208,571. Renewed Mar. 8, 1919. Serial No. 281,550. 3 Claims. (Cl. 20-73.)



3. In a heeb plate, the combination with a pair of oppositely disposed side elements suited to the margin of a heeb, said elements having rectangular openings formed in their contacting ends, of resilient projections formed on the ends in alignment with the interior walls of said openings, said projections extending from both sides thereof, and a rigid plug engageable by said projections, said plug entering the openings formed at the adjacent ends of said elements.

1,304,341. GAS-HEATER. CONRAD BUCHMANN, Philadelphia, Pa. Filed July 24, 1916. Serial No. 111,482. 1 Claim. (Cl. 122-260.)

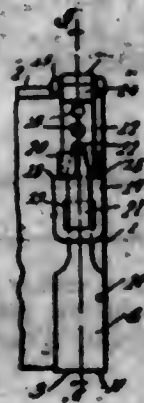
The combination in a water heater of a horizontally elongated casing open at the bottom; bars extending across the open bottom and projecting into horizontally elongated slots in the sides of the casing; adjustable means for rig-

idly holding said bars in any given position in said slots; a water-conducting coil mounted in the casing; and a



burner integrally connected to the bars and supporting the lower part of the water coil.

1,304,382. EGG-STRAP AND FASTENER. ERVIN S. BOARDMAN, Thorp, Wis. Filed Aug. 8, 1918. Serial No. 248,981. 1 Claim. (Cl. 24-19.)



An egg strap and fastener comprising a first member; a keeper pivoted thereto and having an enlarged head defining a shoulder, the head being provided with an opening, and the keeper being provided with an aperture; a second member extending behind the head and outwardly through the opening, the second member having a finger received in the aperture; and a loop shaped retainer slidable on the keeper and receiving the end of the second member to hold the finger in the aperture, the shoulder forming a stop for the retainer.

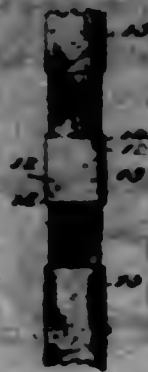
1,304,383. INTERLOCKING STAIR-FORM. NATHANIEL BOIS, San Francisco, Calif. Filed Dec. 24, 1917. Serial No. 208,990. 3 Claims. (Cl. 188-43.)



1. The combination with a stair form having a tread, a riser connected thereto, and a rearwardly facing channel

formed on the upper edge, said channel comprising a bottom wall, a downwardly inclined top wall, and a forward side wall, of a second stair form having a tread and an upwardly extending nosing extending into the channel and between the side wall and inclined top wall on the riser to interlock said riser and nosing.

1,304,384. CABLE-SPLICE. NEWTON E. BOWMAN, Canton, Ohio, designer to The American Mine Door Company, a Corporation of Ohio. Filed Apr. 8, 1918. Serial No. 227,078. 6 Claims. (Cl. 173-302.)



3. A cable splice comprising a single metallic blank of diamond-shape bent on an axis parallel to the short axis of the blank to form a split ring, with the inclined adjacent edges of the points of the diamond-shaped blank bearing against each other.

1,304,385. LUBRICATOR. HARRISON D. BOTEY, Fort-rock, Pa., assignor, by mesne assignments, to Leander W. Riddle, Glen Riddle, Pa. Filed Feb. 16, 1916. Serial No. 78,577. Renewed Jan. 11, 1919. Serial No. 270,757. 3 Claims. (Cl. 184-45.)



1. A lubricator comprising in combination a container having a top wall centrally apertured, a plunger mounted to reciprocate in said container, and plunger-actuating means consisting of a tubular member interiorly threaded and slidably supported in said aperture in the container and projecting therethrough, a screw threaded rod passing entirely through said threaded tubular member and adapted to be operatively rotated by its projecting end, its opposite end having fixed connection with the plunger, for moving said plunger in one direction, and a spring adapted to be compressed by the said slidable means and operating under said torsional compression to automatically force said plunger in an opposite direction.

1,304,386. LUBRICATOR. HARRISON D. BOTEY, Philadelphia, Pa., assignor, by mesne assignments, to Leander W. Riddle, Glen Riddle, Pa. Filed Apr. 4, 1914. Serial No. 839,568. Renewed Jan. 17, 1919. Serial No. 271,763. 3 Claims. (Cl. 184-36.)

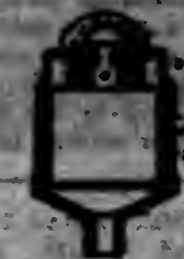
3. A lubricator consisting of a cap member, a cap member cooperating therewith, corrugations formed on the top of the cap member to increase its flexibility, a lug projecting from said flexible top of the cap member, a top member having a central opening and pivot sockets co-

ured to the cap member, and a hemisphere having tangs, said tangs being mounted in the pivot sockets so that the



lug bears upon the lower edge of said hemisphere, so as to elevate the same when the pressure in the lubricator is relieved.

1,304,387. GREASE-CUP. HARRISON D. BOTEY, Philadelphia, Pa., assignor, by mesne assignments, to Leander W. Riddle, Glen Riddle, Pa. Filed Oct. 17, 1914. Serial No. 867,148. Renewed Jan. 18, 1919. Serial No. 271,912. 9 Claims. (Cl. 184-45.)



1. A lubricator comprising a cap, an air trapping plunger adapted to slide in this cap, a spring for forcing the plunger downward, and a hemisphere connected with the plunger so as to normally lie out of signal position and be thrown into signal position at the end of the stroke of the plunger by cooperation with the cap.

1,304,388. CONNECTING-ROD-BABBITTING JIG. OTTO A. BUEHNER, Burlington, Iowa. Filed July 19, 1917. Serial No. 181,516. 2 Claims. (Cl. 29-122.)



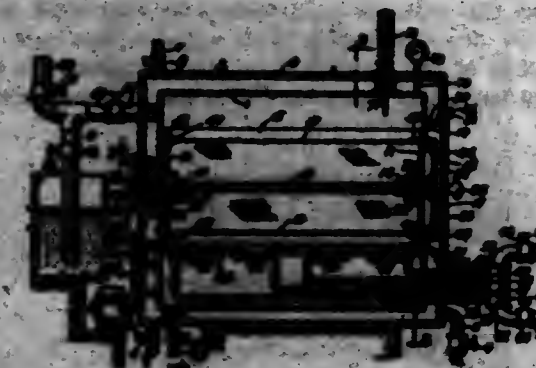
1. A jig for babbitting bearings in connecting rods comprising a base plate having a smooth upper surface; a clamp arranged at one end of said base plate and adapted to clamp a positioning pin; an adjustable support projecting upwardly from said base plate and adapted to contact with the underside of a connecting rod positioned on a pin held in said clamp; and adjustable means for positioning a core upright on said plate, substantially as described.

2. A jig for babbitting bearings in connecting rods comprising a base plate having a smooth upper surface; a clamp arranged at one end of said base plate and adapted to clamp a positioning pin; an adjustable support projecting upwardly from said base plate and adapted to contact with the underside of a connecting rod positioned on a pin held in said clamp; and an adjustable yoke on said base plate having a set screw adapted to contact with the top of a core in the other bearing of said connecting rod, substantially as described.

1,304,389. DEMARCOTIZING TOBACCO. HOSE BIRKHAUSE, Brooklyn, N. Y. Filed June 20, 1917. Serial No. 177,971. 26 Claims. (Cl. 131-6.)

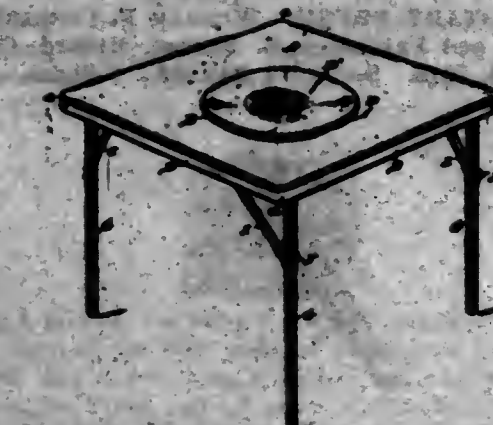
1. The process of demarcotizing or treating tobacco to remove the nicotine and other undesirable elements and to leave in the tobacco the desirable aromatic substances

thereof, such process consisting in preliminarily forming a mixture of steam and air at a temperature sufficient to remove from the tobacco the nicotine and other undesirable



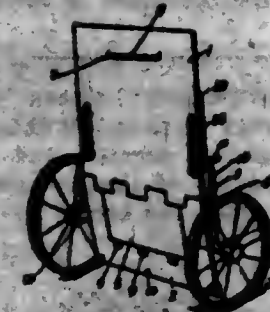
able elements but insufficient to remove or destroy the desirable aromatic substances of the tobacco, and subjecting the tobacco in a closed chamber to a stream or draft of such mixture flowing through the chamber.

1,304,390. FOLDING CARD-TABLE. HOWARD T. DUNNOWN, Portland, Me. Filed June 7, 1916. Serial No. 102,391. 9 Claims. (Cl. 45-122.)



1. A card playing table top comprising a metal plate having a card deflecting projection thereon and a card receiving surface adjacent the projection, of an area sufficient to receive a card satwise for the purposes specified.

1,304,391. CONVERTIBLE SHIELD FOR TROOPS. CUTLER L. CLARK, Zanesville, Ohio. Filed July 29, 1914. Serial No. 853,802. 20 Claims. (Cl. 88-36.)



1. A shield comprising wheels, an axle joining said wheels, and a flat sheet directly mounted on said axle between said wheels, said wheels being adjustable for steering.

14. A shield comprising a laterally extended slot, a lip positioned to guard said slot against bullets moving in a normal parabolic path and yet to permit sight there-through.

1,304,392. FURNACE FOR EVAPORATORS. JOHN S. CLARK, Pinckneyville, Ky. Filed Apr. 10, 1918. Serial No. 227,737. 1 Claim. (Cl. 21-65.)

In an evaporating furnace, a substantially rectangular body member, longitudinally spaced cross bars secured to the bottom thereof and projecting at opposite ends be-

read its side walls, diagonally disposed brace bars also arranged on the bottom of said body and intersecting immediately of their ends, said bars projecting at their ends beyond the sides of said body and apertured forming combined brace members and spindle bearings, the apertured ends of the diagonal bars underlapping the ends of the cross bars, the cross bars also having apertures to



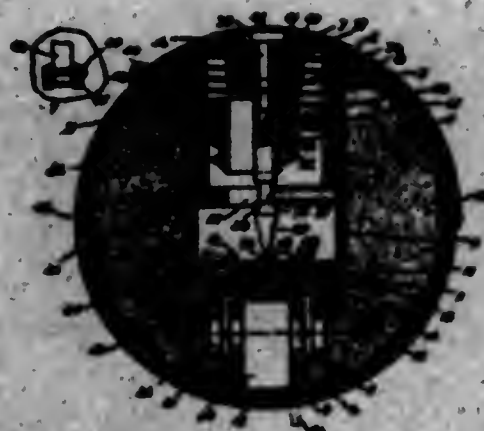
register with those in the diagonal bars, apertured brackets carried by the side walls of said body in vertical alignment with the apertured ends of said bars, spindles revolvably mounted in the registering apertures of said bar ends and brackets, wheel carrying members having threaded sockets, the lower ends of said spindles being threaded for detachable and adjustable engagement with said wheel carrying members.

1,804,543. ROTARY BRUSH. WILLIAM F. CONNORSON, Bridgeport, and FRANK R. KIRBY, Milford, Conn. Filed May 7, 1918. Serial No. 233,008. 1 Claim. (Cl. 18-57.)



The method of making rotary brushes which consists in forming a longitudinal hole in a body and tuft holes intersecting the longitudinal hole, passing a wire through the longitudinal hole and securing the inner end, passing the wire outward through a tuft hole, then over the mid-length of bristles for a tuft, then backward through the tuft hole, across the longitudinal hole and outward through another tuft hole, then tightening the wire to draw the bight through the tuft hole and into the central hole, and repeating the operation to set a tuft in each tuft hole.

1,804,544. HAND-GRENADE. FRANK CONRAD, Pittsburgh, and CHRISTIAN AALBORG, Wilkesburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 8, 1917. Serial No. 194,444. 16 Claims. (Cl. 103-30.)



1. A hand-grenade comprising a casing, a percussive striking means located within said casing, means for nor-

mally latching said striking means in a retracted position and a cylindrical weight having a single point of support from which it is bodily unseated to release said striking means when movement of the grenade is arrested by impact.

1,804,545. ELECTRIC SOLDERING DEVICE. FRANCIS A. CORRELL, Southbridge, Mass., assignor to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed Oct. 2, 1918. Serial No. 260,402. 11 Claims. (Cl. 210-12.)



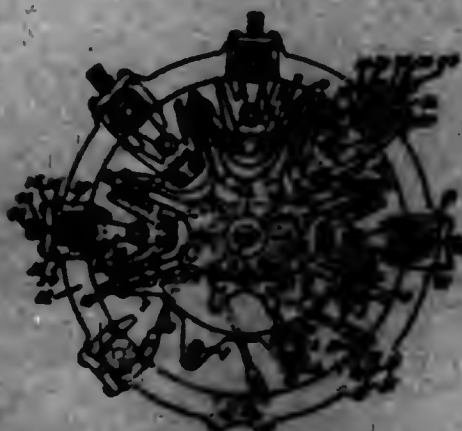
11. In an electric soldering device, the combination with a wire solder, of a tubular holder provided with a pivoted head through which the solder passes, circuit wires attached to the holder, a circuit controller carried by the holder and actuated by the pivoted head and a feed device for said solder secured to said pivoted head.

1,804,546. NOSE-CLAMP. FRANK P. D'ARCY, Kalamazoo, Mich. Filed Feb. 7, 1919. Serial No. 276,573. 6 Claims. (Cl. 26-19.)



1. A nose clamp comprising a wire body having integral out-turned bolt eyes at its ends, a clamping bolt disposed through said eyes, and a bridge piece of sheet metal having transverse slots near its ends permitting the insertion and removal of said eyes therethrough and through which the ends of the body are disposed for adjustment, said bridge piece being outwardly headed at the outside of said slots and inwardly headed between said slots in alignment with and to receive said body and provide an engaging rib.

1,804,547. WHEEL-FINISHING MACHINE. MERRILL DAVIS, Detroit, Mich. Filed Sept. 22, 1917. Serial No. 192,696. 23 Claims. (Cl. 157-1.)



22. In a structure of the class described, the combination of means for supporting the wheel, former members mounted for adjustment, heating means therefor, and means for actuating said former members.

1,804,548. SPRAY-GUARD FOR TELESCOPE. HARMON AUGUSTINE DE NORMANVILLE, London, England. Filed Mar. 21, 1918. Serial No. 223,700. 3 Claims. (Cl. 88-38.)



1. The combination of a telescope and its support, of a rotary transparent disk in the field of vision of the telescope, and a motor for rapidly rotating said disk, said disk and motor being mounted upon such support to partake of the movement of the telescope.

1,804,549. MEANS TO PROTECT SUBMARINE-MINE FIELDS. FRANCIS I. DU PONT, Wilmington, Del. Filed Apr. 4, 1917. Serial No. 180,947. 7 Claims. (Cl. 100-8.)



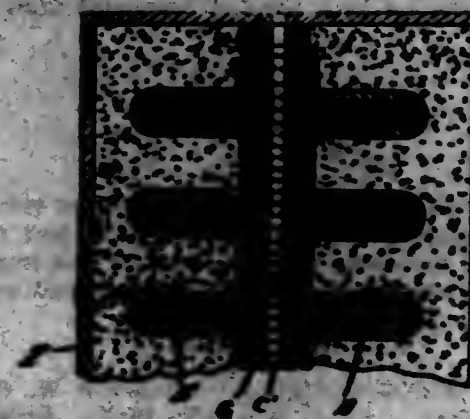
1. Means to protect submarine mine fields comprising a submersible body, an anchorage cable to which the body is secured, and cutting means positioned and adapted to sever any dragging cable that engages the anchorage cable and is guided thereby relatively upward toward the cutting means.

1,804,550. FUEL-FEEDING DEVICE. THOMAS A. HANSEN, Jr., Burlington, N. J. Filed Jan. 14, 1918. Serial No. 211,908. 3 Claims. (Cl. 150-34.)



1. In a fuel feeding apparatus, the combination with a fuel supply tank and an auxiliary tank, of an ejector for forcing the fuel from the main to the auxiliary tank, said ejector being operated by the exhaust gases from the engine and which effect the circulation by direct contact with the fuel, substantially as set forth.

1,804,551. METHOD OF FORMING RADIATOR-TUBES. ALEXANDER W. FINLAYSON, Detroit, Mich. Filed Oct. 8, 1917. Serial No. 195,909. 5 Claims. (Cl. 22-302.)



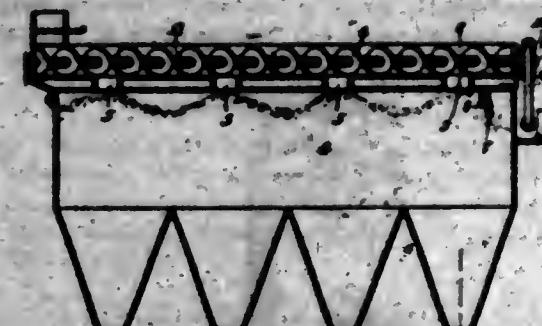
1. The method of forming a hollow casting having a baffle plate therein, comprising the mounting of the baffle plate upon a supporting rod, embedding said rod and baffle plate in a core for forming the chamber within the hollow article, casting the article about said core so as to form an anchor for said rod and baffle, and removing the core, leaving the baffle supported within the chamber.

1,804,552. WALL CONSTRUCTION AND CHANNEL-BRICK THEREFOR. JONATHAN P. B. FISKE, New York, N. Y. Filed Nov. 10, 1914. Serial No. 871,271. 14 Claims. (Cl. 73-38.)



13. A hollow tile brick for walls composed of a central body portion on each side of which are provided twin walled, mortar-receiving channels, the channels being of substantial width and all parts of the block being of the same thickness throughout, whereby pillars of alternating brick and binding material with an intervening air space are provided in a wall structure.

1,804,553. TELL-TALE AND MEANS FOR CONTROLLING THE FEED OF MATERIAL TO HOPPERS OR BINS. CHARLES J. GADD, Lebanon, Pa.; Anna Eyre Gadd executrix of said Charles J. Gadd, deceased. Filed Oct. 19, 1918. Serial No. 58,741. 4 Claims. (Cl. 214-17.)



4. In a conveyor system for filling bins, a bin adapted to receive pulverized material, a conveyor feeding the material into the bin from above, driving means for the conveyor and a blade adapted to lie in the bin, to be moved by the material as it is piled within the bin, and to remain in moved position until reset, in combination with connections between the blade and the driving means to shut off the latter when the blade is moved.

1,804,554. CLIP. CHARLES J. GADD, Lebanon, Pa.; Anna Eyre Gadd executrix of said Charles J. Gadd, deceased. Filed Mar. 21, 1918. Serial No. 85,532. 5 Claims. (Cl. 24-254.)

5. A clamp upon one end comprising parallel spaced pairs of parallel arms, the ends of arms from opposite

pairs being connected to close one end of the clamp and the opposite ends of the arms of one pair being united, the free ends of the other pair terminating in co-axial eyes, in combination with parallel connected arms form-



ing a lever terminating at their free ends in oppositely directed trunnions fitting the eyes and both bent toward the opening in the clamp between the lever and trunnions to form cams which are off-center in the closed position of the clamp.

1,304,555. VOTING-MACHINE. BENJAMIN W. GARDIS, Parsons, Kans. Filed Oct. 15, 1917. Serial No. 196,727. 4 Claims. (Cl. 235-58.)



1. A voting machine, comprising a casing, plungers reciprocable within the casing, registers, operable by the plungers, a manually set automatic lock secured within the casing, a shaft rocked by the depression of a plunger, means on the shaft for engaging the automatic lock to retain the shaft in rocked position, and means on the shaft for locking the plunger in depressed position.

1,304,556. OIL-CUP. ALPHONSE H. GRYN, Chicago, Ill. Filed July 23, 1917. Serial No. 182,389. 5 Claims. (Cl. 184-90.)



5. An oil cup having a slot formed in its upper edge and a plate including spaced ears and a connecting right portion, the plate being secured within the cup in position to close the opening and with the ears projecting outwardly through the opening, the lower sides of the ears being notched to receive the bottom edge of the slot.

1,304,557. HIGHWAY-MAINTENANCE ATTACHMENT FOR MOTOR-TRUCKS. GALEN A. GOSS, Demand, Wis. Filed May 13, 1918. Serial No. 294,298. 6 Claims. (Cl. 37-7.)

1. In a highway maintenance attachment for motor trucks, a surface working blade, a supporting structure

attached to said blade, a pivoted hand lever, a bar connected to said hand lever and pivoted to said supporting structure for adjusting the elevation of said blade upon pivotal movement of said hand lever, an auxiliary hand



lever pivotally carried by said first named hand lever, and a cable connected to said auxiliary hand lever and said supporting structure for tilting the supporting structure and blade upon its pivotal support upon pivotal movement of the auxiliary hand lever.

1,304,558. ELBOW-SHIELD. ROBERT P. GRAY, New Orleans, La. Filed Oct. 24, 1917. Serial No. 188,138. 1 Claim. (Cl. 128-105.)



An elbow shield for retaining medicaments upon the skin of an elbow consisting of a sleeve of flexible material open at one side and bulged intermediate its ends to conform to the elbow, a lining of soft material extending over the entire inner surface of the sleeve, a banding extending around the side and end edges of the sleeve and the lining to permanently unite the same, and means at the open side of the sleeve for holding the same closely to the skin of the elbow.

1,304,559. CORE-TAMPING MACHINE. JOHN GRAVER, Madison, Wis., assignor to French Battery & Carbon Co., Madison, Wis., a Corporation of Wisconsin. Filed Jan. 28, 1919. Serial No. 278. 8. 17 Claims. (Cl. 28-30.)



1. In mechanism of the class described, a driven member, a tool rigid with said driven member, and mechanism

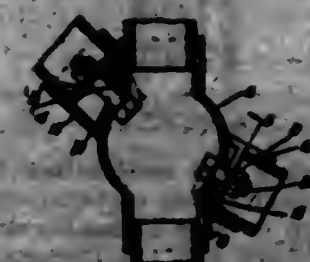
carried by the driven member for changing the working characteristic of said tool without moving said tool on said driven member.

1,304,560. SIGNAL-LANTERN. GEORGE M. GRAY, Melrose, Mass. Filed May 29, 1914. Serial No. 100,510. Renewed Jan. 2, 1919. Serial No. 289,548. 2 Claims. (Cl. 240-44.)



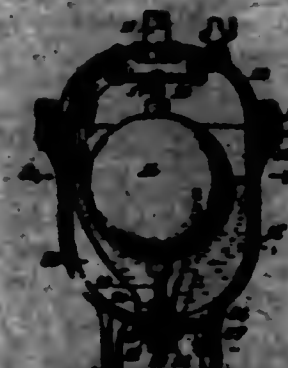
1. In a signal lamp the combination of a lantern body, an approximately parabolical curved reflector, an electric light holder, means for adjusting said electric light holder comprising two eccentric rotatable bushings, one having a bearing within the other, means for rotating and securing the bushings in their adjusted positions, and means for adjusting the electric light holder axially to focus the light with relation to the reflector.

1,304,561. ADJUSTABLE RAIL-FITTING. SAMUEL J. GUERMAN, Boston, Mass. Filed Apr. 15, 1916. Serial No. 91,310. 3 Claims. (Cl. 180-36.)



1. An adjustable pipe rail fitting comprising a hollow spherical member provided with a slot, a collar adapted to receive a pipe end and provided with a cross piece having a central aperture therein, a bolt adapted to engage said slot and said aperture to limit the movement of said collar by contact with either extremity of the slot, said collar being of sufficiently greater exterior diameter than the long dimension of said slot to prevent exposure of the slot irrespective of the relative angle of the collar and spherical member.

1,304,562. STEAM-TRAP. JOHN O. HAMMILL, Chicago, Ill. Filed Sept. 27, 1917. Serial No. 196,477. 7 Claims. (Cl. 187-103.)



1. In a steam trap, the combination of a casing having a hemispherical lower end and provided with an outlet, a float-valve for controlling said outlet, said casing being provided with a cavity in the inner face of the wall thereof at one side of said outlet, and means within the casing for directing sediment into said cavity, substantially as described.

1,304,563. STEAM-TRAP. JOHN O. HAMMILL, Chicago, Ill. Filed Oct. 19, 1917. Serial No. 197,382. 2 Claims. (Cl. 187-103.)



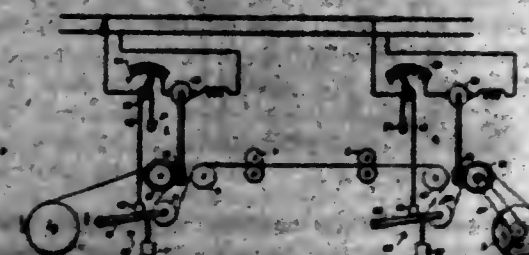
1. In a steam trap, the combination of a casing having an inlet opening, the opening being materially enlarged at the point of entrance to the casing, a screen disposed across the opening, a blow-off opening horizontally arranged at a point immediately above said screen, the screen being inclined downwardly toward said opening, substantially as described.

1,304,564. ELECTRIC SWITCH. ELLEWORTH A. HAWTHORN, Bridgeport, Conn. Filed Sept. 24, 1912. Serial No. 791,678. 4 Claims. (Cl. 175-230.)



1. In an electric switch, the combination of four stationary contacts disposed about an axis, three contacts being spaced on centers at substantially equal distances apart and the fourth being spaced from the nearest contact a distance on centers of less than the space between any two of said three contacts, and a switch element mounted to turn about said axis and having a segmental contact whose length circumferentially is less than the space between any two of said three stationary contacts and having another segmental contact whose length circumferentially is greater than the space between any two of said three stationary contacts.

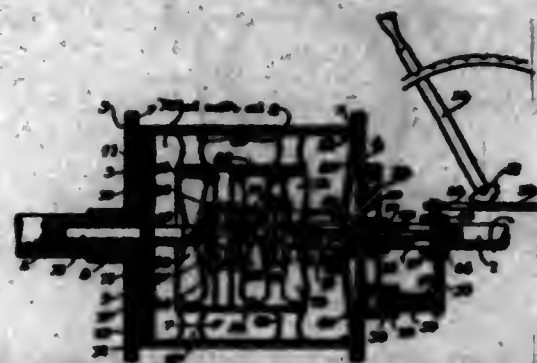
1,304,565. WINDING MECHANISM. CLARK T. HENDERSON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed May 16, 1914. Serial No. 239,049. 2 Claims. (Cl. 242-75.)



1. The combination with means for feeding material from a roll to a receiving machine at a speed corresponding with the speed of the latter and maintaining the material as fed under a constant tension, of a winding device, a power driven feeding device interposed between said winding device and the machine, and operatively connected to said winding device to operate the same, and

means automatically controlling said feeding device to vary the speed thereof and of said winding device jointly in accordance with and proportionally to the variations in slack of the material delivered by the machine while maintaining the material under constant tension.

1,304,566. HYDRAULIC TRANSMISSION. PHILIP R. HONAN, Chicago, Ill. Filed Dec. 20, 1917. Serial No. 206,062. 22 Claims. (Cl. 60—54.)



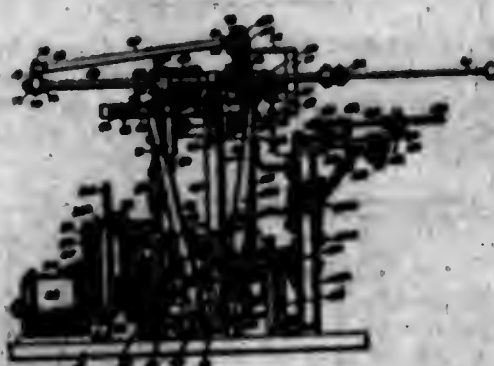
1. In combination, a driving shaft, a driven shaft, a drum rotatably connected with respect to both shafts, said drum containing a body of fluid, an adjustable fluid propeller connected to the driving shaft, a stub shaft having a propeller adapted to be driven by the movement of the fluid, and gears connecting said stub shaft, said driven shaft, and said drum.

1,304,567. PREPARATION OF ANHYDROUS METALLIC CHLORIDE. PAUL LÉON HULIN, Grenoble, France. Filed Mar. 5, 1918. Serial No. 220,640. 7 Claims. (Cl. 28—18.)



7. The process of producing anhydrous metallic chloride which comprises producing hydrochloric acid, utilizing the acid to maintain a hydrated metallic chloride as a chlorid and the heat of combination of the acid to dehydrate the hydrated chloride, substantially as described.

1,304,568. GLASS-GATHERING MACHINE AND PROCESS. JOHN O. JANSSEN and JOHN HUNTER, Geneva, N. Y., assignors, by direct and mesne assignments, to J. O. Jensen Company, Inc., Geneva, N. Y., a Corporation of New York. Filed Nov. 21, 1917. Serial No. 206,142. 21 Claims. (Cl. 48—62.)



1. In a glass-gathering machine, a pivotally mounted punty and punty-actuating mechanism so combined therewith as to cause the punty to enter a bath of molten glass, to rotate and advance to pick up a gather and then move backward and thereafter swing laterally to deliver the gather, characterized in that the punty-actuating mechanism is constructed so as to cause the punty at a definite time in its backward movement to simultaneously move to one side of the gathering point and to a point above the bath for the purpose of clearing the gathering point.

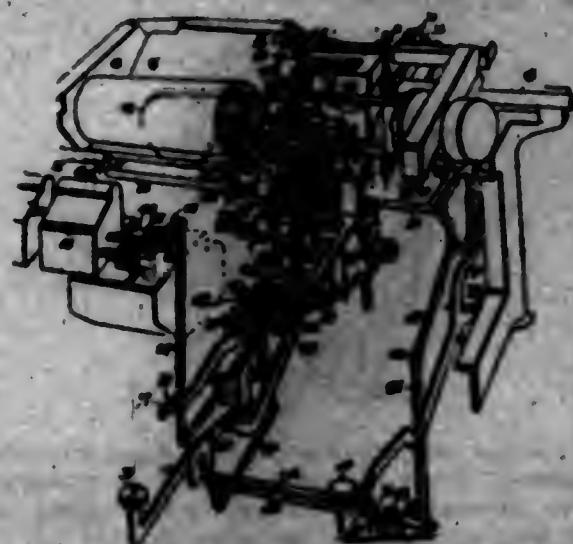
19. The method of making repeated gathers of glass from a molten bath by means of a punty, which consists in presenting the punty above the bath and partially submerging the same, in slowly rotating the punty to cover the same, in accelerating the speed of rotation and at the same time moving the punty forward and upward to collect and place the gather, in moving the punty backward to a point above the bath and laterally to one side of the point of partial submergence thereby forming a tail to the gather, in raising the punty thereby thinning out the tail whereby a thread is formed, in moving the punty backward with a quick movement while in raised position thereby snapping the thread, then in delivering the gather in returning the punty to its original position and then in making another gather from the same point in the bath.

1,304,569. LIFTING-JACK. RONALD E. JANTON, New Cumberland, W. Va. Filed May 22, 1918. Serial No. 235,917. 7 Claims. (Cl. 264—111.)



1. In a lifting-jack, the combination with a suitable frame, of a lifting-bar having oppositely-disposed teeth, a holding-pawl, teeth on said lifting-bar engaged by said holding-pawl, a lifting and lowering-pawl arranged between said oppositely-disposed teeth, means carried by said frame for raising and lowering said last-named pawl, means carried by said lifting-bar adapted to move said last-named pawl from one set of teeth to the other, a yielding-pin carried by said last-named pawl, a cam-face on said holding-pawl adapted to be engaged by said pin, and means for tripping said holding-pawl by the movement of said pin.

1,304,570. COMBINED TYPE-WRITING AND COMPUTING MACHINE. ARTHUR A. JOHNSON, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Aug. 2, 1918. Serial No. 112,645. 41 Claims. (Cl. 265—80.)



1. In a combined typewriting and computing machine the combination of a carriage, a tabulator stop on said

carriage, means for propelling said carriage, a computing mechanism including an element traveling with said carriage to control denominational selection of the computing mechanism, and a means rendered effective, by said traveling element, to engage with said tabulator stop.

1,304,571. MOLD FOR FORMING INSULATORS OR OTHER PORCELAIN OBJECTS. CHARLES J. KIRK and GEORGE BRAIN, New Castle, Pa. Filed May 9, 1918. Serial No. 232,407. 8 Claims. (Cl. 26—126.)



1. A mold for molding insulators or like objects having an undercut or recessed portion comprising divided mold sections forming a matrix of the desired shape, and a removable core-piece, said core-piece having a convex face to form said undercut portion.

1,304,572. SUBLIMATION APPARATUS. ROBERT W. KLUCHANSKY, New York, N. Y. Filed Aug. 2, 1917. Serial No. 184,942. 9 Claims. (Cl. 34—88.)



1. In a sublimation apparatus, a substantially closed chamber, a hot air inlet to said chamber, upright walls within the chamber and spaced from the sides thereof, whereby air passages are formed between the sides of the chamber and the upright walls, said walls being provided with openings whereby air may enter from the air passages into the spaces between said walls, perforated supporting members extending between the walls, and perforated trays supported on said members whereby hot air is brought into intimate contact with the material on the trays both on the top and bottom thereof.

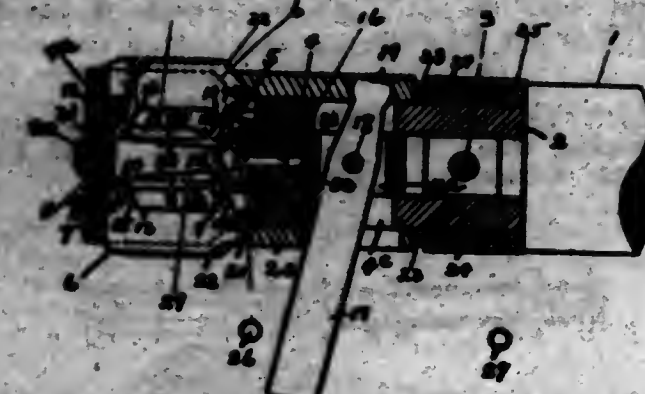
1,304,573. ELECTRICAL DIRECTION-INDICATOR. HOSAKU KAGUYAMA, Los Angeles, Cal. Filed Sept. 26, 1914. Serial No. 864,908. 21 Claims. (Cl. 177—336.)



15. An electric signal comprising a revolvable indicating means, electric means for operating said indicating means to give a visual signal, an electric audible signal for co-

operating with the visual signal by sounding an alarm and at the same time indicating to the operator whether said indicating means is operated or not, an electric switch mechanically operable by the movement of said indicating means, included in the circuit of said audible signal for controlling the same, and a switch arm carried by and rotating with said indicating means for automatically operating said electric switch, whereby the said audible signal is operated when said indicating means and the associated switch arm are in their signal positions.

1,304,574. COLLAPSING TAP. CHARLES J. KRAFT, Erie, Pa., assignor to Modern Tool Company, Erie, Pa., a Corporation of Pennsylvania. Filed May 15, 1918. Serial No. 234,766. 11 Claims. (Cl. 10—145.)



11. In a collapsing tap, the combination of a head having a transverse slot and radial slots therein; cutters mounted in the radial slots having cam and holding surfaces on their inner faces; cam and holding blocks having cam and holding surfaces engaging the cam and holding surfaces on the cutters; a carrier mounted in the head and having radial slots in which the blocks are mounted; a taper plug in the carrier engaging the blocks for adjusting the blocks; a screw for adjusting the plug; a sleeve on the head having an undercut surface engaging the cutters for holding them in their slots and positively retracting them; a lever extending to the transverse slot in the head and actuating the carrier and sleeve to expand and retract the cutters; a second sleeve on the head having spring sockets; and springs in the sockets exerting pressure on the first-named sleeve.

1,304,575. BOLT-LOCKING DEVICE. HENRY KOHLMEYER, Lorain, Ohio. Filed Aug. 31, 1918. Serial No. 232,265. 4 Claims. (Cl. 85—7.)



4. The combination of a bolt, the bolt having a head at one end and a recess through the bolt, a wedge adapted to enter the recess of the bolt, a washer, the washer having a lug for engaging the wedge to lock it in position, and the lug having ears at the sides thereof adapted to be bent down at the sides of the wedge to prevent rotation of the washer with relation to the bolt, substantially as described.

1,304,576. INFLATING-COUPLING. HENRY P. KRAFT, Edgewood, N. J. Filed Nov. 4, 1918. Serial No. 30,698. 7 Claims. (Cl. 294—17.)

1. A device of the character described having a body portion, a seat member screwing into the end of said body portion, a valve member inwardly of said seat member, a valve unseating member formed separately from the seat member and having a projection passing through said seat and adapted to open said valve, a packing carried by said valve unseating member adapted

to make a tight joint with the top of a tire valve casing, and a packing between said seat member and valve un-



seating member adapted to make a tight joint between the two when the valve unseating member is pushed inwardly by the tire valve.

1,904,577. ENGINE CONNECTION. HARRY T. KRAAU, Cleveland, Ohio. Filed Sept. 17, 1918. Serial No. 51,123. 9 Claims. (Cl. 105-176.)



2. In engine connections, a driver truck, a draft member permanently pivoted at one end at the center of motion in a horizontal plane of said truck and secured at its other end at the center of motion of a succeeding truck, said member being mounted for lateral and vertical movement between the two trucks.

1,904,578. BOTTLE-CAPPING MACHINE. CLARENCE J. LAWSON, Yonkers, N. Y. Filed Mar. 31, 1917. Serial No. 158,806. 8 Claims. (Cl. 112-2.)



1. A bottle capping machine comprising a main frame, a crank pin revolvably mounted thereon, a sealing head vertically movable in the frame, a connecting rod from the crank pin to the sealing head for reciprocating the latter, a bottle table under the sealing head, a bottle feeding device slidable with respect to the table and a second connecting rod from the crank pin to the bottle feeding device whereby the latter is reciprocated.

1,904,579. COUCH OR DIVAN. MORRIS LARSEN, New York, N. Y. Filed Oct. 4, 1917. Serial No. 194,000. 8 Claims. (Cl. 155-90.)

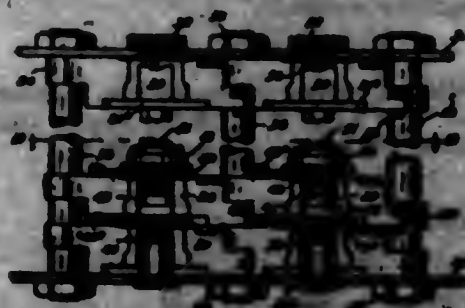
2. A device of the kind described comprising a frame made of top and bottom parallel strips joined by transverse strips, certain of said transverse strips being extended to form projecting fingers, and a cushion and

cover member, surrounding the frame and having openings through which said fingers project, the upper edge



of the top parallel strip being offset to provide a relative broadening bearing surface around which the cushion extends.

1,904,580. KEYBOARD MECHANISM FOR VOTING MACHINES. STEVEN LEE, Minneapolis, Minn., assignor, by direct and mesne assignments, to Leo Multiple Voting Machine Company, Minneapolis, Minn., a Corporation of Minnesota. Filed May 24, 1917. Serial No. 170,726. 12 Claims. (Cl. 205-54.)



1. The combination with upper and lower plates and vertical tie-rods connecting the same, of a keyboard frame made up of a multiplicity of interconnecting blocks having cleaves through which the said rods are passed, and register actuators mounted in said blocks and projecting therefrom, said blocks at their adjoining edges having clearance passages for the said register actuators.

1,904,581. REGISTER-READING SCALE FOR VOTING MACHINES. STEVEN LEE, Minneapolis, Minn., assignor, by direct and mesne assignments, to Leo Multiple Voting Machine Company, Minneapolis, Minn., a Corporation of Minnesota. Filed May 24, 1917. Serial No. 170,726. 1 Claim. (Cl. 205-51.)



In a voting machine, the combination with a movable register support having a plurality of columns of vote

registers, of reading scales marked to identify the candidates and other to which the respective registers are appropriated, the said support having means for detachably holding said scales in inoperative positions, and for detachably holding the same in operative positions properly aligned with the cooperating registers.

1,904,582. CALENDERING MACHINE FOR SPINNING-ROLES. SILAS J. McCLAREN, Birmingham, and HERBERT W. BULLARD, Anniston, Ala. Filed June 17, 1918. Serial No. 246,854. 4 Claims. (Cl. 68-1.)



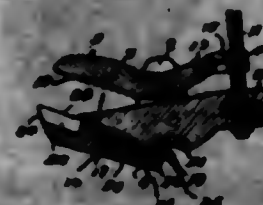
1. An apparatus for smoothing and polishing the surfaces of spinning rolls, which comprises, in combination, heated calendar rolls, means to drive the rolls in the same direction, and a pressure roll adapted to press a spinning roll against the calendar rolls, substantially as described.

1,904,583. GUN-LOADING DEVICE. HOMER F. McCLARY, Protection, Kans. Filed May 28, 1918. Serial No. 237,922. 9 Claims. (Cl. 68-46.)



1. In a device of the class described, a frame; means for mounting the frame for raising and lowering and for advancement and retraction; said pressure mechanism for actuating the frame; a grapple on the frame; said pressure mechanism on the frame for actuating the grapple; a ram operating on the frame at the rear of the grapple; and said pressure mechanism on the frame for actuating the ram.

1,904,584. ALLIGATOR-WRENCH. BENJAMIN FRANKLIN MCCRAITH, Lark, N. D. Filed July 23, 1918. Serial No. 246,122. 4 Claims. (Cl. 51-112.)



2. In a wrench, the combination with jaws having the gripping faces thereof disposed in divergent relation; of an auxiliary jaw carried by one of the jaws and movable obliquely thereof to project from the gripping face of said jaw substantially parallel to the gripping face of the other jaw and spaced therefrom.

1,904,585. CAMERA-SHUTTER RELEASE. JOHN L. McFARLAND, Tugboat, Oreg. Filed Mar. 20, 1918. Serial No. 236,122. 1 Claim. (Cl. 161-62.)

In a device of the class described, the combination of a cylindrical casing having an actuating mechanism and

internally threaded neck extending beyond one end of said casing, a screw body carried within said neck, a head formed on the outer end of said screw body a distance from the end of said cylinder, said cylinder having graduations on its end, an indicator body fixed on the periphery of said head and extending in a plane parallel to the longitudinal axis of said screw body, and a pointer formed on the inner end of said indicator body and extending at



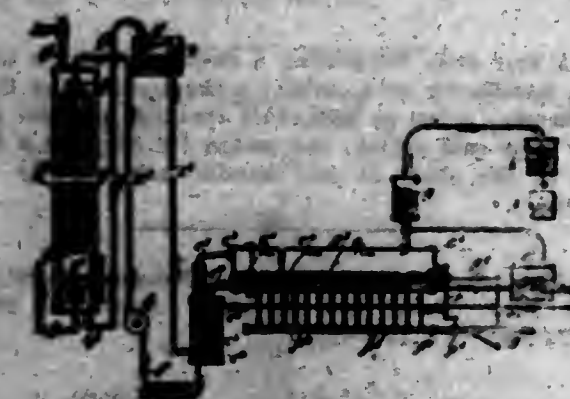
right angles thereto to rest in a plane parallel to the end of said cylinder, thus causing said screw body to be moved within said neck, at which time said indicator body will shift said pointer, said indicator body also allowing of an easy gripping of said head without interference although the pointer will move over the surface of said cylinder and without danger of being broken or injured when in use.

1,904,586. CONCRETE-CLIP. SUSAN B. MARTIN, New York, N. Y. Filed Oct. 5, 1918. Serial No. 54,100. 12 Claims. (Cl. 73-100.)



4. A series of concrete clips comprising securing means, extensions, and a longitudinally extending separator and tie rod connecting said clips and arranged to lie adjacent and be partly supported against upward movement by the part to which the clips are attached when in assembled relation.

1,904,587. RECOVERY OF GASOLINE FROM NATURAL GAS, &c. EDMUND R. MERRIAM, Marietta, Ohio. Filed Oct. 30, 1917. Serial No. 109,222. 5 Claims. (Cl. 196-25.)



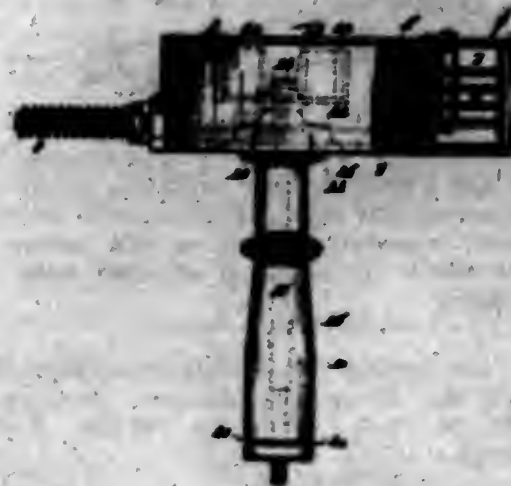
2. In an apparatus for separating condensable vapors from a liquid menstruum without substantially changing the character of the menstruum except for the withdrawal of such vapors, the combination of a relatively long, narrow, unobstructed, unchambered still, means to supply the menstruum thereto at one end continuously, means to withdraw the menstruum therefrom at the other end continuously, means to regulate the supply of the menstruum so as to maintain a constant level in the still, means to withdraw the vapors from the still, and a longitudinal series of burners beneath the still to heat the menstruum gradually and progressively in its passage through the still.

1,304,588. TRAY FOR BATTERY-CELLS. JAMES F. MOWHAN, Newark, N. J., assignor to Edison Storage Battery Company, West Orange, N. J., a Corporation of New Jersey. Filed Nov. 30, 1915. Serial No. 64,307. 5 Claims. (Cl. 204-20.)



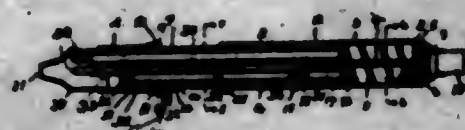
3. A tray for battery cells comprising a frame having end walls and side walls rigidly connecting said end walls, each of two opposite walls of the tray being provided with a pair of supporting members of insulating material, one above the other, for entirely supporting a battery cell from the said two opposite walls of the tray, substantially as described.

1,304,589. HAIR-DRYER. GEORGE W. MASON, Chicago, Ill. Filed Mar. 10, 1919. Serial No. 281,768. 6 Claims. (Cl. 84-84.)



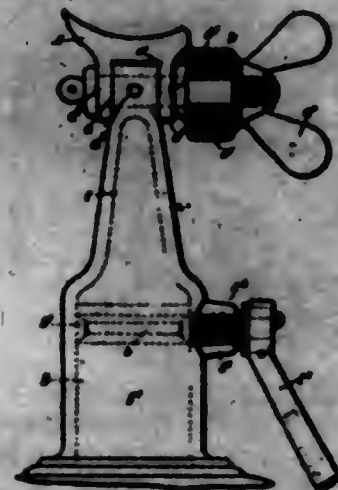
1. A hair drier comprising a casing having an air outlet; a handle for said casing; a shaft extending through said handle; a fan on said shaft arranged to expel a blast of air from said outlet; and means for coupling a flexible shaft to the shaft in said handle, substantially as described.

1,304,590. MAGAZINE-PENCIL. ROMOLO NARDI, Camden, N. J. Filed Nov. 22, 1918. Serial No. 268,662. 4 Claims. (Cl. 136-14.)



1. A pencil comprising a casing of two collapsible sections or shells, a plurality of holders hinged within one of said shells and capable of being moved to the longitudinal center thereof, means connected with one of said shells for moving any one of the holders, to the center position and means carried by the other shell for engaging the center holder to move the latter longitudinally when the two shells are moved toward each other or contracted.

1,304,591. MOUNTING FOR AUTOMATIC GUN. THOMAS KAYE, London, Westminster, England, assignor to Vickers Limited, Westminster, England. Filed June 21, 1917. Serial No. 176,000. 5 Claims. (Cl. 89-87.)



1. In a mounting for an automatic gun, the combination with the training socket and the training spigot or pivot pin, of a resilient ring which is interposed between the socket and the spigot and a radially disposed screw carried by the socket and serving by its pressure on the ring to press the latter firmly against the spigot.

1,304,592. GEAR-TESTING MACHINE. CARL G. OGDEN, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a Corporation of Illinois. Filed Jan. 28, 1919. Serial No. 272,004. 16 Claims. (Cl. 79-51.)

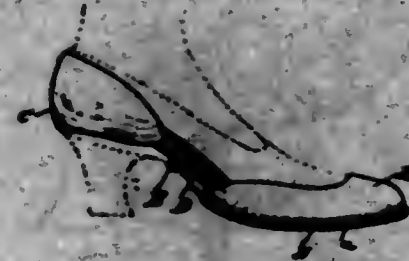


1. Gear testing apparatus having a contactor and means including a plane surfaced track, a roller adapted to roll on said track, and means supported by the roller and adapted to impart a rolling movement to the gear to be tested while one of the teeth of said gear remains in engagement with the contactor, to thereby cause the contactor to move in case the teeth is out of true.

1,304,593. SHOE-PROTECTOR. JOSEPH J. FARMINGTON, Chicago, Ill. Filed Mar. 12, 1917. Serial No. 184,158. 1 Claim. (Cl. 86-72.)

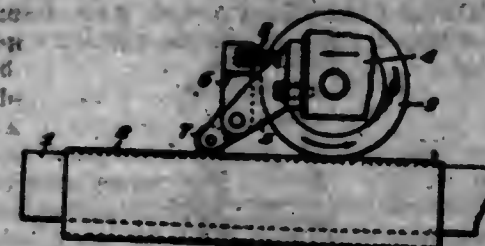
A protector having a toe portion and a heel counter, the toe portion comprising a sole of relatively stiff material, a member secured to the upper portion of the sole

for overlying the edges of the sole, and elastic connections between the counter and toe portion, the counter



adapted to surround the rear portion of the shoe above the heel and arranged when not in use to be placed within the toe portion.

1,304,594. ELECTRIC SEAM-WELDING DEVICE. WALTER A. PATCHEM, Lynn, Mass., assignor to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed Oct. 20, 1918. Serial No. 260,000. 9 Claims. (Cl. 219-4.)



1. In an electric seam welding apparatus, a work support, a roller contact electrode and a clamping device adapted to travel along the seam in advance of said roller and progressively clamp the work to said support.

1,304,595. TOWEL HOLDER AND DISPENSER. AUGUST B. FARMER, New York, N. Y. Filed Feb. 20, 1919. Serial No. 270,273. 4 Claims. (Cl. 46-32.)

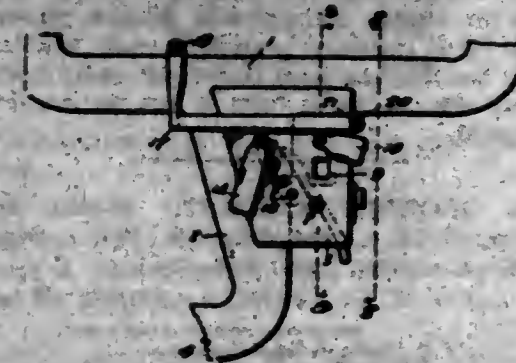


1. A towel holder and dispenser embodying a casing provided with an opening at the front thereof, a towel reel mounted for rotation in the upper portion of the casing and adapted to dispense portions of the towel and pass the opening front thereof to be dispensed in the lower portion of the casing, and means, normally holding the reel in check, but operable to release said reel and simultaneously impart thereto a rotative impetus.

1,304,596. HEATER. CLARENCE CLINTON PIERCE, Denton, Tex. Filed July 22, 1918. Serial No. 246,181. 3 Claims. (Cl. 268-5.)

1. A device of the character specified, comprising a casing adapted for connection with the manifold of an internal combustion engine, said casing having an auxiliary casing within the same, said auxiliary casing con-

taining a wick of asbestos or the like and having perforations in its walls, air inlet openings in the front and side walls of the casing near the auxiliary casing, shutters for controlling these openings, air outlet openings



in the top of the casing, a baffle plate extending transversely of the casing above the auxiliary casing, said baffle plate having openings, the main casing having an opening in one side wall at one end of the auxiliary casing, and a shutter for closing the said opening.

1,304,597. COKE-OVEN. FINEER PLANTING, Cleveland, Ohio. Original application filed July 26, 1916, Serial No. 111,321. Divided and this application filed Aug. 15, 1917. Serial No. 184,209. 4 Claims. (Cl. 302-9.)



4. In a coke oven, the combination with a pair of inclined combustion chambers; of a partition wall disposed therebetween, these sides of said chambers contiguous to said wall being constructed of joined elements whose joints extend in the direction of general inclination of the chambers and at right angles thereto, said partition wall being also constructed of joined elements, the joints of the latter, however, being horizontal and at right angles thereto.

1,304,598. CIGARETTE-MAKING DEVICE. ALFRED L. POLI, Walsenburg, Colo. Filed Mar. 8, 1919. Serial No. 281,453. 1 Claim. (Cl. 131-5.)



A cigarette making device, comprising a feed tube for feeding tobacco into the cigarette wrapper; a feed-hopper mounted at the top of said feed-tube as means for feeding tobacco through said tube; a lobe extended from

the upper edge of the feed-hopper inwardly over the bore of the feed-tube, said lobe being provided with a plunger guide-hole; a wire plunger slidably mounted through said guide-hole in said lobe, and ending in a handle at its upper end and in a shoe at its lower end, as means for feeding and pressing tobacco through said tube into the cigarette wrapper, said handle being formed by bending the wire forwardly, then down, back and to one side, so as to form a lock for engaging the lobe aforesaid.

1,304,599. HANGING BRACKET. ELLERY POLLARD, Brooklyn, N. Y. Filed July 19, 1918. Serial No. 245,685. 3 Claims. (Cl. 156-24.)



1. As an article of manufacture, a hanger bracket comprising a body portion; resilient bracket extensions extended from said body portion adapted to close for holding an article therebetween; a screw supporting member rigidly and non-relatively secured to said body portion; and means for reinforcing said body portion adjacent the attachment thereof to said screw supporting member, said means embodying an annular depression in said body portion concentric with said screw member; said depression being adapted to receive the head of said member in service.

3. As an article of manufacture, a hanger bracket comprising a body portion; resilient bracket extensions extended from said body portion adapted to close for holding an article therebetween; a screw supporting member rigidly and non-relatively secured to said body portion; means for reinforcing said body portion adjacent the attachment thereof to said screw member; and means for preventing the rotation of said article and said screw member when secured to a standing structure, said means embodying a spur adjustable to engage the standing structure when the bracket is in service, said spur being disposed when inactive in a plane coincident with said body portion.

1,304,600. COMPOSITION OF MATTER FOR PLASTER, OINTMENTS, &c. EDMUND MORAN POND, Rutland, Vt., assignor, by means assignments, to Katherine E. Pond, Rutland, Vt. Filed Aug. 3, 1914. Serial No. 855,304. 5 Claims. (Cl. 167-9.)

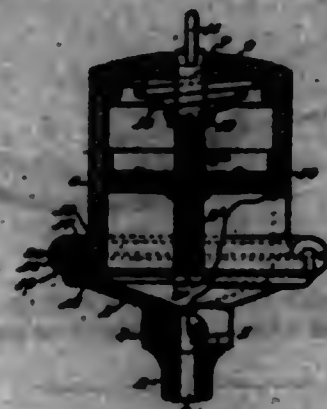
1. A plaster designed to serve as a matrix for medicaments which comprises a mixture of gelatin, glycerin and starch, the gelatin occurring in sufficiently large proportion to give the mixture solidity without hardness at ordinary atmospheric temperatures, and the starch occurring in the completed mixture as boiled starch and in sufficiently large proportion to prevent the plaster liquefying by absorption of moisture from the atmosphere or from the body of the patient.

5. As an article of manufacture a medical plaster comprising the following elements intimately commingled and boiled together in approximately the following proportions: gelatin, 24 parts; glycerin, 64 parts; starch, 10 parts.

1,304,601. COUPLING DEVICE FOR GREASE-CUPS AND THE LIKE. CLARENCE E. QUINTIN, Glen Riddle, Pa., assignor to Leander W. Riddle, Glen Riddle, Pa. Filed Jan. 15, 1919. Serial No. 271,183. 3 Claims. (Cl. 164-45.)

1. The combination with a cup body having a horizontally disposed annular flange and a cap therefor hav-

ing a vertically-disposed and threaded rim flange, of means to detachably couple and lock the cap to the body, consisting of an angular ring shaped to provide two substantially parallel members one of which is



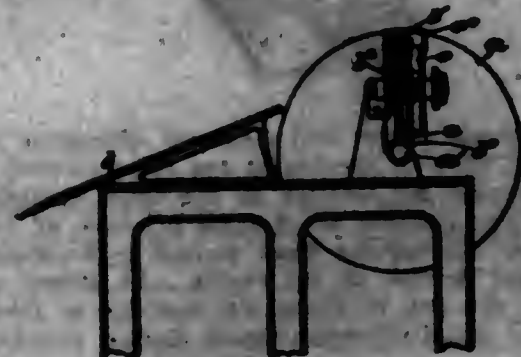
threaded to register with said vertically disposed threaded flange on the closing cap and the other of which is adapted to be thereby brought to rest, with pressure, on said horizontally disposed flange on the cup body.

1,304,602. RIFLE-TARGET. CHARLES REID, Dublin, Ireland. Filed May 6, 1918. Serial No. 232,908. 3 Claims. (Cl. 124-15.)



1. In an apparatus of the class described, spaced parallel uprights, a pair of parallel and co-extensive bars adjacent each upright and separately and pivotally supported therefrom at their mid points, a pair of target frames disposed between and pivotally supported at separate points to the forward and rearward end portions of said pairs of parallel bars, whereby the bars are constrained to swing in parallelism and said frames may be moved to raised, lowered or intermediate positions while maintained in parallel planes, and detachable means to connect the bars of one pair and hold them in a definite spaced relation, whereby swinging movement of the target frames may be prevented when desired.

1,304,603. MEASURING-MACHINE. CHARLES G. RICHMOND, Springfield, Vt. Filed May 14, 1915. Serial No. 23,096. 6 Claims. (Cl. 28-184.)



1. In a cloth measuring machine the combination with a revolving cloth drum of a dial or measuring wheel operatively connected therewith and rotated thereby, the rim of said measuring wheel comprising a graduated scale which is adjustable nearer to or further from the axis of said wheel to cause all graduations or divisions of said scale to extend a smaller or a larger arc thereof, substantially as described.

1,304,604. BEATING-ENGINE LIGHTER-BAR. MONTAGNE R. BURT, Fulton, N. Y. Filed Nov. 22, 1918. Serial No. 262,900. 17 Claims. (Cl. 93-84.)



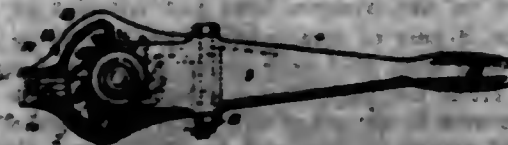
1. In a beating engine, the combination with a lighter bar, of a roll shaft, a roll shaft bearing movable with the lighter bar, and means for cushioning the said bearing.

1,304,605. AUTOMATICALLY-OPERATED FOOT-PEDAL FOR PLAYER-PIANOS. WILLIAM SCHACK, New York, N. Y. Filed Jan. 10, 1919. Serial No. 71,309. 1 Claim. (Cl. 74-81.)



The combination with a musical instrument having an operating mechanism provided with a pedal which is spring-pressed in one direction and adapted to be positively moved in the other direction, of a solenoid electromagnet having its core connected with said pedal for positively moving the latter in opposition to its spring, and a circuit controller for alternately closing and opening the circuit of the solenoid.

1,304,606. BRAKE-HANDLE. ERNEST H. SCHMIDT, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 10, 1915. Serial No. 44,794. 6 Claims. (Cl. 74-54.)



1. In brake mechanism, a brake shaft, a ratchet wheel positioned thereon, a bushing movable relatively to the ratchet wheel and the brake shaft, and a lever pivoted to said bushing and carrying a pawl, the pawl and the pivot to the lever being on opposite sides of the ratchet wheel, said pawl being adapted to be brought into engagement with the ratchet to actuate the brake shaft and being normally maintained in a vertical position out of engagement with the ratchet, and being bodily movable vertically away from the ratchet by the handle when the handle is moved to non-operative position, said pawl when in engagement with the ratchet wheel being reciprocated in a horizontal plane upon the backward movement of the handle.

1,304,607. LIQUID-MEASURING DEVICE. FRANK SCHENCK, Chicago, Ill. Filed Dec. 2, 1917. Serial No. 265,602. 3 Claims. (Cl. 73-37.)

1. The combination with a liquid passage, of a pair of rotatably mounted wheels arranged side by side, said wheels having alternating vanes against which the liquid flowing through said passage is adapted to engage as said vanes successively pass into and through the space between the rear sides of said wheel; a gear connection between said wheels whereby the same rotate in unison; a rotatably mounted indicator; means for operatively connecting one of said wheels with said indicator, said means comprising a train of reducing gears; a chamber housing said

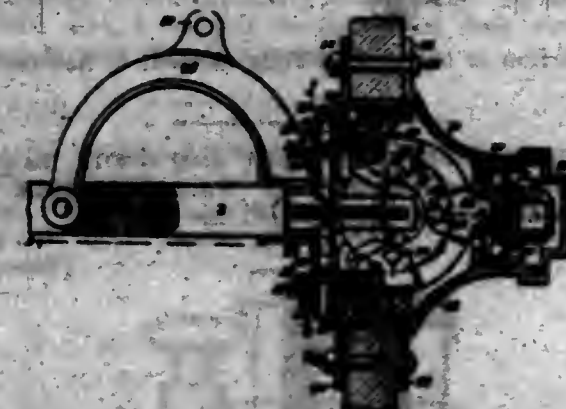
322 O. G.-34

gear; a cross bar at the outer side of said housing forming a bearing for said gear; and a dial on said cross bar



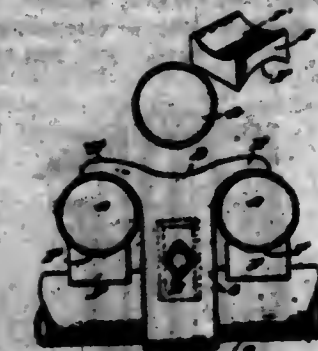
for cooperation with said indicator, substantially as described.

1,304,608. STEERING-KNUCKLE FOR AUTOMOBILES. JOHN M. SCOTT, Racine, Wis. Filed June 12, 1918. Serial No. 166,088. 4 Claims. (Cl. 21-142.)



4. In a steering knuckle for automobiles the combination of an axle provided at the end with a horizontal segmental bearing, a wheel spindle having an inward extension and a segmental bearing fitted to and pivotally connected with said axle bearing, a hollow wheel hub mounted on the spindle and surrounding said bearings, and a dust guard composed of horizontally slotted sections slidably and detachably connected with the spindle extension by screws passing through the slots in the guard and threaded in said extension, the guard sections being formed over the slots with housings which are formed with holes affording access to the screws, and are provided with covers for closing said holes.

1,304,609. BOOT-BLOWER HEADER. WILLIAM F. SELLERS, Brandywine Hundred, Del., assignor to Edgemoor Iron Company, Edgemoor, Del., a Corporation of Delaware. Filed Oct. 22, 1917. Serial No. 166,018. 6 Claims. (Cl. 129-602.)



1. In a water tube boiler, the combination with the water tubes, of blower piping and metallic parts connecting, and having extended contact surfaces in gripping contact with said tubes and pipe.

1,304,610. MEANS FOR STOPPING THE DELIVERY OF ROVING IN SPINNING-MACHINES. PETER SHARP, Perth, Scotland. Filed Feb. 4, 1919. Serial No. 275,016. 11 Claims. (Cl. 19-94.)

1. Rove stop mechanism comprising in combination a rove shifting element normally in rove feeding position, a balanced feeler adapted to bear on the thread and a gravity operated member, the latter and the feeler being adapted to cooperate whereby, on breakage of the thread, the

gravity member is first lifted by the footer and then released therefrom, said gravity member then acting to permit



mit actuation of the rove shifting element to non-feeding position.

1,304,611. CASEMENT WINDOW AND DOOR. LAWSON B. SHULZOR, Los Angeles, Calif. Filed May 7, 1918. Serial No. 228,177. 2 Claims. (Cl. 20-82.)



1. The combination with a window frame having the usual inside stool of a sash, mounted to swing inward and also, capable of lifting; to be pressed over the stool and be dropped to lap the stool when in a closed position, and a closure strip to cover the space exposed at the top of the sash when the latter is so lowered; said closure strip being hinged so that it may be swung up to open the space for ventilation purposes.

1,304,612. ANTISIPHON-SEAL FOR HEATING SYSTEMS. WILFRED SMYTHLBY, Moline, Ill., assignor to Moline Heat, Moline, Ill., a Corporation of Illinois. Filed Sept. 27, 1918. Serial No. 265,906. 13 Claims. (Cl. 122-12.)



1. In a device of the class described, the combination of a well comprising upper and lower compartments, drop

pipes extending through the upper compartment and into the lower compartment, there being only restricted passageways between said compartments.

1,304,613. OVERALLS. FREDERICK HOWARD SHREVELEY, Columbia, Pa. Filed Dec. 18, 1916. Serial No. 137,126. 3 Claims. (Cl. 2-144.)



1. In an overall or trousers, the combination with a front portion, back pieces having their rear edges connected together by a seam of stitching and having their front edges connected to said front portion by side seams of stitching; of a back strip extending along the upper rear edge of said back pieces and rearward of and across said rear seam and across said side seams and terminating slightly forward of the latter and being secured at its forward ends to said front portion and secured to said back pieces at the top of said rear seam and also secured to said back pieces at a considerable distance below said top or at a point substantially at the top of the trousers seat, substantially as shown and for the purposes specified.

2. In an overall or trousers, the combination with a front portion, back pieces having their rear edges connected together by a seam of stitching and having their front edges connected to said front portion by side seams of stitching; of a back strip extending along the upper rear edge of said back pieces and rearward of and across said rear seam and secured to said back pieces and terminating adjacent to said side seams, said back strip being relatively wide and extending from the top of said rear pieces to the trousers seat and stitched at its top and bottom, a pair of straps which are relatively narrow in comparison with said back strip, said straps extending along the front top part of the trousers and each having one end secured to an end of said back strip, and a buckle, one of said straps having said buckle secured thereto at the front part of the trousers but at a point remote from the middle of said front part, said straps being co-extensive with said buckle and back strip for adjusting the trousers, for obtaining each beneficial result as specified.

3. In an overall or trousers, the combination with a front portion, back pieces having their rear edges connected together by a seam of stitching and having their front edges connected to said front portion by side seams of stitching; of a back strip extending along the upper rear edge of said back pieces and rearward of and across said rear seam and secured to said back pieces and terminating adjacent to said side seams, said back strip being relatively wide and extending from the top of said rear pieces to the trousers seat and stitched at its top and bottom, and a pad of heat insulating material secured to the inner surface of the trousers in a position wherein its vertical center is substantially opposite to that of said back strip, whereby the contiguous portion of the wearer's back is effectually protected, and whereby slipping of said contiguous portions is reduced to the minimum.

1,304,614. GIN-SAW SHARPENING AND GUMMING DEVICE. JAMES JACKSON SMITH, McDonough, Ga. Filed Aug. 12, 1918. Serial No. 269,679. 10 Claims. (Cl. 70-22.)

1. A device of the character specified comprising a suitable supporting frame having means for engaging the

spacing collars between the saws of a gin, a shaft journaled transversely of the frame, a shaft journaled longitudinally of the frame and extending perpendicular to the axis of the saw when the frame is in place, a gumming wheel at the end of the shaft adjacent to the saws for gumming the same, means for advancing the saws tooth by tooth to the action of the gumming wheel, also for dressing the opposite faces of the saw as the teeth are gummed, means controlled by the rotation of the first named shaft for reciprocating the file and for rotating



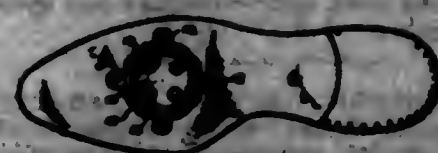
the gumming wheel, means controlled by the rotation of the said shaft for alternately lifting that end of the shaft provided with the gumming wheel and for advancing the saw, said means for advancing the saw comprising a reciprocating pawl having a stroke of a length to advance the saw a greater distance than a single tooth, and means for preventing engagement of the pawl with the teeth beyond predetermined points in its reciprocating movement, said means being adjustable for saws with various shoe teeth.

1,304,615. PISTON. FRANK P. SUTTON, JR., Jersey City, N. J., assignor to Monahan Rotary Engine Corporation, New York, N. Y., a Corporation of New York. Filed Dec. 31, 1917. Serial No. 269,612. 5 Claims. (Cl. 70-60.)



5. A piston having an oil chamber therein, a hollow piston rod rigidly secured to said piston, and having an oil delivery pipe extending into said chamber, an annular member connected to the inner end of said tube and forming an end wall for said chamber, and passages leading from said chamber to the periphery of the piston.

1,304,616. PIVOT-CLEAT. WILFRED DUNN SMITH, Newark, N. J., assignor of one-half to Benjamin Meyer, Newark, N. J. Filed Mar. 5, 1918. Serial No. 239,460. 2 Claims. (Cl. 30-30.)



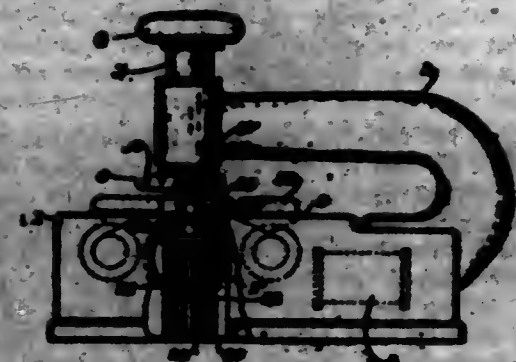
1. The combination with a golf shoe or the like, of a single anti-slippery cleat pivoted on the shoe near the front part of the sole, whereby the wearer can pivot on the cleat while the latter remains anchored.

1,304,617. SMALL SUBMARINE. THOMAS W. BROWN, Memphis, Tenn. Filed July 3, 1918. Serial No. 167,805. 5 Claims. (Cl. 114-10.)



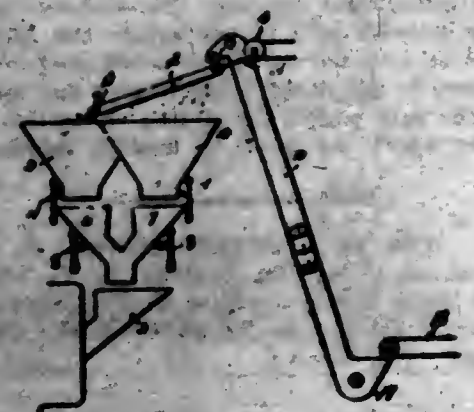
1. In a submarine of the class described, in combination, a hull of substantially cylindrical form, a front air chamber occupying substantially the entire front end of said hull, a rear air chamber occupying substantially the entire rear portion of said hull, an auxiliary chamber intermediate said air chambers, conduits leading from said air chambers to said auxiliary chamber, an engine compartment, and a conduit leading from said auxiliary chamber to said engine compartment.

1,304,618. WORKMAN'S TIME-RECORDER. ALFRED L. SCHMIDT, Chicago, Ill., assignor to Schenck Electric Company, Chicago, Ill., a Corporation of Illinois. Filed July 27, 1917. Serial No. 182,885. 3 Claims. (Cl. 204-42.)



1. In combination, a guide comprising an outer channel, and a narrow inner channel, the outer channel being adapted to receive a card at its full width, a stop stationary at the junction of the channels and a clipping punch movable up and down immediately in advance of the stop for clipping or trimming the edge of the card to permit it to enter farther into the inner channel, the punch having a guide groove in its rear side receiving the forward edge of the stop.

1,304,619. METHOD FOR CONVEYING CONCRETE AGGREGATE. HUGO O. STAMP, Milwaukee, Wis. Filed Feb. 9, 1917. Serial No. 147,805. 1 Claim. (Cl. 20-73.)



The method of conveying, proportioning and feeding the ingredients of aggregate material, said method consisting in depositing upon a common primary conveyor from storage bins of said ingredients, roughly proportionate quantities of said ingredients, conveying and elevating said

ingredients, separating said ingredients from each other, temporarily separately accumulating each of said ingredients and finally feeding from said accumulations exact proportional quantities of the said ingredients deposited upon said primary conveyor.

1,304,620. WIRE-TIE FORMING TOOL. FRANCIS BRINKOWSKI, Cincinnati, Ohio, assignor of one-half to John Schulte, Cincinnati, Ohio. Filed Apr. 16, 1917. Serial No. 162,321. 5 Claims. (Cl. 140-121.)



4. In a tool for forming wire ties, the combination of a pair of levers pivoted to each other intermediate of their ends and provided with handles at one of their ends and coating clamping shoulders at the other of their ends, a clamping jaw pivoted to each of said levers coacting with the shoulder thereon for clamping the wire by the pull of said wire, spring means for closing said jaws, latching means for holding said pivoted clamping jaws normally in open relation, and means for placing said pivoted clamping jaws out of influence of said spring means and under influence of said latching means.

1,304,621. CENTRIFUGAL MACHINE. ROBERT ALLEN-AMON BRUNSON, Southsea, England. Filed Feb. 10, 1919. Serial No. 276,312. 7 Claims. (Cl. 222-51.)



1. In a centrifugal machine the combination with a separating cylinder of a piston within the cylinder and adapted to be actuated by the pressure produced by centrifugal force in the liquid being treated and means moving with the said piston for closing the outlet from the cylinder by which the solids or heavier liquids are discharged.

1,304,622. HEATING VESSEL. EDWARD C. SULLIVAN and WILLIAM C. TAYLOR, Corning, N. Y., assignors to Corning Glass Works, Corning, N. Y., a Corporation of New York. Filed June 24, 1915. Serial No. 36,136. 11 Claims. (Cl. 53-6.)

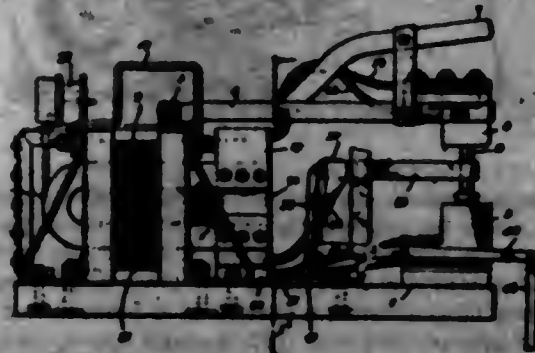


7. A transparent baking dish of pressed glass.

1,304,623. GLASS. EDWARD C. SULLIVAN and WILLIAM C. TAYLOR, Corning, N. Y., assignors to Corning Glass Works, Corning, N. Y., a Corporation of New York. Original application filed June 24, 1915, Serial No. 36,136. Divided and this application filed Sept. 18, 1916. Serial No. 126,756. 25 Claims. (Cl. 104-24.1.)

1. A glass containing silica, alumina, basic acid and sodium acid only, the silica being not under 70 per cent., and the alumina being not over 3 per cent. of the total, and the percentage of basic acid to sodium acid being not less than two to one.

1,304,624. ELECTRIC HEATING APPARATUS. JOHN P. SUMMERS, Albany, N. Y., assignor, by direct and mesne assignments, to George G. Milne, Rye, N. Y. Filed Aug. 1, 1917. Serial No. 162,321. 20 Claims. (Cl. 219-11.)



1. An apparatus of the class described having in combination a transformer with its primary and secondary windings, a plurality of contact heads connected to one terminal of the secondary and a single or common contact head connected with the other terminal of the secondary and adapted to cooperate with each of the first mentioned contact heads to conduct current through the work placed between said contact heads respectively.

1,304,625. PROCESS OF RIVETING. JOHN P. SUMMERS, Albany, N. Y., assignor, by direct and mesne assignments, to George G. Milne, Rye, N. Y. Original application filed Aug. 1, 1917, Serial No. 162,321. Divided and this application filed July 24, 1918. Serial No. 247,466. 18 Claims. (Cl. 220-11.)

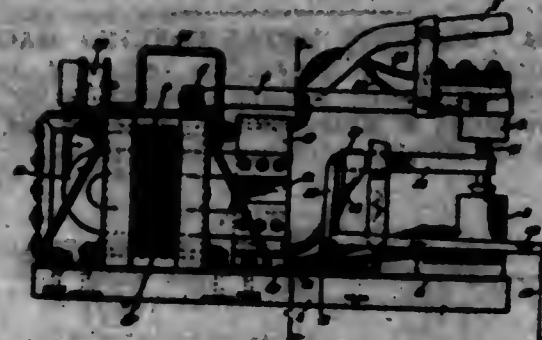


1. In the process of riveting the steps which consist in heating the rivets by passing an alternating current there-through from a contact making electrical contact with the end of the rivet opposite the rivet head, until the end portion of the rivet is substantially softened, the ratio between contact resistance at said end and the ohmic impedance in the rivet being such that the end of the rivet heats up faster than the shank or middle portion of the rivet, and the voltage applied being insufficient to burn the said end of the rivet, and then discontinuing the current through the rivet, before inserting and upsetting the rivet in the work.

1,304,626. ELECTRIC HEATING APPARATUS. JOHN P. SUMMERS, Albany, N. Y., assignor to George G. Milne, Rye, N. Y. Original application filed Aug. 1, 1917, Serial No. 162,321. Divided and this application filed Feb. 25, 1919. Serial No. 276,322. 12 Claims. (Cl. 219-2.)

1. An apparatus of the class described having in combination a contact adapted to make contact with the first

end of a rivet, bar or other article, a second contact adapted to make contact with the rivet, bar or shifter article, and a transformer having a low potential secondary with its terminals connected to said contacts respectively, said transformer having a substantially complete iron magnetic circuit (but with a gap or gaps therein) to give the transformer a markedly inductive characteristic to prevent the flow of excessive current when the rivet, bar or other article is first placed in circuit.



1,304,627. STITCH-FORMING MECHANISM FOR SEWING-MACHINES. CARLIS W. THOMAS, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Jan. 2, 1916. Serial No. 70,961. 5 Claims. (Cl. 112-68.)



1. In a stitch-forming mechanism for sewing machines, the combination with a continuously rotating loop-taker and a stationary bobbin-case, the latter journaled in said loop-taker and provided with a thread-tension mechanism and a thread-bobbin, of a thread-controller spring carried by said bobbin-case and acting independently of said bobbin to resiliently resist the pull upon the bobbin-thread incident to seam formation.

1,304,628. SPOON-HOLDER. BEATRICE THORNTON, Sacramento, Calif. Filed Mar. 20, 1918. Serial No. 223,614. 1 Claim. (Cl. 65-65.)



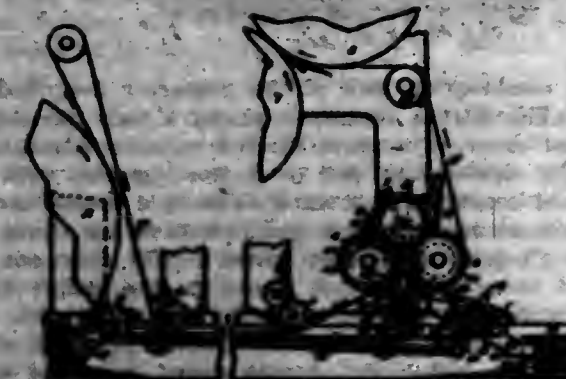
A spoon holder comprising a substantially U-shaped member, having its free ends bent to form spring clips, a central support formed on the upper edge of the U-shaped member, said support being bent angularly in relation to the U-shaped member and bent to form a central strengthening rib, and spring tongues formed on the side edges of the central support, so and for the purpose specified.

1,304,629. INTERNAL-COMBUSTION ENGINE. JOHN A. TOMARE, Los Angeles, Calif. Filed Oct. 20, 1917. Serial No. 190,000. 5 Claims. (Cl. 129-50.)



4. In an internal combustion engine, having in combination explosion cylinders and air compressors, a manifold connecting all of said air compressors, automatic valves in each air compressor for the intake of air into said air compressor and the exhaust of said air into the manifold, reciprocating pistons in said explosion cylinders and air compressors, a crank shaft, connecting rods for each piston to the crank shaft, an explosion space formed in each explosion cylinder between the piston and the cylinder head, a branch from said manifold having extensions connecting it with the said explosion space in each cylinder, a carburetor device located in the said branch designed to carburetor the air passing from the manifold into the explosion space, valves in each explosion cylinder, operated mechanically from the crank shaft, for the intake of carburetor air from the manifold, and the exhaust of burnt gas from the cylinder, means for the compression and explosion of said air in the cylinder, said air compressors designed to create an air pressure in the manifold and explosion cylinders, an air control element located in the manifold, designed to operate by said air pressure and divert part of the said air and prevent it from entering the carburetor and explosion cylinder, and means for changing said air control element and thereby controlling the volume of carburetor air entering said explosion space and the compression created therein, substantially as described.

1,304,630. WEB-FEEDING MECHANISM FOR PRINTING-MACHINES. IRVING THOMAS, New York, N. Y., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed May 20, 1916. Serial No. 60,967. 11 Claims. (Cl. 278.)



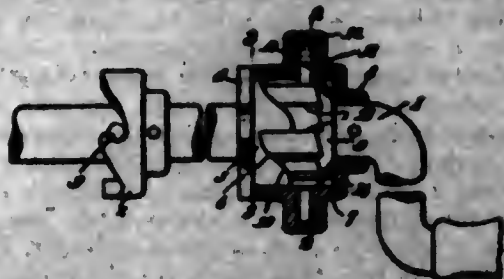
5. In a web printing machine, the combination with a source of web supply, of feeding-in rolls, feeding tapes, an actuator roll, and means for moving the actuator roll to bring the tapes into and out of engagement with the feeding-in rolls for driving and stopping the tapes.

1,804,631. CULTIVATOR ATTACHMENT. ARTHUR J. TOWNE, Mendota, Ill. Filed Nov. 18, 1918. Serial No. 203,042. 1 Claim. (Cl. 97-12.)



An attachment for cultivators including a shaft, means for attaching the shaft to a cultivator, a support carried by the shaft, a roller revoluble on the shaft and abutting the support, a guard surrounding the roller and contacting with the support and a vine deflecting finger connected with a guard.

1,804,632. ANTI-BACK-FIRING DEVICE FOR AUTOMOBILE-CRANES. THOMAS P. TOWNE, Springfield, Ill. Filed July 18, 1917. Serial No. 181,828. 2 Claims. (Cl. 129-106.)



1. A cranking device embodying a crank, a stationary member having a boss provided with a ratchet cam, a ring rotatable loosely on the crank and having a ratchet cam engageable with the aforesaid cam to shift the crank longitudinally when rotated reversely, ratchet teeth on the outer periphery of the ring, a cup-shaped member secured on the crank and inclosing the ring, the rim of said cup-shaped member fitting said boss, and a pawl carried by the cup-shaped member and engaging said ratchet teeth to rotate the ring reversely with the crank.

1,804,633. COMBINATION-LOCK. EMIL VOZK, Gumbell, Minn. Filed Jan. 2, 1917. Serial No. 140,943. 1 Claim. (Cl. 70-55.)



In a combination lock of the character described, the combination with a container having a body portion and a hinged cover, of a plate secured to said hinged cover, a rigidly upstanding flat projection formed with said plate and constituting a ward element, a casing covering said element entirely when the lock is in its closed position, a plurality of recessed steps formed upon one edge of said element, a hollow sleeve in the center of the plate, a flanged circular disk having a knurled edge, formed with said sleeve, a slotted tumbler disk rigidly engaging the lower end of said sleeve, a second sleeve, a slotted tumbler disk rigidly engaging with said second sleeve, a spindle within said second sleeve, a third tumbler disk, slotted, and rigidly engaging the lower end of said spindle, the slots in said tumbler disk being adapted to be engaged by the respective steps of said ward element, and a plate on said body to which said hinged lock plate is secured for allowing a turning down when the

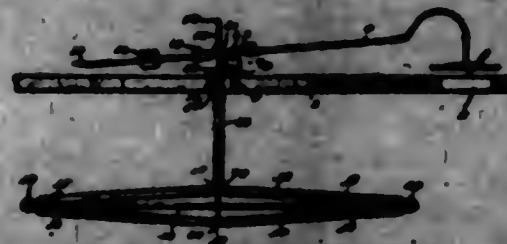
tumbler with their slots are in alignment and together with said ward element, and said hinged lock plate being further adapted to be turned up for allowing a locking of the container by the rotation of the tumbler disk for engagement with the steps of said ward element.

1,804,634. ELECTRIC METAL-WORKING MACHINE. EDWARD JAHNER VON HENKE, New York, N. Y., assignor to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed Oct. 28, 1918. Serial No. 200,014. 5 Claims. (Cl. 210-4.)



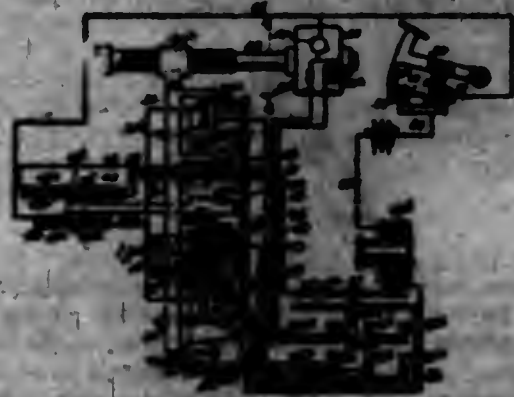
1. An electric metal working apparatus having a pair of rigid conducting arms extending in the same direction parallel to one another from a suitable support and affording a work gap or throat between them, one of said arms being directly connected with a source of heating current at or near the point of support and the other being connected with the opposite pole or terminal of said source by connection insulated therefrom at the point of support and in electrical connection therewith at the remote end thereof.

1,804,635. THERMOSTATIC REGULATOR FOR INCUBATORS. HAROLD L. WARREN, Lancaster, Pa. Filed Jan. 31, 1918. Serial No. 214,035. 4 Claims. (Cl. 250-5.)



1. In a thermostat, the combination of a relatively non-expandable member and a plurality of relatively expandable channel-shaped members located on opposite sides thereof, said channel-shaped members having the flanges thereof extending in opposite directions and cut away adjacent the middle portion of said members and at each end thereof and means for securing said first-mentioned member and said channel-shaped members together at the ends thereof where the flanges on the channel-shaped members are cut away.

1,804,636. ELECTRICALLY-CONTROLLED TRANSMISSION. HENRY F. WAGNER, Cleveland, Ohio, assignor to The Peabody Motor Car Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 20, 1918. Serial No. 700,001. 22 Claims. (Cl. 74-58.)



1. In combination with driving and driven members, a variable speed transmission between said members

comprising shiftable power transmitting elements, electric motive means for shifting said power transmitting elements, selecting mechanism for forming operative connections between the motive means and the elements to be shifted and means controlling the motive means and selecting mechanism.

1,804,637. BRIDGE OR BAR FOR UNHAIRING FURSKINS. FREDERICK M. WEAVER, Brooklyn, N. Y. Filed Sept. 4, 1917. Serial No. 180,042. 7 Claims. (Cl. 20-12.)



1. In a machine for unhairing fur skins a bridge or bar for passing fur skins thereover, said bridge or bar containing one or more movable sections slidably connected to the front of the bridge, transversely thereto, one or more bays having each a raised portion and a depressed portion, said bays being located at the rear of said sections and lengthwise of said bridge or bar, and a pin secured to each of said sections, said pins extending over said bays and resting thereon, thereby causing said sections to be moved into and out of operating position by the motion of said bay or bays.

1,804,638. REVERSIBLE GEARING FOR RAKES AND TEDDERS. FRANK W. WHEELER, Peoria, Ill., assignor to Acme Harvesting Machine Co., Peoria, Ill., a Corporation of West Virginia. Filed Mar. 17, 1917. Serial No. 154,462. 12 Claims. (Cl. 74-52.)



6. In combination, a driving shaft and a driven shaft, a gear affixed to one of them, a pair of gears mounted on the other rotatable therewith and movable laterally with respect to and adapted to separately engage the first named gear, a member operatively engaging the pair of gears, a hand-lever, and mechanism connected to and between the said lever and said member including an adjustable part adapted and arranged for changing the distance between the lever and said member.

1,804,639. TOOTH-BRUSH HOLDER AND STERILIZER. DECEAN MANNING WILSON, Manassas, Mich. Filed Sept. 12, 1918. Serial No. 203,720. 7 Claims. (Cl. 240-62.)



5. In combination, a strip of spring material formed with parallel and normally vertical flanges and a spring tongue cooperative with the flanges for holding a removable article, a shelf below said flanges, means above said

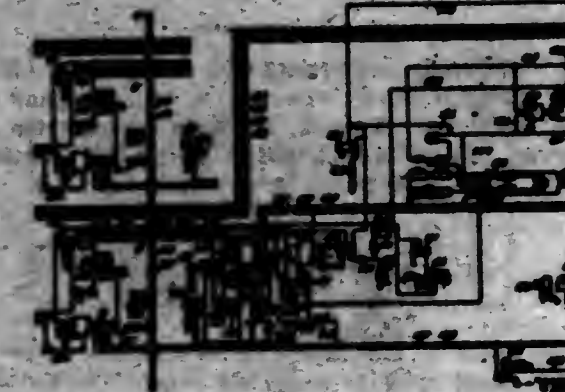
flanges and cooperative with said shelf for supporting a second removable article to be affected by the first said removable article, and means supported by the first said means and being effective to hold a cover for the second said article.

1,804,640. FOUR-WHEEL DRIVE FOR MOTOR-VEHICLES. GEORGE W. WILKIN and JOHN P. KIM, Orangeville, Idaho. Filed Jan. 22, 1918. Serial No. 213,352. 3 Claims. (Cl. 74-104.)



1. In a motor vehicle, a driven axle, a wheel supporting spindle normally in axial alignment with said axle and mounted for angular movement relative thereto, and means operatively connecting the driven axle to said spindle, said means yieldably maintaining the spindle in alignment with the axle and being capable of transmitting rotation to the wheel in any angular position of said spindle against the tractive resistance of the wheel.

1,804,641. CALL-DISTRIBUTING SYSTEM. SAMUEL R. WILLIAMS, Jr., Brooklyn, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Continuation of application Serial No. 107,000, filed July 1, 1918. This application filed July 14, 1917. Serial No. 180,934. 51 Claims. (Cl. 170-27.)



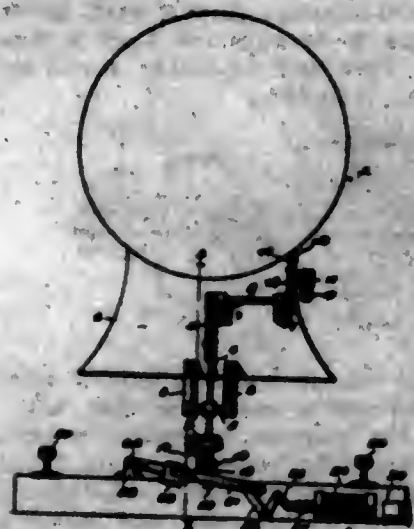
1. The combination with a plurality of operators' positions, of a finder switch having switch terminals arranged in groups, connecting circuits associated with each operator's position and extending to a corresponding group of switch terminals, and means independent of said switch for selecting an idle operator's position and causing said switch to select a terminal in the corresponding group.

1,804,642. AUTOMATIC TRAIN CONTROL. CHARLES W. WILSON, Berea, Ohio, assignor, by direct and mesne assignments, of six forty-eighths, to William K. Evans, sixteen forty-eighths to Samuel Chagwyn, and twenty-six forty-eighths to Mary E. Evans, Berea, Ohio. Filed June 27, 1918. Serial No. 166,120. 2 Claims. (Cl. 240-600.)

1. In automatic train control, an emergency valve, a rock-shaft, vertically-disposed arms extending from the rock-shaft and movable part of the emergency valve, a link connection between each arm, the arms and link normally occupying a vertical position, and a vertically-disposed trip member having a connection with the rock-shaft for actuating the latter in either direction, said trip member being fulcrumed between its ends.

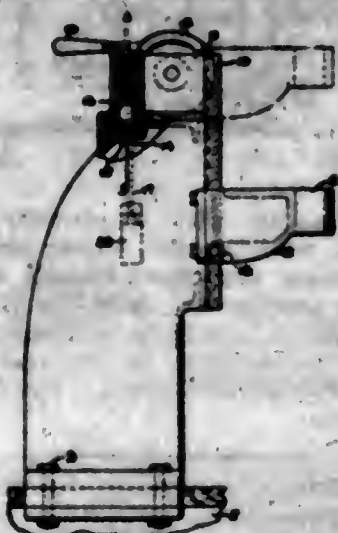
2. In an automatic train control, an emergency valve, a rock-shaft provided with a pair of crank arms, a

crank arm for the emergency valve, a link connecting the valve crank arm and one of the crank arms on the rock shaft and a vertically disposed trip member fulcrumed intermediate of its ends and provided with a slidable and pivotable connection with the other crank arm of the rock shaft.



3. The combination with a locomotive having a saddle supporting the boiler, and the train pipe of an air brake system, of an emergency valve for the train pipe, a rock shaft mounted upon the saddle and disposed transversely beneath the boiler of the locomotive, crank arms upon the rock shaft, a crank arm for the emergency valve, a link connecting the valve crank arm and one of the crank arms on the rock shaft, and a vertically disposed trip member fulcrumed intermediate of its ends and provided with a slidable and pivotable connection with the other crank arm of the rock shaft.

1,304,643. SPINDLE-SUPPORTING MEMBER. WILLIAM F. ZIMMERMANN, Newark, N. J., assignor to Gould & Eberhardt, Newark, N. J., a Corporation of New Jersey. Filed June 2, 1917. Serial No. 172,480. 12 Claims. (Cl. 90-18.)



1. In combination, a box type supporting member, a bearing member adjustably mounted upon said supporting member, and means to swivel said bearing member into a none use position.

1,304,644. WORM-GRINDER. WILLIAM F. ZIMMERMANN, Newark, N. J. Filed July 23, 1918. Serial No. 246,301. 18 Claims. (Cl. 51-4.)

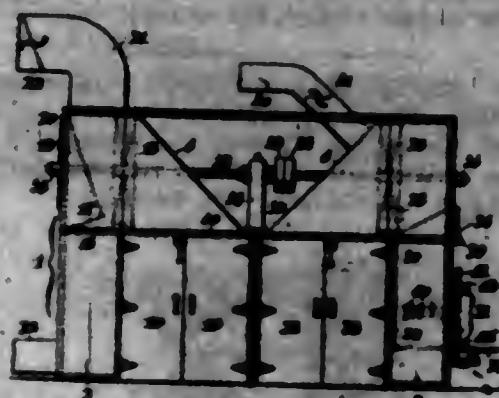
1. A worm-grinder combining a spindle; a spindle-support; a grinder-support; means for effecting a relative translation between said supports in a direction parallel with the axis of the spindle; and a main-line transmission extending from the spindle to effect said

support translations, said transmission including a one-revolution clutch, a change-gear set between said clutch and spindle for the purpose of indexing, and another change-gear set between said clutch and the translating-



support for the purpose of effecting the ratio between the translation of the support and the revolutions of the spindle; the components of the transmission being so arranged as to operate simultaneously in serial relation throughout the grinding operations of the machine.

1,304,645. DRYING AND CONDITIONING MACHINE. THOMAS ALLAN and WALTER W. SIMON, Philadelphia, Pa., assignors to The Philadelphia Drying Machinery Company, Germantown, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 19, 1919. Serial No. 278,067. 6 Claims. (Cl. 94-19.)



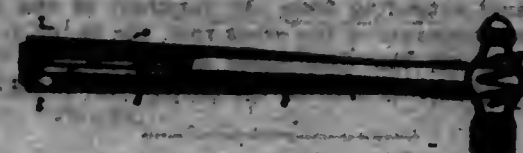
1. A machine of the class described comprising, in a unitary structure, a drying and cooling compartment, and a conditioning compartment; a separating partition subdividing each of said compartments into a main chamber and an auxiliary chamber; means located in each compartment for circulating the air between the said main and auxiliary chambers; and means for permitting the exhaust of a proportionate amount of the air circulated in each of said compartments.

1,304,646. SHOE. SALVATORE BARBER, Long Island City, N. Y. Filed May 16, 1918. Serial No. 204,712. 31 Claims. (Cl. 94-18.)



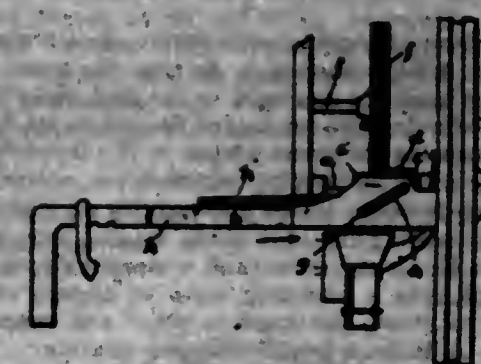
1. A shoe of the kind in which an outer sole is detachable for renewing the tread, characterized by having, in combination, an upper, a permanent sole secured thereto, a detachable wear-receiving outer sole, a hanger strap carried directly by and extending transversely from one lateral margin to the other lateral margin of said permanent sole and providing for the longitudinal bending thereof, an attaching tongue secured directly to said outer detachable sole at a medial location between the lateral margins thereof along a transverse line of attachment providing for the longitudinal bending of said outer sole, said attaching tongue being detachably engageable with said hanger strap, and means for preventing disengaging movement of said detachable outer sole.

1,304,647. HAMMER. MILLS BANTA, Gary, Ind. Filed Mar. 27, 1917. Serial No. 157,617. 1 Claim. (Cl. 165-61.)



A tool of the class described comprising a head having a forwardly diverging opening extending therethrough; and a metallic one-piece handle having its forward and end into and completely filling said opening, whereby said head and handle are securely locked together substantially as described.

1,304,648. TRANSMISSION-GEAR. WILLIAM G. BRATTY, Fergus, Ontario, Canada. Filed Dec. 18, 1918. Serial No. 268,860. 4 Claims. (Cl. 76-54.)



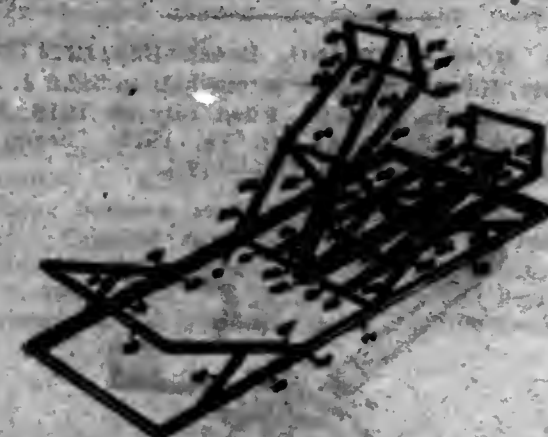
2. A driving gear comprising a driving shaft, a pinion frame loosely mounted on, and movable axially of, the driving shaft, a driving pinion mounted on the driving shaft, to rotate therewith and move axially thereof during the movement of said pinion frame, a reversing pinion, rotatably mounted in said pinion frame continuously in mesh with the driving pinion; a spur wheel mounted to mesh with the driving pinion, a shift lever for moving said pinion frame axially of the shaft to bring the driving pinion into and out of mesh with the spur wheel, a cam carried by said lever for positioning the pinion frame to bring the reversing pinion into mesh with the spur wheel when the driving pinion and spur wheel are out of mesh, and a spring connection between the lever and pinion frame to cause the united movement of the lever and pinion frame when the driving pinion is moving to a neutral position and to permit of the continued movement of the shift lever when the axial movement of the pinion frame and driving pinion have been arrested at the neutral position of the driving pinion.

1,304,649. STAGE-SCENERY. JUTTA BULL-BANKER, New York, N. Y. Filed Jan. 6, 1918. Serial No. 210,540. 6 Claims. (Cl. 46-70.)



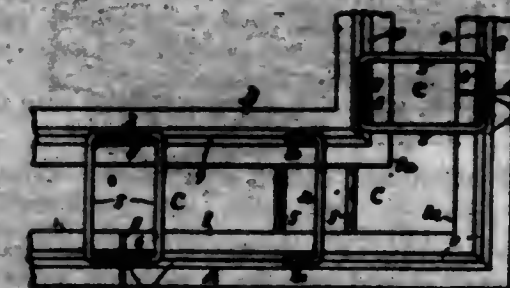
1. Stage scenery comprising netting, and portions of a fabric mounted thereon representing the object or objects forming part of the scenery.

1,304,650. BED. THOMAS E. BOCH, Rome, N. Y. Filed Jan. 2, 1918. Serial No. 210,027. 2 Claims. (Cl. 8-12.)



1. In apparatus of the class described, the combination of two jointed frame sections, a back rest pivoted to one of said sections, means for supporting said back rest in different positions, two independent leg rests pivoted to the other of said sections and each comprising a plurality of jointed sections adjustable to different positions, supporting means for each leg rest connected at the joint between two sections and adjustable longitudinally of the second mentioned frame section to vary the elevation of said joint, and adjustable supporting means for the ends of said leg sections adapted to support said ends in different positions above and below said joint and independently of the position of said joint.

1,304,651. WALL AND WALL-TIE. DAVID E. BOBBER, North St. Paul, Minn. Filed July 24, 1918. Serial No. 246,457. 2 Claims. (Cl. 72-106.)



1. A wall composed of an outer and an inner parallel shell with a continuous air space between them and metallic ties secured with their ends in said shells and traversing the space between the shells; each of said wall shells composed of artificial stone blocks laid in courses facing each other having their adjacent faces formed with longitudinal V-shaped grooves, and said ties being formed of straight metal bars extending from one shell to the other and having at their ends angular portions to be embedded in mortar in the joints of each shell and being bent zig-zag up and down so as to engage partly in the lower and partly in the upper groove adjacent each joint, and by entering the V-shaped bottoms of the grooves guide each block into vertical relation with the block or blocks below it.

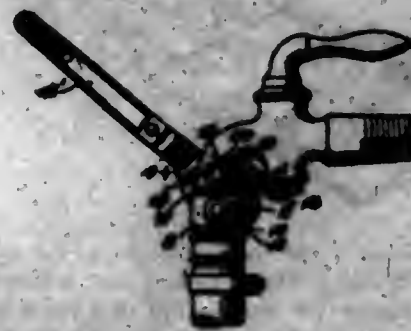
1,304,652. GRAPPLANE OR ARBOPLANE. HAROLD ROTAN, Bristolington, Bristol, England. Filed Mar. 7, 1918. Serial No. 281,364. 2 Claims. (Cl. 244-30.)



1. A grapplane or arboplane having a two part facelage, pivoting means between the two parts, whereby the rear

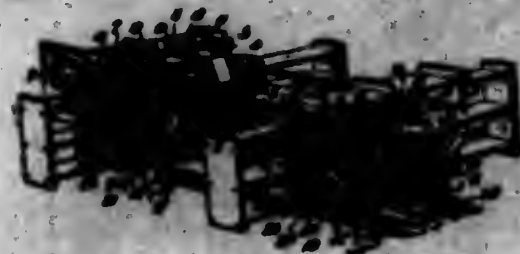
section of the fuselage together with the tail of the machine can be folded horizontally so as to lie adjacent to the plane.

1,304,653. HOSE-COUPLING. ROBERT BENJAMIN BOOTH, Honolulu, Hawaii, assignor of one-half to John J. Armstrong, Honolulu, Hawaii. Filed July 22, 1918, Serial No. 246,097. Renewed Apr. 18, 1919. Serial No. 291,170. 5 Claims. (Cl. 285-172.)



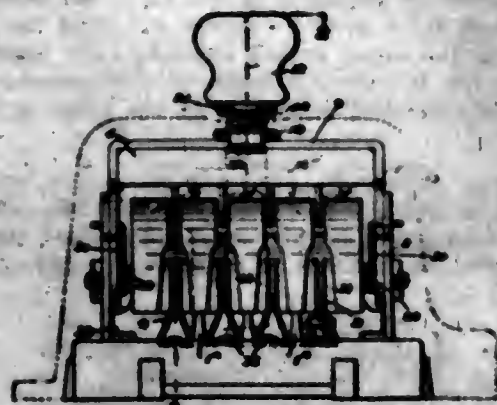
2. A hose coupler for faucets, comprising a socket element having a hose receiving portion, a cam lever pivoted on said element, and lugs fixed with relation to the faucet, the cam face of said lever being arranged to engage the lugs in various positions to maintain the socket element in place.

1,304,654. AIRSHIP. JOHN W. BOWEN, Philadelphia, Pa. Filed July 15, 1918. Serial No. 109,502. 5 Claims. (Cl. 244-25.)



1. In an air ship, a propeller, a swinging frame on which the shaft of said propeller is mounted, heads on the ends of said frame, sleeves connected with the sides of said frame, a driving shaft in said sleeves and frame, gearing for said driving shaft and propeller shaft, and tie-rods extending from the end heads of said frame to the outer terminals of said sleeves and connected therewith.

1,304,655. SWITCH. FRANK BUCHANAN, Syracuse, N. Y. Filed June 5, 1918. Serial No. 32,294. 11 Claims. (Cl. 178-262.)



1. A switch comprising a base, two opposing rows of terminals mounted on the base, a movable switch arm hinged to the base between the rows of terminals and having a conductor movable in an arc into engagement with terminals of either row, and a block of insulation having

barriers separating the rows of terminals and the members of each row, said block having transverse channels in its upper face into which the switch conductors extend, each channel extending from one terminal of one row to the opposite terminal of the other row, the channels forming passages for the conductors of the movable switch arm, substantially as and for the purpose set forth.

1,304,656. METHOD AND APPARATUS FOR LOADING AUTOMOBILES. SAMUEL D. BUTTERWORTH, Lansing, Mich. Filed Jan. 18, 1918. Serial No. 211,987. 10 Claims. (Cl. 165-368.)



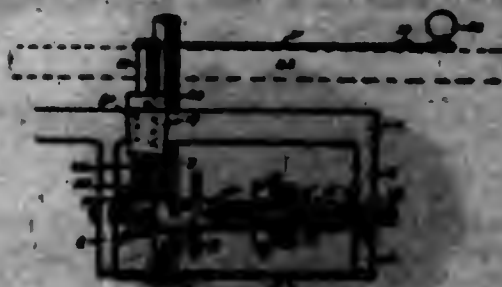
1. The method of loading automobiles on a frame-work and platform, which consists in driving the front wheels up an inclined skid and approach to the skid, removing the approach, continuing the driving of the car to its final position, and securing the front wheels to the frame-work.

4. A frame-work for loading automobiles, comprising a pair of frames between which automobiles may be driven, cross bars connecting the tops of the frames, stirrups supported at the top of the frame and comprising each a pair of side strips, and a clamping strip to engage over the front wheel to secure the same in place and support the automobiles in inclined and overlapped relation.

7. The combination of a frame-work for loading automobiles, having a pair of frames between which the automobiles may be driven, and pairs of stirrups located at the top of the frame to hold each a pair of automobile wheels, skids and removable approaches, the said approaches being removable when the forward set of wheels is driven up part way to the top of the skids, after which the forward set of wheels may be driven the rest of the way up the skid.

10. In a frame-work for loading automobiles on flat cars, one or more upright members on the frame-work, and transverse diagonal braces having each a pair of holes by which the braces may be bolted to the upright and through one or the other of the holes depending upon the necessity of interposing a plank under the feet of the braces.

1,304,657. GOVERNOR-BRAKE. PLENY CATUCCI, Newark, N. J., assignor, by mesne assignments, to Otto Holmman Photographic Supply Co., Inc., New York, N. Y., a Corporation of New York. Filed Apr. 26, 1917. Serial No. 104,898. 2 Claims. (Cl. 74-65.)



1. In a governor brake for motors, a motor frame, a governor shaft mounted in said frame, a governor mounted on said shaft, a brake disk on said governor, a rock shaft mounted in said frame to one side of the brake disk and at right angles to the governor shaft, means for frictionally holding said rock shaft in adjusted positions in said frame, a spring brake shoe fixed to said rock shaft and projecting at right angles therefrom and in line with the governor shaft and extending beyond and overlying the periphery of the brake disk, and

a lever connected to the rock shaft for operating the same to move the brake shoe into and out of engagement with the periphery of the brake disk when desired.

1,304,658. CHUCK. FRANK COSBY, East Berlin, Conn. Filed Mar. 29, 1917. Serial No. 189,298. 3 Claims. (Cl. 279-68.)



2. A chuck comprising a spindle member and a shell member relatively mounted thereon, an axially positioned thrust screw extending outwardly from the said spindle member and having the outer portion of non-circular form, and the said shell member being provided with a division wall that has a hole fitting the said outer portion of the thrust screw.

1,304,659. CHUCK. FRANK COSBY, East Berlin, Conn. Filed Mar. 29, 1917. Serial No. 189,299. 3 Claims. (Cl. 279-62.)



3. In a chuck comprising a spindle member, a shell member, and a set of jaws operatively housed in the said members, the said jaws being generally of cylindrical form and each having at the inner end a cross-rib that serves as the means of connection with the said spindle member, and the said cross-ribs being positioned in angular relation to the radius.

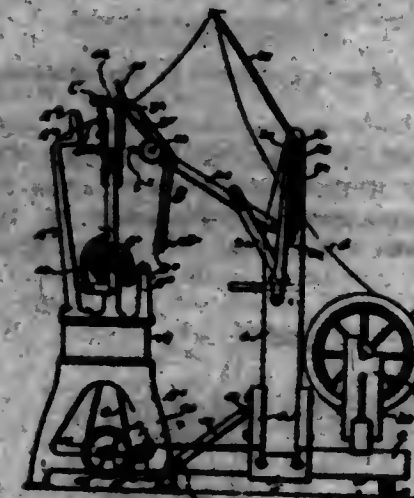
1,304,660. SLUG-CASTING MACHINE. WALTER S. COE, Brooklyn, N. Y., assignor to Margenthaler Linotype Company, a Corporation of New York. Filed Apr. 12, 1917. Serial No. 181,001. 5 Claims. (Cl. 189-47.)



1. In a slug casting machine, the combination of a rotatable mold disk, a support formed with an open socket member, a stationary bearing sleeve or base upon which the mold disk is rotatably mounted and provided with a central opening arranged in endwise alignment with the open socket member, and a container, fixed or

held against from the base and passing freely through the socket member and freely through the opening of the base and provided at one end with a nut or collar screw-threaded thereon to clamp and hold the parts detachably together.

1,304,661. TEXTILE APPARATUS. HOWARD D. COLMAN, Rockford, Ill., assignor to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business as Barber-Colman Company, Rockford, Ill. Original application filed Feb. 24, 1908, Serial No. 417,380. Divided and this application filed Apr. 27, 1910, Serial No. 537,839. Renewed Sept. 30, 1918. Serial No. 288,968. 46 Claims. (Cl. 130-64.)



2. The combination, with a warp-drawing machine having a carriage-feeding shaft, a carriage-supporting member, and a warp carriage adapted to rest upon and engage said shaft and lean against said member, of a truck having arms engageable with said carriage; and means for pivotally moving said arms to move the carriage with relation to said shaft and member.

1,304,662. BRAKE-HANGER. WILLIAM F. CHISHAM, Wilkes-Barre, Pa. Filed Sept. 16, 1918. Serial No. 284,244. 8 Claims. (Cl. 168-70.)



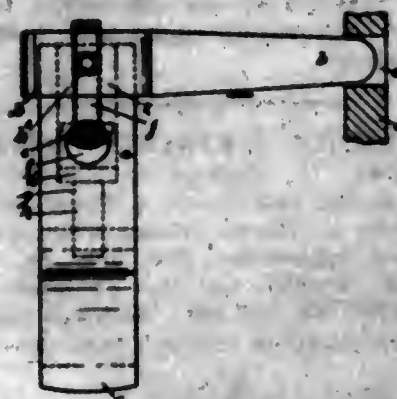
1. In combination, a supporting bracket, a pair of hanger supports, means for pivotally connecting said supports to the bracket, said means operating to permit the members to be connected to the bracket when said members are at angles to each other and being automatically locked by the alignment of the members, and brake shoe hangers pivotally connected with said members.

3. In combination, a supporting bracket, hanger supporting means pivotally connected with said bracket, two pairs of parallel hanger arms, integral cross bars connecting the respective arms of the opposite pairs, the cross bars at the upper ends being pivotally connected with said hanger supporting means, and brake shoe heads supported by the lower cross bars.

1,304,663. LATH-DOG. JOSEPH MICHAEL CADSWICK, Toronto, Ontario, Canada. Filed Apr. 17, 1918. Serial No. 289,051. 3 Claims. (Cl. 82-41.)

1. A lath dog comprising an arm having a longitudinal slideway therein, a tail at one end of the arm, and an open-mouthed jaw at the other end, said jaw having a work rest to receive the work therein, the lath dog

being apertured from the work sent to the adjacent end of the slideway, a pin movable through said aperture,



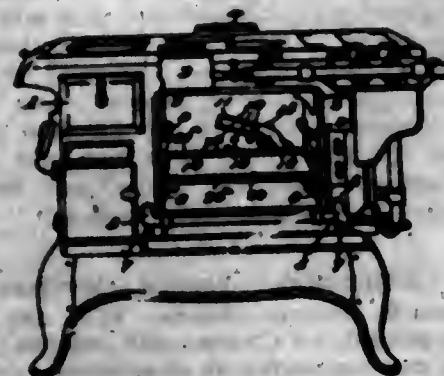
and a pressure screw adjustable in the slideway to engage said pin.

1,304,064. EASE-UP MOTION FOR THE TENSION-FALLERS OF SPINNING-MULES. JAMES DAVIDSON, Toronto, Ontario, Canada. Filed Apr. 17, 1918. Serial No. 229,068. 10 Claims. (Cl. 118-27.)



1. In a spinning mule, the combination with the carriage, the tension shaft and faller, and the tension means for the tension shaft, of an ease-up motion for the tension shaft, comprising a shoe connected with the tension shaft, a sliding support engaged by and movable with the shoe during the return of the carriage, and self-movable with the shoe during a portion of the run of the carriage.

1,304,065. DAMPER FOR COMBINATION COAL AND GAS RANGES. HENRY C. DISTRICT, Evansville, Ind., assignor to Crescent Stove Works, Evansville, Ind., a Corporation. Filed May 21, 1918. Serial No. 235,885. 4 Claims. (Cl. 126-34.)



1. In an oven having an outlet in one of its walls, a damper mounted to slide over the face of said wall, to

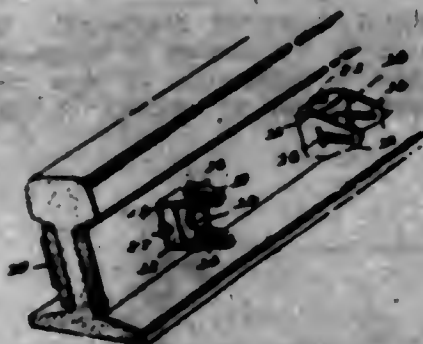
open and close said outlet, and a removable even plate adapted to directly and detachably rest on a portion of said damper to cause opening of said damper when said even plate is in position in the oven.

1,304,066. SAFETY-CATCH FOR BROOCHES AND SIMILAR ARTICLES. GEORGE WILLIAM DOWNS, Cranston, and WILLIAM HENRY HUGHES, Providence, R. I., assignors to George W. Dover, Incorporated, Providence, R. I., a Corporation of Rhode Island. Filed Oct. 18, 1918. Serial No. 258,704. 3 Claims. (Cl. 24-150.)



2. A safety catch for brooches and similar articles, comprising a U shaped keeper having a flat base portion and two sides, each side having a closed bearing adjacent the base portion, a curved end, an off center projection forming a stop on the curved end and a central pin-tongue opening in the curved end, a locking member having pintles in the integral pin-tongue bearings in the keeper, a shank having a movable fit between the sides of the keeper and a curved cap on the shank fitting over the curved ends of the keeper, when the locking member is in the closed position, said cap having the same width as the keeper, a transverse pin-tongue locking groove and an operating member on the end of the cap.

1,304,067. NUT-LOCK. ISAAC L. HOWARD, Aurora, Ill. Filed Apr. 20, 1917. Serial No. 162,458. 2 Claims. (Cl. 151-5.)

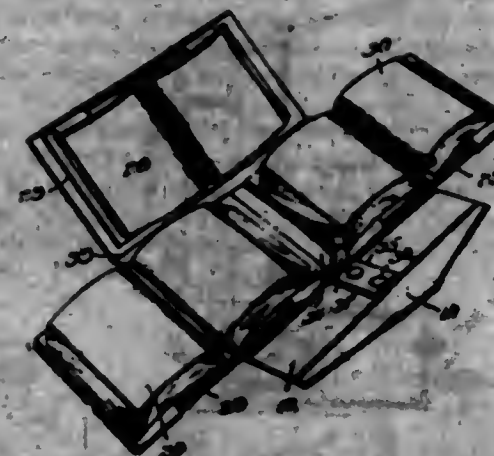


1. A nut lock comprising a plate perforated for the passage of the bolt and having at opposite sides parallel wings that receive between them and engage opposite sides of the nut, and means for locking the nut and bolt comprising a pin and aligning slots in said wings, said wings projecting beyond the outer face of the nut.

1,304,068. CASE-HOLDER FOR BOOKS. ARTHUR H. GALT, Chicago, Ill. Filed Feb. 20, 1918. Serial No. 218,572. 4 Claims. (Cl. 45-57.)

2. A case-holder consisting of a box-like structure equipped with a cover, a plurality of book retainers secured within the structure, certain of the retainers being

extendible beyond the sides of the structure and being adjustable to lie therewithin, the cover when closed opening



ing to prevent extension of the retainers, substantially as described.

1,304,069. DRIFT-BOLT PULLER. FREDERICK H. BARNES, Waukegan, Idaho. Filed Dec. 20, 1918. Serial No. 287,385. 3 Claims. (Cl. 284-21.)



1. A drift bolt puller comprising a metal disk with an inclined, oblong central hole therethrough, to receive, engage and withdraw driven bolts or spikes by lever power applied to said disk, said hole having an inclined slot opening in one side of said disk, and a downwardly extended shoulder on the under side of said disk, said downwardly extended shoulder being at a right angle with major axis of said oblong hole as described and shown and for the purposes set forth.

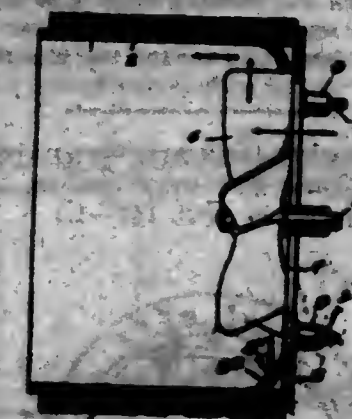
1,304,070. PROCESS FOR TREATING COTTON-SEED. ROBERT A. FINE and GARCIA H. AUSTIN, San Antonio, Tex. Filed June 4, 1917. Serial No. 172,840. 2 Claims. (Cl. 52-52.)

1. The herein described method of treating cotton seed, which consist of hulling the seed, then submitting the hulled seed to centrifugal action, then spraying the seed with a saline solution, then submitting the seed to centrifugal action and simultaneously spraying them with a solution of common salt and water, then stopping the spray and accelerating the centrifugal motion which is continued until all the moisture is driven off.

1,304,071. AIR-PROPELLER. HARVEY D. FISCH, New York, N. Y., and HARRY S. WHEELER, Rahway, N. J., assignors to E. J. Wing Manufacturing Company, a Corporation of New York. Filed Sept. 2, 1914. Serial No. 880,748. 3 Claims. (Cl. 280-11.)

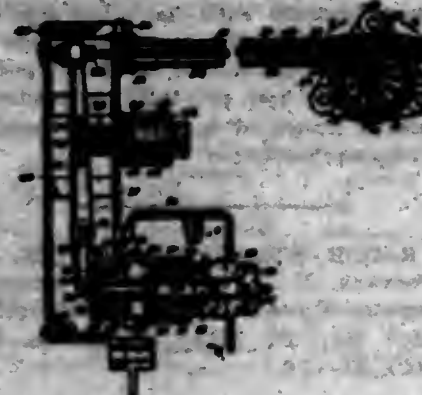
1. An air propelling device, comprising a rotatable blower having vanes creating a current of air comprising a main stream having a generally axial direction and stray streams having generally radial directions, a casing for said blower comprising a portion closely surrounding the peripheral edges of said vanes at the inlet side, a portion of greater diameter in advance of said first mentioned portion and an intermediate connecting portion having a curved surface surrounding the peripheral edges

of said vanes and diverging therefrom in a direction toward the delivery side of said blower, said connecting



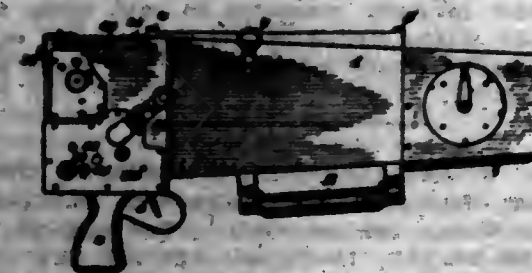
portion having its surface shaped to deflect the air discharge from the ends of said vanes into a generally axial direction in parallelism with the main stream.

1,304,072. GOVERNOR FOR INTERNAL-COMBUSTION ENGINES. JAMES B. FLEMING, Waukegan, Wis., assignor to Waukegan Motor Company, Waukegan, Wis., a Corporation of Wisconsin. Filed June 16, 1918. Serial No. 108,926. 4 Claims. (Cl. 284-2.)



1. In a governor for internal combustion engines, a valve controlling the intake of the engine, a governor member rotatable at a rate of speed proportional to the engine speed, said governor having a plurality of obliquely outwardly extending pockets therein, governor balls in said pockets, a collar extending over said pockets, said collar having longitudinal movement on the axis upon which said member rotates and arranged to be moved longitudinally by said balls when said balls move outwardly by centrifugal force, a lever having one arm thereof arranged for engagement by said collar, and a push rod for transmitting the movement of the other arm of said lever to said valve, said push rod and said lever being out of engagement at the lower engine speeds, said collar rotating with said governor member and ball bearings being interposed between said collar and said lever.

1,304,073. AEROPLANE-CAMERA. WILLIAM F. FOLMER, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 14, 1918. Serial No. 211,717. 2 Claims. (Cl. 95-21.)



1. In a camera, the combination with a film winding spool, means for detachably supporting a removable stop

ply spool and a shutter, of operating mechanism for rotating the winding spool and moving the shutter, a clutch interposed between the winding spool and said operating mechanism and a separate operating member for rotating the supply spool support to rewind the film thereon.

1,804,674. DEMOUNTABLE-RIM SPREADER. HENRY A. FOMKHA, Joplin, Mo. Filed Oct. 12, 1917. Serial No. 198,178. 5 Claims. (Cl. 187-1.)



1. Apparatus for expanding a demountable rim, comprising a base to contact with the inner side of the rim, arms pivotally connected with the base, heads adapted to contact with the opposite side of the inner portion of the rim at spaced points and pivotally connected with the arms, and means arranged between the heads to move them away from each other.

1,804,675. RAZOR-STROPPING DEVICE. FRANK A. FULLER, Newark, N. J., assignor to American Safety Razor Company, Brooklyn, N. Y., a Corporation of New York. Filed May 28, 1918. Serial No. 237,006. 2 Claims. (Cl. 51-16.)

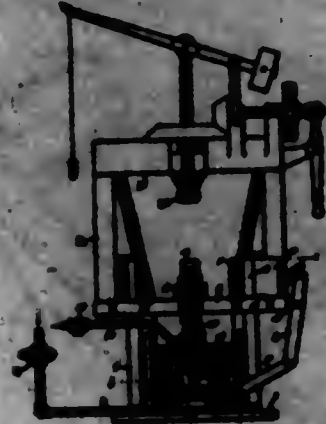


1. A razor stropping device comprising a frame adapted to slide longitudinally of a strop, said frame being provided with a centrally arranged depressed portion extending lengthwise of said frame, a blade holder support comprising opposite side portions connected by a lower cross piece pivotally connected to said frame in the depressed portions thereof so that the forward and backward movement of said pivoted blade holder support is limited by the said centrally arranged depressed portion of said frame, a roller in said blade holder support, a blade holder pivotally connected to said blade holder support and means carried by the blade holder support for transmitting rotary movement to said blade holder from said roller.

1,804,676. WHEEL-ASSEMBLING MACHINE. JOHN T. GARDNER, Hamilton, Ohio, assignor to The Defiance Machine Works, Defiance, Ohio. Filed Aug. 26, 1918. Serial No. 261,877. 10 Claims. (Cl. 187-1.)

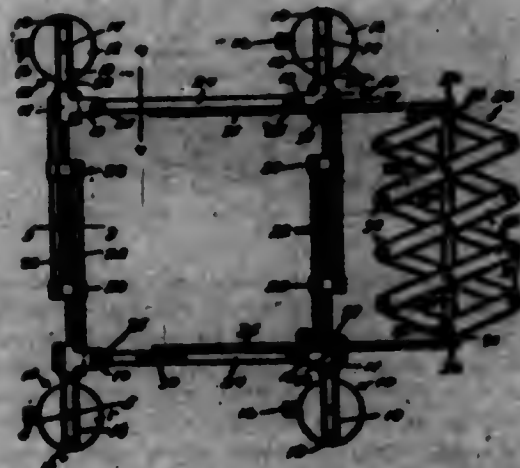
1. A wheel-assembling machine comprising, a radially slotted table with an open center, jaws fitted to slide radially therein, means for forcing the jaws simulta-

neously inward, a vertically adjustable cammer screw supported at the center of the table, a pin disposed in the



axis of the anvil and adapted to support a clamp-hub, and mechanism for moving the pin and clamp-hub upwardly, combined substantially as set forth.

1,804,677. CHAIR-TRUCK. JOSEPH GORME, Jacksonville, Ill. Filed May 21, 1918. Serial No. 295,810. 3 Claims. (Cl. 21-64.)



1. A chair truck comprising a plurality of castor members, extensible bars connecting the forward and rear casters in pairs, bars connecting said forward pairs of casters with the rear pairs, and a laterally extensible foot rest longitudinally slidably associated with said last named bars, said foot rest being extensible in conformity to the adjustment of said first named bars.

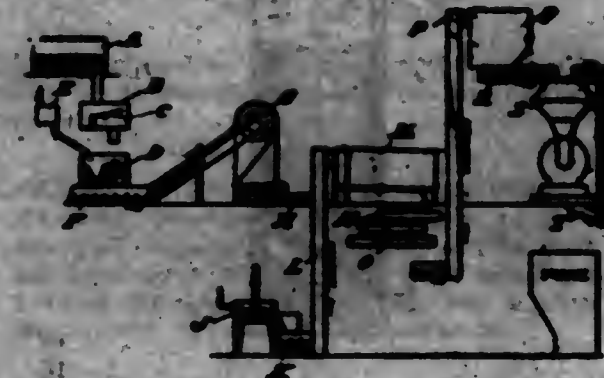
1,804,678. ADJUSTABLE CORNICE. WILLIAM GOSNOW, Chicago, Ill. Filed Jan. 5, 1918. Serial No. 210,499. 4 Claims. (Cl. 154-12.)



1. A cornice consisting, in combination, of a center-piece, a block secured to the rear face of the center-piece, a channel bar carried by the block extending parallel to the center-piece, end sections slidably arranged between the center-piece and bar, one on each side of the

block, the end sections on their rear sides being each provided with obliquely disposed channels within which the flanges of the channel bar may lie, and means for pressing the bar flanges against the oblique sides of the channels to exert a lateral pressure against the end sections for holding the same in a fixed position of adjustment relative to the center-piece, substantially as described.

1,804,679. METHOD OF PRODUCING AN ALIMENTARY SUBSTANCE AND PRODUCT THEREOF. HENRY H. CHURLEY, Orange, Mass., assignor to Minute Tapioca Company, Orange, Mass., a Corporation of Massachusetts. Filed Oct. 15, 1917. Serial No. 198,008. 5 Claims. (Cl. 90-10.)



1. The method of making a partially cooked tapioca product which comprises taking a dry tapioca flour, mixing it with water enough to form a dough of crumbly consistency, cooking and simultaneously stirring the dough so as to leave a moist gelatin-like product, and then drying and cooling the same.

2. The method of making a partially cooked starch food product comprising boiling a dry starch flour, mixing it with a predetermined proportion of water to form a dough of crumbly consistency, stirring it immediately and mechanically reducing the dough to a granular condition, cooking and simultaneously stirring but discontinuing the cooking operation while the material retains a moist condition, drying it, cooling it, storing the product for a comparatively long period of time, and then crushing to reduce it to uniform condition.

3. The method of making a partially cooked tapioca food product comprising boiling a dry tapioca flour, mixing it with a predetermined proportion of water to form a dough of crumbly consistency, mechanically reducing the dough to a granular condition, cooking and simultaneously stirring but discontinuing the cooking operation while the material retains a moist condition.

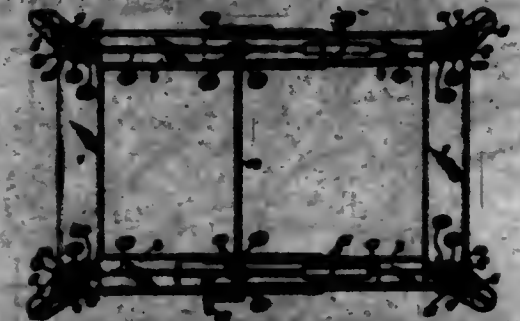
4. The method of making a tapioca food product which consists in boiling tapioca flour, mixing it with from forty to fifty per cent. by weight of water to produce a dough of crumbly consistency, cooking it by steam heat, thoroughly stirring it throughout the entire cooking operation, discontinuing the cooking operation while the dough is still in a moist condition, drying, cooling and crushing.

5. The method of making a tapioca food product which consists in subjecting washed, graded and sifted tapioca roots to the action of a pulp press to produce flour, mixing the tapioca flour with from forty to fifty per cent. by weight of water to produce a dough of crumbly consistency, granulating the dough, and cooking it by steam heat at a temperature of about 215 degrees Fahrenheit, thoroughly stirring it throughout the entire cooking operation, discontinuing the cooking operation while the dough is still in a gelatin-like moist condition, drying, cooling and crushing.

1,804,680. PORTABLE LIFTING DEVICE AND CARRIAGE FOR AUTOMOBILES. FRANK B. HART, Poplar Bluff, Mo. Filed Aug. 28, 1917. Serial No. 187,708. 3 Claims. (Cl. 264-7.)

1. A device of the character described comprising a frame composed of end members, inverted U-shaped side members secured to end of the end members, inverted U-

shaped side members secured to the other end member and telescoping within and being movable longitudinally relative to the first-named side members, and having slots in the side portions thereof; a transverse shaft journaled in the first-named side members and extending through said slots in the second-named side members and support-



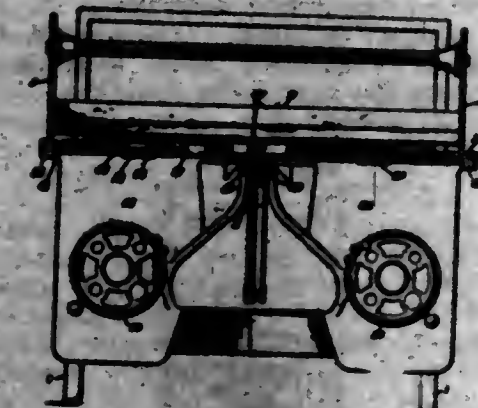
ing the second-named side members within the first ones; a vertical shaft journaled for rotation near each corner of said frame; a horizontal shaft geared to the vertical shafts on each side of the frame; a worm on each of said horizontal shafts; and worms on the transverse shaft engaging the worms on the horizontal shafts for rotating said horizontal shafts and thereby said vertical shafts simultaneously.

1,804,681. SEPARATING DEVICE. NICOLAS ANTHUS HILMAN, Cincinnati, Ohio. Filed Apr. 28, 1918. Serial No. 230,606. 13 Claims. (Cl. 183-51.)



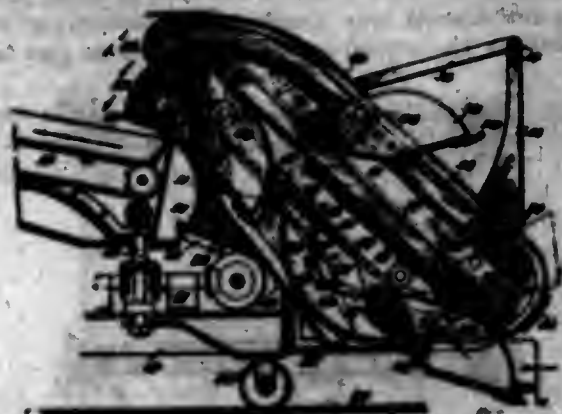
2. The process of separating fluids from liquids which consists in causing said vapors to impact against and travel along but not through a perforated member by changing the direction of flow of said vapors.

1,804,682. TYPE-WRITING MACHINE. EDWARD B. HARR, New York, and LEWIS C. MYERS, Brooklyn, N. Y., assignors to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 12, 1918. Serial No. 260,520. 15 Claims. (Cl. 197-62.)



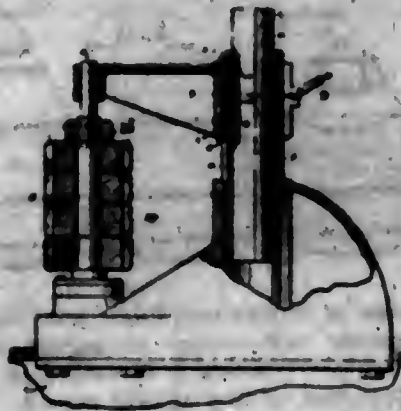
1. A typewriter comprising: printing elements including a transversely movable carriage having a platen and a plurality of individually actuated type bars so articulated with respect to the platen that they occupy, when actuated, an upright position in contact with a common printing center on said platen, and margin controlling devices including: transversely extending supporting means independent of the carriage adjacent the front of the platen and in rear of the plane of the upright position of the type bars, and complementary stop elements on the supporting means and carriage.

1,804,683. SHOVELING-MACHINE. FRANK M. HEWITT, Butte, Mont. Filed Mar. 19, 1917. Serial No. 155,773. 4 Claims. (Cl. 87-24.)



2. In a machine of the type described, an excavator including endless traveling chains, scoops linked to the chains and having guide rollers, and means forming guide-ways for said rollers, including guide members certain of which are curved to form stationary pivots cooperating with certain of the scoop rollers adjacent the dumping position, and on which the scoops are shiftable.

1,804,684. ARBOR-SUPPORT. HUGO W. JACOBSON, Arlington, assignor to Gould & Eberhardt, Newark, N. J., a Corporation of New Jersey. Filed June 20, 1918. Serial No. 241,006. 8 Claims. (Cl. 90-58.)



1. In combination, a hollow supporting member, a bearing member adjustably arranged thereon, a counterweight within said hollow supporting member, and a gear connection between said counterweight and bearing member to counterbalance the latter in any position.

1,804,685. CARBID-HOLDER. ALEXANDER F. JENKINS, Baltimore, Md. Filed Apr. 17, 1918. Serial No. 229,106. 1 Claim. (Cl. 48-21.)



In an acetylene generator, a support for the carbide, the same consisting of an elongated, perforated container of

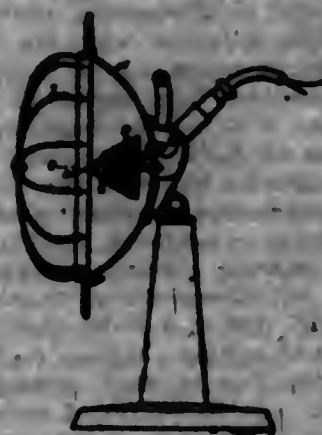
tapered cross-section arranged substantially in an upright spiral of a plurality of turns, the container having transverse partitions, the partitions being apertured for the passage of the water.

1,804,686. ACETYLENE-GENERATOR. ALEXANDER F. JENKINS, Baltimore, Md. Filed Apr. 17, 1918. Serial No. 229,106. 5 Claims. (Cl. 48-22.)



1. In an acetylene generator, in combination, a tank containing water, a drum therein, a fastener for the drum consisting of a bell-crank lever pivoted on the tank and having a depending arm with a projecting foot which, when the arm is near the vertical position, engages the drum from above.

1,804,687. ELECTRIC HEATER. BERTHA E. KAHL, Cincinnati, Ohio, assignor to the Heintz Stove Company, Hamilton, Ohio. Filed July 28, 1918. Serial No. 246,643. 6 Claims. (Cl. 210-94.)

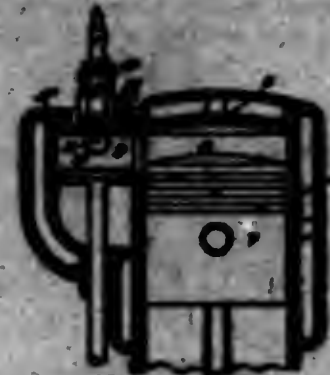


1. An electric heater comprising a concave reflector, a frusto-conical insulator fixed at the center of the reflector and presenting its smaller end forwardly and provided on its periphery with a helical groove with a low separating land, and a helical coil of resistance wire coiled in such groove, the helical coil having a diameter greater than that of the groove in which it is seated, combined substantially as set forth.

1,804,688. INTERNAL-COMBUSTION ENGINE. JOHN F. KELLY, Chicago, Ill. Filed Feb. 3, 1918. Serial No. 74,082. 2 Claims. (Cl. 130-100.)

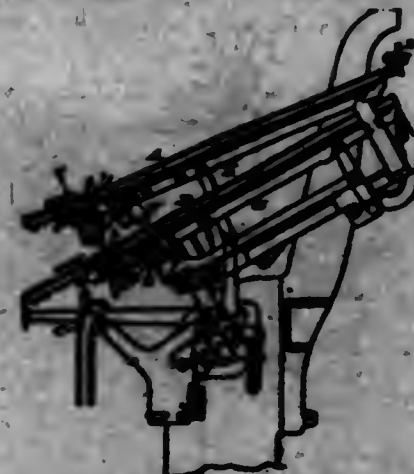
1. In an internal combustion engine having a cylinder and its spark plug, the combination of a spark plug protecting device comprising an external and internal threaded hollow cap adapted for cooperation with the cylinder wall and the spark plug, the walls of the cap outside of the cylinder and within the wall of the cylinder being substantially the same thickness, whereby the interior of said cap provides within the wall of the cylinder, an elongated explosion chamber of slightly less diameter than the diameter of that portion of the explosion chamber lying outside

of the cylinder, said cap being provided with a plurality of apertures opening within the cylinder laterally of the explosion chamber.



explosion chamber within the cap, the area of said apertures being substantially equal to the area of the explosion chamber.

1,804,689. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Original application filed May 22, 1916, Serial No. 89,080. Divided and this application filed Nov. 2, 1918. Serial No. 261,000. 16 Claims. (Cl. 100-10.)



1. In a typographical machine, the combination of a magazine, an escapement supporting frame having sustaining devices to engage the magazine, a locking plate carried by the escapement frame to engage the sustaining devices and prevent their detachment from the magazine, and a matrix retaining device adapted to shift the locking plate to inactive position.

10. In a typographical machine, the combination of a magazine, a pivoted escapement frame, a sustaining arm pivoted to the escapement frame and carrying a latch to engage the magazine, a sliding plate to engage the sustaining arm and prevent its pivotal movement, a spring for holding the plate in its locking position, and a matrix locking bar adapted by its movement to shift the plate to unlocking position against the action of the spring.

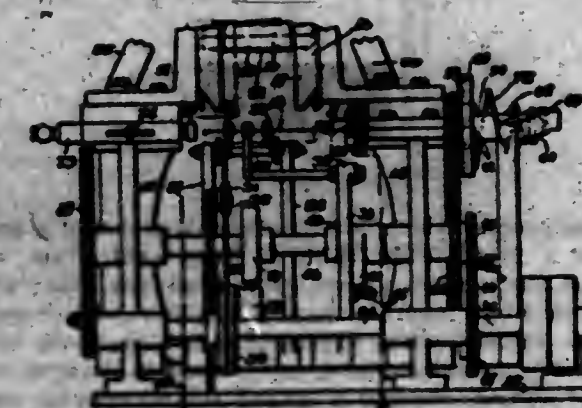
1,804,690. STUFFING-BOX. JOSEPH M. KERN, Oswego, N. Y. Filed May 22, 1918. Serial No. 258,964. 2 Claims. (Cl. 200-22.)



1. A stuffing box for the piston rods of steam cylinders comprising a tubular boss on the head of the cylinder. 202 O. G.-35

box, a sleeve fitted within the boss and provided with an inner annular flange, means including a gland-plate for holding the sleeve against endwise movement, a split packing ring upon the piston rod abutting against the inner end face of said flange, an additional split packing ring within said sleeve between said flange and gland plate and spring pressed toward the gland plate, and means for compressing the second named ring upon the piston rod under pressure of the spring.

1,804,691. MACHINE FOR SHAPING TUBULAR GLASS ARTICLES. ROBERT KONNIC, Camden, N. J. Filed May 21, 1918. Serial No. 237,425. 12 Claims. (Cl. 40-7.)



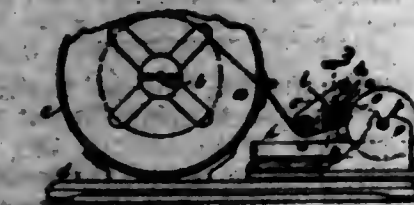
1. A machine of the character described including means for supporting a glass article; a plurality of oppositely disposed members; means for moving said members so as to engage said article and lift it free from its support and said members then being operative to firmly hold said article; and shaping means for engagement with said article while thus held by the members, substantially as described.

1,804,692. RAIL-FASTENING DEVICE. THEODORE H. KRAM, Arvada, Colo. Filed Sept. 10, 1918. Serial No. 263,420. 1 Claim. (Cl. 228-292.)



In a device of the class described, a tie; a plate on the tie; a rail on the plate; a rail brace on the tie and provided with a notch receiving the tie plate, the notch being enlarged to receive the flange of the rail, the brace and the plate being united by a separable lug and opening connection; and a spike passing through the brace and the plate and entering the tie.

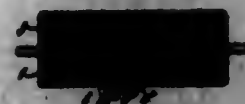
1,804,693. STRIP-SERVING DEVICE. JAMES DONALD McLAUGHLIN, South Orange, N. J., assignor to National Binding Machine Company, New York, N. Y., a Corporation of New York. Filed Jan. 6, 1918. Serial No. 740,882. Renewed Sept. 26, 1918. Serial No. 265,701. 2 Claims. (Cl. 91-14.5.)



1. In a strip serving machine, the combination of a mechanism, a movable member actuated by the draft on

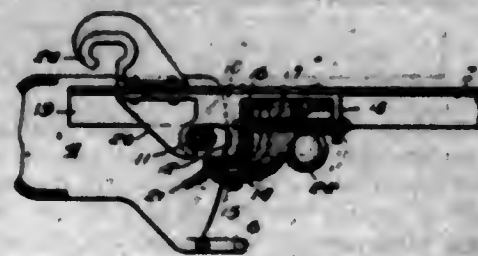
the strip to press the latter against the moistener, means to move said member back again upon release of draft pressure, and a member formed with relatively sharp projections for contact with the gummed side of the strip and movably mounted adjacent to the moistener, said last named member being actuated by said first named member upon the latter's return movement to move and hold the strip away from the moistener.

1,304,004. PROCESS FOR MAKING STRAND FABRIC. MELVON A. MARQUETTE, Springfield, Mass., assignor to The Fisk Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Jan. 6, 1919. Serial No. 200,751. 2 Claims. (Cl. 154-2.)



1. The process which consists in making use of a drum, winding a first strand spirally about said drum with turns of the strand spaced each from the other sufficiently to admit another strand, together with "weft" material, therebetween, wrapping a flexible, tacky sheet of "weft" material about said drum to enclose said turns of strand, winding a second strand spirally about said drum and upon said sheet, with its turns located to lie at the spaces between the turns of said first named strand, while applying tension to said second strand sufficient to force the turns of such strand, and said sheet, down between the turns of said first strand, and then removing the so made fabric from said drum; substantially as described.

1,304,005. VEHICLE-COUPLING. JAMES W. MERRILL and CHARLES G. CLEMENT, Edgerton, Wis., assignors to Highway Trailer Company, Edgerton, Wis., a Corporation of Wisconsin. Original application filed Feb. 11, 1918, Serial No. 216,055. Divided and this application filed June 3, 1918. Serial No. 237,960. 6 Claims. (Cl. 312-67.)

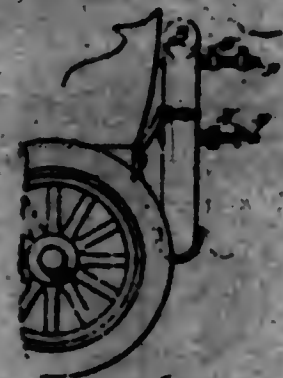


1. In a trailer vehicle provided with a draw bar, a coupler thereon having laterally spaced vertical walls and a transverse element connecting said walls, together with a draft pole dimensioned to lie between said walls upon said connecting element and provided with depending abutments before and behind said connector, together with a latch member movable past one abutment toward the other under said connector to retain the draft pole in such engagement.

1,304,006. TIRE-CARRIER. OLIVER MITCHELL, Brookline, Mass. Filed May 31, 1918. Serial No. 237,401. 3 Claims. (Cl. 224-29.)

1. In a second spare tire carrier the combination of a rim secured to and carried upon an automobile; a free bolt; a pair of hook members carried by the bolt, and engaging opposite sides of the fixed rim; means to press the hook members against opposite sides of the fixed

rim to secure the bolt thereto; a second pair of hook members, adapted to receive a second rim between them;



means to secure this second pair of hook members in gripping relation with the second rim.

1,304,007. APPARATUS FOR TREATING GASES. WILLIAM D. MOUNT, Saltville, Va., assignor to Nitrogen Products Company, Providence, R. I., a Corporation of Rhode Island. Filed May 9, 1918. Serial No. 233,410. 3 Claims. (Cl. 182-64.)



2. In gas-treating apparatus, the combination of a substantially vertical stack through which a column of gas-treating material is fed by gravity, with means to introduce pieces of said material at the upper end of said stack while substantially enclosing air, a rotating feed table to support the material in said stack, a trough around said feed table, means to rotate said table to feed said material gradually off from the table surface into said trough, sweeping means, attached to and movable with said table, to propel the so removed material along said trough, means to receive said material from said sweeping means and deliver it from said apparatus while preventing air from flowing therethrough up into the gas being treated, means to conduct the gas to be treated to one part of said column of material for passage upwardly through the interstices of said material, and means to conduct the treated gas away from an upper part of said column.

1,304,008. DISK-GRINDER. THOMAS NICHOLSON, Scotland, Ind. Filed Nov. 26, 1918. Serial No. 264,242. 5 Claims. (Cl. 51-7.)

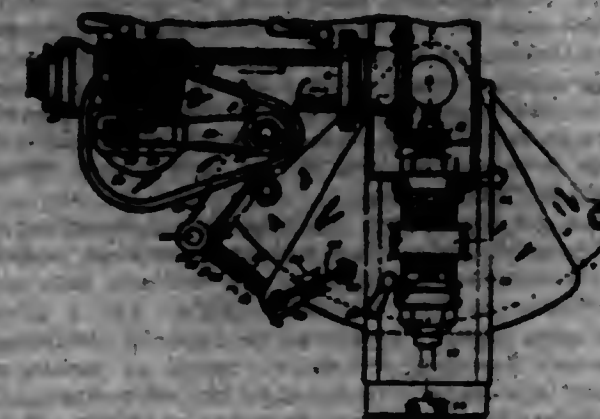
1. In a grinder, the combination with a standard bearing bearings, a main shaft mounted thereon, and a grinder on one end of the shaft; of a framework of U-shape whose base is detachably connected with one of

said bearings and one of whose ends extends alongside said grinder, a work holding pin carried by this end, an arm hinged to the other end of the frame and standing at right angles to the first named end, yielding means



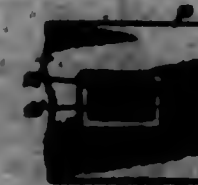
bearing this arm normally downward, adjustable connections between said yielding means and the arm whereby the latter may be turned back on its hinge, and contact rollers carried by the hinged arm, and adapted to rest on the work.

1,304,009. GEAR-LAPPING MACHINE. DONALD D. OGDEN and CHARLES H. LOUGR, Syracuse, N. Y., assignors to Brown-Lips-Chapter Co., Syracuse, N. Y., a Corporation of New York. Filed Jan. 19, 1918. Serial No. 72,900. 14 Claims. (Cl. 51-4.)



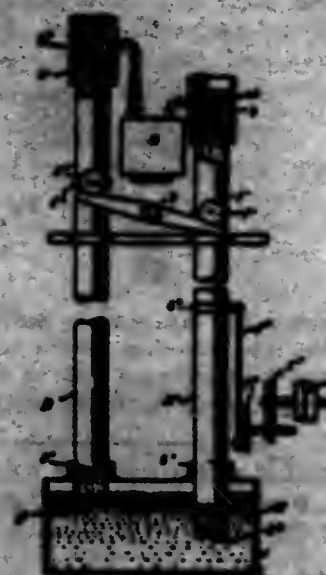
1. A gear lapping machine comprising a rotating support for one gear, an oscillating carriage having a rotating support for a second gear located eccentric to its axis of oscillation, means for rotating one of the supports, and means for oscillating the carriage during the rotation of the supports, substantially as and for the purpose specified.

1,304,700. REMOVABLE SUNKEN HANDLER. OTTO M. OTTE, Jamestown, N. Y., assignor to Steelwhite Company, Jamestown, N. Y., a Corporation. Filed Dec. 17, 1917. Serial No. 207,433. 3 Claims. (Cl. 16-10.)



1. In combination with a plate having an opening, a handle having a flange abutting the front of the plate and having a cushion part extending through and beyond the rear of the plate, said part having a pair of oppositely disposed substantially parallel grooves and substantially parallel plain faced ends, and a pair of substantially U shaped spring members each having a pair of side legs engaged in said respective grooves and with the rear faces of the plate and an end leg connecting the side legs and extending across an end of said cushion part.

1,304,701. APPARATUS FOR RAISING LIQUIDS. ALFONSO OVALLE (VICHA), Santiago, Chile. Filed May 12, 1918. Serial No. 97,191. 1 Claim. (Cl. 100-72.)

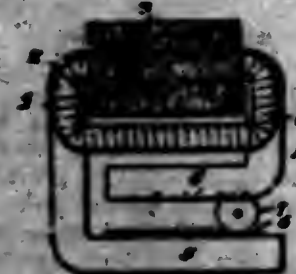


An apparatus of the kind described comprising a tank containing a supply of water, a pair of parallel tubes each having one end submerged in the water in said tank, a receptacle carried by each tube at its other end, said receptacles each containing a supply of water in which said other ends of said tubes are submerged, siphon outlets carried by each receptacle, valves controlling the opposite ends of said tubes and means for reciprocating said tubes relatively to said tank.

1,304,702. ILLUMINATED AIMING APPARATUS OR THE LIKE. HENRI PARAN, Marseille, France, assignor to himself and Alexis Grawitz, Marseille, France. Filed Jan. 4, 1919. Serial No. 200,721. 6 Claims. (Cl. 41-26.)

1. The herein-described process, which consists in applying a coating of insulating material upon a metallic surface having markings engraved or cut thereon; outlining the markings with a radio-active material upon the insulating coating, whereby the radio-active material is prevented from contacting with the metallic surface; and darkening the said coating, so as to form a background against which the markings stand out sharply.

1,304,703. ELECTRIC SEAM-WELDING APPARATUS. LINDSEY GUY PALMER, Cincinnati, Ohio, assignor to Thompson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed Oct. 24, 1918. Serial No. 230,407. 3 Claims. (Cl. 210-4.)



1. In an electric seam welding apparatus, a pair of transformer secondary terminal bars extended parallel to one another but in opposite directions and a work-engaging contact roller adapted to travel progressively in the space between said bars and complete the electric circuit therebetween.

1,304,704. PRESSURE-REGULATOR. OSCAR H. PIERRE and ALFRED F. PIERRE, Rochester, N. Y. Filed Sept. 27, 1918. Serial No. 22,967. 3 Claims. (Cl. 50-26.)

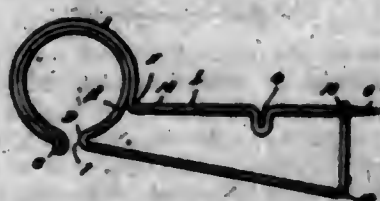
1. In a pressure regulator, the combination of a casing having inlet and outlet openings, a valve member pivotally supported in said casing and adapted to cooperate

with said inlet opening, pressure controlled means for moving said valve member to open said inlet opening, a flat spring having a downwardly projecting edge engaging



said valve member and adapted to move the valve member to close said inlet opening, and a spring on the valve member frictionally engaging a wall of the casing for controlling the movements of the valve member.

1,304,705. SHADE AND CURTAIN BRACKET. LUTHER A. POWELL, Warren, Ala. Filed Apr. 7, 1917. Serial No. 160,432. 1 Claim. (Cl. 156-24.)



A curtain bracket composed of a single piece of wire having its intermediate portion doubled upon itself, said doubled portion being bent in the form of a circle to receive a curtain pole, the two parts of the wire forming the doubled portion being in contact around the major part of the circle to strengthen the circular formation, the free end of the doubled portion being bent downwardly to form a downwardly extending nipple and a slot for the passage of a curtain, the outside wire of the doubled portion being separated from the inside contacting wire after completing a major part of the circle to form a support for the curtain holding formation, and the inside wire of the double portion being continued to almost complete the circle then bent to form an additional support for the curtain holding formation.

1,304,706. BRACKET. WALTER H. PRUEFER, Providence, R. I., assignor to Fletcher and Pruefer, Providence, R. I., a firm comprising Sigmund Fletcher and Walter H. Pruefer. Filed Jan. 3, 1916, Serial No. 60,761. Renewed Apr. 8, 1919. Serial No. 288,654. 1 Claim. (Cl. 58-90.)



A bracket constructed of a series of units, each unit comprising a body formed of a single piece of sheet metal having portions bent at an angle to provide side and end walls, said end walls being slotted from their marginal edges, a cover plate, the marginal edges of said side and end walls being bent over said plate, and links connecting contiguous units, each link being headed and provided with a shank passed through the slots of contiguous end walls of adjacent units.

1,304,707. PROCESS OF REGULATING THE OXIDATION OF AMMONIA. LOUIS RABINOVITZ, Montclair, N. J., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Mar. 10, 1917. Serial No. 133,833. 2 Claims. (Cl. 23-1.)

1. In the process of catalytically oxidizing ammonia, the step which comprises adding to the mixture of ammonia and air passing to the catalytic chamber a quantity of mixed gases containing a greater quantity of nitrogen than that contained in air.

1,304,708. TYPOGRAPHICAL MACHINE. JOHN R. ROSS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Oct. 27, 1916. Serial No. 123,602. 10 Claims. (Cl. 109-19.)



1. In a typographical machine, the combination of a plurality of magazines, assembling mechanism including a matrix receiving throat or switch shiftable into operative relation to any selected magazine, distributing mechanism including a single delivery throat or switch common to all of the magazines and also shiftable into operative relation to the whole of the adjusted one thereof, and connections between the two throats or switches whereby they are shifted in unison.

10. In a typographical machine, the combination of a plurality of magazines, assembling mechanism including a matrix receiving throat or switch shiftable into operative relation to any selected magazine and a pivoted frame upon which the throat is mounted, distributing mechanism including a delivery throat or switch also shiftable into operative relation to the selected magazine, connections between the two throats or switches whereby they are shifted in unison and adapted to be made and broken as the pivoted frame is swung to and from its operative position, and locking means for holding the assembling throat or switch in position on the pivoted frame, said means adapted to be rendered inactive and active as the connections are made and broken, respectively.

1,304,709. DRAWING-PEN. WILHELM A. SCHENCK, Philadelphia, Pa. Filed May 26, 1912. Serial No. 235,321. 1 Claim. (Cl. 120-109.5.)



As a new article of manufacture, a rolling pen comprising a handle and a single piece of elongated metal bent at its medial portion to form blades terminating in

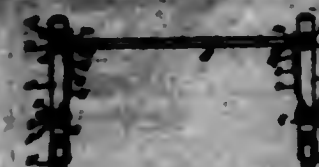
sides, the medial bent portion being perforated to receive a stud whereby the pen is secured to the handle, and said piece of elongated metal being reduced in thickness adjacent the medial bent portion to give the requisite spring to one of the blades or a plurality thereof.

1,304,710. AUTOMATIC FIRE-THROWER. ALEXANDER E. BRIDGES, New York, N. Y., assignor to Frederick C. Austin, Chicago, Ill. Filed Apr. 30, 1918. Serial No. 229,787. 9 Claims. (Cl. 42-54.)



3. A flame throwing device comprising a casing, means for directing a fluid into said casing, a projecting cylinder, a pipe extending from the casing to the projecting cylinder, a check valve in said pipe to allow fluid to pass through said pipe into the projecting cylinder and prevent the return of any of the fluid, a discharge barrel connected with said projecting cylinder, a piston arranged in said projecting cylinder, a piston rod extending from said piston, a pressure chamber, a piston connected with said piston rod arranged in said pressure chamber, means for directing gas under pressure into said pressure chamber, moving both of said pistons and thereby causing the fluid in said projecting cylinder to be ejected through said discharge barrel, and means for directing part of the gas from said pressure chamber to a point adjacent the discharge end of said barrel.

1,304,711. CASTER-LOCKING MECHANISM FOR STANDS, TABLES, AND THE LIKE. OTTO A. SKIDDE and OTTO HUBBARD, Chicago, Ill. Filed Sept. 26, 1917. Serial No. 190,702. 4 Claims. (Cl. 16-106.)



2. Caster locking mechanism for a stand or like article, comprising casters beneath said stand, said casters having platens provided with annular grooves, brake bars having their free ends extending within said grooves to hold the platens in place, and means for shifting said brake bars longitudinally to cause them to engage the grooved portions of said platens and lock said platens against revolution.

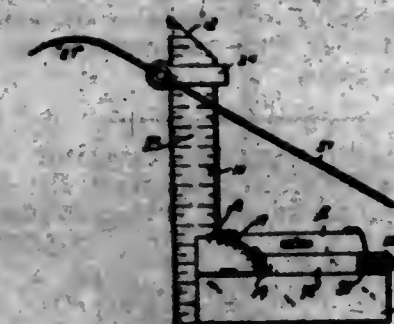
1,304,712. LAUNDRY MACHINERY. JOHN W. SPAULDING, Seattle, Wash. Filed May 21, 1916. Serial No. 235,899. 1 Claim. (Cl. 104-164.)



In a mangle the combination of side frames, a track pivotally mounted to the upper portion of said frames, and means for inclining the track relative to a predetermined

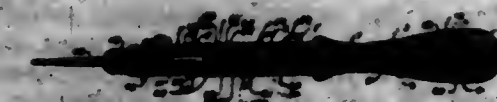
direction with respect to its pivot points, said means including pairs of toggles arranged on opposite sides of said track and connected thereto and to the said frames, the toggles of each pair being connected together, a car mounted on said track and arranged to roll on the track in the direction of its inclination, whereby work may be conveyed from one end of the mangle to the opposite end when the track is inclined.

1,304,713. GEOMETRIC INSTRUMENT. FREDERICK STANTON, Camden, N. J. Filed Feb. 1, 1919. Serial No. 274,334. 5 Claims. (Cl. 33-68.)



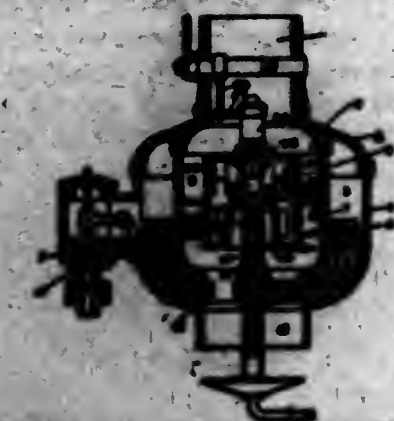
1. An instrument of the class described comprising a head, a member movable relative to the head, a pin mounted upon the head and extending through an end of the movable member whereby said member is supported for swinging movement, said end portion of the member and the pin having registering recesses, and a blade seating within said registering recesses.

1,304,714. TOOL-DRIVER. LEROY S. STARRETT, Athol, Mass., assignor to The L. S. Starratt Company, a Corporation of Massachusetts. Filed Dec. 16, 1914. Serial No. 677,599. 5 Claims. (Cl. 145-54.)



1. In a tool driver, a hollow reciprocable handle, a tool spindle carrying a tool and normally contained in said handle and adapted to be rotated thereby, a spring in said handle behind said spindle and normally under compression and expanding when released to project said spindle beyond said handle and adapted to hold the tool against an object being driven during the return motion of the handle, and a stop spring interposed between said spindle and said projecting spring and cushioning the shock when the spindle is projected by said projecting spring.

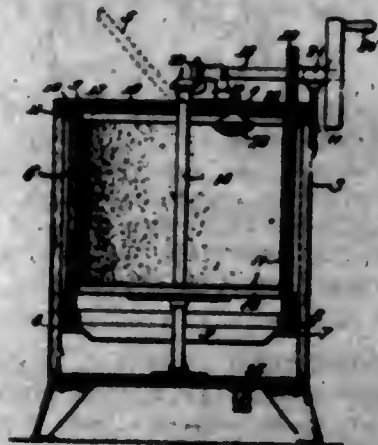
1,304,715. CARBURTER. JOHN W. STEVENS, St. Paul, Minn. Filed Nov. 9, 1917. Serial No. 201,086. 3 Claims. (Cl. 261-45.)



3. A carburetor comprising a casing having inlet and outlet openings and a nozzle projecting through said

inlet opening, concentric, relatively movable members mounted within said casing and having groups of ports opened or closed by the movement of one of said members, one of said members having an opening therein to receive said needle, a needle valve mounted in said needle, a stud having an exteriorly threaded lower end fitting within the open upper end of said needle, said stud having a recess in its lower end and provided with a seat for said needle valve in the bottom of said recess and also having laterally extending ports above said seat and a duct leading from said seat to said ports, said stud having means for connection with one of said relatively movable members to operate simultaneously therewith for moving its valve seat toward or from said needle valve to increase or decrease the fuel supply proportionately with the variation in the effective area of said ports.

1,304,716. POTATO-PARING MACHINE. JOHN M. STUZZAS and JOHN KULLICK, Rockford, Ill. Filed Sept. 13, 1917. Serial No. 191,134. 1 Claim. (Cl. 146-14.)



A machine of the character described comprising a cylindrical container having an annular track about its interior wall, a cylindrical open-end hopper mounted on and supported by said track so as to revolve within the container, a central upright shaft rotatably mounted in the container at the top and bottom thereof and equipped with a platform constituting the bottom of the hopper, and means for actuating the shaft and the container in opposite directions.

1,304,717. JAR-LIFTER. ROBERT J. THURSTON, Worcester, Mass., assignor to The Wire Goods Company, Worcester, Mass., a Corporation of Massachusetts. Filed May 4, 1918. Serial No. 232,493. 2 Claims. (Cl. 66-26.)



2. As an article of manufacture, a jar lifter comprising two frames, each consisting of a single endless piece of wire having a loop at one end constituting a

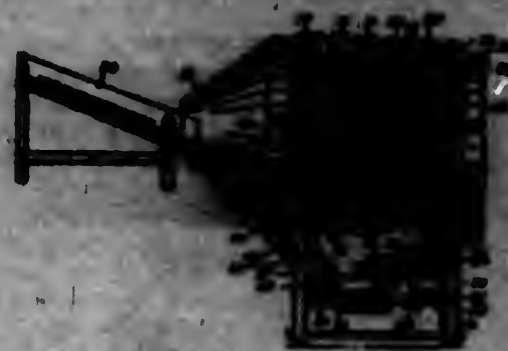
handle and an offset jaw at the other end at right angles to the plane of the body of the frame, offset inwardly and flattened, one of said frames having two opposite eyes formed from the wire and extending inwardly over the jaw and the other frame having two arms formed from the wire and substantially in alignment passing through said eyes to constitute the pivot, said eyes and arms being located between the handles and jaws.

1,304,718. HOLDER FOR TELEPHONE-RECEIVERS. KATHARINE G. TOWNSEND, New York, N. Y. Filed Aug. 31, 1918. Serial No. 252,219. 3 Claims. (Cl. 179-187.)



1. In a holder for telephone receivers, a support adapted to receive and hold the barrel of the receiver, arms secured to said support and adapted to engage the body of the receiver and a strap adapted to pass around and engage the neck of the receiver and to be detachably secured to said support.

1,304,719. MACHINE FOR PREPARING VEGETABLES. EDWARD J. VACCAVILL, Eau Claire, Wis. Filed Aug. 30, 1917. Serial No. 188,928. 28 Claims. (Cl. 136-52.)



2. An apparatus for operating upon vegetables such as beans comprising an ascending drum formed by a multiplicity of annular members, means for holding said members with adjacent edges thereof separated a given distance, means for rotating the drum, and means for periodically separating the members.

1,304,720. DENTAL PLIERS. JACOB LOWE YOUNG, New Rochelle, N. Y. Filed June 27, 1918. Serial No. 242,216. 3 Claims. (Cl. 28-16.)



2. A dental pliers, comprising a pair of jaws and handles therefor, each of said jaws being formed with a laterally extending clamping beak, said beaks lying in the same plane as the jaws, said plane being transverse of the axis of the pivot of said jaws, a stop lug formed on one of said

beaks at the outer end thereof, said stop lug serving as a guide and as a stop for the other beak, a gripping lug carried by one of said beaks, and a recess formed in the other beak to receive said gripping lug.

1,304,721. ORTHODONTIA APPLIANCE. JACOB LOWE YOUNG, New Rochelle, N. Y. Filed July 5, 1918. Serial No. 242,251. 9 Claims. (Cl. 22-19.)



1. An orthodontia appliance embodying an anchor band adapted for connection to a tooth, a tapered socket member fixed on the outer side of said band and having its smaller end terminating intermediate the edges of the band, an arch member, a tapered post member of resilient material fixed to the arch member adapted to engage in said socket member and provided with an abutment adjacent its smaller end adapted to engage under the lower edge of the socket member.

1,304,722. ORTHODONTIA APPLIANCE. JACOB LOWE YOUNG, New Rochelle, N. Y. Filed July 5, 1918. Serial No. 242,252. 15 Claims. (Cl. 22-19.)



2. An orthodontia appliance comprising a curved delivery member, bands adapted to be secured to teeth, and two-part separable couplings for holding the delivery member to the bands, one part of each coupling being connected with a band and the other with the delivery member and each of said couplings embodying a post having under-cut sides and a plate having side flanges bent inwardly toward each other to slidably engage the under-cut sides of said post, said post being formed with a shoulder adjacent one end thereof and one of the flanges on said plate being formed with a laterally projecting portion adapted to engage said shoulder to lock the post and plate against relative longitudinal movement.

1,304,723. ORTHODONTIA APPLIANCE. JACOB LOWE YOUNG, New Rochelle, N. Y. Filed July 5, 1918. Serial No. 242,253. 9 Claims. (Cl. 22-19.)

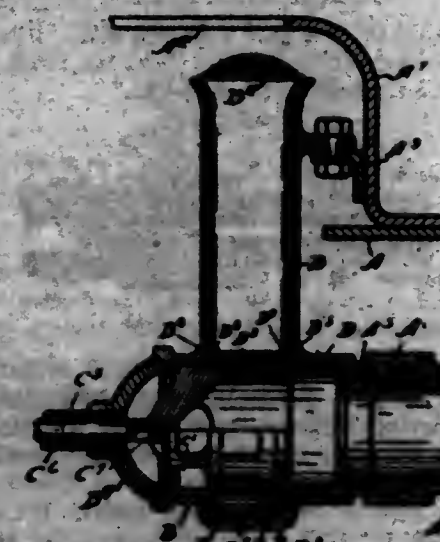


1. Anchoring means for the delivery member of an orthodontia appliance comprising an anchor band adapted to be fixed to an anchor tooth, a block fixed to said band having outwardly flaring side edges and provided with an abutment on its outer face, a member supported by the delivery member adapted to slide longitudinally of said block having a channel formed with side walls inclined toward each other, and yieldable means carried by said channel member adapted to engage the abutment on the block.

1,304,724. THROTTLE-VALVE. OWEN W. YOUNG, Chicago, Ill., assignor to Pyle-National Electric Headlight Company, Chicago, Ill., a Corporation of New Jersey. Filed Jan. 15, 1915. Serial No. 2,236. 3 Claims. (Cl. 281-73.)

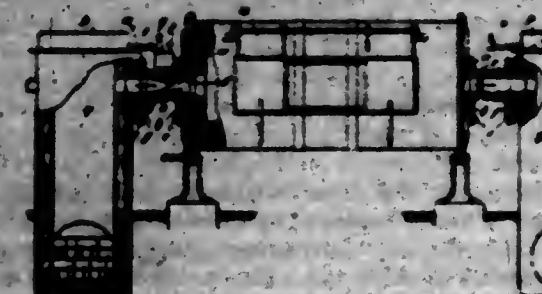
1. In a throttle valve for locomotives the combination of a cylinder open at both ends and ported about its entire

circumference, means for moving it longitudinally, a housing closed at one end and having cylindrical bearing surfaces upon which the cylinder slides, a steam pipe connected to said housing and communicating with one of the open ends of the cylinder, said housing having a steam passage surrounding the cylinder intermediate the said



bearing surfaces, compression spring packing rings surrounding and in slidable engagement with the cylinder and located adjacent the respective bearing surfaces, a spacing ring surrounding the cylinder interposed between the packing rings and ported about its entire periphery in register with the steam passage surrounding the cylinder, said spacing ring bearing against said cylinder.

1,304,725. REGENERATIVE TIPPING FURNACE. ALBERT MAURICE AUDERT, Billancourt, France. Filed Oct. 21, 1918. Serial No. 258,908. 6 Claims. (Cl. 186-7.5.)



1. A furnace having a port at each end, a regenerator at each end of the furnace having ports opposite the ports of the latter, means for passing a gaseous current through the furnace and regenerators by way of the ports, means for reversing the direction of said current, and diaphragms interposed between the ports of the furnace and regenerators, each having a plurality of apertures adapted to be selectively arranged to register with the ports of the furnace and regenerators, for the purpose specified.

1,304,726. STOVEPIPE HOLDER AND BRACE. HOMER A. BAILLY, Ithaca, Mich. Filed Apr. 10, 1918. Serial No. 239,055. 2 Claims. (Cl. 285-204.)



1. A stove pipe fastener, comprising a pair of angularly related clamping rings each consisting of a strip of metal having spaced longitudinal terminals, a pair of spaced

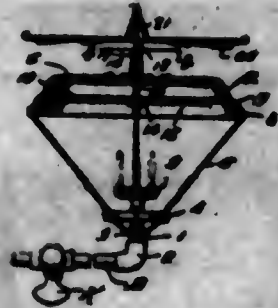
longitudinally disposed connecting rods having angularly related portions secured to the terminals of the clamping rings and extending beyond the same and provided with eyes located beyond the terminals of the clamping ring and fastening means passing through the eyes and adjustably connecting the ends of the clamping rings.

1,304,727. ROAD-CROSSING RECORDER. ROBERT M. BALDWIN, Richmond, Va. Filed Jan. 10, 1916. Serial No. 71,282. 4 Claims. (Cl. 234-27.)



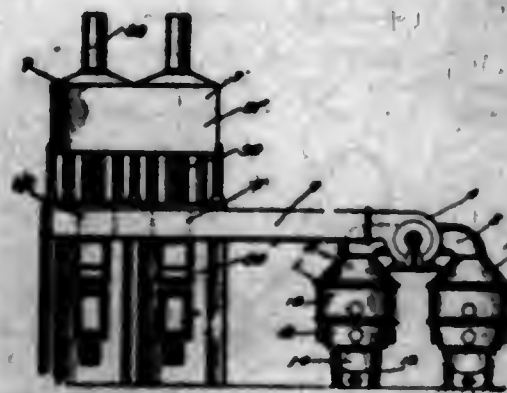
3. A road crossing recorder attachment comprising a plunger having slidable connection with its support, and provided with a stencil at one end, a steam whistle, a pipe leading from a pressure supply and discharging against the plunger at the opposite end from said stencil, means controlling the whistle and pressure supply for causing the plunger to move with the discharge of the steam to blow the whistle, means for releasing the pressure on the head of the plunger after it has traveled a predetermined distance, and means for quickly returning the plunger to its normal position.

1,304,728. HEAT-DISTRIBUTER. JOSEPH BARON, New York, N. Y. Filed Oct. 26, 1918. Serial No. 236,619. 5 Claims. (Cl. 126-246.)



2. In a heater of the class described, the combination with a burner, a collar around the same, a series of wires rising from said collar, a bell having a perforated top and a shoulder around its skirt, the latter being connected with said wires, a partition within the bell having perforations out of registry with those mentioned, a binding screw for holding the periphery of the partition against said shoulder, and a pin rising from said screw; of a distributor rotatably mounted on said pin.

1,304,729. METHOD OF PRODUCING LAMPBLACK. LOUIS BENDIT, Chelsea, Okla. Filed Mar. 15, 1918. Serial No. 222,006. 7 Claims. (Cl. 134-60.)



7. The method of producing carbon or lamp black which consists in effecting incomplete combustion of

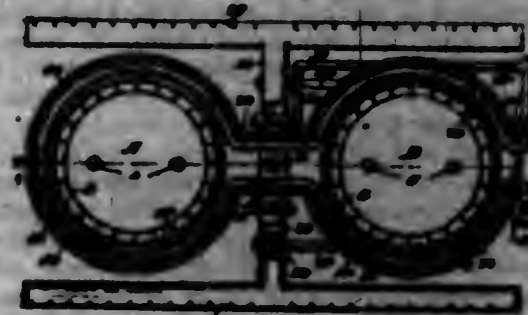
carbonaceous matter in an inclosed chamber, removing the product to a zone of less pressure than that existing in the chamber and subjecting the product to electrostatic action to cause precipitation of the carbon content of the product.

1,304,730. LUBRICATING DEVICE. OLIVER D. H. BENTLEY, Rockland, Mass., assignor to E. F. Startovant Company, Hyde Park, Mass., a Corporation of Massachusetts. Filed Aug. 20, 1917. Serial No. 188,840. 7 Claims. (Cl. 64-31.)



1. The combination with the shaft of a bearing having an oil ring receiving groove and an oil passage extending from the top of the bearing adjacent the groove to the bearing surface, an oil reservoir, an oil ring dipping into the oil in the reservoir, and means for delivering the oil from the outer surface of the ring axially of the shaft into the oil passage.

1,304,731. HYDROCARBON-BURNER. GEORGE M. BENSON-STERNOF, St. Louis, Mo. Filed Aug. 1, 1918. Serial No. 247,745. 1 Claim. (Cl. 158-65.)



In a device of the class described, a burner-head, a generating pan surrounding said burner, a generating tube positioned above said generating pan in such a manner that the flame from the burner may continue to heat the generating tube after it has been initially generated, means for controlling the flow of oil to the generating pan, means for controlling the flow of oil to the generating tube after it has become hot, a gas receiving chamber having connection with one end of the generating tube, a mixing tube, air inlets to said tube, a needle valve for controlling the flow of gas into said mixing tube, a gas distributing chamber arranged at one end of the mixing tube, a gas distributing tube connecting said gas distributing chamber with the burner, a valve arranged in said gas distributing chamber for controlling the flow of gas to the burner, an auxiliary side burner, means for connecting said burner for communication with said gas distributing chamber, and a valve for controlling the flow of gas from said chamber to said auxiliary side burner.

1,304,732. PLATE-CLAMP FOR PRINTING-PRESSES. JOSEPH E. BLAIR, Oak Park, Ill., assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 30, 1915. Serial No. 67,702. 8 Claims. (Cl. 572.)

1. The combination with the plate carrying member of a printing press or the like, and a plate superposed thereon, of a block, means to move said block in a direction at but a small angle to the plate, co-operating wedge mem-

bers carried by said block, a plate clamp hinged to one of said wedge members for engaging the edge of the plate, the clamp carrying wedge member guided in the block for



movement at an obtuse angle to the plate, the other member transversely movable relative to the clamp-carrying wedge member, and adjustable means to move the last mentioned member.

1,304,733. HYDROCARBON-MOTOR. WALTER E. BLAINE, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 10, 1917. Serial No. 190,004. 3 Claims. (Cl. 183-31.)



1. The combination with the carburetor of a hydrocarbon engine having a fuel chamber, of means for separating the matter in suspension from the air supplied to the carburetor, and means for maintaining the air pressure in the fuel chamber substantially the same as in said separating means.

1,304,734. SAFETY-RAZOR. JOHN BLOOM, Rockford, Ill. Filed June 26, 1918. Serial No. 241,915. 6 Claims. (Cl. 30-12.)



1. A safety razor comprising a handle having a blade holder, a blade, a clamping member movable longitudinally within the handle and overlapping the blade holder and adapted to clamp an interposed blade to the holder, a spring for constantly urging the clamping member in a direction to retract the same, and manually operable means for forcing the clamping member in the opposite direction for clamping the blade to the holder and for positively holding the blade in such clamping position.

1,304,735. VALVE MECHANISM FOR GAS-ENGINE. HAMILTON G. BLUMBERG, San Antonio, Tex. Filed Nov. 12, 1914. Serial No. 671,778. 2 Claims. (Cl. 138-79.)

2. The combination with an engine cylinder, a head having a space formed therebetween producing an air chamber, said engine cylinder provided with an opening in communication with the air chamber, and a vertically arranged positively actuated valve for closing said opening, said head provided with intake and exhaust ports and vertically arranged positively actuated intake and ex-

haust valves for closing said intake and exhaust ports, said valves arranged above and laterally of said main



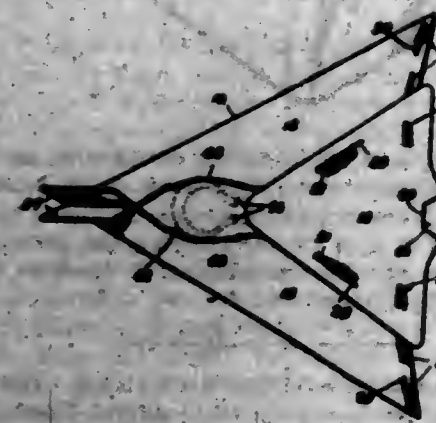
valve and so constructed as to be positively operated whereby either the intake valve or the exhaust valve will be operated upon the operation of the main valve.

1,304,736. WINDOW-CLEANER. EDNA A. BROWNING, Chicago, Ill. Filed Oct. 8, 1917. Serial No. 195,312. 1 Claim. (Cl. 15-68.)



The combination of pulleys adapted to be mounted in corresponding openings located at the upper corners of a window frame; a substantially vertically positioned wiper arranged to reciprocate horizontally across the outer face of said frame; cables secured to the opposite sides of said wiper at both the upper and lower ends thereof, the pair of cables on each side of said wiper being passed thence through the corresponding opening in said frame and over the corresponding pulley, there being suitable guide pulleys on the outer side of said frame; handle members secured to each pair of cables on the inner side of said frame; guide pulleys mounted at the lower corners of the inside of said frame; and a cable secured to said handle members and passed over said guide pulleys to compel simultaneous movement of said handle members in opposite directions, substantially as described.

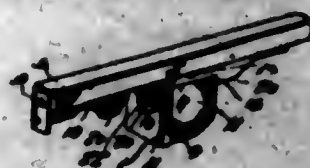
1,304,737. DISPLAY DEVICE. ARTHUR W. CADMUS, Pawwood, N. J., assignor to The W. F. Powers Company, New York, N. Y., a Corporation of New York. Filed Mar. 6, 1919. Serial No. 280,906. 10 Claims. (Cl. 211-34.)



1. A display device of the class described comprising a back part and two approximately similar side parts, said

side parts being detachably connected with each other at the front and being detachably connected with the back part, and a top part detachably connected with said back and side parts.

1,304,738. INTAKE-MANIFOLD HEATER. WILLIAM L. CALDWELL, Indianapolis, Ind. Filed Mar. 11, 1918. Serial No. 221,728. 1 Claim. (Cl. 123-122.)



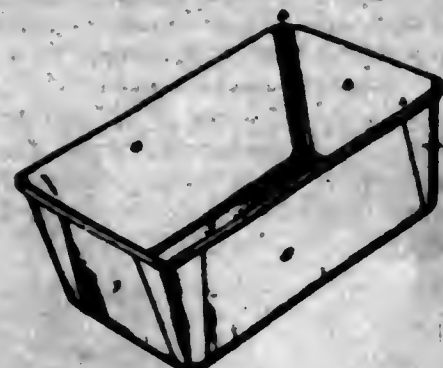
An intake manifold heater comprising a casing adapted to contain a torch and having an open side for directing the flame therefrom against the intake manifold, and a suspension plate for said casing extending upwardly therefrom and curved laterally and downwardly to form an arched hood for passage over the exhaust manifold, said hood being of substantially the same length as the horizontal portion of the intake manifold and being insulated to increase the downward radiation of heat from the exhaust manifold.

1,304,739. SELF-FILLING FOUNTAIN-PEN. HANSUR L. CARMAN, New York, N. Y. Filed Jan. 2, 1919. Serial No. 269,319. 6 Claims. (Cl. 120-46.)



6. In a self-filling fountain-pen a barrel having a slot, an operating lever in the slot, a yielding pivot for said lever mounted in the barrel to have a slight movement longitudinally of the barrel, and means in the barrel to engage the lever when the same is brought into the slot, to retain the lever in the slot.

1,304,740. BAKING-PAN. PAUL CARPENTER, Glenview, Ill. Filed Oct. 4, 1915. Serial No. 54,032. 4 Claims. (Cl. 53-6.)



1. A pan having its walls folded outwardly and redefining adjacent each corner along two lines substantially parallel and spaced apart a considerable distance, the plane in which both the lines lie intersecting the planes of the adjacent walls at substantially 125 degrees whereby rounded corners are produced.

1,304,741. ROAD AND STREET PLANER. GEORGE W. CARTWRIGHT, Sacramento, Calif. Filed Nov. 1, 1916. Serial No. 123,692. 1 Claim. (Cl. 94-50.)

A road planer comprising a rigid frame, a plurality of shafts pivotally mounted in the frame central of their

length, curved guides mounted in the sides of the frame at each end of the shafts, each guide being radial from the vertical turning axis of the shafts radially curved supports movable in the guide, and projecting therethrough each shaft being journaled in one pair of supports, rollers



on each shaft on each side of their central pivotal points, teeth on the outer vertical edges of the supports, a worm meshing with the teeth on each of said supports, and means for imparting motion to the worms and supports to steer the shafts and rollers.

1,304,742. VEHICLE-TIRE. WALTER R. COOK, Cleveland, Ohio. Filed Mar. 22, 1918. Serial No. 234,008. 6 Claims. (Cl. 183-37.)



2. In a device of the character described, the combination with a rim, an outer casing mounted upon the rim, connecting means between the outer casing and the rim, and an inner casing within the outer casing and including a bottom plate, of loops struck from the rim and tongues struck from the said plate and engaging said loops to coact with the said connecting means for holding the casings upon the rim.

1,304,743. TRACE-CARRIER. FRANK D. CALIN, Memphis, Tenn. Filed Nov. 6, 1916. Serial No. 129,789. 1 Claim. (Cl. 54-55.)



A trace carrier or similar device, comprising a base provided with cross-slots through which a flexible band may be passed, said base further provided with an intermediate cross-recess across which the band may extend, said cross-slots extending outwardly farther than said cross-recess, said cross-recess having clamping walls at both its sides and at both its ends, and a clamp provided

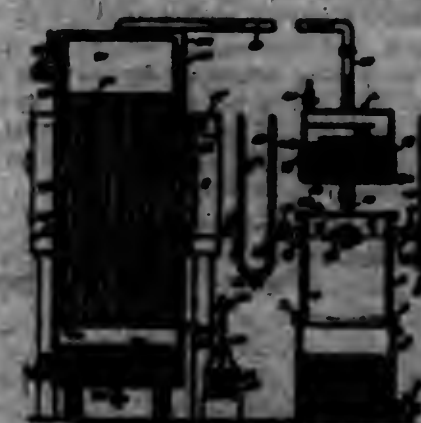
with a tongue which when clamped extends in a plane substantially parallel with and is located in the plane of said base, with the side face of said tongue arranged to project into said cross-recess in contact with and parallel with the face side of the flexible band to force the band through said recess against all said walls.

1,304,744. INTERNAL-COMBUSTION ENGINE. ARTHUR DICKESSON, Salt Lake City, Utah, assignor by direct and mesne assignments, to Dickerson Manufacturing Company, a Corporation of Utah. Filed May 22, 1918. Serial No. 236,061. 9 Claims. (Cl. 128-30.)



2. An internal combustion engine comprising a rotary valve shaft having segment portions cut out of form ports therein; a casing for said valve shaft having ports formed therein adapted to coact with the ports in said shaft; a collar having a cam groove cut therein secured on said valve shaft; and a spring secured to said casing and a portion of which is operatively connected with said collar to dampen the action of the cam groove and shorten the endwise movements of said valve shaft when said shaft is rapidly rotated and lengthen said movements when said shaft is rotated slower.

1,304,745. METHOD OF AND APPARATUS FOR PRODUCING LIQUID HYDROCYANIC ACID. WILLIAM G. DINGEL, Los Angeles, Calif. Filed May 5, 1917. Serial No. 167,118. 9 Claims. (Cl. 28-1.)

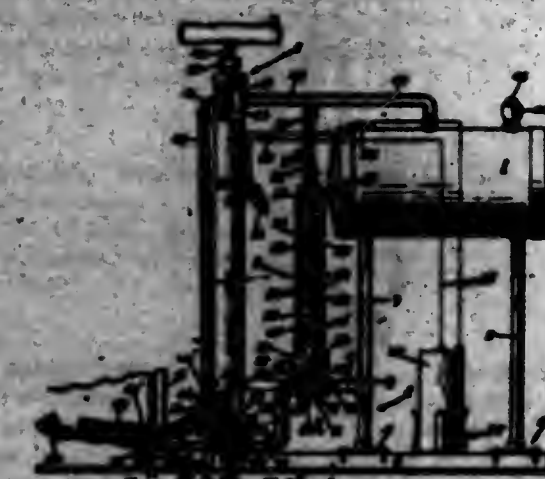


1. The method of producing hydrocyanic acid or prussic acid which consists in producing hydrocyanic acid gas, heating said gas and passing the heated gas against condensing surfaces thereby precipitating foreign substances from the gas, then cooling the resultant gas and reducing it to liquid form.

5. The apparatus set forth comprising a generating chamber, means to supply cyanid solution thereto, means to supply sulfuric acid thereto, means to conduct from said chamber the gases resulting from the combination of said acid and solution, a separating chamber connected to each conducting means; means to regulate the tempera-

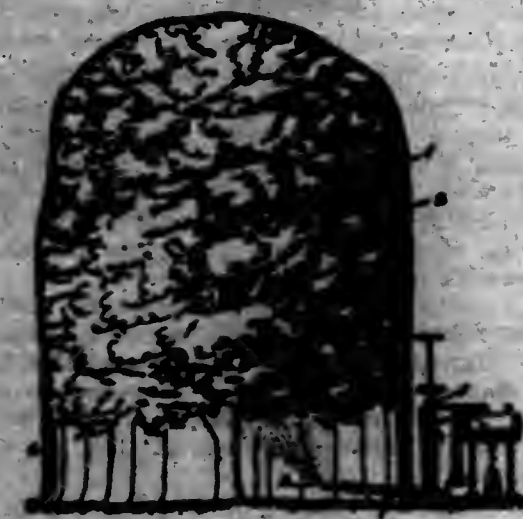
ture of the separating chamber; a cooling chamber; means to conduct the gas from the separating chamber to the cooling chamber, condensing tubes extending down from the cooling chamber, means to apply a cooling medium to the cooling chamber and tubes, and a collecting chamber into which the condensing tubes discharge.

1,304,746. FUMIGATING AND SPRAYING APPARATUS. WILLIAM G. DINGEL, Los Angeles, Calif. Filed May 5, 1917. Serial No. 167,119. 9 Claims. (Cl. 43-6.)



1. The combination with a supply tank, of measuring means to receive a charge of liquid from the tank, a nozzle, means to discharge the liquid charge through the nozzle into an inclosure, and vent means communicating with the tank and the measuring, and discharge means, and adapted to communicate with the inclosure.

1,304,747. METHOD OF FUMIGATING. WILLIAM G. DINGEL, Los Angeles, Calif. Filed May 5, 1917. Serial No. 167,120. 8 Claims. (Cl. 167-6.)



1. The method of fumigating which consists in spraying into an inclosed space containing objects to be fumigated, liquid hydrocyanic acid while the contained air inside the space is at a temperature suitable for gasification of said liquid and allowing the liquid to gaskify in said space and to permeate the atmosphere therein with hydrocyanic acid gas formed by said gasification.

7. The method of fumigating to destroy living organisms which consists in charging liquid hydrocyanic acid in such condition, and into air which is at a temperature that will cause the liquid to expand into a gas and thereby impregnating the air with hydrocyanic acid gas and then maintaining such air about the organisms until the life thereof is extinct.

8. In the fumigation of citrus trees the method set forth of inclosing the tree for a period of approximately

thirty minutes in an atmosphere impregnated with hydrocyanic acid gas which is produced by introducing hydrocyanic acid in a liquid form within the inclosed space, and subjecting said liquid hydrocyanic acid and the atmosphere within the inclosure to a temperature at which liquid hydrocyanic acid will expand into a gas.

1,304,748. CASTER. ALBERT B. DISS, Newark, N. J., assignor to The Bausch Co., Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 17, 1918. Serial No. 230,305. 3 Claims. (Cl. 10-78.)



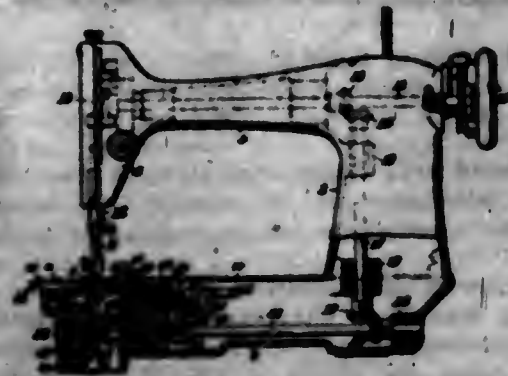
1. In a furniture castor mount, a foot having a back, a top and a bottom, the top and the bottom being perforated to receive the castor pin, a clip having a plate secured to the back of the foot and having a pair of spaced spring arms extending over the top and a knob on the pin to engage with the arms to limit downward movement of the pin, said arms being capable of being spread to permit the passage of the knob upon the expenditure of force exerted on the plate.

1,304,749. METHOD OF FINISHING OR SURFACING SIGNS. CHARLES A. DIVINE, Columbus, Ohio. Filed June 23, 1916. Serial No. 105,500. 7 Claims. (Cl. 41-26.)



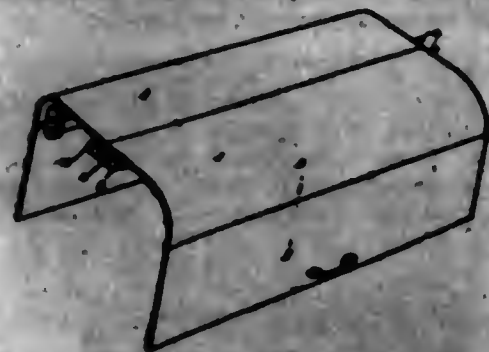
1. The method of finishing signs or similar articles having inset characters, which consists in coating the elevated surface with a soluble covering, applying a color coating to the inset surfaces and the elevated surface surrounding the inset characters, removing the color coating which appears on the elevated surface by dissolving the soluble covering, and then painting the elevated surface with a permanent covering.

1,304,750. SEWING-MACHINE. OLIVER L. DOSCH and MARTIN HENLERS, Elizabeth, N. J., assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Mar. 2, 1917. Serial No. 151,900. Renewed Nov. 4, 1918. Serial No. 261,180. 14 Claims. (Cl. 112-28.)



1. A sewing machine frame comprising an open topped trough-shaped supporting bed, a standard fixed directly to and carried by one end-portion of said supporting bed, and a bracket-arm carried by said standard and overhanging said supporting bed.

1,304,751. AUTOMOBILE-HOOD. FREDERICK DELUCA, Detroit, Mich., assignor of one-half to Frank Best, Detroit, Mich. Filed Apr. 26, 1918. Serial No. 231,082. 2 Claims. (Cl. 76-86.)



1. A hood, having a pair of leaves hinged together blindly at the top and each having an inset and concealed eye, and a pair of pintles one passing through each eye and adapted to rest on the cowl and on the radiator, and a connector for rigidly connecting the two pintles.

1,304,752. URINAL. GEORGE F. DOWNE, San Francisco, Calif., assignor to Pacific Porcelain Ware Company, San Francisco, Calif., a Corporation of California. Filed Dec. 18, 1916. Serial No. 157,808. 1 Claim. (Cl. 4-12.)



A urinal comprising a bowl of vitreous material having a substantially horizontal bottom and a substantially vertical back and having an outlet passage at the junction of the back and bottom, a removable strainer of vitreous material having substantially vertical sides and a dome shaped top overlying said outlet passage and resting against said bottom and back and legs disposed on said bottom for removably holding said strainer in position over said outlet passage.

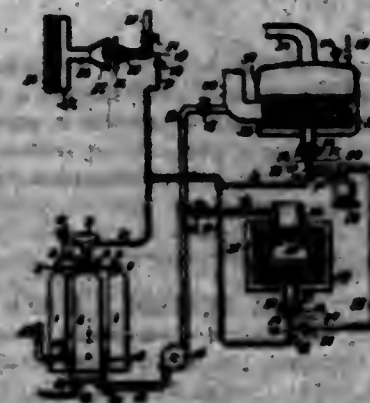
1,304,753. CHAIR-COVER. LEO E. DWYER, Columbus, Ohio. Filed Apr. 1, 1918. Serial No. 225,863. 4 Claims. (Cl. 155-42.)



1. A chair cover comprising a body of double thickness to form front and back portions connected at their tops but separated at their bottoms to permit the cover to

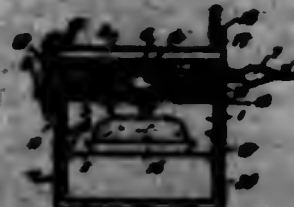
be clipped over and be positioned upon the back of a chair, and rows of securing tapes connected with said front and back sections respectively, the lower free ends of said tapes being situated, when tied, to engage the lower edge of the chair back whereby the cover will be drawn tightly down upon the chair back and maintained in such position.

1,304,754. GAS-DISTRIBUTION APPARATUS. CARLETON ELLIS, Montclair, N. J., assignor, by mesne assignments, to Surface Combustion, Inc., Wilmington, Del., a Corporation of Delaware. Filed May 8, 1912. Serial No. 686,934. Renewed Oct. 9, 1918. Serial No. 257,533. 10 Claims. (Cl. 48-191.)



9. In gas distribution apparatus, an expansion chamber, a jacket heater arranged to heat the expansion chamber, a compressed gas container, a supply pipe for delivering gas from said container to the expansion chamber, a delivery pipe connected to the expansion chamber, a gas consuming device supplied through said delivery pipe, means for supplying combustion gases from said consuming device to said heater, and means for supplying steam to said heater.

1,304,755. DOMESTIC GAS HEATING APPARATUS. CARLETON ELLIS, Montclair, N. J., assignor, by mesne assignments, to Surface Combustion, Inc., Wilmington, Del., a Corporation of Delaware. Filed June 1, 1912. Serial No. 700,900. Renewed Oct. 22, 1918. Serial No. 267,896. 10 Claims. (Cl. 188-69.)



14. In a gas heating apparatus, a porous refractory diaphragm, a metallic wall adjacent the rear face of the diaphragm and providing a gas chamber between it and the diaphragm, and means for maintaining a cooling liquid against said metallic wall.

1,304,756. DOUBLE-SPEED WRENCH. JOHN P. FERRO, Stockton, Calif. Filed May 6, 1918. Serial No. 222,000. 1 Claim. (Cl. 81-103.)

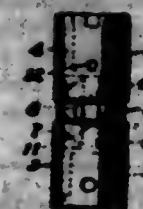
A wrench comprising a shank, a fixed jaw thereon whose face is turned at a slight angle from the shank, said shank being provided with a transverse groove adjacent the jaw, and a transverse slot below the groove and communicating therewith, the groove and slot both being at right angles to the face of the jaw, a movable jaw having an extension thereon slidable in the groove and having rack teeth on its

inner face projecting into the slot, a worm secured to the shank and projecting through the slot centrally thereof, and a second worm on the first worm and coacting there-



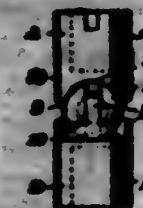
with, said second worm having knurled teeth on the outside thereof meshing with the teeth on the movable jaw, said knurled teeth being on a reverse pitch from those on the first named worm.

1,304,757. FLEXIBLE SHAFT-COUPLING. WILLIAM R. FOX, Grand Rapids, Mich. Filed Jan. 15, 1916. Serial No. 72,210. Renewed Jan. 27, 1919. Serial No. 278,447. 7 Claims. (Cl. 64-61.)



1. A universal joint comprising a pair of coupling heads, each provided with a forked member, a ball having intersecting circumferential grooves with diametrically arranged curved portions and diametrically arranged flattened portions at the bottom of the intersecting grooves, said forked members being of a width corresponding substantially to the diameter of the ball and each having curved inner faces corresponding to the diameter of the curved reduced portion of the ball at the bottom of the grooves and adapted to freely slip over the flattened portions and to turn on and be retained by the curved surfaces of the reduced part and a sleeve carried by each of the coupling heads and having an interior diameter at its end substantially equal to the diameter of the ball, said sleeves terminating on opposite sides of the center plane of the ball and with a space between their opposing edges to allow the heads to assume angular positions relative to each other, the opposing ends of said sleeves by contacting with each other limiting said angular relation, substantially as described.

1,304,758. FLEXIBLE SHAFT-COUPLING. WILLIAM R. FOX, Jackson, Mich. Filed Feb. 18, 1919. Serial No. 277,500. 4 Claims. (Cl. 64-102.)



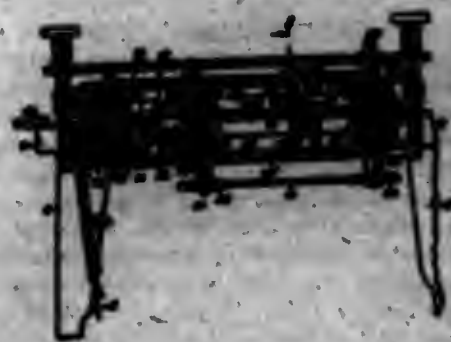
1. A coupling for flexible shafting comprising two members having cylindrical body or shank portions and fork portions, one of the members having a gateway at the bottom of its fork opening to receive the other fork member, a ball having circumferential grooves at right angles receiving said fork, said ball being of smaller diameter than the diameter of the fork shanks and the fork portions being equal in diameter to that of the ball, said gated member having an arc shaped recess at each side of its fork portion of a radius equal to that of the ball, leaving the metal of the shank reaching up and reinforcing the member at each side of the gateway, substantially as described.

1,304,759. FLEXIBLE SHAFT-COUPLING. WILLIAM E. FOX, Jackson, Mich. Filed Feb. 20, 1917, Serial No. 149,795. Renewed Apr. 2, 1919. Serial No. 287,070. 1 Claim. (Cl. 64-102.)



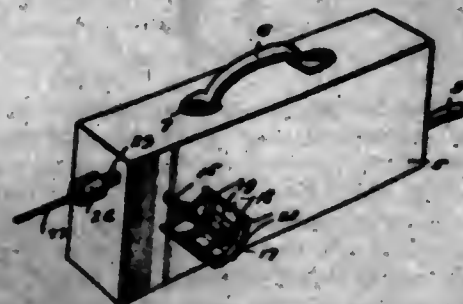
In combination in a universal joint, a ball having grooves extending in planes at right angles to each other leaving a core, said core at the points where the grooves intersect being flattened, and a pair of heads having forks to pass over the flattened portions of the core and having interior curved faces to conform to the curved sides of the core, one of the heads having a gateway at the base of its fork communicating with the opening within the fork, said head also having integral reinforcing portions at the sides of the fork reaching up to a plane above the bottom of said gateway and on opposite sides thereof to stiffen the arms of the fork against spreading substantially as described.

1,304,760. BACKING MACHINE FOR BOOKS, TABLETS, AND THE LIKE. LEONARD J. FROMM, New York, N. Y. Filed Apr. 10, 1916. Serial No. 90,085. 12 Claims. (Cl. 154-41.)



1. In a machine for backing books, tablets or the like, the combination, with means for advancing substantially rectangular work units in continuous procession through the machine, of means for folding around corresponding side edges of the advancing units successively a continuous adhesive strip of flexible material, said folding means including means for yieldingly pressing the advancing strip toward and against the contiguous edge of each unit in transit.

1,304,761. HOOF-TRIMMING MACHINE. JAMES ROBERT GILLILAND, Baltimore, Md. Filed Aug. 19, 1918. Serial No. 250,555. 2 Claims. (Cl. 108-48.)



1. In a device of the class described, the combination of a driving means including a shaft, and a semi-cylindrical chipper mounted upon said shaft to rotate in unison therewith.

1,304,762. EXTENSION STRAINER-BOLDER. IRVING A. GUNN, Worcester, Mass., assignor to Wire Goods Company, a Corporation of Massachusetts. Original application filed June 5, 1915, Serial No. 22,411. Divided and this application filed Apr. 6, 1918. Serial No. 228,904. 3 Claims. (Cl. 246-30.)



2. As an article of manufacture, a supporting frame consisting of two parts, each part having a substantially rectangular portion, the end of which is provided with a semi-circular portion, said parts being connected together so that the semi-circular portions constitute a part of the circular support for a strainer.

1,304,763. CONVEYER SYSTEM. LOUIS A. GRIFFIN, Evanston, Ill., assignor to American Steam Conveyor Corporation, Chicago, Ill., a Corporation of New York. Filed Jan. 25, 1918. Serial No. 214,077. 1 Claim. (Cl. 193-10.)



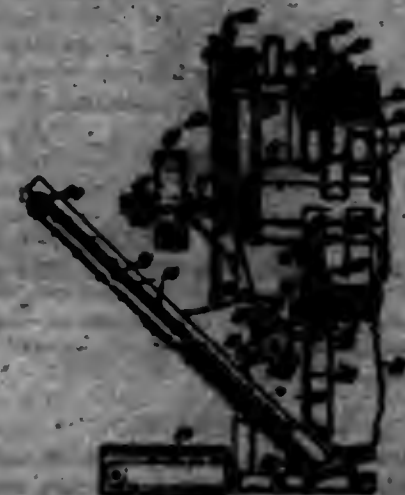
An impact plate for ash conveying systems comprising a frame member having a back, a grate member secured in said frame member in front of said back, said grate member comprising a plurality of cross bars decreasing in thickness from their rear edges to their front edges, to provide a plurality of open cells for receiving ashes, the cells diminishing in cross section toward said back, the rear ends of said cells being closed by said back.

1,304,764. PICKER-STRAP. MICHAEL B. GRIFFIN, Peacog, R. I. Filed Dec. 10, 1917. Serial No. 204,534. 1 Claim. (Cl. 120-48.)



The combination with a picker and a picker stick each having an opening, of a thing passed around one end of said picker and having its ends passed oppositely through the opening thereof and knotted, and a second thing passed through the loop formed by said first named thing, said second thing having its ends passed through the opening of said stick and knotted.

1,304,765. PRA-SHAPATOR. FRANK HANACHKE, Kewaukeo, Wis. Filed Aug. 29, 1918. Serial No. 64,445. 6 Claims. (Cl. 120-30.)



1. In a pra separator, an inclined chute for conducting vine tailings having its surface corrugated to form inclined vine conducting ridges and troughs into which loose peas may drop from the vines and be conducted separately from the vines.

1,304,766. CLEAR-VISION AND GLASSCOPE ATTACHMENT FOR WIND-SHIELDS. MARK HANBURN, Baltimore, Md. Filed Nov. 7, 1918. Serial No. 261,334. 3 Claims. (Cl. 21-148.)



1. An attachment for wind-shields comprising a supporting frame, means for clamping the same against the wind-shield pane, a protecting pane having a hinged connection with said supporting frame, side plates hinged to said frame, and means for detachably connecting said side plates with said protecting pane.

1,304,767. WINDOW VENTILATOR AND SCREEN. FRED L. HANCOCK, Chicago, Ill. Filed Feb. 17, 1919. Serial No. 277,075. 6 Claims. (Cl. 164-36.)



1. In a device of the class described, the combination with a frame having on one of its faces a ledge corresponding in shape with said frame but of less size and having a longitudinal groove in each of its outer walls, of a screen of flexible material located on the face of the ledge and overhanging its edges, and a clamping-clamp located at each outer edge of said ledge and each having a rib to force and hold the edges of the screen in said groove.

2. In a device of the class described, the combination with a pair of superimposed rectangular frames each having on its opposed face a ledge corresponding in shape with the frame but of less size, and each ledge having

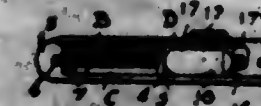
a longitudinal groove in each of its outer walls, each of said frames also having on its opposed inner longitudinal edge a tenon and on the inner face of their adjacent ends a transverse cleat each having at each of its ends a rabbet to receive said tenon, of a flat strip longitudinally mounted on the upper rail of one of said frames and having a longitudinally extended cut-out in its end adjacent the other frame, another flat strip similarly mounted on the upper rail of the last named frame and having a portion to fit in said cut-out, each of said frames further having on its opposed face a kerf or depression near each of its outer edges, a screen of flexible material located on the face of each ledge and overhanging its edges, a detachable clamping-clamp located at each outer edge of each ledge and each of said cleats having a rib to force and hold the edges of the screen in said groove, the vertical cleat at the inner end of each frame extended upwardly and terminating flush with the upper surface of the rails at the top of the frames, and a catch on each clamping-clamp to engage said depressions.

1,304,768. AUTOMATIC SPARK-ADVANCING COUPLING. CHARLES F. L'ENDREON, San Francisco, Calif. Filed May 14, 1917. Serial No. 168,531. 6 Claims. (Cl. 64-80.)



1. In an automatic spark-advancing coupling comprising a driving member having an axially extending lug, a driven member having an axially extending lug arranged opposite the first lug, a roller interposed between said lugs adapted to move outward and separate said lugs as the angular velocity of the members increases, the improvement which comprises a centrally arranged spring having a radially extending part engaging one of said lugs and another radially extending part engaging the other of said lugs.

1,304,769. FOLDING TOOTH-BRUSH. ADOLPH H. HANSEN, Oakland, Calif. Filed Sept. 3, 1917. Serial No. 190,523. 5 Claims. (Cl. 15-36.)

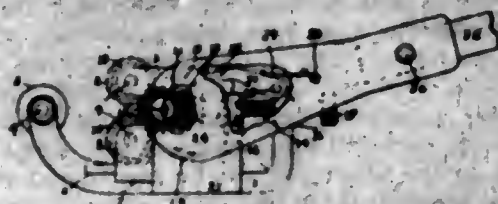


1. A folding tooth brush including a hollow handle formed with a brush receiving compartment, antiseptic receiving strips fitted removably at the sides of the brush receiving compartment, a brush, a shank carrying the brush and pivotally connected to the handle so that the brush can be folded against the handle and received within the compartment when not in use.

1,304,770. RATCHET PIPE-CUTTER. RUS S. HESTAND, Howe, Tex. Filed Feb. 16, 1919. Serial No. 275,982. 3 Claims. (Cl. 51-191.)

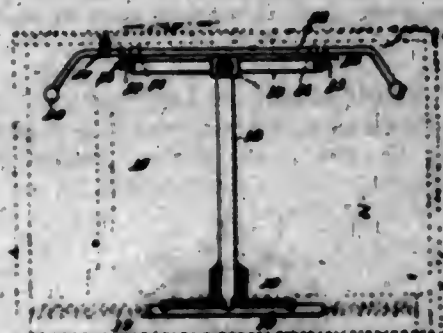
2. A pipe cutter of the class described comprising a frame having a cutting roller mounted thereon, a movable roll block slidable on the frame and provided with rollers having toothed sections at corresponding ends thereof, gears actuated by the toothed roller sections, a screw threaded shaft actuated by said gears for movement of

said roll block, ratchet disks positioned at either side of the frame adjacent the roll block, housings encircling the



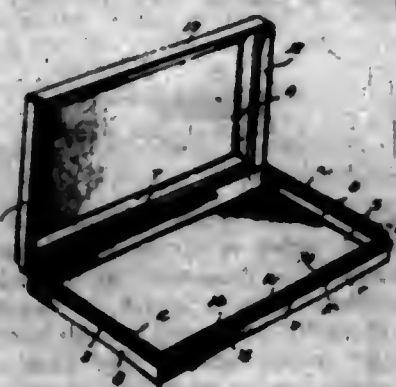
disks and connecting with a handle, and pawls pivotally mounted in the housings for engaging the ratchet teeth.

1,304,771. DISPLAY-RACK. WILLIAM T. HORMES, Govana, Md., assignor to Solomon Himmel, Baltimore, Md. Filed Feb. 7, 1916. Serial No. 78,700. 6 Claims. (Cl. 211-10.)



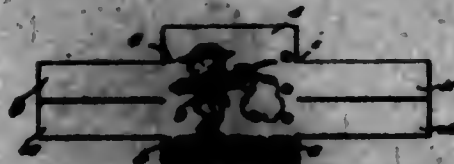
6. An improvement in display racks comprising a rotatable rack mounted upon a reciprocable support, a stationary control member, and a movable control member carried by and extending transversely across the rack in a line intersecting its axis of rotation, said control members being in engagement at all times, the stationary control member being positioned to cause the axis of rotation of the rack to coincide with the axis of the stationary control member when the rack support is at one extreme of its reciprocatory movement, rotation of the rack at all other times being prevented by the eccentric relation of said axes due to reciprocable movement of said rack, the free ends of the movable control member having downturned portions shaped to provide handles.

1,304,772. CONTAINER. JOHN M. HOTHERSALL, Brooklyn, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 29, 1915. Serial No. 17,569. 1 Claim. (Cl. 226-24.)



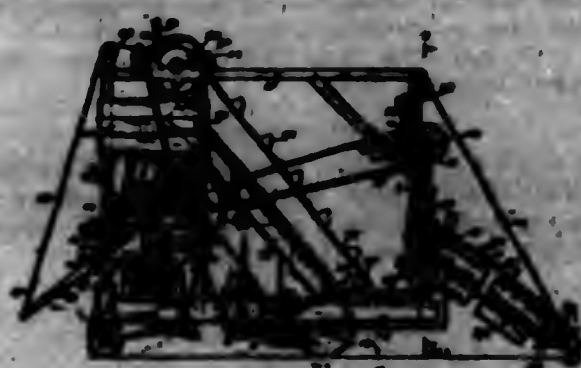
A sheet metal box consisting of a body and a flanged cover hinged thereto, the body being formed with a head projecting outwardly from the normal vertical front wall of the body, the front wall of the body above the head and the top portion of the head being cut, and pressed outward to form vertical lips, the bases of which are set out beyond the flange of the cover, the rear sides of said lips being parallel and contiguous with the front of the cover flange, the latter being internally and externally smooth.

1,304,773. NOVELTY CARD. CHARLES B. HOWELL, Yonkers, N. Y. Filed Nov. 1, 1918. Serial No. 299,694. 9 Claims. (Cl. 46-37.)



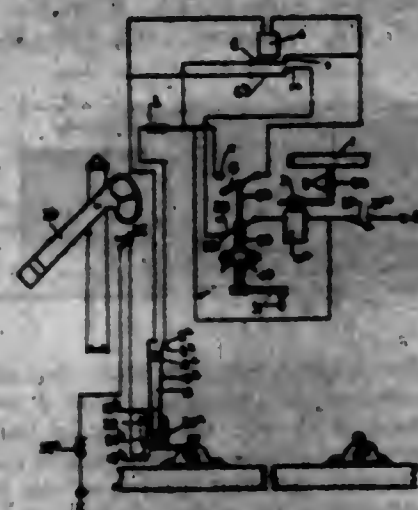
1. A puzzle card including a blank with a truncated image portrayed thereon and equipped with appendages having truncated images portrayed thereon, said appendages being colorable with the blank to depict a complete image and being likewise colorable with each other to depict a complete image.

1,304,774. LOADER. JOSEPH FRANK HUMPHRIES, Milwaukee, Wis., assignor to Stamp Loading Machine Company, a Corporation of Wisconsin. Filed Apr. 27, 1917. Serial No. 164,968. 4 Claims. (Cl. 198-1.)



1. A loader for a concrete mixer comprising a frame, a storage bin carried thereby, conveying devices for automatically picking up and transporting material to the bin from a place of deposit on the roadway, a hopper for receiving a batch of material from the bin, means for controlling the passage of material from the bin to the hopper, and means for discharging material from the hopper into the loading device for the mixer.

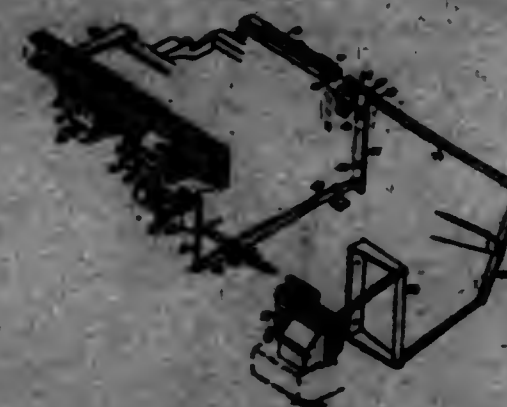
1,304,775. APPARATUS FOR CONTROLLING RAILWAY TRAINS IN MOTION. HARVEY COPELAND RIVINGTON, Westminster, London, England. Filed Dec. 18, 1915. Serial No. 66,539. 10 Claims. (Cl. 246-50.)



1. In a train controlling system the combination, with apparatus at a predetermined point on the permanent way and controlled by the position of the semaphore signal or the condition of the track section ahead, and apparatus on the train adapted to cooperate with the apparatus on the permanent way and including a device adapted to be actuated

said means to apply the brakes when the train reaches said point, of manually operable means on the train adapted when moved from an inoperative to an operative position to prevent actuation of the apparatus on the train for applying the brakes when the semaphore signal is at clear or go-ahead or the track section ahead is clear, means rendering the operation of the said manually operable means ineffective for preventing actuation of the apparatus on the train and application of the brakes when the semaphore signal is at the danger or stop position or the track section ahead is not clear, and manually operable means on the train for restoring the apparatus on the train to condition enabling the brakes to be released after having been automatically applied.

1,304,776. COMBINED TYPE-WRITING AND COMPUTING MACHINE. ARTHUR A. JOHNSON, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Nov. 16, 1917. Serial No. 291,267. 23 Claims. (Cl. 235-59.)



1. The combination with a typewriter carriage, of one or more vertical column-computing units having a traveling element connected to travel with said carriage, a cross-computing unit having a traveling element, and mechanism for controlling the connection, at a point other than said vertical column-computing units, of the traveling element of the cross-computing unit to said typewriter carriage from said vertical computing units.

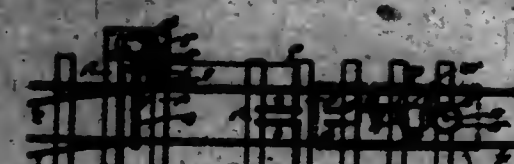
1,304,777. RAILWAY WATER-COLUMN. HOWARD B. JOHNSON, St. Paul, Minn. Filed Sept. 26, 1917. Serial No. 290,976. 20 Claims. (Cl. 137-61.)



27. A railway water column comprising a delivery pipe having a curved portion, a discharge spout enveloping and movable along said curved portion, said curved portion serving as the principal support for the spout by cooperation with the interior of the spout.

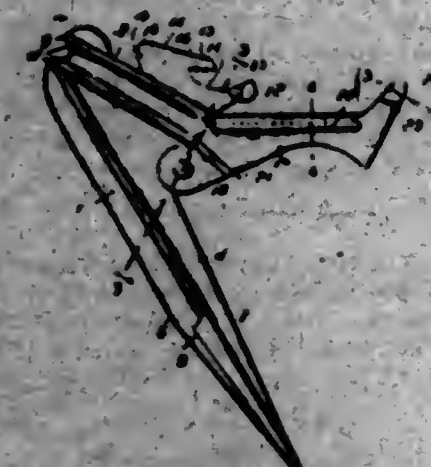
292 O. G.-36

1,304,778. AUTOMATIC TRAIN CONTROL. JEREMIAH JOHNSON, Port Colborne, Ontario, Canada. Filed July 22, 1912. Serial No. 246,126. 4 Claims. (Cl. 246-170.)



4. The combination with a pair of contact plates adapted to be located between the rails of a track, circuit wires leading from each contact plate and a circuit opening switch located in one of the wires, of a pair of contact strips carried by the engine adapted to contact with the contact strips between the rails, a circuit wire extending from one of the contact strips, a circuit wire extending from the other contact strip, a motor, to the terminals of which the aforesaid wires are connected, an air brake shaft, means operated by the rotation of the motor for operating the air brake shaft, and means for energizing the circuit.

1,304,779. TENT-STAKE. EDWIN JUELSON, Chicago, Ill. Filed Jan. 14, 1918. Serial No. 311,827. 17 Claims. (Cl. 188-15.)



12. A stake for the attachment of a tent rope or the like, consisting of a shank portion and a head portion disposed at an angle to the axis of the shank portion, and a rope guiding shoe movably mounted on the stake.

1,304,780. WIRE-FORMING MACHINE. JAMES S. KURTAN, Dayton, Ohio, assignor to Cap-Held Incorporated, New York, N. Y., a Corporation of New York. Filed July 3, 1917. Serial No. 178,496. 2 Claims. (Cl. 146-71.)



1. A machine for forming wire retainers of the character described, comprising in combination a step-by-step

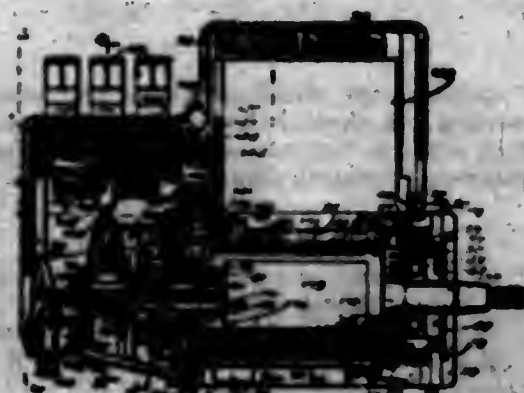
feed for the wire strand, a reciprocating knife for cutting the wire to length, devices to coil the ends of the wire, a curved anvil, a former cooperating therewith to loop the wire circularly and opposed formers cooperating with the anvil to crimp the legs of the wire, said anvil having beveled rear faces and the last named opposed formers having correspondingly beveled front faces to press the legs up the beveled sides and incline them to the plane of the loop.

1,304,781. CALCULATING DEVICE. ORVILLE MASTON KILB, Baltimore, Md. Filed Mar. 27, 1918. Serial No. 225,005. 18 Claims. (Cl. 243-51.)



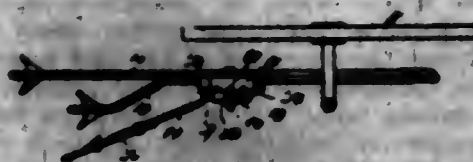
2. An apparatus of the class described, including means for successively adding the ratios of variables contained in any ingredients of a mixture, to ascertain the ratio of the variables of the mixture, for subtracting the ratios of the variables of ingredients to enable one ingredient to be substituted for another to produce a mixture having a given ratio of the variables and an adjustable indicating means having sets of corresponding ratios of variables and adapted to be arranged to present a set of ratios to form a guide for making the said mixture.

1,304,782. MAGNETO. ARTHUR C. KLOCKNER and WALTER BROWN, Racine, Wis., assignors to Webster Electric Company, Racine, Wis., a Corporation of Wisconsin. Filed Jan. 17, 1918. Serial No. 271,576. 18 Claims. (Cl. 128-140.)



1. A magneto comprising a two part casing, the lower part of said casing having top, bottom, and side walls forming a compartment for receiving an armature, the said side and bottom walls being extended beyond one end of said top wall and provided with an end wall, the other end of said lower part being open, a magnet having pole pieces on opposite sides of the lower part of said casing and embedded therein, the pole pieces of said magnet being concave, a timing sleeve rotatably mounted between said pole pieces, and closures for said sleeve, an armature rotatably mounted in said sleeve, and having a transducer extending from each end thereof, bearings in said end closures for said transducers and a timing lever secured to the end of said sleeve adjacent the open end of the lower part of said casing and forming a cap for closing said open end.

1,304,783. HAND-LEVER MECHANISM FOR CULTIVATORS. CLARENCE C. LAMORE, Foster, Neb. Filed Oct. 24, 1918. Serial No. 250,487. 5 Claims. (Cl. 74-30.)



1. In a combination, a segmental member comprising teeth extending in the direction of its axis, and providing notches, an arm pivotally mounted on said segmental member and being adjustable for a useful purpose, a lever pivotally mounted on said segmental member, and a plate pivotally mounted on said segmental member and having pairs of spaced shoulders, the pivotal centers of said arm and lever and plate being aligned with one another, said arm extending between the shoulders of one pair, said lever extending between the shoulders of another pair and being engageable alternatively with the teeth of said segmental member.

1,304,784. MINE-SHIP. DANIEL F. LEFLEY, Connelville, Pa. Filed Jan. 17, 1919. Serial No. 271,061. 7 Claims. (Cl. 214-112.)

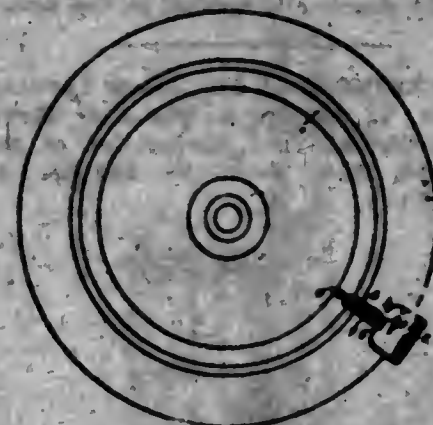


1. In a mine ship the combination with a container having an opening in one wall and a bottom inclined downwardly to the bottom of the opening, of a combined gate and chute hinged between its ends at the bottom of the opening and having side wings, a toggle movable with the container and connected to the gate for fastening the gate in closed position, and stationary means for shifting the toggle to open the gate during the upward movement of the container.

1,304,785. HOBBLE FOR MOTOR-VEHICLES. JOSEPH J. McDONNELL and FRANK P. DOWNHILL, Dorchester, Mass. Filed Feb. 9, 1918. Serial No. 216,291. 1 Claim. (Cl. 70-90.)

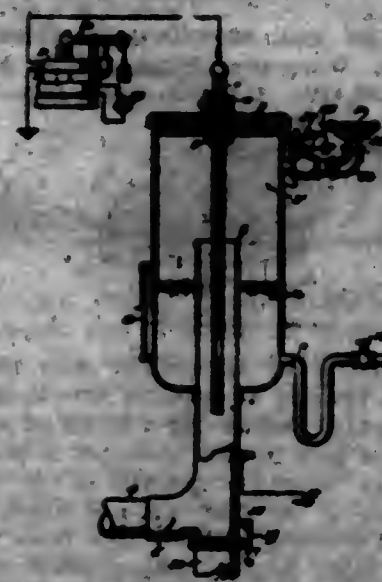
A hobble for motor vehicles comprising a plate formed arcuate for conforming engagement upon the tread of a tire and adapted to raise the wheel from the ground during each rotation thereof to impart a limping movement to the vehicle, an ear hingedly connected with one side edge of said plate, a lug formed on said ear and extending outwardly therefrom, a flexible member connected with the opposite edge of said plate, a hump plate connected with said flexible member and provided with a plurality of openings engageable selectively upon said lug, said flexible member being adapted to pass

about the fully of the wheel, and the free end of said hump plate being reflexly curved whereby to provide



finger engaging means whereby the flexible member and hump plate may be drawn firmly about the fully, said lug being apertured for engagement by a padlock.

1,304,786. APPARATUS FOR SEPARATING LIQUIDS IN EMULSION. CHARLES W. MCKINNEY, Houston, Tex. Filed July 26, 1918. Serial No. 246,880. 1 Claim. (Cl. 204-25.)



A treater comprising a vertically disposed pipe having its upper end freely open within a surrounding casing; a concentrically disposed casing closed at its upper end and having its lower end contracted and closed by said pipe; a vertically adjustable electrode in said pipe and casing; a valve to divide the chamber therein into a liquid chamber and a gas chamber and a pressure responsive valve communicating with the gas chamber to vent it when pressure therein reaches a predetermined point.

1,304,787. SPOT-LIGHT FOR AUTOMOBILES. NEIL MACHRALE, Cincinnati, Ohio, assignor to The Corcoran-Victor Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 17, 1917. Serial No. 207,431. 4 Claims. (Cl. 249-1.)



1. The combination with a clamping device for the purpose described, having rectangular clamping jaws, and tightening bolts, of separate filler plates having angling clamping jaws adapted to engage the bolts to cooperate with the rectangular jaws.

1,304,788. SAIL-CONTROLLING SYSTEM. ROBERT MACHAN, Chicago, Ill. Filed Feb. 20, 1919. Serial No. 278,302. 7 Claims. (Cl. 114-107.)



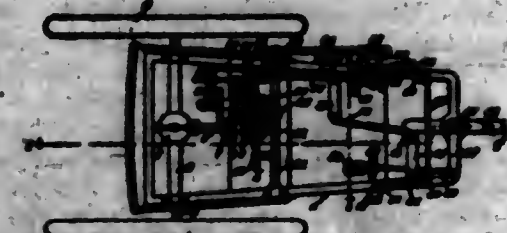
1. In a sail operating system the combination with a mast, of a platform at the base of said mast rotatable thereon but confined against vertical movement, a sail roller journaled on said platform for supporting a sail, a motor mounted on said platform, a driving train for connecting said motor with said roller, and means for controlling the connection of said motor with said driving train.

1,304,789. MAGNETIC COMPASS. ALAIN VICTOR FRANCIS MARION, Paris, France. Filed Jan. 30, 1919. Serial No. 274,004. 5 Claims. (Cl. 23-60.)



1. In a magnetic compass the combination with the compass-box, of a pivoted magnetic needle, a fixed graduated dial, a concentric graduated movable dial, a graduated alidade pivoted at the center of the said compass box and a gearing connecting it to the said movable dial, so that any angular movement imparted to the alidade causes an equal rotation of the said movable dial in the opposite direction.

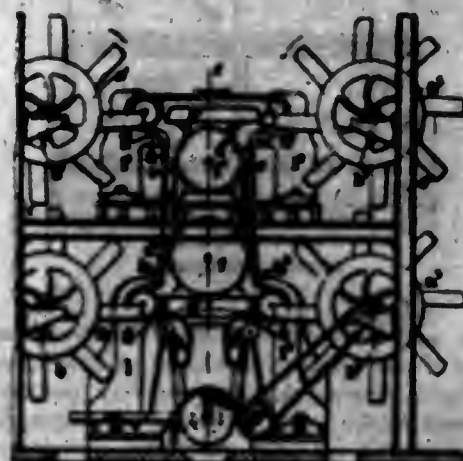
1,304,790. WHEEL-CHAIR. GILBERT H. MAULDEN and ARTHUR O. MAULDEN, Kansaspolis, N. C. Filed Jan. 20, 1919. Serial No. 272,184. 1 Claim. (Cl. 206-32.)



A wheel chair including a frame, front and rear supporting wheels, a seat upon the rear portion of the frame, power transmitting mechanism under the seat and coupled to the rear wheels, standards pivotally connected to the sides of the frames and in front of the seat, a crank shaft journaled in the standards and adapted to be rotated by hand by the occupant of the

cent, means for transmitting motion from the crank shaft to the power transmitting mechanism, means pivotally connected to the standards, a cross rod connecting the braces, and means for engaging the cross rod to hold the standards against swinging movement.

1,304,791. SCUTCHING OF FLAX AND OTHER FIBROUS MATERIALS. GASPARD MICROT, Dromard, Ireland, assignor to Fibre Corporation Limited, London, England. Filed May 21, 1912. Serial No. 235,791. 2 Claims. (Cl. 19-18.)



1. A machine for scutching flax straw and other fibrous material comprising in a single machine two pairs of scutching wheels arranged in a vertical direction above each other, each wheel being provided with a series of blades which are caused to operate in sequence upon one or both ends of the bundles of straw fed into the machine in combination with central structures supported on foundations provided with vertical horn-like plates and guide pulleys for feed bands, curved recesses for embracing the serrated edges of feed wheels, which latter are attached to guide pulleys supported in bearings in the central portions of each framework; a series of guide pulleys of smaller diameter for guiding and supporting endless flexible bands, between which the fiber is gripped and carried by said bands from the point of insertion to the point of delivery; a centrally disposed intermittently operated feed wheel in the lower central part of framework around which the feed band is frictionally gripped; a centrally disposed pair of grooved wheels around the surfaces of which is mounted an endless flexible band with U-shaped projections attached thereto in the upper portion of machine, independently operated at the same linear speed as the feed bands, substantially as described.

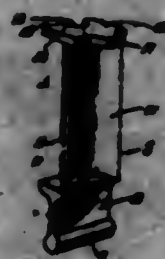
1,304,792. HOISTING ATTACHMENT FOR DUMP-BODIES. JOHN B. MINTON, Hastings, Neb. Filed Jan. 16, 1919. Serial No. 271,410. 1 Claim. (Cl. 21-20.)



A hoisting attachment for the dump body of a vehicle, including bearing members, a shaft journaled therein and having a worm, a frame mounted to swing on the shaft between the worm and the bearing members, an arm extending from and movable with the frame, a shaft

journaled in the frame, a gear secured to the shaft and meshing with the worm, a drum revoluble with the gear, a sheave at the free end of the arm and a hoisting cable mounted on the sheave and secured to the drum.

1,304,793. TURBINE-BUCKET. JAMES LEONARD MOORE, Wallerville, N. Y., assignor to The Kerr Turbine Company, Wallerville, N. Y., a Corporation of New York. Filed June 16, 1916. Serial No. 104,995. 5 Claims. (Cl. 23-77.)



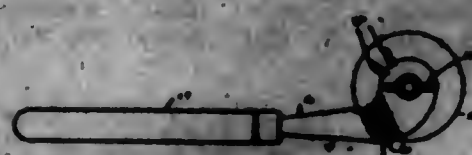
1. A turbine bucket having a transverse flange on the outer end thereof, said flange extending both forwardly and rearwardly of the body of the bucket, one of said extending portions being provided with a projection intermediate its sides, and the other extending portion having a recess complementary to said projection.

1,304,794. RIM FOR MOTOR-CAR WHEELS. RALPH L. MORGAN, Worcester, Mass. Filed May 9, 1916. Serial No. 96,419. 1 Claim. (Cl. 18-7.)



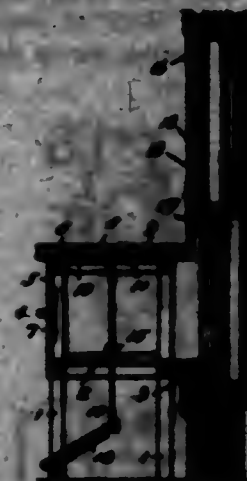
The combination of an annular felly rim having its outer surface beveled in opposite directions on opposite sides of its center and having a series of spaced notches at the apex of said beveled surfaces, a pair of annular channel plates interiorly beveled to fit the exteriorly beveled surface of the felly rim and applied to said exterior beveled surfaces with an open space between their inner edges, right angled flanges projecting outwardly from the outer and inner edges of said channel plates, right angled flanges projecting inwardly from the outer edges of said channel plates and overlapping the rim plate, curved threaded clamping bolts lying in the notches of the rim plate, heads carried by one end of said bolts and nuts carried by the opposite ends of said bolts, said heads and nuts bearing against the flanges at the outer edges of said channel plates, and then held between the outwardly projecting flanges of said channel plates.

1,304,795. DECORATING-TOOL. JOHN MOSCHINI, New York, N. Y. Filed Dec. 9, 1912. Serial No. 265,942. 4 Claims. (Cl. 41-7.)



1. The combination with a decorating tool of the character described having a recess, of a supporting rod having one end removably fitted in said recess, a spool for colored paper rotatably mounted on the other end of the rod, and the intermediate portion of said rod having an offset thumb portion extending beyond the side of the tool.

1,304,796. PHOTOGRAPHIC-PRINTING MACHINE. WASSON H. MOWATT, Alameda, Me. Filed July 19, 1912. Serial No. 246,937. 4 Claims. (Cl. 95-72.)



1. A photographic printing apparatus, comprising a cabinet to be fitted to the lower portion of a window opening and having a light receiving opening in the rear and a negative receiving opening in the top, and a screen supported by the cabinet and adapted to cover the upper portion of the window opening and having a light opening therein and a closure for said light opening.

1,304,797. DEVICE FOR WINDROWING BRANS. JOHN MOWATT, Oakland, Cal. Filed June 17, 1912. Serial No. 266,204. 1 Claim. (Cl. 50-1.)



The combination with a frame having a plurality of supporting wheels and a series of conveyor belts arranged between the wheels and running lengthwise of the frame, of a plurality of curved prongs mounted rigidly to the frame and just clearing the ground, being positioned to project just forward of the foremost ends of said supporting wheels, a revoluble toothed roller mounted above the prongs on arms pivotally secured to the frame and means for vertically adjusting it relative to the prongs, whereby the bean vines raised up by the prongs and roller are delivered to the conveyor belts.

1,304,798. SAFETY APPARATUS FOR ELEVATORS. JOHN MURPHY, Cleveland, Ohio. Filed Nov. 22, 1912. Serial No. 92,719. 9 Claims. (Cl. 157-60.)



1. In apparatus of the class described, the combination with an elevator car of means for effecting the travel of

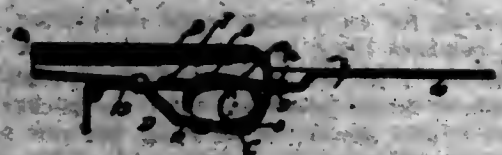
the car, an electro-mechanical locking-mechanism normally acting to render said means inoperative, and an automatic switch associated therewith for interrupting the movement of said means while the car is at rest, said switch being operated by the car operating means for causing it to return to its original position to permit the car to be moved, substantially as set forth.

1,304,799. DOUBLE-HEAD GRINDING-MACHINE. CHARLES H. HENSON, Worcester, Mass., assignor to Norton Grinding Company, Worcester, Mass., a Corporation of Massachusetts. Filed July 7, 1917. Serial No. 179,298. 15 Claims. (Cl. 51-4.)



1. In a grinding machine, means for grinding a curved surface, a work-centering spindle and an alignment member engageable by the spindle and accurately and rigidly positioned to align the latter with the true work-grinding axis, a movable bearing support for said spindle and fine precision means to adjust said support and locate the spindle against said alignment member in correct position for grinding.

1,304,800. NON-REFILLABLE CONTAINER. CHARLES H. NOWACK, Oak Park, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 7, 1916. Serial No. 76,782. 5 Claims. (Cl. 231-12.)



1. A non-refillable container comprising a body, a perforated valve-carrier secured within and to the same, a gravity valve in said carrier and adapted to close the perforation in said carrier, said body having an aperture above said carrier, and a nozzle secured above said aperture, the material of the body being bent inwardly of the body back of said aperture and in front of said valve and cutting off access to the valve from the nozzle to prevent manipulation of the valve from without, said inwardly bent part of the body being interposed between the valve and the open end of the nozzle.

1,304,801. RESILIENT WHEEL-TIRE. CORNELIUS P. O'BRIEN, Omaha, Neb. Filed Mar. 29, 1912. Serial No. 225,600. 8 Claims. (Cl. 188-8.)

1. In a resilient wheel tire, the combination of an annular support having a peripheral groove, an apertured spacing-ring provided with recesses and disposed in said groove, metallic plates each having a part curved transversely and longitudinally and having a pair of flanges provided with slots, said plates being disposed in line and slidably connected to provide a cylindrical, annular part outwardly of said support with their flanges engaging in said peripheral groove, a plurality of bearing-plates each being provided with slots and secured to a flange, bolts traversing the slots of said flanges, the slots of the bearing-plates and the apertures of the spacing-ring, resilient means in the recesses of the spacing-ring normally tending to press the bearing-plates transversely of the spac-

ing-ring, and resilient means within the cylindrical, annular part to normally press the plates outwardly from



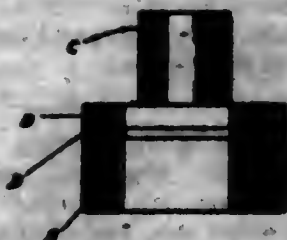
the support, said metallic plates being of such form that the flanges of one plate will engage the flanges of two plates adjacent thereto.

1,304,302. COVER FOR IRONING-BOARDS. FRANK S. PENNY, Chicago, Ill. Filed May 22, 1918. Serial No. 99,000. 2 Claims. (Cl. 68-10.)



1. A covering for an ironing board comprising two independent members lying upon each other, each of said members having a pocket at one end, the pocket of one of the members being telescoped over the pocket of the other member, and means for securing the side edges of each member together.

1,304,303. PROCESS FOR CLEANING CONTACT-POINTS. CARL A. PFANSTIEL, Waukegan, Ill., assignor, by mesne assignments, to Pfanstiel Company, Inc., North Chicago, Ill., a Corporation of New York. Filed July 11, 1914. Serial No. 850,380. 3 Claims. (Cl. 146-3.)



1. The process of cleaning contacts of the class described which consists in subjecting the contacts to the attack of a viscous acid solution, rinsing the contacts in a weak caustic solution and rinsing the contacts in water.

1,304,304. BOLL-COTTON SEPARATOR AND CLEANER. RICHARD H. FURNELL and ROBERT F. BRIDGES, Memphis, Tenn. Filed Aug. 22, 1918. Serial No. 250,960. 3 Claims. (Cl. 13-12.)

1. A device of the character specified, comprising a casing having at its top an inlet for the cotton and at its

bottom an outlet for the trash, a plurality of cleaning means within the casing arranged between the inlet and outlet, one above the other, an endless conveyor in rear of each cleaner, each conveyor comprising a vertically moving endless belt having teeth or projections for engaging the cotton, each cleaning means delivering to the



adjacent conveyor, said casing having an outlet adjacent to each conveyor, means between the conveyor and the outlet for feeding cotton thereto, a pair of crushing rollers below the first cleaning means to which the said means delivers, and means for creating a current of air through the casing to feed the cotton and remove the trash.

1,304,305. EYE-PROTECTOR. HOWARD T. RAYNE, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Oct. 12, 1917. Serial No. 198,118. 5 Claims. (Cl. 3-140.)



2. A lens for an eye protector, including a frangible outer member and a spaced infrangible backing therefor.

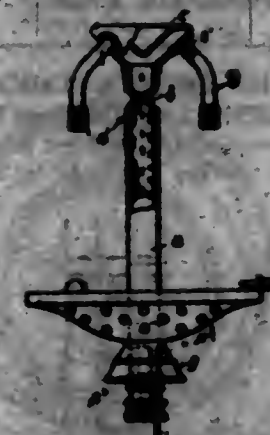
1,304,306. WIRE-FENCE TIGHTENER. ROBERT E. HOSKINS, Florence, Ky. Filed Feb. 20, 1918. Serial No. 210,084. 1 Claim. (Cl. 234-67.)



A wire fence stretcher including an arched foot adapted to fit against the back of a fence post, a threaded stem projecting from the back of the arched foot and having a swivel connection therewith, a handle for turning the threaded stem, a cross head fitted upon the threaded stem and movable toward and away from the fence post by rotating the threaded stem, a handle projecting from the cross head to hold the same against rotation, a pair of chains formed of articulated links and connected to opposite ends of the cross head, and hook members applied

to corresponding links of the side chains and projecting laterally therefrom, any selected pair of hook members being adapted to be brought into engagement with the fence wire.

1,304,307. GAS-BURNER. JACOB I. ROBIN, New York, N. Y. Filed Feb. 14, 1918. Serial No. 217,088. 3 Claims. (Cl. 67-84.)



1. In a gas burner, the combination with a Bunsen burner, of a tube through which flows the mixture of gas and air, and having burner tips, said tube being bent in at a point located intermediate between its ends and adjacent to the end which leads into said tips to form a considerably large and abrupt constriction at the said point whereby the air will be deflected downwardly and toward the gas jet and become thoroughly mixed with the latter.

1,304,308. INTERNAL-COMBUSTION ENGINE. FREDERICK HENRY BOREN, Osmaston, Derby, England, assignor to Rolls-Royce Limited, Osmaston, Derby, England. Filed Aug. 6, 1918. Serial No. 248,542. 6 Claims. (Cl. 129-119.)

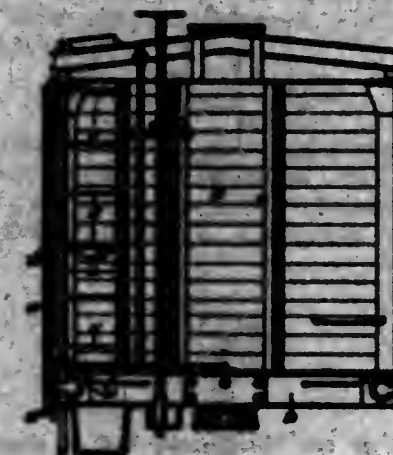


1. In an internal combustion engine having an induction pipe and means for supply of air thereto, the combination of an air chamber interposed between said pipe and air supply means, an air valve in said chamber and means within the air chamber actuable by pressure of environment and including an electric circuit and solenoid adapted to cause said valve to assume and maintain an area of opening dependent on the pressure in the chamber: said area of opening increasing if the pressure falls and decreasing if said pressure exceeds a pre-determined pressure.

1,304,309. LADDER. THOMAS NATHAN BURGESS, Chicago, Ill., assignor to Harry Vissering & Company, Chicago, Ill., a Corporation of Illinois. Filed June 1, 1914. Serial No. 942,218. 6 Claims. (Cl. 238-49.)

2. A ladder comprising, in combination, a pair of stiles apertured for the reception of rungs, and rungs connect-

ing said stiles and inserted thereto, said rungs being provided with ends bent toward opposite sides of said rungs, whereby the rungs may be engaged with or disengaged from said stiles by dropping one stile relative to the other.



1,304,310. METHOD OF POINTING RODS. BURNARD H. SAWYER, Fitchburg, Mass. Filed Dec. 31, 1917. Serial No. 209,749. 3 Claims. (Cl. 51-10.)



1. The method of pointing rods which consists in turning them end over end and causing them to slide with their ends only in contact with a longitudinal grinding surface while their axes make a material angle with said surface.

1,304,311. REINFORCED STRUCTURE AND METHOD OF MAKING SAME. GEORGE A. SCHWICK, JR., Camden, N. J., assignor to Ferdinand Keller, Jr., Philadelphia, Pa. Filed June 13, 1918. Serial No. 239,809. 6 Claims. (Cl. 154-32.)



4. A new article of manufacture consisting of a body of sheet material and stitches therein consisting of a single length of thread formed into a series of loops, each passing through the material in a single channel and terminating on one face thereof in a looped portion constituting a head, adjacent loops being connected on the opposite face of the body by straight portions extending in the same straight line.

1,304,812. COMBINATION ARTICLE. FRANKSCH
SCHLICKER, Frederic, N. D. Filed Aug. 10, 1918.
Serial No. 240,313. 1 Claim. (Cl. 120-1.)



In a device of the class described, a support; a pad carried by the lower end of the support; a hook including a bill; and means for mounting the hook on the support for rotation, whereby the bill may be extended downwardly to overhang the pad.

1,304,813. NON-SKID CHAIN AND TIRE. CHARLES H. SCHMIDT, Chicago, Ill. Filed Apr. 28, 1917. Serial No. 165,260. 2 Claims. (Cl. 182-14.)



1. In a non-skid chain tire, the combination of a tread provided with circumferential and transverse inclined faces, and a chain fitted to said tread adapted to lie between said faces normally out of contact with the roadway, and adapted to be drawn against said faces by the circumferential and lateral skidding of the tire for advancing the chain outwardly into wedging contact with the roadway.

1,304,814. INFLATING-COUPLING. MAXIMILIAN CHARLES SCHWEINERT, West Hoboken, and HENRY P. KRAFT, Ridgewood, N. J. Filed Sept. 7, 1918. Serial No. 49,221. 3 Claims. (Cl. 284-17.)



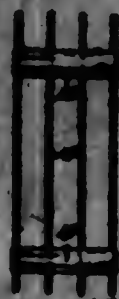
1. An inflating device for pneumatic tires comprising a casing formed of a handle-member having a hose nipple, and a foot projecting beyond said member and having an extension screwing into said member, said casing having a valve chamber formed in the foot, a check-valve in said chamber, and a removable top for the foot partially closing the inner end of said chamber, whereby the check-valve is accessible by unscrewing said foot.

2. An inflating device for pneumatic tires comprising a casing formed of a handle-member having a hose nipple, and a foot projecting beyond said member and having an extension screwing into said member, said casing having a valve chamber formed in the foot, a check-valve and spring in said chamber, and a screw top confining said spring and partially closing the inner end of said chamber, whereby the check-valve and spring are accessible by unscrewing said foot.

3. An inflating device for pneumatic tires comprising a casing formed of a handle-member having a hose nipple,

and a foot projecting beyond said member and having an extension screwing into said member, said casing having a valve chamber formed in such extension, and an outlet chamber formed in the foot, a check-valve in said valve-chamber, and a packing carrier and packing in said outlet chamber, and an annular screw-collar entering said outlet-chamber to confine said packing and carrier, the opening serving to receive the end of a tire-valve and guide the device thereon, and whereby the carrier and packing are accessible by unscrewing said collar.

1,304,815. METAL REINFORCEMENT FOR BRICKWORK, CONCRETE, AND THE LIKE. WYLAN SHARP, Montreal, Quebec, Canada. Filed May 4, 1914. Serial No. 836,966. 3 Claims. (Cl. 72-122.)



1. A reinforcing one piece clip rounded over upon itself at each end having corrugations thereon extending longitudinally thereof.

1,304,816. SIGHT FOR ORDNANCE. THOMAS CHARLES SINGLAI, Newport, Isle of Wight, England. Filed Feb. 26, 1918. Serial No. 379,180. 14 Claims. (Cl. 88-2.2.)



14. In a sighting device for guns, a sight adapted to be secured to a gun and to be adjusted for range and deflection, in combination with an instrument apart from said sight for observing any given target, comprising a lens, a ground glass plate behind said lens and on which the image of any given target may be focused, a pointer adjacent said ground glass plate and adapted to be moved relatively thereto to any point at which the image of the

target is located, and means operatively connecting the pointer and the sight whereby the latter is moved in proportion to the movements of the former to adjust the sight for range and deflection for the target at the image of which the pointer is directed.

1,304,817. NON-PUNCTURABLE RING FOR PNEUMATIC TIRES. FRANK J. SAMPKA, Chicago, Ill. Filed Mar. 17, 1918. Serial No. 84,918. 3 Claims. (Cl. 21-151.)



1. The combination with a vehicle traction wheel provided with a pneumatic tire, of a concave convex punctureless ring of greater diameter than and surrounding said tire, and an adjustable yielding means for centering the tire and maintaining the tire in permanent contact with the convex concave bottom surface of the ring.

1,304,818. SHOCK-ABSORBER. THOMAS SLOAN, Devizes, England. Filed Jan. 8, 1918. Serial No. 210,908. 10 Claims. (Cl. 297-2.)



10. In a shock absorber, the combination with two thrust members whose operative ends are moved apart during the absorption of shock, of a flexible pneumatic chamber whose shape is such that opposite ends of it are held in by inflation and are connected to the operative ends of the said two thrust members, one to each, so that the pneumatic chamber is forcibly extended against the action of the pneumatic pressure when the said ends of the thrust members are moved apart during the absorption of shock, the flexible material of which the walls of the pneumatic chamber are made being built of threads or cords laid approximately parallel with the direction of extension of the chamber for shock absorbing purposes and connected by elastic material.

1,304,819. CYLINDER GRINDING-MILL. OSCAR SOREN, Maderhus, Switzerland. Filed Oct. 26, 1918. Serial No. 87,766. 4 Claims. (Cl. 63-14.)



1. A fine grinding cylinder mill comprising a mill stone, means for rotating the latter, a plurality of concaves co-operating with said stone to form a space between the con-

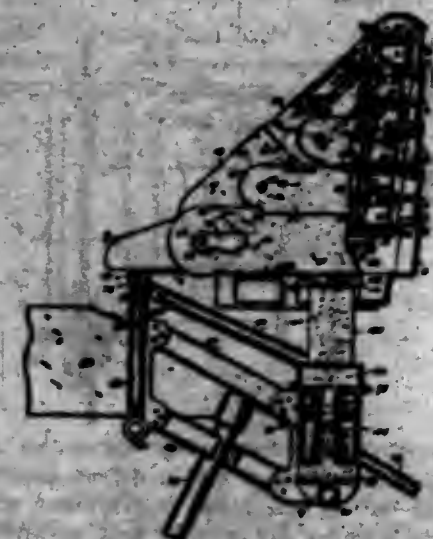
cares and stone continuously diminishing in width in the direction of rotation of said stone, said concaves arranged lengthwise of the stone, a pivot for the concaves parallel to the axis of the millstone and arranged beneath and laterally of said axis, and separate yielding adjusting means for each concave.

1,304,820. ORCHARD-BEATER. CHARLES STOLLBERG, Toledo, Ohio, assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 18, 1918. Serial No. 81,852. 17 Claims. (Cl. 158-01.)



1. An orchard beater comprising a body adapted to contain fuel for burning and a stack therefor, said stack being provided with horizontally disposed corrugations and openings extending through the lower portions of said corrugations, and means for inclining more or less of said corrugations thereby admitting more or less air to the stack.

1,304,821. MOTOR-CYCLE SEAT. ANTHONY STOWAN, Milwaukee, Wis. Filed Apr. 30, 1917. Serial No. 186,237. 4 Claims. (Cl. 298-15.)

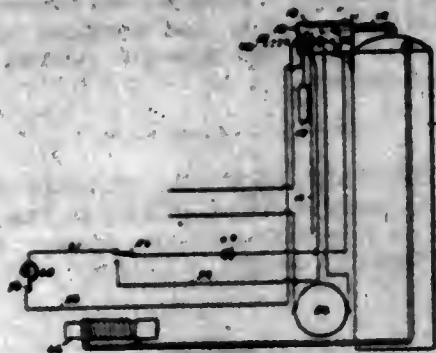


1. A motor cycle seat, comprising the combination with a main saddle frame, of a back composed of a set of telescoping interlocking bows, adapted to slide, one upon the other, into nested position, and means for supporting said back in an extended position.

1,304,822. THERMOSTATIC-CONTROL DEVICE. LAWRENCE R. TURNER, Fort Wayne, Ind. Filed Aug. 9, 1917. Serial No. 188,371. 4 Claims. (Cl. 186-98.)

1. In combination an electric motor-driven pump, an electrical circuit for the motor having two normally open

terminals therein, means to close the said circuit at said terminals, means to lock the latter means in the closing



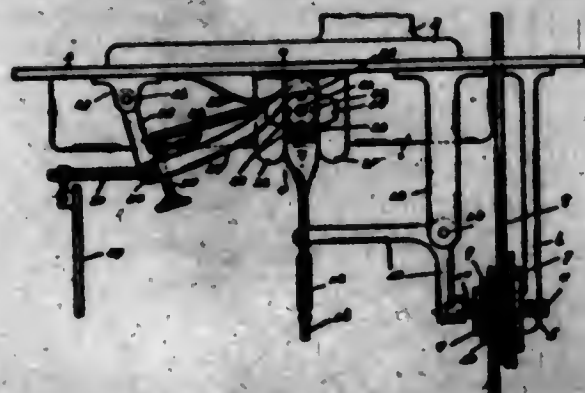
position thereof, electrically actuated means to release the locking means and a thermostat to control the operation of the electrically actuated means.

1,804,823. APPARATUS FOR ELECTRICAL FIXATION OF GASES. BAUXO THOMAS, Seattle, Wash. Filed Apr. 18, 1917. Serial No. 162,800. 1 Claim. (Cl. 204-31.)



In an apparatus for electrical association of gases, a series of horn electrodes disposed about a common central axis and curved to resemble conical hollows having the base of the cone at their free ends.

1,804,824. MACHINE STARTING AND STOPPING MECHANISM. JAMES A. THOMAS, Troy, N. Y., assignor to Cluett, Peabody & Co. Inc., Troy, N. Y., a Corporation of New York. Filed July 9, 1917. Serial No. 179,820. 1 Claim. (Cl. 192-1.)



In a machine-starting-and-stopping apparatus and in combination, a driving member and a driven-member one movable into and out of frictional engagement with the other; a shiftable member for moving said movable member; a rotary cam; a cam-actuated member; a spring-connection between said shiftable member and said cam-actuated member tending to hold said driving and driven members in frictional engagement with each other, and to hold said cam-engaged member in engagement with said cam; and means for imparting at will a step-by-step relative movement to said cam.

1,804,825. WINDOW-REGULATOR. FREDERICK J. TONO, Egg Harbor, N. J., assignor to John H. Marsden, Philadelphia, Pa. Filed Aug. 4, 1917. Serial No. 164,476. 14 Claims. (Cl. 268-4.)

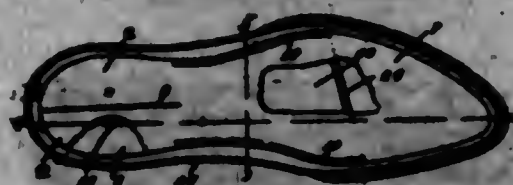
1. The combination with a window member, of a frame within which the same is movable, said frame having a

pocket into which said window member is movable, mechanism for actuating said window member comprising a chain, a detachable connection between said chain and said window member, wheels engaging said chain, means for actuating at least one of said wheels, a unitary sup-



port for said actuating mechanism, means holding said support at its upper end to said frame approximately the upper end of said pocket, and means detachably supporting said support at its lower end to said frame within said pocket.

1,804,826. INSOLE LINING OR PAD. JAMES H. TOSCAN, Jamestown, N. Y. Filed Dec. 30, 1917. Serial No. 208,002. 2 Claims. (Cl. 36-71.)



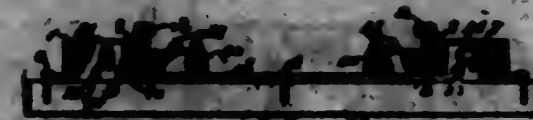
1. In a device of the class described, a lining comprising a tread; a supplemental strip beneath the tread; means for connecting the strip and the tread along a longitudinal line throughout a portion of their length to form flexible wings in the tread at the rear end of the lining; means for connecting the tread and the lining along certain of their edges to form a pocket at the forward end of the lining and to form an opening for the pocket; and a pad in the pocket.

1,804,827. ADJUSTABLE HEAD-LAMP BRACKET. JAMES J. TRACY, Cleveland, Ohio. Filed Oct. 28, 1914. Serial No. 908,974. 6 Claims. (Cl. 340-57.)



1. In a vehicle lamp support, the combination of an arm provided at one end with a cone-shaped recess; a second arm adapted to support a lamp and provided with a complementary projection adapted to fit within such recess; means for clamping said two arms together; fixed stop means on said arms adapted to limit angular movement of the same to prevent the lamp from being tilted above the horizontal; and adjustable stop means adapted to limit the angular movement of said arms in the other direction.

1,804,828. RAIL-FASTENING MEANS. LOUIS VANDERBILT, W. Va. Filed Feb. 27, 1919. Serial No. 379,839. 2 Claims. (Cl. 238-308.)



1. A rail fastening means including a base plate upon which the track rail rests, a tubular guide housing at one end of the base plate, a slide mounted within the guide housing and formed with a clamping head adapted to engage one side of a track rail, a fixed block applied to the base plate and adapted to engage the other side of the track rail, the slide having a hollow formation and having the rear end thereof cut away to provide a clearance space and a shoulder, a bearing plate fitted against the shoulder and formed with a wing which extends into the hollow portion of the slide and cooperates with the walls thereof to hold the bearing plate against longitudinal movement, and a transverse locking wedge extending across the guide housing, said locking wedge being received within the clearance space formed by the cut away portion of the slide and engaging the bearing plate to force the clamping head into a firm engagement with the track rail.

1,804,829. MINING-MACHINE. FRANK L. O. WADSWORTH, Scrivener, Pa., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Feb. 19, 1912. Serial No. 678,867. Renewed Oct. 12, 1918. Serial No. 267,802. 5 Claims. (Cl. 262-39.)

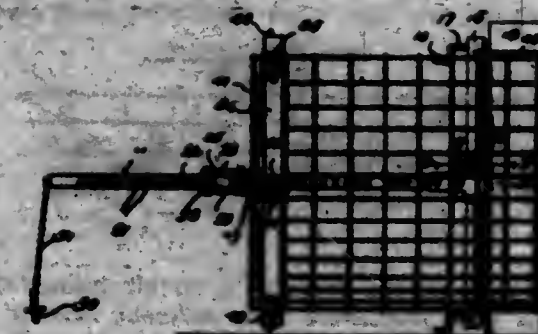


1. Feed guide mechanism for mining machines comprising in combination, a flexible guiding element having its free ends adapted for attachment to fixed points of support in the mine at the front and rear of the machine and engaging the machine respectively at the cutter end and at the opposite or over-end, a guiding element driving mechanism on the machine, a movable take-up around which the flexible element passes, interposed between the driving mechanism and one of said fixed points of support, whereby the angular position of the machine frame may be varied by movement of said movable take-up, and connections from the driving mechanism arranged to actuate said take-up in either direction.

1,804,830. WIRE-STRETCHER. FRANK WAYMAN, Princeton, Mo. Filed Apr. 11, 1918. Serial No. 327,985. 4 Claims. (Cl. 244-72.)

1. In a wire stretcher, a rack bar having longitudinal grooves in its opposite faces, a lever straddling said bar,

plus projecting inwardly from said lever and being engaged in said slots, a traveler on said bar, links connected at one end to said pins, and at their opposite ends to said traveler, and gripping means carried by said traveler.

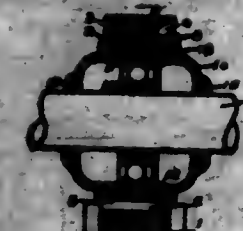


1,804,831. CONTINUOUS BRICK KILN AND DRIER. HENRY WAGNER, Newport, Ky., and WILLIAM B. KINCARD, Cincinnati, Ohio. Filed Nov. 26, 1917. Serial No. 304,032. 5 Claims. (Cl. 25-139.)



1. A kiln of the character described including a body having a series of communicating compartments therein the tops of which are provided with fuel passages, a main flue provided in the body and a furnace communicating with the bottom of each compartment and with the main flue.

1,804,832. PLUMBER-BLOCK FOR ANTI-FRICTION BEARINGS. HENRY HJALMAR WALOOD, Winslow, Gotteberg, Sweden, assignor to Nordiska Kullager Aktiebolaget, Gotteberg, Sweden. Filed Mar. 12, 1919. Serial No. 282,198. 4 Claims. (Cl. 64-36.)

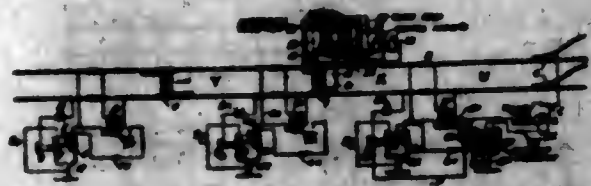


1. In a bearing block for anti-friction bearings, the combination of an undivided bearing frame provided with internal spherical segments separated by recesses, and a sleeve adapted to enclose the anti-friction bearings and provided with external segments, so that the sleeve may be freely introduced into the frame from the side and subsequently tilted so as to prevent the bearing from becoming displaced in an axial direction.

1,804,833. AUTOMATIC TRAIN-CONTROLLING MEANS. MAXIMILIAN WEIL, New York, N. Y., assignor, by mesne assignments, to Automatic Railway Control Company, Inc., New York, N. Y. Filed Jan. 10, 1914. Serial No. 812,944. 30 Claims. (Cl. 246-40.)

2. In a railway system, means for detecting on a train the condition of the track ahead including exter-

mal sources of currents of different predetermined frequencies, track circuits for controlling said currents each in accordance with a different track condition, a plu-



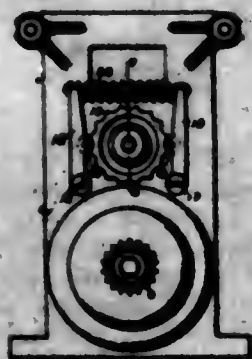
rality of devices on the train in a circuit connected to said sources each responsive to a different current frequency, and a separate magnet controlled by each frequency responsive device.

1,304,534. CONCEALED FASTENING FOR WALL-FIXTURES. ARTHUR J. WISS, West Orange, N. J., assignor, by mesne assignments, to J. B. McCoy & Son, New York, N. Y., a Corporation of New York. Filed Nov. 24, 1915. Serial No. 63,208. 1 Claim. (Cl. 240-85.)



In concealed fastenings for wall fixtures, a plate, a bifurcated clip secured at one end to and offset from the back of said plate, the bifurcated legs of said clip being free, one of said legs being provided with a frictional surface, a securing element adapted to be fitted in a wall, a cap adjustable on said securing element and adapted to cooperate therewith, a flange projecting outwardly from said cap, said flange being adapted to fit between the bifurcated legs of the clip and the plate.

1,304,535. IGNITION SYSTEM. LEO J. WHELAN, Arlington, N. J., assignor to Spittford Electrical Company, Newark, N. J. Filed Sept. 30, 1918. Serial No. 256,515. 8 Claims. (Cl. 123-184.)



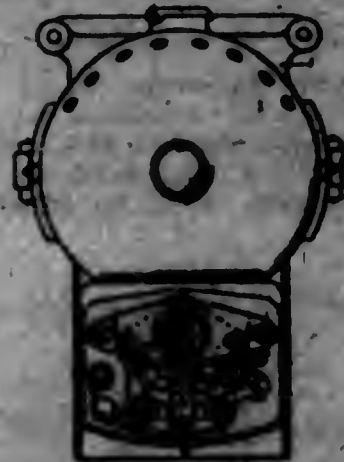
1. An ignition system for internal combustion engines comprising ignition means including a service generator driven by the engine and having primary and secondary windings for furnishing sparking current, a starting generator having a generating winding, means for connecting said winding to the primary of the service generator for delivering current thereto, and means for stopping the starting generator in a predetermined position for the purpose described.

1,304,536. IGNITION SYSTEM. LEO J. WHELAN, Arlington, N. J., assignor to Spittford Electrical Company, Newark, N. J. Filed Sept. 30, 1918. Serial No. 256,516. 9 Claims. (Cl. 123-184.)



1. An ignition system for internal combustion engines comprising ignition means including a service generator driven by the engine and having primary and secondary windings for furnishing sparking current, a starting generator having a generating winding normally inoperative, means for connecting said winding to the primary of the service generator for delivering current thereto, and means for rendering the starting generator winding operative.

1,304,537. CIRCUIT-BREAKER. LEO J. WHELAN, Arlington, N. J., assignor to Spittford Electrical Company, Newark, N. J. Filed Nov. 16, 1918. Serial No. 262,775. 6 Claims. (Cl. 123-103.)



1. In a circuit breaker mechanism the combination of a base plate having a hole therein, a breaker base having a pilot to fit the hole in said base plate and carrying breaker parts consisting of stationary and movable members, a yoke fastened to but spaced apart from said base plate and carrying a bearing, a bushing movably fitted in said bearing and carrying a yoke having studs attached to said breaker base and means associated with said bushing for moving it and the breaker base as described.

1,304,538. SOIL PREPARER AND CULTIVATOR. THOMAS M. WHELAN, Chicago, Ill. Filed Jan. 13, 1919. Serial No. 270,827. 9 Claims. (Cl. 92-85.)

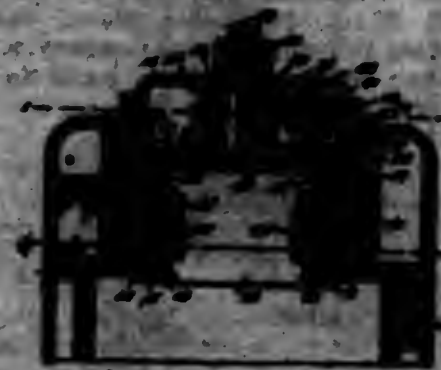
1. In a machine of the class described, the combination with a main frame, of a drive shaft journaled thereon,



traction wheels on said shaft, and a cutter carrying shaft consisting of a plurality of aligned sections inde-

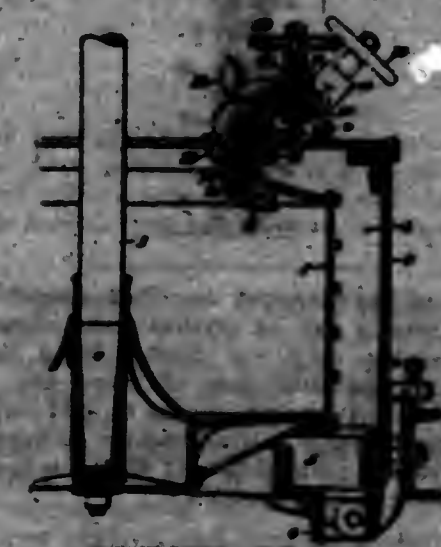
pendently mounted on the machine and geared to the drive shaft for transmitting rotary motion to the outer shaft from said wheels, the alternate sections of the cutter shaft being detachably mounted on the machine.

1,304,539. ROTARY VALVE FOR INTERNAL-COMBUSTION ENGINE. FRANK A. WHITE, Des Moines, Ark. Filed Apr. 2, 1918. Serial No. 236,351. 7 Claims. (Cl. 133-88.)



1. In a rotary valve for gas engines, the combination of a cylinder head having an opening therethrough with a flange at the inner end of the opening, a valve seat fitted to the flange, a cap secured in the outer end of the opening against the valve seat to hold it in place, a valve bearing against said seat, a removable head fitting in the upper end of the valve and adjustable pin carried by the cap and engaging the head to maintain it in the valve and take up thrust, means supported on pin for turning the valve, a hear in the valve, and means for holding the valve seat and the hear from turning, said valve seat and hear having ports registering with the intake and exhaust passages of the cylinder, and the valve having two ports adapted to register with the ports in the seat and the hear.

1,304,540. ATTACHMENT FOR CENTRIFUGAL MACHINES. JOHN M. S. WILLIAMS, Honolulu, Hawaii. Filed Dec. 6, 1917. Serial No. 205,523. 7 Claims. (Cl. 232-46.)

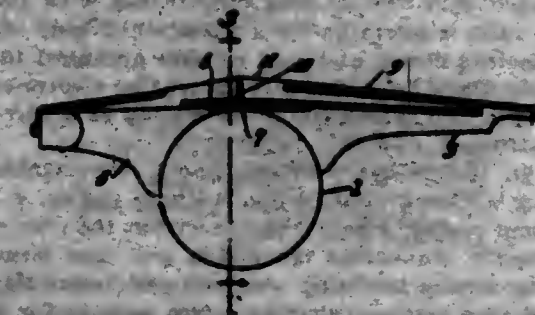


1. In a centrifugal machine for separating sugar crystals from noncrystallized material, a revolving impervious basket, means for gathering the material and conveying the same from the basket, and means for discharging the material and for forcibly discharging the same.

1,304,541. BRIDGE-PLATE FOR VIOLINS. ROBERT L. TUNNICLIFFE, Cove in Rock, Ill. Filed Dec. 28, 1918. Serial No. 267,864. 3 Claims. (Cl. 94-44.)

1. In a violin the combination with a circular body having a vibratory side wall, a rod extending through the

top of the body at one side, and means for transmitting vibrations from the rod to said walls of a neck piece extending from the body and having a fret strip thereon, a base plate extending under and out of contact with



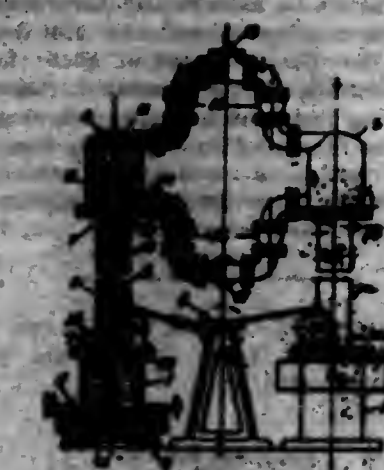
fret strip and bearing on the neck piece, a block upon one side portion of the top of the body, said block and the rod supporting opposite portions of one end of the plate, and a bridge mounted on the plate opposite the rod and block.

1,304,542. PROCESS OF EXTRACTING METAL VALUES. WALTER ZACHARIAH, Neville Island, Pa. Filed Mar. 25, 1915. Serial No. 16,860. 7 Claims. (Cl. 75-54.)



1. In apparatus of the character described, a plurality of containers for solvents, means for supporting the containers and the contained solvents in a substantially balanced state, means for suspending material to be treated, and means for moving the contained solvents into and out of contact with said material.

1,304,543. CIRCULATING-PUMP. WALTER ZACHARIAH, Pittsburgh, Pa. Filed Apr. 12, 1915. Serial No. 20,867. 4 Claims. (Cl. 109-87.)



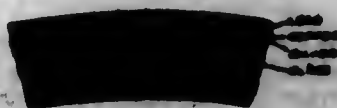
1. In a pump of the character described, an electro-magnetic motor including a casing, an electro-magnet adapted to be reciprocated outside of the casing, means for moving the electro-magnet, a core member within said casing adapted to be reciprocated by the electro-magnet, a pump chamber spaced from the said casing having inlet and discharge connections, means forming an open communication between the interior of the casing and the pump chamber and cooperating with the casing to form a reservoir for a maintained body of fluid, and means for cooling the maintained body of fluid.

2. In an electro-motor-driven pump, the combination comprising a core casing, a pump casing, a piston in the pump casing, a core member within the core casing, means connecting the piston and core member, means surrounding the said connecting means and forming a communication between said casings and cooperating with the core casing to form a reservoir for a maintained body of fluid, said connecting means and core member arranged to move in the maintained fluid, and a reciprocating electro-magnet without said core casing for reciprocating said core member and piston.

3. In an electro-motor-driven pump, the combination comprising a closed core casing, a pump casing, a piston in the pump casing, a core member within the core casing, a rod directly connecting the piston and core member, a rod casing, means including said rod and connecting said pump and core casings, whereby a free passage for fluid is provided between said casings, and a reciprocating electro-magnet without said core casing for reciprocating said core member and piston.

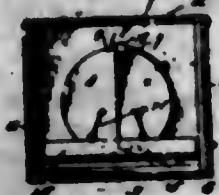
4. A high pressure pump for hot liquids comprising in combination an electro-magnetic motor including a closed casing, and an electro-magnet adapted to be reciprocated outside of said casing, a core member within said casing adapted to be reciprocated thereby, and means for reciprocating said electro-magnet, a pump casing including inlet and discharge connections, a rod connecting said pump piston and the core member, and a rod casing connecting the pump casing and the core casing to form a free fluid passage between the pump casing and the core casing.

1,304,844. SEARCHLIGHT AND OTHER MIRROR. ALBERT MOON PARKER, Brighton, England. Filed Oct. 14, 1918. Serial No. 258,112. 2 Claims. (Cl. 36-1.)



1. A searchlight or other mirror having a reflecting and protective backing comprising a homogeneous and non-porous reflecting metal film deposited by intermingling suitable chemical solutions and directing them on to the glass or like surface, a thin film of a metal of good thermal conductivity deposited electrolytically on the reflecting film so as to be metallically incorporated therewith and an outer coating of malleable and ductile metal deposited upon the film of metal of good thermal conductivity and metallically incorporated therewith such outer coating being resistant to air, injurious gases, moisture and heat, the films and outer coating forming a compound metallic coating in metallically adherent laminations adherent to the glass through the agency of the reflecting film substantially as set forth.

1,304,845. TRAP-NEST. FRANK D. BARNES, Cummings, Calif. Filed Oct. 9, 1917. Serial No. 195,556. 2 Claims. (Cl. 110-48.)



1. A device of the class described including a receptacle provided with an entrance opening, a closure member for said opening, an intermediately pivoted platform in the receptacle controlling movement of the closure member, said closure member being provided with a locking recess,

a spring supporting member in the receptacle, a leaf spring mounted on said supporting member and having one portion adapted for interlocking engagement in the recess of the closure member, a staple loosely embracing a portion of the leaf spring, a finger member on the staple and a lateral wing on the staple adapted to extend between the spring and supporting member to hold the spring from engagement in the recess of the closure member.

1,304,846. WARP-REFRESHING MECHANISM. CHARLES H. BLAIR, Dorchester, Mass., assignor to American Warp Drying Machine Company, a Corporation of Maine. Filed Oct. 2, 1911. Serial No. 688,281. 14 Claims. (Cl. 129-94.)



1. In a transfer device for transferring the work with relation to a drawing-in machine the combination with a transfer truck, of upright wavy beam supports thereon and pivoted collapsible harness transfer supports carried thereby.

1,304,847. RACK FOR BOOTS AND SHOES. JOSEPH WILFRIED BLAIS and GEORGES LACROIX, Montreal, Quebec, Canada. Filed June 22, 1917. Serial No. 176,494. 2 Claims. (Cl. 211-14.)

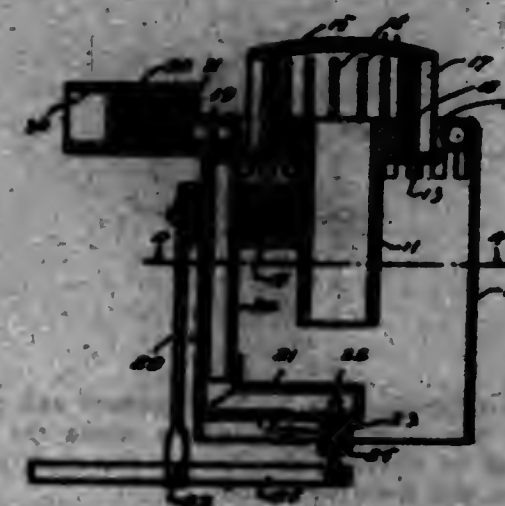


1. A rack of the character described, comprising a pair of end members, a pair of vertical posts connected with each end member, each end member being disposed between the corresponding pair of posts and each post having recesses, and shelves carried by said end members, each shelf comprising a pair of foldable sections the outer ends of which are adapted to rest within said recesses to retain the posts in open position.

1,304,848. HYDROCARBON-BURNER. LEVI M. BOWMAN, Tulsa, Okla., assignor of one-half to W. A. Smith, Tulsa, Okla. Filed June 26, 1918. Serial No. 241,817. 2 Claims. (Cl. 186-69.)

1. In a burner of the class described, the combination of a casing, an air tube disposed therein and having an annular supporting flange adjacent its upper end, a burner cap supported by said flange, an arm extending from said air tube and through said casing, a cracking chamber having a portion surrounding said burner cap and another portion depending below the same and en-

tending through said arm of the air tube, valve means disposed beneath said air tube for controlling the flow of



gas from the cracking chamber into the air tube, and means supported by said arm of the air tube for adjusting said valve.

1,304,849. SOFT-METAL ALLOY. PETER S. BRAUCHER, Reading, Pa. Filed Feb. 4, 1919. Serial No. 274,902. 4 Claims. (Cl. 75-1.)

1. A soft metal alloy containing eighty-nine per cent. of lead and one-quarter of one per cent. of phosphorus.

1,304,850. MEANS FOR TIGHTENING EYEGLASS-LENNERS. JOHN BRACHNER, Toronto, Ontario, Canada. Filed Feb. 10, 1919. Serial No. 276,042. 2 Claims. (Cl. 98-42.)



2. Means for tightening eye glass lenses, comprising, a series of thin metal strips of graduated thickness adapted to be placed between the lens and the bridge and having side holding lugs to secure them in position.

1,304,851. METHOD OF MAKING PLASTIC ARTICLES. WILLIAM J. BURKE, Bridgeport, Conn., assignor to The Pearless Vulcanite Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 2, 1918. Serial No. 112,946. 1 Claim. (Cl. 18-55.)

The method of making plastic articles which consists in subjecting a plastic composition while in a die to successive pressing operations under heat until wholly shaped to the desired contour, and then subjecting the shaped article while in the same die to successive pressing operations under the influence of a cooling medium until the article is sufficiently cooled to permit removal thereof.

1,304,852. STORAGE-BATTERY PLATE AND PROCESS OF TREATING SAME. RUFUS N. CHANDLER, Chicago, Ill., assignor to Gould Storage Battery Company, a Corporation of New York. Filed May 12, 1918. Serial No. 97,835. 10 Claims. (Cl. 204-69.)

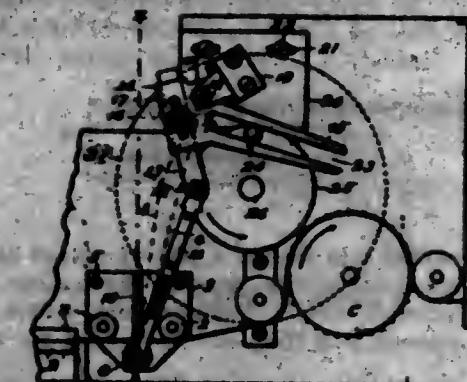
1. The process of treating formed storage battery negative plates which consists in immersing them from 4 to 6 hours in a sulfate of zinc solution.

1,304,853. GARMENT-PRESSING MACHINE. HENRY H. CHASE, Syracuse, N. Y., assignor to United States Hoffman Machinery Company, Syracuse, N. Y., a Corporation of Delaware. Filed Sept. 4, 1917. Serial No. 180,546. 5 Claims. (Cl. 68-6.)



1. The combination with a garment pressing machine having means for supplying moisture to a garment between the pressing elements, of mechanical means within one of the pressing elements for removing said moisture.

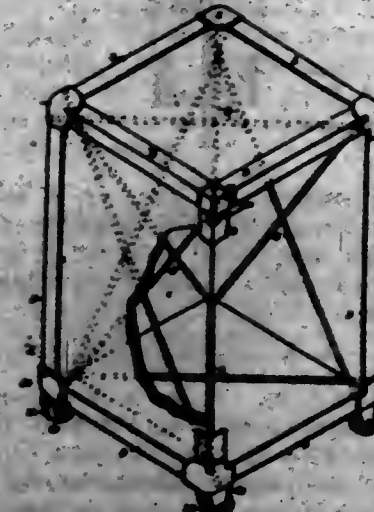
1,304,854. MECHANICAL MOVEMENT FOR MOTION-PICTURE MACHINES. EDWIN W. CLARK, Kansas City, Mo., assignor to Photo Motion Company, a Corporation of Missouri. Filed July 19, 1918. Serial No. 69,670. 2 Claims. (Cl. 74-14.)



1. A mechanical movement consisting of a constantly rotating driver, a driven member extending clear across the rotary path of and operated at variable speed during each revolution of said driver, a pitman actuated by said driven member, and a film-engaging member actuated by said pitman.

2. A mechanical movement consisting of a rotary driver, an oscillatory crank actuated by said driver and provided with a shank, an arm adjustably secured to said shank, a pitman pivotally connected to said arm, a film-engaging member carried by said pitman, a guide for said film-engaging member, and two additional film-engaging members mounted at opposite sides of the path of the first film-engaging member.

1,304,855. FIREPROOF SAFE. ARTHUR D. COULSON, Seattle, Wash. Filed July 15, 1918. Serial No. 244,998. 2 Claims. (Cl. 100-2.)



2. A safe having its side walls composed of slabs of a heat-resistant and insulating stone, the rods extending

diagonally of and against the inner surface of said side walls, metal caps exteriorly covering the corners of the safe to which said tie rods are anchored, angle bars covering the exterior edges of the safe and having their ends extending beneath said caps.

1,304,856. COMBINED FLASH-LIGHT AND MIRROR. CARL WILLIAM DALEMAN, Deary, Idaho. Filed June 10, 1918. Serial No. 239,267. 3 Claims. (Cl. 240-8.5.)



1. In a flashlight of the character described, a casing having an initially open end and side, a swinging lid adapted to close said end and side of the casing, a mirror mounted on the inside of the lid, and an electrically lighted bulb carried in the casing and exposed through the lid and positioned to illuminate the mirror when the lid is in open position.

1,304,857. GUN AND PROJECTILE THEREFOR. LUCKY C. DAVIS, Boley, Okla. Filed Jan. 7, 1918. Serial No. 210,651. 3 Claims. (Cl. 89-14.)



2. A breech loading gun having a pair of spaced barrels, having a slot connecting the barrels throughout their lengths, and having a firing chamber with which communicate both barrels and the slot throughout its width.

1,304,858. BALLOON EQUILIBRIUM DEVICE. JOHN DUCOWSKI, McKees Rocks, Pa., assignor of one-half to Michael Moudon, McKees Rocks, Pa. Filed Jan. 2, 1919. Serial No. 269,303. 4 Claims. (Cl. 244-3.)



1. A balloon comprising a gas bag, a socket member suspended therebeneath, a ball mounted for universal movement within said socket member, a threaded shaft depending from the ball, a passenger car adjustably locked upon said shaft.

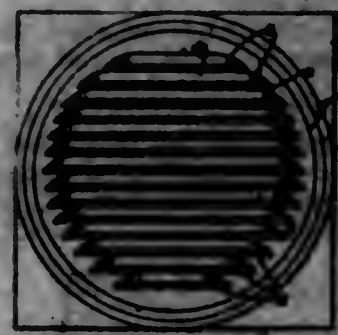
1,304,859. MEAT-SAW. FLOYD E. DOSSING, Stone, Ky. Filed July 7, 1917. Serial No. 179,205. Renewed Feb. 12, 1919. Serial No. 270,000. 1 Claim. (Cl. 143-42.)
A meat saw comprising a saddle having downwardly divergent perforated ears and having also an upwardly directed suspending eye, spaced aligned bearing mem-

bers, a helical suspending spring connecting each bearing member with the corresponding perforated ear, a mirror shaft journaled in said bearing members, a saw fixed



to the shaft between the bearing members and guiding means for the bearing members over which the saddle is fixed and in which guiding means the shaft is movable toward and from the saddle.

1,304,860. AUTOMOBILE-LAMP SHADE. FRANCIS J. DOTA, New York, N. Y., assignor of one-half to Harold D. Pannay, Pelham, N. Y. Filed July 1, 1918. Serial No. 37,449. 4 Claims. (Cl. 240-43.5.)



1. An automobile lamp shade composed of a single sheet of flexible translucent material having a plurality of parallel portions expressed from said sheet to form louvers, and a plurality of circular expansions in said sheet concentric with one another and surrounding said louvers, said circular expansions defining the various sizes to which the sheet may be cut to accommodate the various sizes of lamps to which the shade may be attached.

1,304,861. SEWING-MACHINE. CLARENCE L. DU BOIS, Woodbury, N. J., and WILLIAM PATTER, Philadelphia, Pa., assignors to The Industrial Manufacturing Company, Camden, N. J., a Corporation of New Jersey. Filed May 18, 1918. Serial No. 26,885. 1 Claim. (Cl. 112-34.)



In a sewing machine the combination of overman stitch forming mechanism, and a presser foot provided with a chaining point to the right and back of the needle and parallel with the foot and having superposed sliding thread guide notches, and means for operating said parts, substantially as described.

1,304,862. FIRE-TRAITING DEVICE. HOWARD M. DOWLER, Philadelphia, Pa. Filed June 15, 1918. Serial No. 240,326. 20 Claims. (Cl. 8-18.)



1. In a fire traiting device, in combination, a spindle comprising a spiral spring carrying a series of spaced members.

1,304,863. FIRE-TRAITING DEVICE. HOWARD M. DOWLER, Philadelphia, Pa. Filed June 15, 1918. Serial No. 240,344. 3 Claims. (Cl. 8-18.)



1. In a fire traiting device, in combination, a series of spaced members having openings therethrough and a series of split springs passing through said openings and supporting said members.

1,304,864. STEAM-ENGINE. JAMES L. HOWARD, Dallas, Tex. Filed Jan. 18, 1918. Serial No. 212,420. 2 Claims. (Cl. 121-34.)



2. In a steam engine, the combination with an engine block having vertical cylinders and a live steam chamber on one side of the cylinders and an exhaust chamber on the other side of said cylinders, the cylinders having ports communicating with the chambers, a rotary exhaust valve controlling the passage of steam through the exhaust ports, a rotary steam valve, a rocking jacket controlling the passage of steam from the steam valve through the inlet ports of the cylinders, a crank shaft mounted above the cylinders, and pistons connected with and operating the crank shaft, of a governor operated by the crank shaft and having connection with the steam valve jacket for rocking the same, a prime mover

288 G. G.—37

operated by the crank shaft, a reverse element driven by the prime mover and constructed to be shifted to reverse motion, and driving connections between the reversing element and the valves.

1,304,865. BOAT CONSTRUCTION. HERA KILLER FAIRLO, Springfield, Mo. Filed Aug. 2, 1918. Serial No. 240,030. 1 Claim. (Cl. 114-62.)



In a boat construction, a hull composed of a mid section and lateral sections, the lateral sections being half hull sections, and each having a keel, a stem and a stern post, the half sections being arranged in spaced relation, a transverse connection between the half sections, the space between the hulls being sheathed to provide water tight cargo space, and said sheathing having a greater inclination at its ends than at the ends of the half sections.

1,304,866. CASING. GEORGE O. FLOYD, Riverside, Ill. Original application filed Aug. 16, 1917. Serial No. 188,888. Divided and this application filed Jan. 22, 1918. Serial No. 274,601. 7 Claims. (Cl. 74-56.)



6. The combination of a sheet-metal shell having a curved aperture wall with depressions on opposite sides of said aperture providing opposed shoulders and a curved sheet-metal cover for said aperture of sharper curvature than that of said shell wall and provided with depressions forming opposed internal shoulders, whereby the cover may be sprung into place over said aperture and retained in position by the shoulders thereof cooperating with those of the shell, substantially as described.

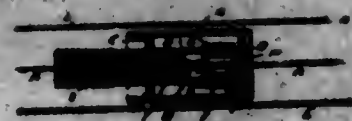
7. The combination of a sheet-metal shell having a curved aperture wall and depressions on opposite sides of said aperture with edges of the metal exposed at these portions of the depressions nearest each other, and a cover of a sharper curvature than that of the shell wall and provided with depressions forming opposed internal shoulders of the edges of the metal of such depressed parts, whereby the cover may be sprung into place and retained therein by said cooperating metal edge shoulders, substantially as described.

1,304,867. SHAFT-OPERATING DEVICE. GEORGE O. FLOYD, Riverside, Ill. Original application filed Aug. 18, 1917. Serial No. 188,888. Divided and this application filed Apr. 12, 1918. Serial No. 228,000. 10 Claims. (Cl. 74-32.)



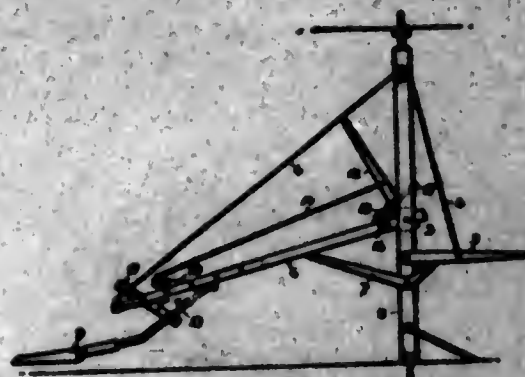
8. In an appliance of the character described, the combination of a rotatable hollow-shaft and an operating mechanism for said shaft comprising a shaft-engaging portion, a handle-portion, and a pair of links pivoted to each of said portions, substantially as described.

1,304,948. WIRELESS-TELEGRAPH TRANSMITTER. CHARLES SAMUEL FRANKLIN, London, England, assignor to Marconi Wireless Telegraph Company of America, New York, N. Y., a Corporation of New Jersey. Filed Feb. 26, 1919. Serial No. 279,897. 6 Claims. (Cl. 286-17.)



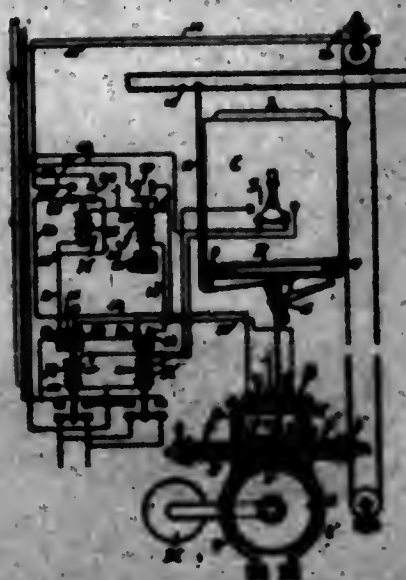
1. A wireless telegraph transmitter comprising a closed oscillating circuit in which each of the three elements, the condenser, the inductance and the spark gap, is arranged symmetrically upon a common axis.

1,304,949. COAL-LOADING MACHINE. HENRY THOMPSON FRANKLIN, Dawson, W. Va., assignor of one-half to Matt Edward Hood, Dawson, W. Va. Filed Nov. 26, 1918. Serial No. 264,104. 2 Claims. (Cl. 214-186.)



1. Means for loading coal, consisting of a post, an arm pivoted to said post, a shovel having a handle provided with link connection with said arm, a spring connecting the arm with said handle, a hand lever having connection with the rear link to retract the shovel and put said spring under tension, releasable means for retaining said lever in position with the spring under tension, said spring acting to thrust the shovel forwardly upon release of said retaining means, and means for raising the arm and the shovel.

1,304,970. ELECTROMECHANICAL BRAKE APPARATUS. EMMETT L. GALT, JR., Yonkers, N. Y. Filed Feb. 15, 1917. Serial No. 145,800. 20 Claims. (Cl. 187-28.)



1. Brake apparatus comprising a rotatable member, friction means coacting with the said member, plural de-

vices providing relatively light and hard braking pressure, and means to control the pressure devices to operate successively to apply their pressure.

1,304,971. SOIL-SURFACE PULVERIZER. SEYMOUR H. GARDY, Moline, Ill. Filed Oct. 26, 1916. Serial No. 128,155. 1 Claim. (Cl. 55-77.)



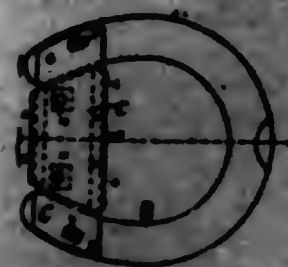
In a machine of the character specified, the combination with a carrying frame and a transverse shaft mounted thereon, of a gang of soil pulverizer and packing wheels mounted upon said shaft, the periphery of each of said wheels being tapered on both sides of the center of the circumference thereof to provide packing surfaces, and the circumference of each of said wheels between the tapered surfaces being provided with relatively thin and wide blades which are adapted to penetrate the crust or clods of earth and to shear their way through the same as the wheel rotates, substantially as specified.

1,304,972. CIRCULAR-SAW TABLE. OTTO J. GUNSEN, Tacoma, N. Y. Filed Aug. 26, 1917. Serial No. 157,217. 6 Claims. (Cl. 145-82.)



1. A work supporting and feeding device for saw tables, including work supporting portions movable to bring work into and out of engagement with a saw and supplemental work supporting means adjustable correspondingly to the movement of the said supporting portions and disposed to receive thereupon work supported by said supporting portions and movable by work engaged thereupon with the said work supporting portions.

1,304,973. MEANS FOR DOUGHING HORSES AND MULES. BURNHAM PARMONY GRAY, Sutton Coldfield, England. Filed Dec. 5, 1918. Serial No. 262,822. 6 Claims. (Cl. 169-68.)



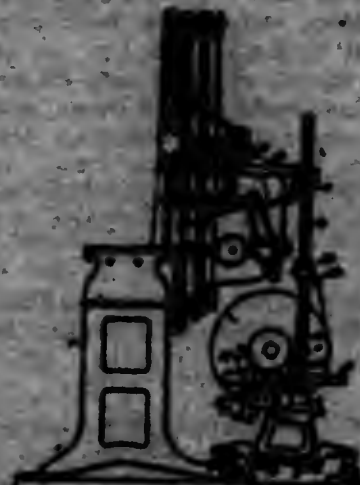
4. A roughing device for a harness comprising a cross-bar adapted to open the ends of a chow, a roughing bar, and headstall means for detachably securing the roughing bar on the cross-bar.

1,304,974. AUTOMATIC HOBBING-MACHINE. FRED H. GANNON, Rockford, Ill., assignor to Howard C. Colman, Luther L. Miller, and Harry A. Severson, Co-partners, doing business as Barber-Colman Company, Rockford, Ill. Filed July 17, 1918. Serial No. 100,697. 45 Claims. (Cl. 99-4.)



2. A hobbing machine having, in combination, a spindle; a work-carrying arbor arranged to be rotated by the spindle; a hob; means for rotating the hob in timed relation to the rotation of the arbor; means for feeding the hob; means for aligning the arbor with the spindle; and means for longitudinally moving the arbor into operative relation to the spindle.

1,304,975. WARP-REPLENISHING MACHINE. EDGAR F. HATHAWAY and CHARLES LEE, Boston, Mass., assignors to American Warp Drawing Machine Company, a Corporation of Maine. Filed Oct. 30, 1911. Serial No. 697,025. 15 Claims. (Cl. 139-34.)



1. In a transfer device for a warp replenishing machine, the combination with a wheeled truck of relatively adjustable standards thereon, a warp beam holder on each standard comprising a vertically adjustable holding member, a toothed jaw thereon, and an inclined rest for the warp beam.

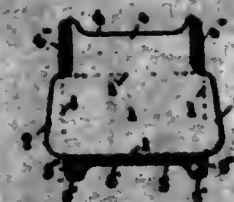
1,304,976. FISHING-LINE SUPPORT. EMMETT A. HANDEMAN, Richmond Hill, N. Y. Filed Feb. 9, 1917. Serial No. 147,004. 2 Claims. (Cl. 68-57.)



1. The combination, in a fishing line support, of a bar having in its central part two communicating recesses formed so that the bottom of both recesses are

relatively right angularly disposed, a fixed sleeve on one end of the bar, partly overhanging one of the ends of the recesses, another sleeve slidably adjustable on the second end of the bar toward and from the fixed sleeve, and means on the bar whereby the bar may be releasably attached to a support.

1,304,977. WINDOW-ENVELOP. VINCENT E. HATWOOD, Worcester, Mass. Filed Dec. 21, 1918. Serial No. 126,100. 1 Claim. (Cl. 220-71.)



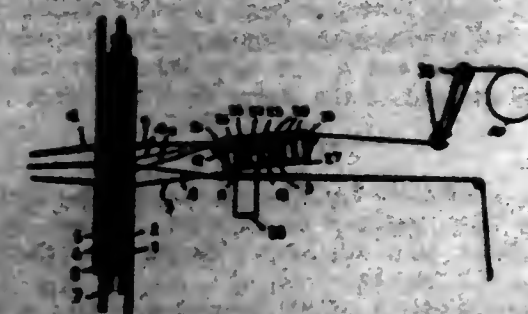
As an improved article of manufacture, a window envelop, comprising a body having two side flaps, and a top flap, and a bottom flap, the top flap and the bottom flap recessed or cut out on their edges to provide a window or opening, and having projections thereon extending beyond the recessed portions, which projections are adapted to butt against each other, and form the ends of the window or opening, and said top and bottom flaps extending over the side flaps, and gummed thereto.

1,304,978. WHEEL-RIM ATTACHMENT. FRANCIS HICKMAN, Bound Brook, N. J., assignor of one-half to Bound Brook Oil-Less Bearing Company, Bound Brook, N. J., a Corporation of New Jersey. Filed Sept. 6, 1918. Serial No. 262,823. 2 Claims. (Cl. 188-81.)



1. The combination with a tire having tire-holding flanges, of rim attachments consisting of rings loosely applied to the flanges and rim and each having an inwardly projecting stop means to engage an inner portion of the adjacent flange and an outer stop means to engage an outer part of each flange, the inner part of each ring being engaged by a portion of the tire and the rings held in place in contact with the flanges and the rim by the lateral pressure of the tire against the inner portions of the rings when the tire is applied to the rings.

1,304,979. PILE-FABRIC LOOM. HENRY J. HORN, Sanford, Me. Filed Aug. 31, 1917. Serial No. 100,694. 2 Claims. (Cl. 129-88.)



1. In a pile fabric loom for weaving figured goods, the combination with a warp beam carrying a plurality of pile warp threads which are divided into groups or sets,

of a separate harness frame controlling each set of pile warp threads, means for actuating said harness frames selectively, and a separate tension rod for each set of pile warp threads, said tension rods being independent from each other, and each tension rod being sustained entirely by the warp threads of the corresponding set.

1,804,880. RASH-HOLDER. GUSTAV JONAS THORSON IVERSEN, Point Roberts, Wash. Filed June 7, 1917. Serial No. 173,830. 2 Claims. (Cl. 16-54.)



1. A combination with a window sash having a recess therein, a spring frame secured by its intermediate portion within said recess so that the ends of the frame are spaced from the bottom of said recess, a roller rotatably mounted on each end of the frame, each roller having corrugations provided upon its periphery for engagement with the sides of the window frame, and a spring tab carried by each end of the spring frame to engage with said corrugations on the rollers for the purpose set forth.

1,804,881. TOOTH-BAND. JOSEPH EMERY JOHNSON, Louisville, Ky. Filed Mar. 2, 1918. Serial No. 219,831. 2 Claims. (Cl. 32-18.)



1. A device for fitting bands to teeth comprising in combination a band formed from a strip of suitable metal having at one end a loop or keeper through which the other end is passed, said end having an outwardly bent leg, a screw having a head provided with a transverse slot for receiving the leg, a sleeve through which the screw passes, and a nut threaded on to the screw at the opposite end of the sleeve from the band.

1,804,882. LIFTING-JACK. LAWRENCE E. JOHNSON, Melrose, Mass., assignor to Mattie E. Johnson, Melrose, Mass. Filed Mar. 23, 1918. Serial No. 235,379. 5 Claims. (Cl. 74-12.)

1. The combination of an operating shaft; a sleeve loosely mounted on said shaft; means interposed between said sleeve and shaft limiting the movement of said shaft relatively to said sleeve to one direction only; a helical spring surrounding and normally gripping the pe-

riphery of said sleeve, said spring having one end fastened to the other end free; and a member coacting



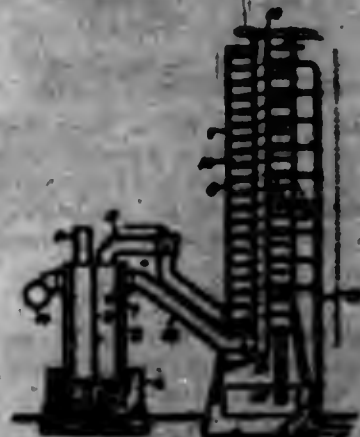
with the free end of said spring and adjustable to release the gripping action of the said spring.

1,804,883. MONOPLANE. HENRY JONASSEN, Vallejo, Calif. Filed Aug. 30, 1918. Serial No. 117,701. 3 Claims. (Cl. 244-12.)



1. In a flying machine, a main plane frame, said main plane being longer than wide and having the frame portion thereof provided with side members curved inwardly at their rear ends to form a support for elevating and steering rudders, and a cover therefor comprising a sheet of material extending over the top of the frame and around the lateral edges of said frame and thence inwardly on the underside of said frame, said sheet having its lateral edge portions extending downwardly in spaced relation to form stabilizing planes, the space between said stabilizing planes communicating with the space between the upper and lower parts of the cover.

1,804,884. GAS-PURIFYING APPARATUS. TORUJI KAWAI, Onga-Gun, Fukuoka-Ken, Japan. Filed Jan. 18, 1918. Serial No. 212,677. 1 Claim. (Cl. 180-89.)



In an apparatus of the character described, the combination of a primary gas and dust separator comprising two concentrically arranged cylinders, a partition in the inner cylinder dividing the same into two compartments, and a cleaner juxtaposed to said separator and connected with the same, said cleaner comprising two concentric barrels separated by a helical passage, and water sprinklers in said passage, a pipe connecting the inner barrel with said helical passage, and a return pipe connecting the inner barrel with the outer cylinder of the primary separator, and dust collecting tanks below said cylinders and said barrels for collecting the dust separated from the gas, substantially as described.

1,804,885. PRESSED-METAL EXPANSION-SHIELD. JOSEPH KENNEDY, New York, N. Y., assignor to The Clements Company, New York, N. Y., a Corporation of New York. Filed Apr. 6, 1918. Serial No. 19,322. 10 Claims. (Cl. 85-24.)



1. A sheet metal bolt anchor comprising a collar or yoke, and a plurality of integral arms each having an outwardly extending double-thickness folded rib which is adapted to be pressed into the walls of an opening when the anchor is expanded therein.

1,804,886. BOLT-ANCHOR. JOSEPH KENNEDY, New York, N. Y., assignor to The Clements Company, New York, N. Y., a Corporation of New York. Filed Apr. 12, 1918. Serial No. 20,009. 11 Claims. (Cl. 85-24.)



1. A bolt anchor comprising a tubular body having its inner surfaces flattened toward its inner end to thereby form a bulb varying in cross-section from a circle to an ellipse from end to end and having longitudinal ribs formed by folding the metal and extending it outwardly from the flattened surfaces of the anchor.

1,804,887. EXPANSION-SHIELD. JOSEPH KENNEDY, Richmond Hill, N. Y., assignor to The Clements Co., New York, N. Y., a Corporation of New York. Filed Aug. 20, 1917. Serial No. 187,063. 11 Claims. (Cl. 85-24.)

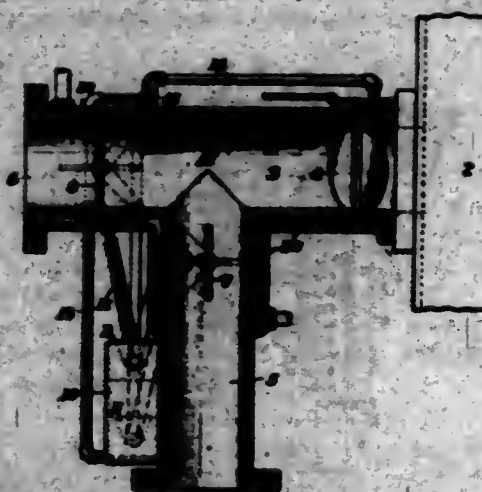


1. A bolt anchor comprising a substantially circumferentially continuous tubular body adapted to receive the threads of a bolt, a tapered depression therein reducing the bore of the tube toward the inner end thereof, and an oppositely tapered rib to provide excess metal at the inner end of said body.

1,804,888. AUTOMATIC CONTROL FOR INTERNAL-COMBUSTION ENGINES. CHRISTIAN E. KENNEDY, Melvale, Pa. Filed June 9, 1917. Serial No. 173,834. 3 Claims. (Cl. 123-127.)

1. The combination with an internal combustion engine, of a carbureted-air passage having two branches

adapted to be connected with carburetors supplied with a readily vaporizable fuel and a less readily vaporizable fuel, respectively, a valve in each branch, a vacuum op-



erated motor for simultaneously operating to close one valve and open the other, and controlling means therefor including a thermostat, substantially as described.

1,804,889. STAY-BOLT FOR BOILERS. HARRY A. LACHMPE, Schenectady, N. Y., assignor to R. B. G. Haughton, Pittsburgh, Pa. Filed Jan. 24, 1917. Serial No. 144,210. 14 Claims. (Cl. 85-1.5.)



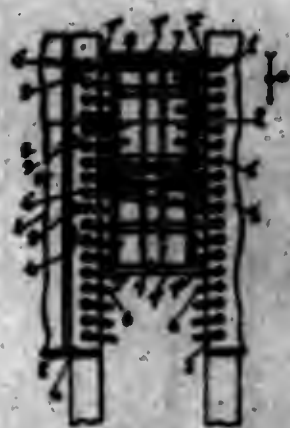
1. A stay bolt for boilers and like structures, comprising a bolt and a socket member, the said bolt and socket member having a ball and socket joint connection, one of said members having a circulating passage for water or steam to keep the ball and socket joint free of extraneous matter and in clean active condition.

1,804,890. STAY-BOLT FOR BOILERS. HARRY A. LACHMPE, Schenectady, N. Y., assignor to R. B. G. Haughton, Pittsburgh, Pa. Original application filed Jan. 24, 1917, Serial No. 144,210. Divided and this application filed Sept. 19, 1917. Serial No. 192,200. 1 Claim. (Cl. 85-1.5.)



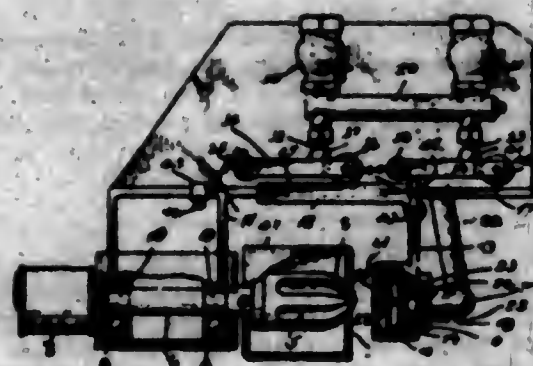
A stay bolt for boilers and like structures, comprising a bolt and a socket member, the said bolt and socket member having a ball and socket joint connection, and one of said members having a circulating passage for water or steam to keep the ball and socket joint free of extraneous matter and in clean active condition, said socket member having a removable cap, and said cap having an end portion forming a wrench seat; substantially as described.

1,904,991. CORSET. AUGUSTE JEAN LACOUTRE, Worcester, Mass., assignor to Royal Worcester Corset Co., Worcester, Mass., a Corporation of Massachusetts. Filed Jan. 12, 1918. Serial No. 211,490. 2 Claims. (Cl. 2-74.)



1. In a corset, the combination with two parts laced together, of a shield adapted to extend back of said two parts, and having on its upper edge a binding which extends out beyond the side edges of the shield, and has each extended end permanently attached to said two parts, and having on its lower edge a binding which extends out beyond the side edges of the shield, and has each extended end permanently attached to said two parts, to leave the shield, intermediate its upper and lower end, unattached to the corset, and free to adjust itself relatively to the two laced parts of the corset.

1,904,992. FRUIT-PULP EXTRACTOR. ROBERT F. LEMMON, Corona, Calif., assignor to Exchange By-Products Company, Corona, Calif., a Corporation of California. Filed May 7, 1917. Serial No. 166,760. 9 Claims. (Cl. 146-11.)

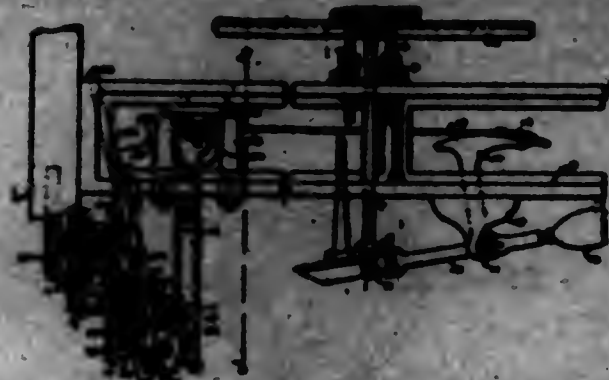


1. A mechanism for removing the contents of fruit from their skins comprising a rotating member, a cupped holder adapted to be intermittently moved into operative engagement therewith, means for applying a section to said holder for holding the fruit therein, and means for applying compressed air to the said holder afterward for ejecting the skins of the fruit.

1,904,993. SPINNING OR WINDING MACHINE. HARRY A. LEONARD, Hopedale, Mass., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Mar. 12, 1918. Serial No. 222,920. 15 Claims. (Cl. 242-43.6.)

2. In a machine of the character described, the combination of a series of spindles for supporting and rotating yarn carriers, yarn guiding means, a builder arm, primary and service winding cams for operating the builder arm, a locking member mounted on the builder arm to engage and hold the primary winding cam in operative relation

tion to the builder arm, and means for moving the primary winding cam out of engagement with the locking member when a predetermined position of rotation has been reached.



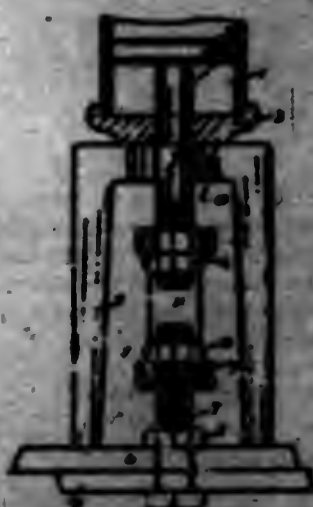
member when a predetermined position of rotation has been reached.

1,904,994. AUTOMATIC STORAGE-BATTERY FILLER. OSCAR P. LEBENSCHNIG, Troy, N. Y. Filed Jan. 17, 1918. Serial No. 212,311. 1 Claim. (Cl. 294-30.)



The combination with a battery having electrodes, a surrounding open-top fluid-containing case projecting above said electrodes, and terminal posts projecting above said case, of a supply vessel located within and forming the top of said case, said vessel having bottom openings, open-top sleeves projecting upwardly from two of said openings, and a depending nipple projecting downwardly from the other opening, below the level of the fluid in said case to form a water seal, the portion of said bottom marginal to the nipple opening being adapted to form a valve seat, a top for said vessel provided with openings, said posts projecting through two of said openings and being provided with collars resting thereon, and a valve rod having threaded engagement with the other opening of said top and having a lower valve head adapted to engage said valve seat.

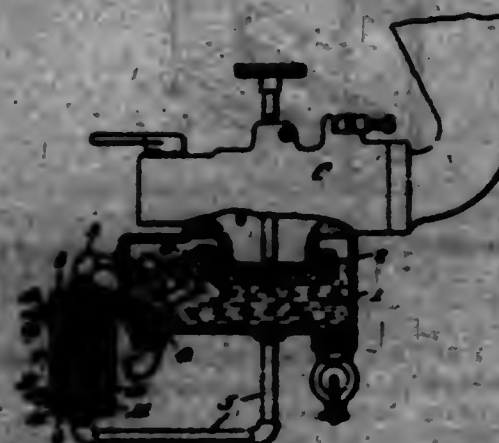
1,904,995. PLATE-TIGHTENING DEVICE. JAMES P. McBRIDE, Seattle, Wash. Filed Sept. 22, 1918. Serial No. 206,590. 3 Claims. (Cl. 79-62.)



1. In a device for pulling together a pair of members which are held loosely together by means of a bolt and

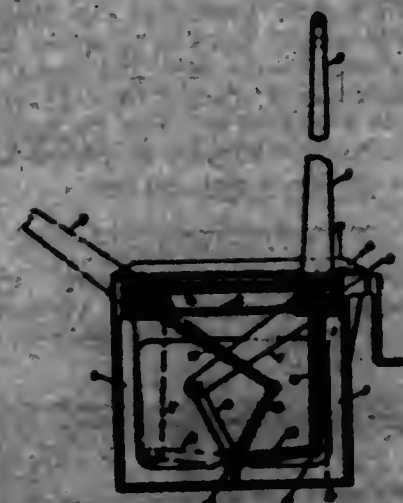
nut passing therethrough, the combination of a pressure cylinder having a cap, a stem passing therethrough, means intermediate the said cap and one of the said members for holding the cap and said member in spaced relationship, means for engaging the said stem and the said bolt, whereby a pulling force acting on the said stem is transferred to the said bolt and thence to one of the said plates and the reaction of the said pulling force is transferred to the other of the said plates through the said spacing means.

1,904,996. GASOLINE-HEATER. HARRY E. MCLAUGH- LIN, Lincoln, Neb. Filed May 3, 1917. Serial No. 166,944. 1 Claim. (Cl. 210-33.)



A carburetor, comprising a seat chamber, means for admitting liquid hydro-carbon to the seat chamber, said seat chamber provided with an outlet in the bottom thereof and an inlet in the side wall thereof, a cylinder beside the seat chamber, a pipe leading from the outlet and communicating with the cylinder through the lower portion thereof, another pipe leading to the inlet and communicating with the cylinder through the upper portion thereof, and a heating element in the cylinder.

1,904,997. DAVIT. THOMAS HENRY MARTIN, Toronto, Ontario, Canada. Filed Aug. 21, 1918. Serial No. 220,664. 6 Claims. (Cl. 9-22.)

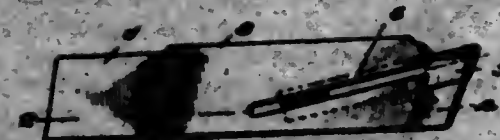


1. In a davit, the combination with the frame, the beam and a traveling member supporting said beam, of a pivotal extension from said beam adapted to effect a counteracting force against the distortion of the beam and the consequent bending of the operating parts.

1,904,998. TOOL-HOLDER. THOMAS O. MARTIN, Jackson, Tenn. Filed May 7, 1917. Serial No. 166,966. 1 Claim. (Cl. 29-63.)

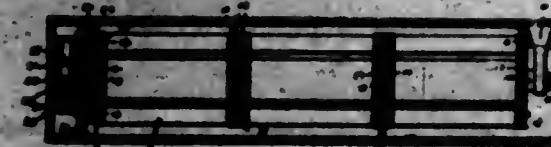
A tool holder comprising a body having a tool receiving socket opening through one end of the body and extending obliquely to the longitudinal axis of the body with its

inner end terminating relatively close to the under side of the body, the said body having oppositely located slots formed through its side faces and communicating with the socket and extending substantially opposite and parallel to the axis of the socket and terminating at their inner ends relatively close to the said under face of the



body, the slots dividing the body into jaws, the lower one of which is of considerably reduced thickness at its juncture with the body due to the termination of the inner ends of the slots and the inner end of the socket relatively close to the said under face of the body whereby the said jaw is of increased resiliency.

1,904,999. DISPLAYING DEVICE. MARION G. MATHES, Franklinville, N. Y. Filed Mar. 21, 1917. Serial No. 156,474. 3 Claims. (Cl. 40-33.)

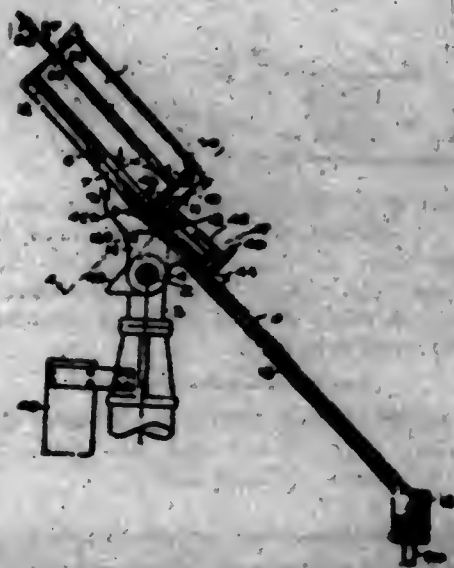


1. In a placard displaying device, a shaft, a plurality of frames placed end to end and rotatably mounted on the shaft, means locking the frames together for rotation in unison, means engaging one of the frames to intermittently rotate the same and consequently all of the frames, a plurality of circumferentially spaced placard supporting frames carried by each main frame, the placard supporting frames of each main frame in longitudinal alignment being connected for rotation in unison, placards carried by each supporting frame, a pair of oppositely directed arms carried by each placard supporting frame of one of the main frames, said arms being normally disposed radially relative to said main frame, an abutment adapted to be successively engaged by the outer arms during revolution of the main frames whereby to successively rotate the placard supporting frames to display the placards at each side thereof, and an angular guide member for engaging the inner arms to retain the placard supporting frames in proper displaying position subsequent to reversal.

2. A placard displaying device including a revolvably mounted frame, a plurality of revolvably mounted placards in the frame in circumferentially spaced order, a pair of oppositely extending members, mounted on one end of each placard, a stationarily mounted abutment to engage the oppositely extending members to rotate the placards during rotation of the frame to alternately display the reverse and obverse surfaces, one of the members of each pair being mounted for movement relative to each other so as to permit the said movable members to be moved to a position whereby engagement with the abutment is precluded to permit rotation of the frame without reversal of the placard.

3. A placard displaying device including a frame, a plurality of parallel shafts arranged in circumferential order, in said frame, a pair of oppositely extending arms carried by one end of each shaft, one arm of each pair being hingedly mounted for movement relative to the other arm, a stationarily mounted abutment to engage the arms to rotate the placards during rotation of the frame to alternately display their reverse and obverse surfaces, an angular guide member to receive the ends of the arms to retain the placards in relative stationary position during rotation of the frame, the hingedly mounted arms when moved to position out of engagement with the abutment insuring the display of only one side of the placards during rotation of the frame, and means for rotating the frame.

1,804,900. NAILING-MACHINE. ROBERT CAMPBELLMAN, New York, N. Y., assignor to Carl F. Behr, New York, N. Y. Filed Apr. 23, 1914. Serial No. 838,938. 7 Claims. (Cl. 1-14.)



5. In nailing machines, a rock shaft; a nail feeding hopper operably supported upon said rock shaft; a nail guiding chute having bearings supporting said rock shaft; means for transferring nails from said hopper to said chute, comprising actuating means for rocking said shaft, the construction and arrangement being such that said hopper is alternately raised and lowered by the rocking of said shaft; a nail ejecting slide suitably supported with relation to said chute; a cam on said rock shaft and a lever having a roll thereon in operable contact with said cam; yielding means for actuating said cam and said slide by the rotatable movement of said shaft in one direction; and means comprising springs for carrying said slide in the opposite direction, substantially as and for the purposes shown.

1,804,901. UNIVERSAL JOINT. FREDERICK W. PERRY, West Park, Ohio, assignor to The Peters Machine and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 8, 1918. Serial No. 238,340. 9 Claims. (Cl. 64-102.)



1. In a device of the character described, the combination of a rotatable member having transverse projecting therefrom and a well having a recessed annular seat at the one end thereof, a cover cooperating with and sprung into said seat, bearings for said transverse, means for conducting through centrifugal action lubricant from the said well to the said bearings, and a filling connection communicating with said well.

1,804,902. FLOATING TIRE-RACK. CLARK P. POSE, Philadelphia, Pa. Filed Mar. 27, 1917. Serial No. 157,755. 6 Claims. (Cl. 211-14.)

1. The combination of a supporting structure; two horizontal flat members spaced apart thereon and both

free to turn on their longitudinal axes; with means for positively preventing said members from moving their



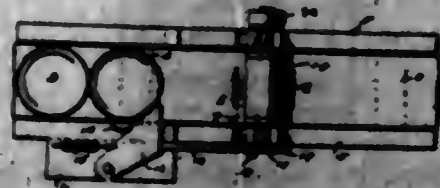
flat surfaces out of position to engage the curved surface of a tire.

1,804,903. PAPER-MAKING MACHINE. CHARLES H. POSE, Springfield, Mass., assignor to Great Northern Paper Company, Milwaukee, Mo., a Corporation. Filed Aug. 6, 1917. Serial No. 184,000. 3 Claims. (Cl. 92-49.)



1. The combination in a paper machine with the upper and lower press rolls thereof, of a scraper blade arranged to be moved into contact with the surface of the upper press roll at a point beyond the pinch of said rolls and below a horizontal plane passing through the axis of the upper press roll, a combined journal and operating rod for said blade, and a bearing supporting said combined member to permit the scraper blade to be moved into contact with or out of engagement with the upper press roll, whereby said blade may be engaged with the latter to strip a lead strip of the wet paper web from the upper press roll and deflect it so that it will move by gravity and its own momentum onto and along with the felt.

1,804,904. CAN-STAMPING MACHINE. CHARLES H. PRIMER, Malvern, Pa. Filed Sept. 17, 1918. Serial No. 254,452. 3 Claims. (Cl. 101-26.)



1. A package stamping machine, comprising a rotary stamp, a tappet rotatable with the stamp, a conveyor beneath the stamp for advancing and delivering the packages, a pivoted feed controlling member disposed at one side of the conveyor and having a limited movement, means for yieldably holding an end of the pivoted member in the path of the packages, and a lock member pivoted between its ends and having one end lockingly engaging the said pivoted member and having its opposite end extending in the path of the tappet to be engaged thereby to release the pivoted feed controlling member.

1,804,905. CENTRIFUGAL MACHINE. LOUWIS RASCH, Christiansh. Norway. Filed Jan. 22, 1918. Serial No. 213,426. 1 Claim. (Cl. 64-69.)



In centrifugal machines the connecting joint comprising the rotation body and the spindle the said body being supported on the pointed end of the spindle and means of transmission of rotation from the spindle to the said body consisting of a coil spring having its ends attached to the spindle and to the body substantially as and for the purposes described.

1,804,906. MEANS APPLICABLE FOR USE IN MILLING SCREW-THREADS. GEORGE RICHARDS, Westminster, London, England. Filed Aug. 14, 1916. Serial No. 240,302. 5 Claims. (Cl. 10-154.)



1. In screw-threading, with the aid of a milling cutter, a piece of work held against rotation, the herein described mode of operation according to which the work gradually advances in a longitudinal direction a distance equal to the pitch of the thread to be cut, while the milling cutter, rotating on its own axis, makes one complete circular movement about the axis of the work.

1,804,907. REFLEX COKE-OVEN. ARTHUR ROSSMAN, Evanston, Ill. Filed June 22, 1916. Serial No. 106,181. Renewed Aug. 10, 1918. Serial No. 240,323. 10 Claims. (Cl. 202-6.)



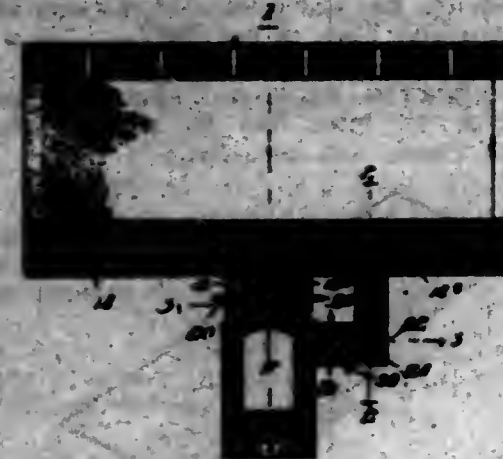
1. In a bench of coke ovens having heating walls and burners, the combination with the heating walls, of a

tunnel extending longitudinally of the bench beneath its central portion, connections for the delivery of spent gas from the heating walls to the said tunnel, connections from the said tunnel to the burners of each heating wall, and means for injecting air into each of the last mentioned connections.

10. The combination with a coke oven having heating walls and burners of means for delivering a constituent gas to the burners and means for introducing into the said constituent gas spent gas coming directly from the heating walls substantially at the temperature at which it leaves said heating walls to thereby preheat the said constituent gas.

16. The combination with a coke oven having heating walls and burners of means for delivering a constituent gas to the burners, and means for returning a portion of the spent gas containing substantially its full heat, to the burners.

1,804,908. METHOD OF PREHEATING. ARTHUR ROSSMAN, Evanston, Ill. Filed Sept. 15, 1916. Serial No. 120,849. Renewed Oct. 23, 1918. Serial No. 250,408. 12 Claims. (Cl. 202-3.)



10. The method of recovering waste heat contained in the spent gases coming from a coke oven which consists in delivering to the heating walls a portion of the spent gas with substantially the full number of heat units contained in the said portion as the said portion left the coke oven.

1,804,909. METHOD OF VULCANIZING TIRES. FRED THOMAS ROSSMAN, Cleveland, Ohio, assignor of one-half to Ralph H. Rosenfeld, Cleveland, Ohio. Filed Mar. 12, 1917. Serial No. 154,071. 3 Claims. (Cl. 16-53.)

1. The process of vulcanizing a rubber article in the form of a continuous hollow member having an opening at one side, comprising inserting one or more sealing members at the opening, embracing the article by a forming mold into which the article may tightly fit, then surrounding the article and mold with an atmosphere of compressed air and causing the same to enter the interior of the article, then closing the mold in such atmosphere to close the opening in the article and entrap air within the article and exclude the air from between the article and the mold, and then subjecting the article to a vulcanizing temperature while still holding the mold parts securely together inclosing such air within the article.

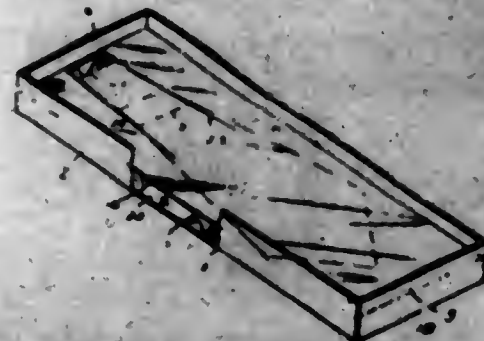
3. The process of vulcanizing pneumatic tire casings having an open side, comprising embracing the casings by a two-part mold having annular grooves which receive the casing and hold it with the line of separation around the inner periphery coincident with the plane of separation of the mold members, placing a rubber closure between the edges of the opening of the casing, surrounding the casing and mold with an atmosphere of compressed air, closing the mold to cause such closure to seal the casing and entrap the compressed air, heating the casing while within the mold, and subsequently removing the rubber closure.

1,304,910. STEAM-SUPERHEATER FOR BOILERS. JOHN GEORGE ROBINSON, Manchester, England, assignor to The Superheater Corporation Limited, London, England. Filed Sept. 30, 1918. Serial No. 234,282. 3 Claims. (Cl. 285-25.)



3. The combination, with a plate having an opening for fluid and a recess to one side of the said opening, said plate having also a projection on one side at the bottom of the recess, of a pipe communicating with the said opening and provided with a fastening block, said block having also a hole arranged in line with the said recess, a screwthreaded stud screwed into the said projection and projecting within the recess, and a box nut engaging with the free end-portion of the stud and securing the fastening block to the plate.

1,304,911. NECKTIE-PACKAGE. BERNARD HOGALL, Brooklyn, N. Y. Filed Dec. 21, 1918. Serial No. 267,784. 1 Claim. (Cl. 206-7.)



A package for neckties including in combination, an external box, a flat necktie supporting deck, means at the ends thereof and integral therewith for supporting said deck and for holding the same spaced away from the bottom of the deck, said deck being cut out adjacent one end wall of the external box and intermediate the edges of the deck to receive a group of superposed ties folded on to the upper and lower faces of the deck, said cut out section being of substantially the same width as the group of ties and engaging said ties at each side thereof, whereby said ties are held from sidewise movement on the deck.

1,304,912. BELL-RINGING APPARATUS. HENRY GODFREY SHAFTHOPE, Kilspeil, Mont. Filed Sept. 17, 1917. Serial No. 191,802. 2 Claims. (Cl. 110-40.)



2. The combination with a bell, and means for supporting the same, of a self-contained bell-ringing device mounted upon the bell support and consisting of a base, a pair of spaced shafts mounted on the base, a hammer

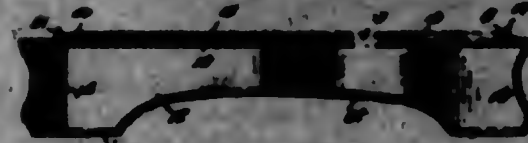
connected to one of said shafts, a motor connected to the other shaft, a disk mounted on said other shaft, a throw rod between the disk and the hammer shaft, said throw rod being adjustable in length to change the position of the hammer relative to the bell, and means for adjustably connecting the throw rod to the disk to change the length of stroke of the hammer.

1,304,913. APPLIANCE FOR APPLYING AND REMOVING GARMENT-TAGS. WILLIAM A. SUMMERS, Birmingham, Ala. Filed Feb. 18, 1919. Serial No. 277,808. 4 Claims. (Cl. 211-17.)



1. In an apparatus of the character described, an elongated hanger rod having means at one end to attach it to an overhead support and having means at the other end for the suspension of a garment hanger, a slide vertically adjustable on the hanger rod and having means to frictionally engage the rod and hold the slide thereon in any desired position, tag engaging means carried by said slide, and means to move the slide on the rod.

1,304,914. STRINGED MUSICAL INSTRUMENT. LOUISA D. SMITH, Honolulu, Hawaii. Filed Oct. 26, 1917. Serial No. 196,187. 1 Claim. (Cl. 94-128.)



A musical instrument comprising a hollow body having its upper wall provided with a sound opening and having the lower wall provided with an arch extending for the greater portion of the length of the instrument and for the full width thereof to permit the instrument to be conveniently supported upon the lap of the player while in use.

1,304,915. PNEUMATIC INSOLE. BENJAMIN A. SPRINNEY, Des Moines, Iowa. Filed July 31, 1918. Serial No. 247,001. 1 Claim. (Cl. 86-80.)



A resilient insole comprising a resilient sack having generally the outline of the bottom of a foot, said sack having a plurality of transverse partitions for dividing the portion of the insole which supports the heel and ball of the foot into narrow transverse compartments, said sack having in its portion which supports the toes longitudinally arranged partitions for forming longitudinally arranged compartments beneath the toes, the various compartments being connected by means of small openings in the partitions, whereby retarded movement of the air between the compartments is permitted.

1,304,916. CHECKING ATTACHMENT FOR PLANTERS. WILHELM L. BRUNOW, Van Alstyne, Tex. Filed Dec. 26, 1912. Serial No. 263,647. 2 Claims. (Cl. 111-10.)



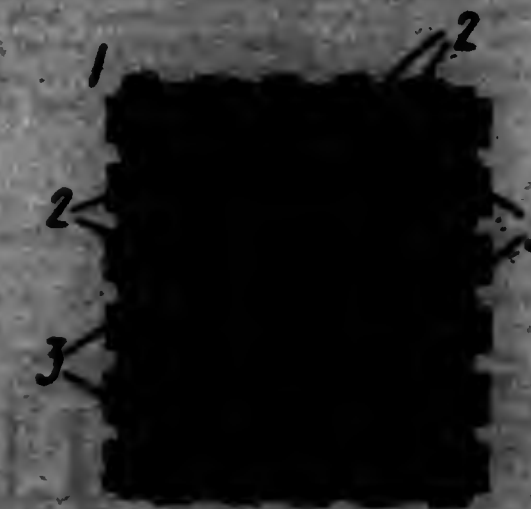
1. In a tripping device for planters, a sleeve constructed to be fastened on the ground wheel of a planter, a collar rotatably confined on the sleeve and having radial openings one of which extends inward to the sleeve, and a plurality of pins mounted in the opening, one of said pins being fitted in the opening extending to the sleeve and binding against said sleeve whereby the collar is fastened against rotation, said last named pin constituting a locking device which may be loosened to adjust the collar circumferentially of the sleeve.

1,304,917. TOBACCO-CLIPPER. JOSEPH D. STAUFFER, Centerville, Pa. Filed Mar. 15, 1918. Serial No. 282,888. 1 Claim. (Cl. 84-19.)



A tobacco cutter of the class described comprising a frame, a roller supporting the frame, a pair of levers pivoted intermediate their ends to the frame, a plate, a pair of blades pivoted to the plate, means operatively connecting the inner ends of the blades to the inner ends of the levers, and an angle plate secured to one of the blades adjacent the cutting edge thereof, as and for the purpose specified.

1,304,918. FILTER MEDIUM OR OTHER ARTICLE OF MANUFACTURE. HENRY J. SWENLAND, Montclair, N. J. Original application filed May 28, 1914; Serial No. 944,781. Divided and this application filed June 9, 1918. Serial No. 28,184. 5 Claims. (Cl. 130-9.)



1. The process of forming a filter medium, which consists in aggregating into bundles a plurality of metallic wires and weaving the bundles into a closely-woven fabric and then subjecting the fabric to pressure in order to decrease the size of its interstices.

1,304,919. SWIMMING DEVICE. FRANK L. SHAFER, Detroit, Mich. Filed Feb. 4, 1919. Serial No. 274,988. 3 Claims. (Cl. 9-28.)

1. A swimming appliance comprising an elongated body, portions carried by the front and rear ends of the body,

a pivoted extension formed on the rear end of the body, a propeller carried by said extension, means for operating said propeller, a pulley carried by the forward end of the body, guide ropes extending around said pulley, outwardly extending arms formed on said pivoted section, the terminals of the guide ropes being secured to said



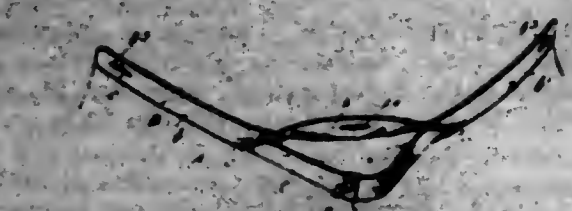
arms, and a handle formed on said pulley, as and for the purpose specified.

1,304,920. METER. CARL C. THOMAS, Madison, Wis. Filed Dec. 27, 1918. Serial No. 289,454. 10 Claims. (Cl. 78-107.)



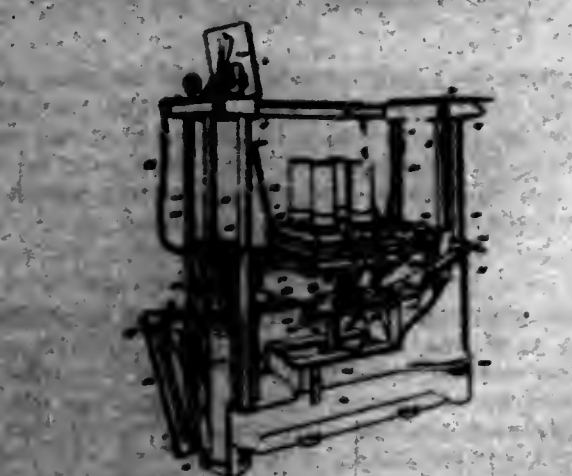
4. The combination with a fluid meter for measuring the flow of fluids by thermal means of means for drying the fluid entering the meter.

1,304,921. NECKBAND FOR SHIRTS. WILLIAM R. TOWHILL, Lockport, N. Y. Filed May 8, 1918. Serial No. 282,192. 5 Claims. (Cl. 2-41.)



4. The combination of a hollow neckband having an opening in the rear thereof, a buttonhole in said neckband at said opening, a stiffening member adapted to be inserted into said hollow neckband, and a collar button removably secured on said stiffening member and adapted to be inserted through said collar button hole.

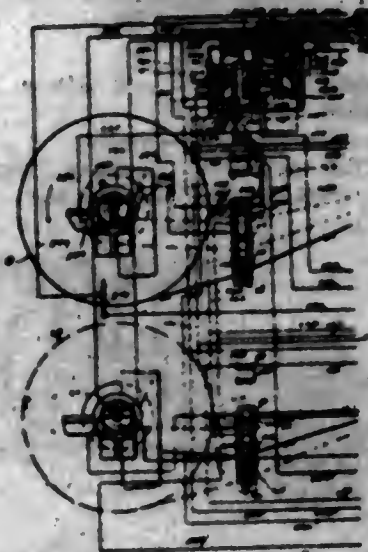
1,304,922. MOLDING APPARATUS. HENRY TECHER, Freeport, Ill., assignor to Arcade Manufacturing Company, Freeport, Ill., a Corporation of Illinois. Filed Sept. 12, 1918. Serial No. 258,888. 3 Claims. (Cl. 23-45.)



1. In a molding machine of the sand jarring type, the combination with a suitable frame, of a cross head or

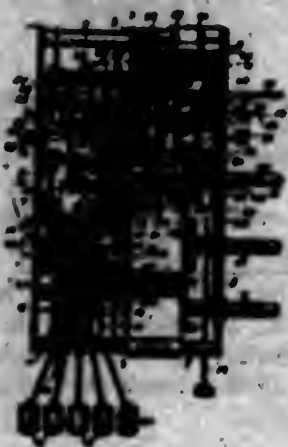
table revolvably mounted in the frame, and means for jarring a mold supported by the revolvable head while the head is without jarring movement.

1,804,923. TENSION MECHANISM FOR PRINTING-PRESSES. JOSEPH J. WALSH, Chicago, and CHARLES A. DANAHAN, Glencoe, Ill., assignors to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Original application filed Mar. 27, 1912. Serial No. 686,477. Divided and this application filed Jan. 24, 1916. Serial No. 72,876. 66 Claims. (Cl. 242-75.)



23. A web printing-press, comprising reversible rotary means acting upon the web roll for controlling the tension upon the web, and means for automatically regulating the action of said rotary means.

1,804,924. CHIME-CLOCK. FREDERICK WHITCOMB, Waterbury, Conn., assignor to Waterbury Clock Co., Waterbury, Conn., a Corporation. Filed Feb. 21, 1918. Serial No. 218,400. 12 Claims. (Cl. 68-12.)

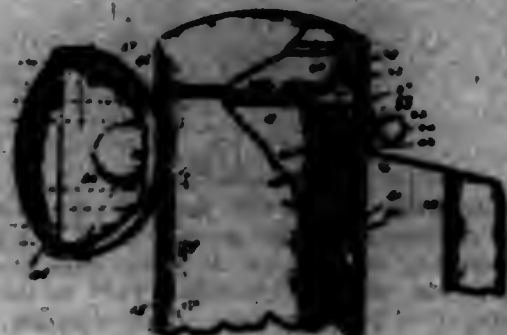


1. A chime clock characterized by having three movement-plates spaced apart to form front and rear train-spaces and by the location of the time and strike trains side by side in the said front train-space and the location of the chime-train and hammer-battery within the said rear train-space.

1,804,925. SWITCH CONSTRUCTION FOR LANTERN. HOMER A. WOODS, Indianapolis, Ind. Original application filed Nov. 29, 1915. Serial No. 62,931. (Patent No. 1,232,642, dated July 10, 1917.) Divided and this application filed Jan. 24, 1917. Serial No. 144,106. 7 Claims. (Cl. 178-382.)

2. In an electric lantern, a battery casing, two superposed insulating plates mounted on the inner face of said

casing, a switch mounted on that one of the insulating plates which is further removed from the casing, terminals also mounted on said plate further removed from the casing, connections between the switch parts and the respective terminals, said connections being located be-



tween said two insulating plates, and an operating member which projects through the casing and said two plates into cooperative relationship with said switch arm.

1,804,926. CULTIVATOR. SAMUEL L. ALLEN, Moorestown, N. J., assignor to S. L. Allen & Co., a firm composed of Samuel L. Allen, William H. Roberts, and Elizabeth H. Richie. Filed Feb. 22, 1918. Serial No. 218,682. 5 Claims. (Cl. 97-11.)



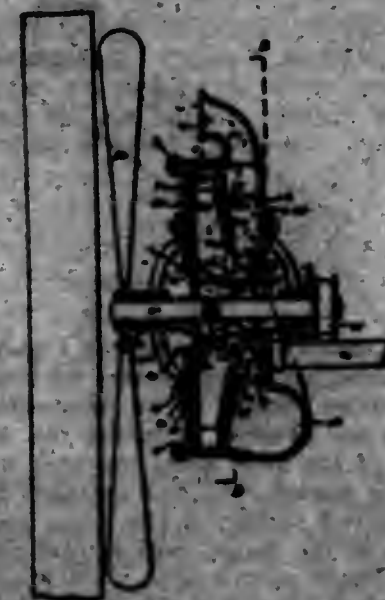
1. A cultivator tool adapted to be adjustably carried by a stotted frame, and having a blade comprising an upper inclined portion curving under and merging into a substantially horizontal wing curving rearwardly upward and extending obliquely backward, and a bracket for said blade secured thereto above the ground plane and extending obliquely substantially in alignment with said upper portion, and having means affording laterally adjustable connection with said frame, said bracket having a lug arranged to bear against the forward edge of the frame.

1,804,927. HYDROCARBON-BURNER. JAMES O. ALWOOD, Richmond, Va. Filed Aug. 15, 1918. Serial No. 250,014. 7 Claims. (Cl. 186-64.)



2. A hydrocarbon burner including a boiler, a steam chamber disposed above the boiler, a fuel supply pipe extending within the steam chamber and terminating short of one end thereof, a conductor forming a course of communication between the boiler and steam chamber and having its end discharging at a point above the fuel pipe, and a burner communicating with the interior of the steam chamber and discharging beneath the boiler.

1,804,928. EXHAUST-GAS TURBINE AND SILencer. BENJ. AMMANN, Yonkers, N. Y. Filed Mar. 6, 1918. Serial No. 62,415. 11 Claims. (Cl. 60-34.)



1. The combination with the exhaust of a combustion engine, of a turbine adapted to receive the gases from said exhaust, an inlet to said turbine admitting air into the same to be mixed with the expanded gases therefrom, and a valve for said inlet.

1,804,929. VALVE. STANLEY R. ARNOLD, Chicago, Ill. Filed July 22, 1918. Serial No. 266,169. 9 Claims. (Cl. 128-64.)

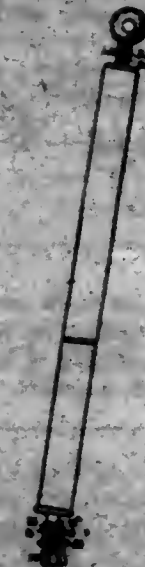


9. A valve structure including a valve seat; a valve; a stem for the valve; a coiled spring; a nut carried by the valve stem for one end of said spring; a member turned by the spring upon relative twisting movement between the ends of the spring; and means for limiting this member to rotation in one direction whereby the spring is adapted to turn the valve upon succeeding relative twisting movement between the ends of the spring.

1,804,930. TIRE-INFLATING PUMP. HENRY K. AUSTIN, Reading, Mass. Filed Aug. 13, 1917. Serial No. 186,972. 2 Claims. (Cl. 240-57.)

1. As a new article of manufacture, a tire-inflating air pump comprising an elongated rigid tubular piston rod having its lower end portion bent relatively to the body portion thereof and at an obtuse angle, a flexible slip coupling connected to the bent end portion of the piston rod and having a bore coinciding with the bore of said piston rod, whereby when said coupling is engaged with an upstanding tire valve the body portion of the piston rod will extend outwardly from one side of said tire at an angle to the wheel, a plunger on the body portion of the

rod, and a reciprocable pump barrel on the body portion of the rod and positioned to have a downwardly air-forcing thrust which presses the coupling and tire valve into tight relation.



ing thrust which presses the coupling and tire valve into tight relation.

1,804,931. ART OF RECOVERING SALTS OF POTASSIUM FROM SOLUTIONS THEREOF. MATTHEW T. BACON, Peace Dale, R. I., assignor to The Solvay Process Company, Solvay, N. Y., a Corporation of New York. Filed Oct. 20, 1917. Serial No. 166,982. 2 Claims. (Cl. 23-22.)

1. The improvement in the art of recovering potassium salts from solution which consists in exposing the solution to solar evaporation in a shallow mass of such depth that the solution will be approximately saturated with the potassium salts at the highest temperature attained during a single day's exposure.

1,804,932. PROCESS OF PURIFYING NITROGEN. MATTHEW T. BACON, Peace Dale, R. I., assignor to The Solvay Process Company, Solvay, N. Y., a Corporation of New York. Filed Nov. 27, 1917. Serial No. 204,142. 5 Claims. (Cl. 20-16.)

1. The process of obtaining purified nitrogen which consists in separating nitrogen of the atmosphere from free oxygen by burning limestone with an excess of coke and absorbing the CO₂ content of the gaseous product in a solution of ammonium hydrate.

1,804,933. TRANSMISSION-CHAIN. JOHN E. BARNOWA, Woonatuck, Wash. Filed Mar. 19, 1918. Serial No. 228,885. 9 Claims. (Cl. 76-32.)



2. A transmission chain comprising a plurality of hollow units adapted to contain a lubricant and having outer conical faces, inner links having openings formed with inner conical faces to engage the conical faces of the hollow units and with outer conical faces, outer links having openings formed with inner conical faces to engage the outer conical faces of the inner links, means for supplying lubricant through the outer links into the hollow units, and means for connecting said outer links.

1,804,934. LIGHTING SYSTEM. JOSEPH BIJON, New York, N. Y., assignor, by mesne assignments, to Bijon Motor Appliance Company, a Corporation of Delaware. Filed Dec. 21, 1916. Serial No. 266,582. 10 Claims. (Cl. 177-630.)

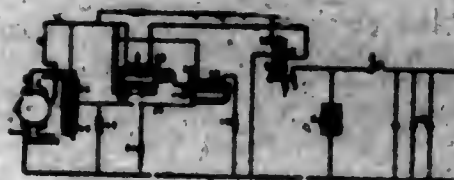
3. In apparatus of the class described, in combination, a direct current generator having a shunt field

winding, a pair of resistance elements serially connected in said field winding, a pair of separate shunts respectively disposed about said resistance elements, and electro-magnetic means responsive to one function of the



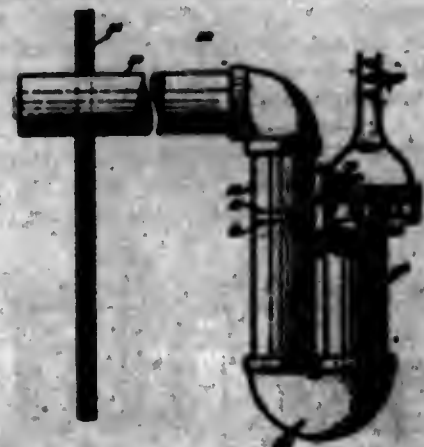
output of said generator to open one of said shunts and responsive to another function to open the other shunt, each of said shunts comprising a vibratory member under control of said electro-magnetic means.

1,304,986. ELECTRICAL APPARATUS. JOSEPH BIJUS, New York, N. Y., assignor, by mesne assignments, to Bijus Motor Appliance Company, a Corporation of Delaware. Filed Feb. 8, 1912. Serial No. 676,369. Renewed Nov. 2, 1918. Serial No. 300,919. 10 Claims. (Cl. 171-226.)



1. In apparatus of the class described, in combination, a dynamo having a field winding, an auxiliary adding field winding on said dynamo, and means adapted substantially simultaneously to decrease the current in said first winding and divert current through said second winding.

1,304,986. SIGNALING DEVICE. CHARLES H. BOARDMAN, Vivian, W. Va. Filed Apr. 9, 1915. Serial No. 20,603. 2 Claims. (Cl. 206-34.)



1. A signaling device for ventilating apparatus comprising a pipe having an intake and located within a chamber to be ventilated and open to the ventilating pressure within said chamber, the other end of said pipe being open to atmospheric pressure, a liquid within said pipe, the level of the liquid being affected by the pressure within said chamber, a base of insulating material attached to the intake end of said pipe, and having an opening coinciding with the bore of the pipe, a stationary contact supported by said base, a movable contact also supported by said base and extending across said opening, a float sustained by said liquid, and positioned to move through the opening in said base to contact with said movable contact, whereby the contacts are brought together when the pressure within said chamber is reduced.

1,304,987. COIN-SEPARATOR. JOSEPH BOWEN, Johnstown, Pa. Filed June 29, 1912. Serial No. 348,569. 2 Claims. (Cl. 126-2.)



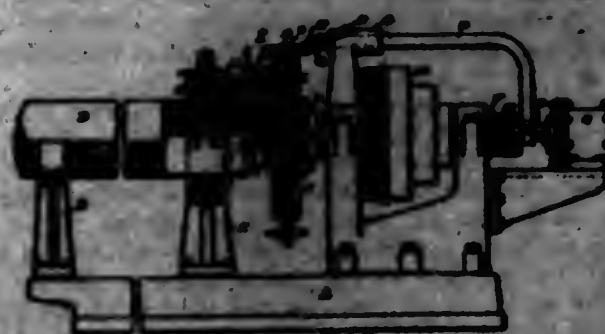
1. A coin separator consisting of a plate arranged on a predetermined incline and having its lower longitudinal marginal portion defined by an outstanding flange over which coins are adapted to travel, the upper longitudinal marginal margin of the plate being provided with a series of longitudinally spaced slots, and depending plates carried by the lower end portion of the flange and spaced apart transversely of the flange, each of said plates being provided at its upper portion with a rearwardly directed extension disposed through a slit in the first named plate and secured to the rear face of said first named plate, the spaces between the extensions of the second named plates and the flange varying.

1,304,988. APPARATUS FOR MAKING FLANGED PIPES. LOUIS H. BRINKMAN, Glen Ridge, N. J., assignor to General Industries Company, a Corporation of New York. Filed Nov. 15, 1916. Serial No. 121,574. 12 Claims. (Cl. 180-67.)



1. In a pipe flanging machine the combination with means for holding the pipe of means for turning up metal from the pipe to form a flange and means bearing upon the periphery of the flange and movable independently of the pipe supporting means for variably limiting the outward movement of the metal being turned up.

1,304,989. METHOD FOR MAKING FLANGED PIPES. LOUIS H. BRINKMAN, Glen Ridge, N. J., assignor to General Industries Company, a Corporation of New York. Original application filed Nov. 15, 1916. Serial No. 121,574. Divided and this application filed Apr. 11, 1917. Serial No. 161,165. 4 Claims. (Cl. 180-67.)



1. The method of turning a flanged pipe which consists in successively thickening to pre-determined desired

amount, successively axial sections of the pipe wall and successively moving said thickened wall sections outwardly to build up the flange.

1,304,989. AUXILIARY WATER-COOLING SYSTEM FOR AUTOMOBILES. CYRUS J. BARTON, Des Moines, Iowa, assignor of one-half to Globe Machinery and Supply Company, Des Moines, Iowa. Filed July 2, 1917. Serial No. 173,210. 6 Claims. (Cl. 123-174.)



1. In a combined automobile head and auxiliary water tank, a combined tank and head top designed to extend between the radiator and dash of an automobile, a downwardly extending flange secured to the forward end of the last described member having its lower edge shaped to conform to the lines of the radiator top and adapted to rest thereon, means for supporting the rear end of the tank and head top adjacent to the dash of an automobile, head sides hinged at their upper edges to the tank and head top and adapted to have their lower edges swing forwardly and outwardly, said head sides being adapted to coact with the head locking means of an automobile, and means for operatively connecting the tank portion with the water cooling system of an automobile.

2. In a combined automobile head and auxiliary water tank, a combined tank and head top designed to extend between the radiator and dash of an automobile, a downwardly extending flange secured to the forward end of the last described member having its lower edge shaped to conform to the lines of the radiator top and adapted to rest thereon, a pair of laterally extending brackets fixed to the rear end of the tank and head top and having openings therein, a pair of bolts adapted to pass through said openings and through the dash of an automobile whereby said brackets may be secured to the dash, head sides hinged at their upper edges to the tank and head top and adapted to have their lower edges swing upwardly and outwardly, said head sides being adapted to coact with the head locking means of an automobile, and means for operatively connecting the tank portion with the water cooling system of an automobile.

3. In an auxiliary water cooling system for automobiles a communicating tank adapted to extend between the radiator and the dash above the engine, means for establishing a communication between the interior of said receptacle and the filler neck of the automobile radiator, means for closing the intake end of the over flow tube in the radiator, means for establishing a communication between the interior of the receptacle and the intake opening of the water jacket of the engine, and means for permitting steam to escape from the top of the receptacle.

4. In an auxiliary water tank adapted to be mounted on an automobile and to communicate with the water cooling system thereof, a receptacle having an opening in the top thereof, an annular upwardly and outwardly extending flange fixed within said opening, a funnel shaped member having its larger end mounted on the upper edge of said flange, a cone shaped member disposed with its vertex received within the lower opening of the funnel shaped member and its base disposed within the opening in the top of the receptacle, and a plurality of resilient fingers adapted to be secured to the base of the cone shaped member and to extend upwardly through and to be secured to the funnel shaped member.

5. In an auxiliary water tank adapted to be extended between the radiator and dash above the engine of an automobile, and communicating with the water cooling system thereof, an elongated liquid receptacle supported

at its forward end by the radiator and secured at its rear end to the dash, and a plurality of transverse, spaced, perforated baffle plates extended from position spaced vertically from the bottom of the tank to the top of the tank whereby surges of the liquid in the tank may be eliminated while circulation of the liquid through and below the baffle plates may be insured.

1,304,991. RAKE. JAMES P. CALMAN, Southboro, Mass. Filed Dec. 28, 1916. Serial No. 120,261. 9 Claims. (Cl. 55-114.)



5. A rake-head formed of a single strip of metal died to provide sockets for the retention of rake teeth and provided with a hollow top approximating in width the diameter of the top of the sockets and having a raised ground-surface or ridge for stiffening the teeth engaging portions of the rake-head.

1,304,992. RAKE. JAMES P. CALMAN, Southboro, Mass. Filed Sept. 14, 1917. Serial No. 191,235. 3 Claims. (Cl. 55-10.)



1. In a rake, in combination, a tooth-supporting head formed of a single strip of material shaped so that opposite edges of said strip approximately meet, and formed with sockets wherein rake teeth are removably held, said strip of material having a flattened surface adjacent the top of said sockets; the rake teeth having a flattened surface at their upper extremities in lateral engagement with the flattened surface of said strip, said sockets gripping the teeth below said flattened surface, while said flattened surface prevents rotation of said teeth relative to said sockets.

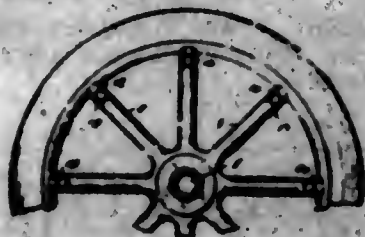
1,304,993. MACHINE FOR APPLYING SAMPLES TO CARDS. MARION H. CLARK, Philadelphia, Pa. Filed Nov. 17, 1915. Serial No. 68,072. 32 Claims. (Cl. 210-14.)



1. In a machine of the class described, the combination of horizontally disposed card-feeding means, means for affixing adhesive to the card and for delivering the card with adhesive thereon to the feeding means, means for feeding a sample, means for superposing said sample on

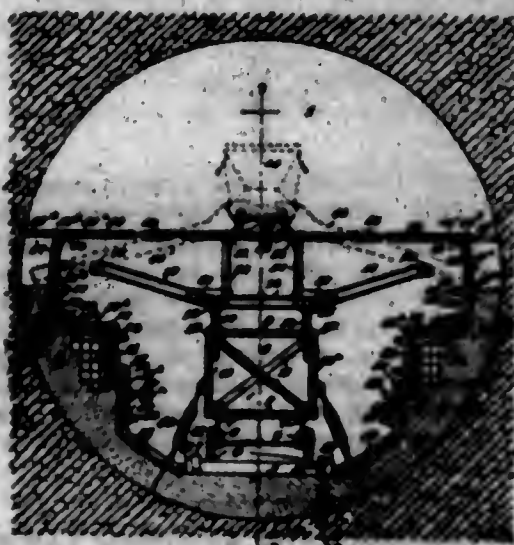
said card while horizontally disposed and in predetermined relation thereto, means for pressing the sample against said adhesive, and means for stacking the cards with the samples attached thereto.

1,304,944. VEHICLE WHEEL. JAMES P. CORLAND, Cleveland, Ohio. Filed May 17, 1916. Serial No. 98,015. 5 Claims. (Cl. 21-80.)



1. The combination, with a wheel, of a rim supporting member mounted within the spoke end and having an inwardly projecting rim seat, a bolt extending through the outer wall of the spoke end and having a threaded engagement with the portion of the rim-supporting member within the spoke end, and a clamping member loosely mounted on said bolt and having a portion adapted to engage the outer side of the rim and an extension adapted to engage and move along the outer surface of the supporting member.

1,304,945. CONCRETE FORM. HARRY O. DAVIDSON, Cleveland, Ohio, assignor to The Hydraulic Pressed Steel Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 23, 1915. Serial No. 28,400. 26 Claims. (Cl. 25-131.6.)

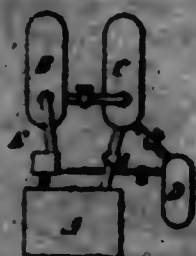


14. The combination, with a carrier, of a pair of side mold frames, an adjustable and detachable connection between the lower portion of each frame and the carrier, adjustable extensions connected to the upper ends of said frames, transverse braces pivoted to the upper ends of said extensions, said braces being adjustable in length, a vertically adjustable cradle on the carrier, arms pivotally connected to said cradle and adapted to support said braces, and additional supporting means carried by the cradle and adapted to engage said braces by the adjustment of the cradle, when said arms are folded down.

1,304,946. MANUFACTURE OF STEEL. CHARLES DEAN, London, England, assignor to The Miris Steel Company Limited, London, England. Filed Dec. 30, 1916. Serial No. 139,900. 8 Claims. (Cl. 143-18.)

7. The method of treating steel comprising the step of providing a bath containing 3 cwt. of nitric acid, 2 cwt. of sulfuric acid, and 2½ cwt. of ammonium chloride to every 1000 gallons of water, and plunging a piece of hot steel in said bath and retaining it therein until it has become cold beyond the point where recalcence cannot occur in the open air after removal.

1,304,947. MANUFACTURE OF STEEL. CHARLES DEAN, London, England, assignor to The Miris Steel Company Limited, London, England. Filed Dec. 30, 1916. Serial No. 139,900. 6 Claims. (Cl. 200-6.)



1. In apparatus for immersing hot steel ingots in a liquid bath, the combination of an immersing tank, means to lower an ingot into and raise it out of the tank, two reservoirs each of a capacity not less than the capacity of the tank, ducts connecting the interior of the tank with both reservoirs, and means to transfer the bath liquid from the tank to either reservoir.

1,304,948. MANUFACTURE OF STEEL. CHARLES DEAN, London, England, assignor to The Miris Steel Company Limited, London, England. Filed Dec. 30, 1916. Serial No. 139,910. 3 Claims. (Cl. 143-31.)

1. The process of making steel comprising the steps of casting an ingot, stripping the mold therefrom while the interior of the ingot is still molten, submerging the stripped ingot as quickly as possible and before its interior has set solid, completely beneath the surface of an aqueous bath and keeping the ingot thus submerged long enough to prevent it from recalcencing at its surface when removed from the bath.

2. The process of making steel comprising the steps of casting an ingot, stripping the mold from the ingot while the interior is still molten, placing the ingot in a soaking pit in which the temperature is such as to prevent the interior of the ingot from setting quickly, removing the ingot from the soaking pit before the interior of the ingot has ceased to be fluid, then plunging the ingot in an aqueous bath to quickly solidify the metal and retaining the ingot in the bath long enough to cool it sufficiently to prevent it from recalcencing in the open air when removed.

3. The process of making steel comprising the step of casting an ingot, stripping the mold therefrom as soon as the surface is hardened sufficiently to permit it to be stripped, placing the ingot in a soaking pit in which the temperature is sufficiently high to prevent the interior of the ingot from setting quickly, removing the ingot from the pit while the interior is still fluid, allowing the ingot to cool slightly to form a cool skin, then plunging the ingot while its interior is still fluid into an aqueous bath to quickly solidify the metal and retain it in the bath long enough to cool it sufficiently to prevent it from recalcencing in the open air when removed.

1,304,949. SANITARY PUMP BASE AND BRACKET FOR SINK. HARVEY J. DIVERST, Aurora, Ill. Filed June 9, 1917. Serial No. 173,700. 1 Claim. (Cl. 100-63.)



Pump mounting means comprising a sink, an integral lateral extension projecting horizontally from the upper

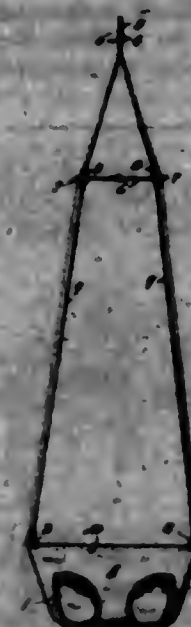
edge of one the sides of said sink, said extension being shaped to provide a drip into the sink and having a central opening, a wall pipe terminating adjacent said opening, a sleeve threaded on said pipe and having a disk-like flange at its upper end and that rests on a shoulder formed in said opening whereby said pipe is supported, a pump standard the lower end whereof is provided with a collar having lateral lugs and coacting with said flange, a gasket and flapper-valve interposed between said flange and the pump members above the same, and clamping bolts passed through said lugs and said sink extension whereby a water-tight connection is made between said standard and the sink extension and said pump is supported solely by the latter.

1,304,950. SHOCK-ABSORBER. LYLE E. DUDLEY, San Francisco, Calif. Filed Apr. 5, 1916. Serial No. 99,773. 12 Claims. (Cl. 267-9.)



10. In a vehicle, a frame and an axle provided with compensating resilient means consisting of a cross spring and side springs pivotally mounted upon said frame and axle, the ends of said cross spring being pivotally secured to one end of said side springs.

1,304,951. SWING. JOHN A. BARNES, St. Louis, Mo. Filed June 19, 1916. Serial No. 104,422. 1 Claim. (Cl. 155-44.)

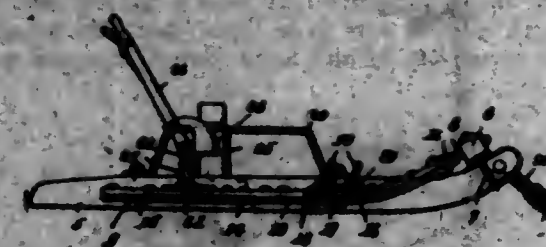


out frame, a rectangular fabric pocket having its upper margins folded over and secured to said rigid rectangular seat frame, suspension members secured to the corners of said rigid rectangular seat frame, and a rigid rectangular spreader separating said suspension members at points above said rigid rectangular seat frame, the corners of said spreader corresponding to the corners of said rigid rectangular seat frame.

1,304,952. LEVELER. DAVID E. BULLON, River Falls, Wis. Filed Apr. 18, 1918. Serial No. 229,323. 1 Claim. (Cl. 55-23.)

In a leveler, a sled, a beam extending across the front thereof, planes extending rearwardly from the said beam,

means for loosely connecting the planes to the beam, means for elevating and lowering the planes, angle irons extending transversely of the planes, said angle irons and



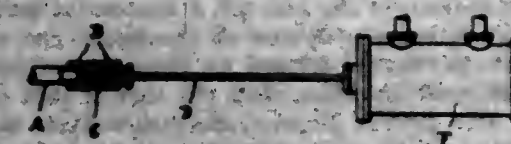
planes having apertures therein, and teeth extending through the apertures and means for attaching the teeth to the angle irons.

1,304,953. STROPPING ELEMENT. GEORGE G. FLOYD, Riverside, Ill. Original application filed Aug. 18, 1917. Serial No. 104,638. Divided and this application filed Jan. 23, 1918. Serial No. 214,000. 2 Claims. (Cl. 51-18.)



1. A stropping element of the character described, comprising in combination a hollow roller formed of sheet-metal bent up transversely into general semi-cylindrical form, and a stropping facing transversely stretched over the outer surface of said roller, the longitudinal edge portions of said metal roller at the flattened part thereof being bent outwardly in opposite directions over substantially the full length of the marginal portions of the facing, the outer edges of said roller portions each having a series of inwardly-extended teeth embedded in the outer surface of said facing, said portions and teeth constituting the sole means fastening the facing to the roller, substantially as described.

1,304,954. METHOD OF EXPANDING SUPERHEATER-TUBES. HARVEY H. FOERSTER, Dongan Hills, N. Y. Filed July 13, 1918. Serial No. 244,600. 2 Claims. (Cl. 153-80.5.)

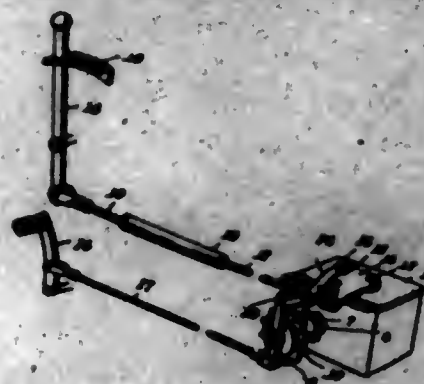


1. The method herein described of expanding a wrought steel tube into intimate contact with cast iron rings or sections of tubing surrounding the same, which consists in forcing directly and completely through the tube with such rings strung over the same, a tapered steel plug capable of collapsing slightly at its part of greatest diameter but only under a pressure greater than that required for expanding said tube into intimate contact with the rings having the greatest internal diameter, as set forth.

1,304,955. GEAR-SHIFTING MEANS FOR MOTOR-DRIVEN VEHICLES. LEONARD E. FOWLER, London, Ontario, Canada. Filed Feb. 23, 1918. Serial No. 218,052. 8 Claims. (Cl. 74-55.)

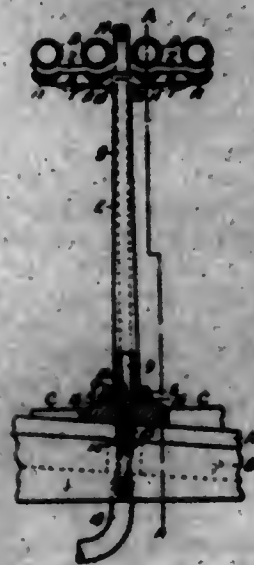
1. A clutch shifting mechanism, comprising a clutch-shifting element, a lever, a unitary power device for

operation of said element which is connected to said lever, means for normally locking the element against the power



device, and means for setting the power device for selective movement of the element.

1,304,956. REFRIGERATED-DISPLAY-COUNTER TOP. WILLIAM A. FREEMAN, Hamilton, Ontario, Canada, assignor to W. A. Freeman Company, Limited, Hamilton, Ontario, Canada. Filed July 8, 1918. Serial No. 243,992. 5 Claims. (Cl. 311-12.)



1. In a device of the class described, the combination with a counter top and glass holding bracket rigid with the counter top, of a cored column secured at its upper end to the top portion of the bracket and at its lower end to the bottom portion of the bracket, a horizontal transverse coil support integral with and at the upper end part of said column, a channel formed on each side of said column, horizontal drip gutters disposed directly beneath the coils and supported by the outer sides of said channels, the core of said column communicating at the lower end with a passage extending below the counter top, substantially as set forth.

1,304,957. POLYPHASE MOTOR. VALDEAN A. FYNN, St. Louis, Mo., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 2, 1917. Serial No. 146,967. 6 Claims. (Cl. 173-276.)

4. The method of regulating a polyphase alternating current motor having an inducing member provided with a plurality of axially displaced inducing windings, an induced member provided with a commuted winding and a set of brushes in each inducing axis of the inducing member, and means for conductively impressing on each set of brushes an H. M. F. whose magnitude is independent of the load and whose phase differs from the phase of the induced H. M. F. appearing at said brushes, which com-

prises moving the brushes in one direction from the inducing axis of the inducing member to obtain super-



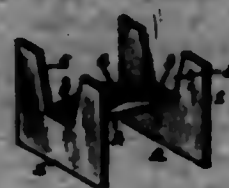
synchronous speeds and moving said brushes in the opposite direction from said axis to obtain subsynchronous speeds.

1,304,958. DYNAMO-ELECTRIC MACHINE. VALDEAN A. FYNN, St. Louis, Mo., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed May 28, 1917. Serial No. 171,571. 10 Claims. (Cl. 173-276.)



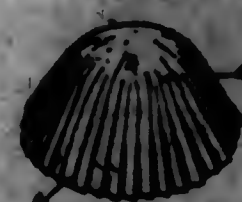
2. In a dynamo electric machine, the combination of a stator and a rotor having their windings connected in series to produce displaced magnetizations and proportioned and positioned to produce a substantially equal number of effective ampere turns having analogous space distribution.

1,304,959. CHAPLET. PAUL L. GUNN, Bellevue, Pa., assignor to Edgar M. Moore, Pittsburgh, Pa. Filed July 11, 1918. Serial No. 244,997. 4 Claims. (Cl. 23-184.)



1. A chaplet formed from a single piece of sheet metal having two slotted heads, and a supporting standard between said heads from points intermediate the sides of the heads and having a flange on the side of the same extending the full length of the standard.

1,304,960. SANITARY AND PROTECTIVE CAP. MARCE GUNN, San Francisco, Calif. Filed June 26, 1914. Serial No. 847,442. 1 Claim. (Cl. 2-100.)



A new article of manufacture consisting of a protective covering for the head of a person trying on hats

comprising a body with a curved central portion and an extended upper adapted to bend over the hair of a user to protect said hair, and plaited to expand to adapt itself to varying dimensions and configurations.

1,304,961. BOAT-RAILING MEANS. JOHN COON, Brooklyn, N. Y. Filed Oct. 27, 1915. Serial No. 53,257. 2 Claims. (Cl. 114-154.)



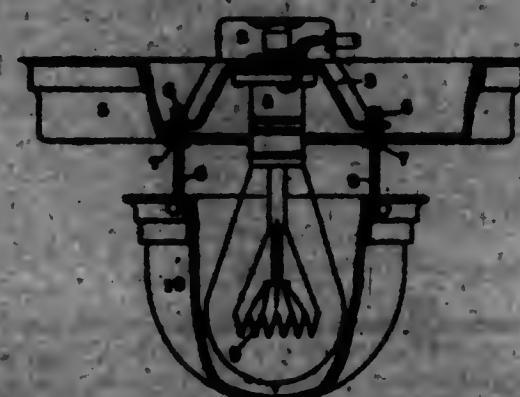
1. The combination in a marine vessel, of an internal combustion engine adapted to propel the same, an exhaust pipe for said engine leading overboard and having incorporated therein a Venturi tube with a water pipe leading from the bilge water of said boat to a point within the throat of said Venturi tube, and adapted to discharge bilge water into said exhaust pipe and thence overboard.

1,304,962. SHOT-SHELL. JULIAN E. GRAVELY, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Jan. 9, 1913. Serial No. 270,593. 1 Claim. (Cl. 103-99.)



A shot-shell having a shot of the shot-charge provided with a composition adapted to be ignited by the concussion between the shot consequent upon firing the shell and to burn and mark the flight of the shot-charge.

1,304,963. LIGHTING-FIXTURE. ROWEN F. GUTH, St. Louis, Mo., assignor to Luminous Unit Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 19, 1918. Serial No. 212,797. 4 Claims. (Cl. 240-92.)

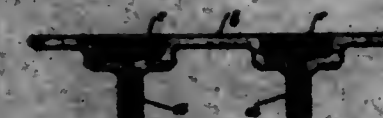


1. In a lighting fixture the combination of a main support suitably attached to the ceiling, a canopy-reflector carried by said main support and vertically and angularly adjustable with respect thereto, a light controlling device below the canopy, and means comprising a part of the canopy supporting means for adjusting the controlling device with respect to the canopy.

1,304,964. FLOORING IN ARMORED CONCRETE WITHOUT THE USE OF FALSE WORK OR MOLD. ARTHUR HALLAN, Chesham, Bucks, Eng., assignor to the British Concrete Reinforcing Co., Ltd., London, Eng. Filed Sept. 15, 1917. Serial No. 191,193. 1 Claim. (Cl. 73-68.)

A reinforced concrete flooring comprising in combination reinforced concrete beams prepared in advance and

having a substantially rectangular cross section and an upper face composed of two oppositely inclined slopes, the iron work in said beams projecting upwardly through the upper face thereof, concrete slabs prepared in advance and having lateral ribs arranged below the upper surface of the slab body, said ribs having an inclined bottom adapted to rest upon one of the upper slopes of



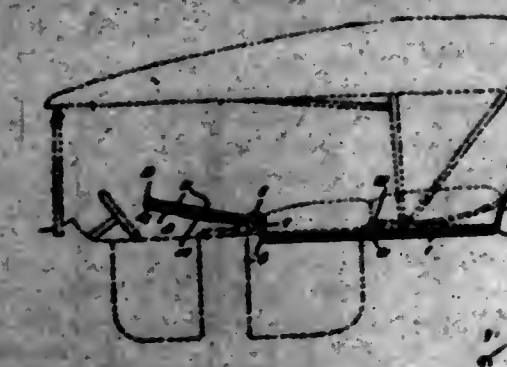
the beams and the ribs of adjacent slabs leaving between them a narrow gap through which the iron work of the corresponding beam may extend, an iron work arranged in the space between the bodies of two adjacent slabs and connected to the projecting part of the iron work in the beam, a concrete filling poured in the said space over the said iron work, wooden strips arranged on the bottom face of the beams and hooked points extending through the wooden strips and projecting into the beam body.

1,304,965. PRESSURE SAFETY-TRIPPER. ERIC HAMMARSTROM, Brooklyn, N. Y. Filed June 26, 1917. Serial No. 177,957. 2 Claims. (Cl. 187-129.)



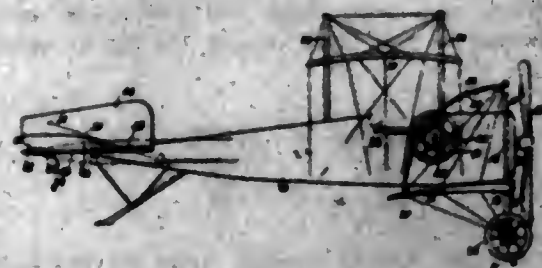
1. A pressure fluid trigger combining a pressure chamber, a piston movable in one direction by the force exerted by said pressure, a loaded lever engaging said piston and preventing such movement thereof at normal or sub-normal pressures, a latch normally engaged by the lever, a valve communicating with said pressure chamber and relieving said pressure upon movement of the valve from normal position, means tending to move the valve from normal position, the latch preventing such movement of the valve while the lever is in normal position, the movement of the piston upon excessive pressure causing the lever to move and thereby release the latch, whereby said means moves the valve automatically to relieve the pressure.

1,304,966. AUTO-BED. BURTON E. HANBY, Medford, Ore. Filed Dec. 29, 1918. Serial No. 267,961. 2 Claims. (Cl. 21-42.)



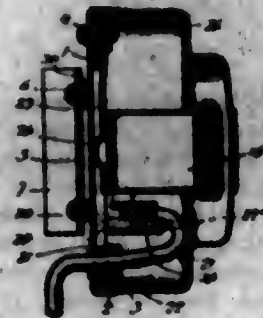
1. An automobile bed comprising side members; seat engaging hooks detachably assembled with the ends of the side members; and a cross bar having means for engaging the side members detachably, the cross bar being elevated to form a cushion-prop.

1,304,967. FLYING-MACHINE. ALFRED HARR, New York, N. Y., assignor to Louise Harr, New York, N. Y. Filed Nov. 27, 1917. Serial No. 204,202. 4 Claims. (Cl. 244-29.)



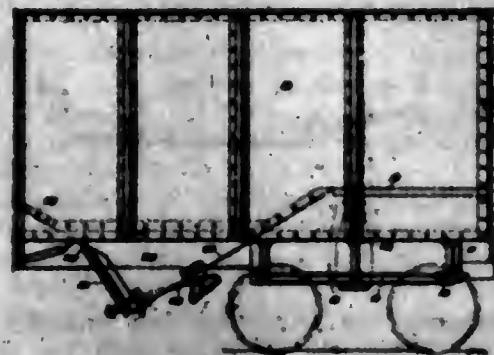
1. An aeroplane having a body and having a main plane mounted transverse the direction of flight underneath the body at its front end characterized by the fact that it extends rearwardly from its front edge with which it moves as about a horizontal axis to incline toward and away from the bottom of the body, vertical supports united with said axis intermediate their length so as to have portions extending upwardly and downwardly therefrom approximately at right-angles to the projection of said plane, one vertical support on either side of said body, a running gear carried by the downwardly extending portions of said supports, connections between the upwardly extending portions of said supports and said plane, and manually operable mechanism connected with said connections by which to cause said plane and said running gear to move together about said axis.

1,304,968. SIGNALING DEVICE. CLARENCE B. HARLOW, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 7, 1917. Serial No. 167,105. 6 Claims. (Cl. 177-7.)



1. In an electric sound-producing device, the combination with a diaphragm, of an electromagnet for causing said diaphragm to vibrate, a cover secured to said diaphragm and forming therewith an inclosing casing for the operative parts of the signal, and a wide, flat support for the signaling device secured across the front face of the diaphragm and spaced apart therefrom to form a sound chamber for the diaphragm.

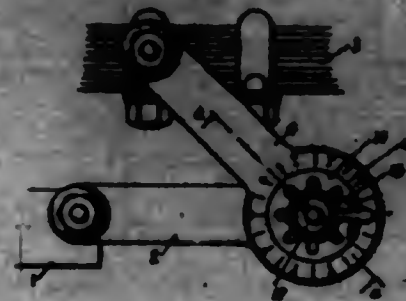
1,304,969. DUMP-CAR. HARRY S. HART, Chicago, Ill. Filed Oct. 21, 1918. Serial No. 258,989. 4 Claims. (Cl. 105-240.)



1. A dump car having sides, ends and a floor, the floor portions over the trucks including members sloping down-

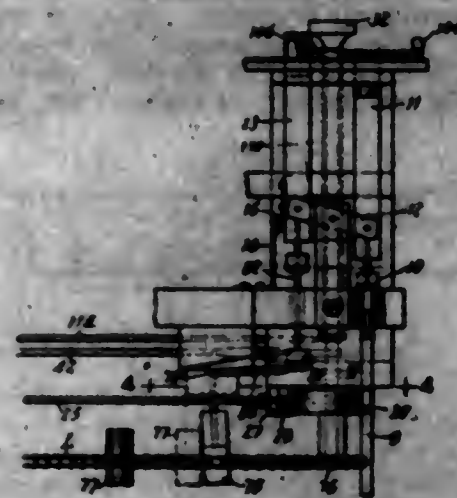
wardly and outwardly toward the sides of the car, the floor intermediate the trucks including hopper members having transversely arranged dump doors which swing toward each other and away from each other into opened and closed positions, respectively.

1,304,970. SHOCK-ABSORBER FOR VEHICLE SUSPENSION-SPRINGS. EDWARD VASSALLO HARTFORD, Deal, N. J. Filed Oct. 27, 1915. Serial No. 58,068. 3 Claims. (Cl. 21-105.)



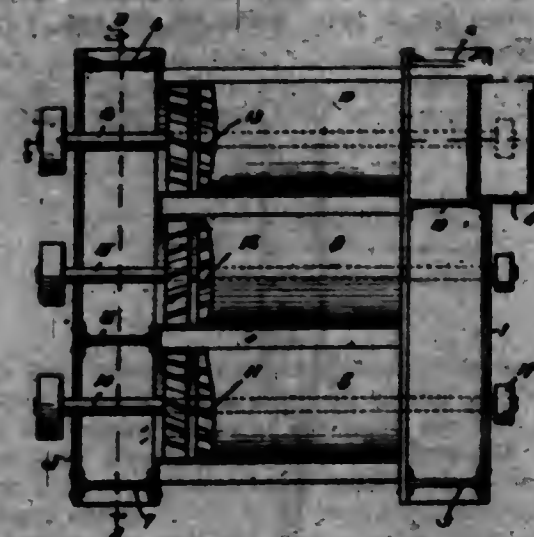
2. In a shock absorber, the combination of a plurality of friction disks, a tension device having a non-expandable uninterrupted outer annular portion, and an inner yieldable portion raised above the plane of the outer annular portion, and means for holding the disks and tensioning device in closely associated positions, said means being operable to regulate the tension of the tensioning device to control the degree of reluctance to movement of the disks.

1,304,971. STARTING AND STOPPING MECHANISM FOR AUTOMATICALLY-PLAYED MUSICAL INSTRUMENTS. WILLIAM E. HASKELL, Brattleboro, Vt., assignor to Hater Organ Company, Brattleboro, Vt., a Corporation of Vermont. Filed Mar. 16, 1917. Serial No. 165,171. 32 Claims. (Cl. 84-108.)



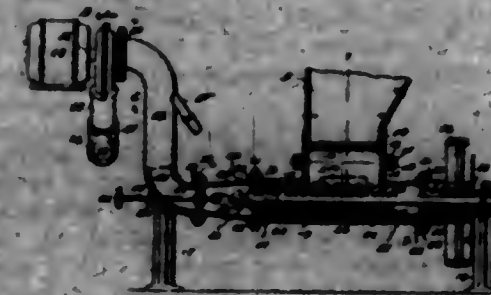
27. A note sheet played organ having, in combination, a regulating box H having an air supply chamber 28 and a communicating compartment 29; a pipe 27 leading from said compartment to the note sheet driving motor; a slide valve 40 normally closing the communication between said chamber and compartment and having a port 41 adapted to open said communication when said valve is moved; a hand rotated shaft 31 having a crank arm 42; and a rod connecting said crank arm and said valve, whereby in whichever direction the said shaft is rotated to one side or the other of the position where the slide valve is closed, the port of said slide valve will be opened and to a greater or less extent depending upon the degree to which the shaft is rotated.

1,304,972. WATER-MOTOR. JAMES HAVANA, Montreal, Wis. Filed Mar. 4, 1914. Serial No. 281,370. 1 Claim. (Cl. 353-141.)



In a water motor parallel conduits, casings connecting the conduits, turbines within each casing, a water inlet pipe opening into one end casing and portion of one of the conduits and opposite the end of one end casing, a gate within said conduit between said end casing and an intermediate casing, a gate within the other conduit between the other end of the intermediate casing and the other end casing, that end of the intake conduit nearest the inlet being closed, a gate at the other end of said conduit, and a gate at the corresponding end of the other conduit, the other end of the last named conduit being closed.

1,304,973. FUEL-FEEDING DEVICE. CHARLES S. HEPFELTINGER, Lebanon, Pa. Filed June 2, 1914. Serial No. 842,862. 21 Claims. (Cl. 110-105.)



1. Fuel feeding apparatus comprising means for conveying fuel in controlled amount from a source of supply to a point of discharge, means for subjecting the discharged fuel to a moving body of air, and means substantially coaxial with such conveying means for returning to said conveying means fuel discharged thereby but not carried away by the moving body of air.

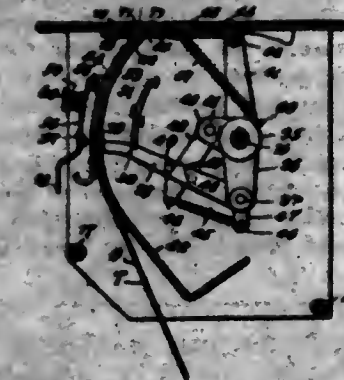
1,304,974. COIN-CONTROLLED TICKET-MACHINE. REUBEN H. HILSON, Long Island City, N. Y., assignor, by means assignments, to The Automatic Ticket Selling and Cash Register Company, New York, N. Y., a Corporation. Filed June 8, 1917. Serial No. 173,474. 46 Claims. (Cl. 194-10.)

12. In a coin controlled ticket selling machine, a lever and means for moving the same longitudinally and about a vertical axis; means for holding said lever in its initial

position; coin controlled means for releasing said lever; a motor; means operated by said motor for returning said lever to its initial position; means operated by said lever for controlling said motor; and ticket issuing mechanism operated by said motor.

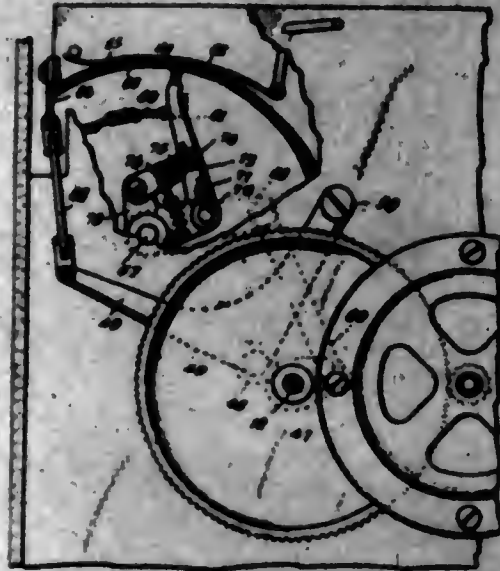


1,304,975. TICKET-DISPENSING MACHINE. REUBEN H. HILSON, Long Island City, N. Y., assignor, by means assignments, to The Automatic Ticket Selling and Cash Register Company, New York, N. Y., a Corporation. Filed Oct. 20, 1917. Serial No. 197,505. 9 Claims. (Cl. 211-33.)



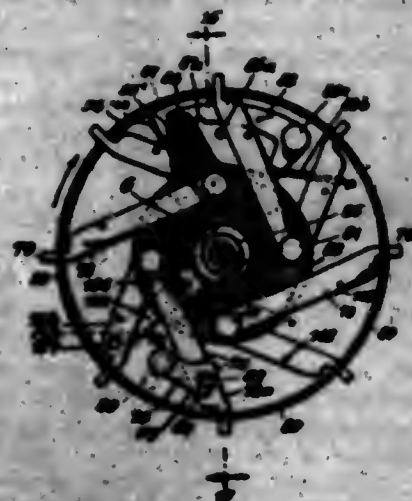
5. A ticket dispensing mechanism comprising a suitable supporting frame, an operating shaft journaled in bearings carried by said frame, a curved strip guide plate suitably supported by said frame and having an elongated slot therein, a reciprocating strip feeding member carried by and pivotally connected with said operating shaft and provided with a pin arranged to enter the plate slot and to engage a ticket strip during the forward movement of the feeding member, means to limit the movement of the feeding member proportionate to the length of a single ticket, means to cause the feeding member to engage the ticket strip during its movement in one direction and to move into non-engaging position when moved in the reverse direction, an actuating lever affixed to the operating shaft, stops positioned in the path of said actuating lever to limit the movement thereof, a stationary knife blade positioned adjacent the top of the guide plate, a guideway formed in the supporting frame, a movable knife slidable along said guideway and connections from the operating shaft to said movable knife whereby the latter is retracted from the stationary knife blade during the feeding of the ticket strip and moved into co-action with the said latter blade during the return movement of the parts, substantially as described.

1,304,976. **TICKET-ISSUING MECHANISM.** RAYMOND H. HOLST, Long Island City, N. Y., assignor, by mesne assignments, to The Automatic Ticket Selling and Cash Register Company, New York, N. Y., a Corporation. Original application filed June 8, 1917, Serial No. 173,474. Divided and this application filed Jan. 12, 1918. Serial No. 211,840. 6 Claims. (Cl. 211-22.)



1. Ticket strip feeding mechanism comprising an oscillating shaft, a supporting member carried by and extending from said oscillating shaft, a reciprocating strip feeding member one end of which is pivotally connected with said supporting member adjacent the free end thereof and the free end of which member is adapted to engage and feed a ticket strip, and which strip feeding member extends substantially at right angles to said supporting member and is movable bodily in the direction of its length to cause its free end to engage the ticket strip aforesaid, means for maintaining the free end of said strip feeding member in engagement with a ticket strip during its forward feeding movement, and out of engagement with the strip during its return movement, a curved ticket strip supporting plate located adjacent the path of movement of the free end of said ticket strip feeding member, and extending transverse to the longitudinal axis thereof, and means for operating said oscillating shaft.

1,304,977. **TICKET-ISSUING MACHINE.** RAYMOND H. HOLST, Long Island City, N. Y., assignor to The Automatic Ticket Selling and Cash Register Company, New York, N. Y., a Corporation. Filed July 26, 1918. Serial No. 246,891. 31 Claims. (Cl. 211-22.)



1. In a device of the class described for issuing different numbers of tickets from a continuous ticket strip, a rotor, keys corresponding to the number of tickets desired to selectively control the period of driving engagement between the rotor and the said ticket strip, and

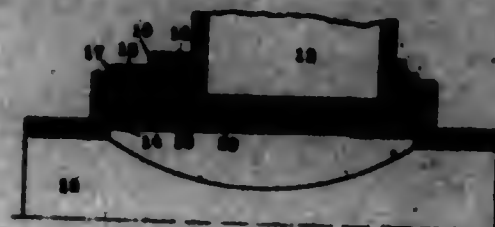
means controlled by the rotor and operated once only during each rotation thereof for selectively covering the issued ticket or tickets in multiple.

1,304,978. **CRUTCH.** HARRY L. HUNNELL, Cleveland, Ohio. Filed Apr. 9, 1918. Serial No. 237,124. 7 Claims. (Cl. 188-82.)



1. The combination with a crutch including arms, a tip and a hand rest of a rod slidably mounted along said arms, a spike removably attached to the lower end of said rod, and a handle connected to said rod and adapted to be moved upwardly to project said spike.

1,304,979. **COUPLING.** JOSEPH HINEMANN, St. Louis, Mo. Filed Jan. 22, 1918. Serial No. 218,115. 9 Claims. (Cl. 286-146.)



1. A coupling for connecting non-aligned parts, comprising two coupling members having connected surfaces relatively rotatable, said surfaces having interlocking connections preventing accidental longitudinal movement, each of said members being provided with a second connecting surface eccentric to the center of relative rotation of said members.

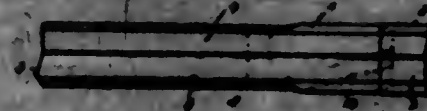
1,304,980. **COUPLING.** JOSEPH HINEMANN, St. Louis, Mo. Filed Feb. 11, 1918. Serial No. 214,623. 6 Claims. (Cl. 286-120.)



2. A coupling for parallel non-aligned parts, comprising two members relatively rotatable, each having a part

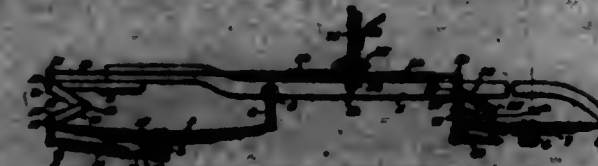
eccentric to the axis of relative rotation and an opening eccentric to said axis, the axis of said opening being parallel to the axis of relative rotation, and means for causing said parts together end to end.

1,304,981. **DRILL.** FRANK O. HOAGLAND, Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 19, 1918. Serial No. 212,897. 7 Claims. (Cl. 77-66.)



1. A drill having a single longitudinal sectoral groove extending inward to the axis and having a cutting edge at one side of the groove at the front, the drill also having an open longitudinal oil groove separate from the sectoral groove and curving to deliver oil to the cutting edge from which the oil flows backward through the sectoral groove, the said oil groove being positioned adjacent the cutting edge whereby the reaction from the oil pressure is taken at a part of the drill remote from the cutting edge.

1,304,982. **CUSHIONING MECHANISM FOR VEHICLE BODIES.** JOSEF HOFMANN, Barmaracha, Switzerland. Filed July 26, 1916. Serial No. 111,177. 20 Claims. (Cl. 287-4.)



2. In a vehicle, the combination with the vehicle frame and front and rear suspension for said frame; of shock absorbers arranged for action in the same direction comprising pivoted levers included between the frame and front and rear suspension, and a connecting member between a lever of the front shock absorber and a lever of the rear shock absorber and a spring included in said connection to permit a degree of independent movement of the shock absorbers.

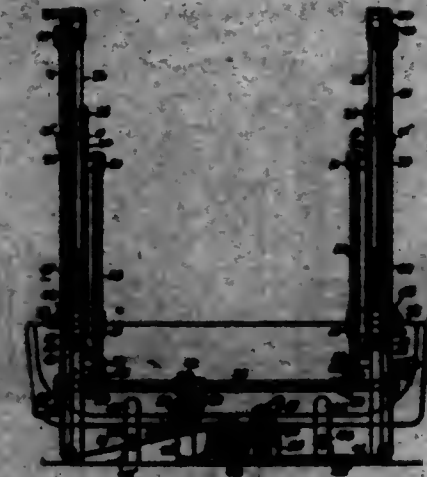
13. The combination with a vehicle body frame and the front and rear main springs; of shock absorbers between said frame and springs capable of movement substantially independently of said springs, and each including a pivoted lever and means to render said levers automatically inoperative during the rolling of the body frame and to automatically transfer their duty to the main springs.

1,304,983. **TROLLING DEVICE.** RARY N. HOWARTH, Tacoma, Wash. Filed Oct. 23, 1918. Serial No. 260,236. 5 Claims. (Cl. 43-4.)



1. A trolling device including a float, a longitudinal lead for the float suitably movable downwardly thereon to active position projecting beneath the float, and means for holding said lead in active position.

1,304,984. **BOAT-DAVIT.** JAMES E. IRWIN, San Francisco, Calif. Filed Aug. 15, 1918. Serial No. 249,984. 7 Claims. (Cl. 9-22.)



1. In a device of the character described, a fixed vertical beam, a boom pivoted at the lower end of said beam and swinging in the same plane therewith, a carriage through which the beam extends, anti-friction members interposed between the carriage and the opposite sides of the beam for facilitating in the movement of the carriage therealong, a rigid link member pivoted at its outer end to the boom and at its inner end to the carriage and means for changing the relative positions of the carriage along said beam and thereby affecting the link to change the angular position of the boom.

1,304,985. **TOY HORSE.** CHARLEY L. JOHNSON, San Diego, Calif., assignor of one-half to E. A. Minto, Venice, Calif. Filed Nov. 23, 1917. Serial No. 208,907. 3 Claims. (Cl. 46-22.)



1. The combination with the body of a toy horse, of a rear axle in the form of a crank shaft, wheels on opposite sides secured to said rear axle, bearings connected to the cranks, guiding sheaves mounted in the body of the horse and cables extending from said bearings forwardly and upwardly in the body of the horse over said sheaves and out through the sides and stirrups secured to the outwardly extending ends of said cables.

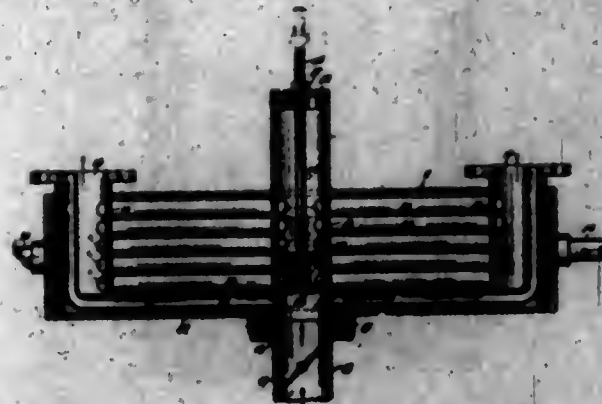
1,304,986. **EAR-RING.** ADOLF KASSLER, New York, N. Y. Filed Oct. 17, 1917. Serial No. 197,172. 1 Claim. (Cl. 68-14.)



In an ear-ring, the combination with a gem setting, a set screw thereto, a screw shank in mesh with said set, an ear-gripping member rotatable and longitudinally shift-

able on said shank, and a spring within said gripping member tending to force said gripping member toward said jewel setting.

1,304,987. INTAKE-MANIFOLD. WILLIAM E. KEMP, New York, N. Y. Filed Nov. 22, 1917. Serial No. 203,357. 2 Claims. (Cl. 123-52.)



1. An intake-manifold for internal combustion engines, comprising a casing having a fuel inlet and fuel outlets, a chamber extending throughout the height of said casing communicating with each of said fuel outlets, a plurality of conduits extending from said inlet chamber to each of said outlet chambers, and a weighted valve within said inlet chamber tending to close said conduits but actuated under suction above the same and pressure below the same, thereby automatically opening and closing said conduits progressively and in succession in proportion to the speed of the engine, both the suction and pressure being induced by the operation of the engine.

1,304,988. CARBURER FOR GASOLINE-ENGINES. EDWARD KNAUSS, New York, N. Y. Filed Mar. 20, 1917. Serial No. 158,054. 6 Claims. (Cl. 261-66.)



3. In a carburetor for automobile cars the combination of a tapered fuel feed tube; a fuel feed regulating means inside said tapered tube; means for adjusting said regulating means; and means for readily attaching to and detaching from the carburetor casing said tube and regulating means in their adjusted positions, whereby the carburetor is rendered operative or inoperative, at pleasure, substantially as described.

1,304,989. MANUFACTURE OF ETHYLIDENE DIACETATE. JOSEPH KOTSCHNER and MAURICE BRUDER, Lyon, France, assignors to Societe Chimique Des Usines Du Rhone, Anciennement Gilliard, P. Monnet et Cartier, Paris, France. Filed Dec. 7, 1917. Serial No. 206,125. 2 Claims. (Cl. 23-24.)

1. A process of producing ethylidene diacetate by the action of acetylene on acetic acid, in the presence of esters (etheral salts) of sulfuric acid and acetate of mercury.

1,304,990. CLUTCH TRANSMISSION MECHANISM. WILLIAM O. KUSS, Graham, Wash. Filed Apr. 18, 1918. Serial No. 229,438. 4 Claims. (Cl. 74-34.)

1. A clutch transmission comprising a drive and a driven shaft, a plurality of drums carried by said drive

shaft, one of said drums adapted to be fixedly secured thereto and another of said drums adapted to be rotatably mounted thereupon and carrying mechanism to cause the same to be differentially actuated thereby, a drum adapted to be fixedly secured to said driven shaft, and a sleeve longitudinally movable upon said driven shaft for bringing said fixedly secured drums into frictional contact to



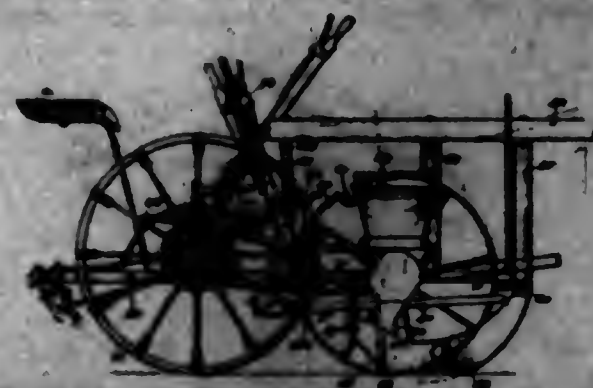
establish the forward speed of said clutch transmission, and means whereupon the reversal of longitudinal movement of said sleeve upon said driven shaft will bring into frictional contact only the drum of said driven shaft with the rotatably mounted drum of said drive shaft and actuate said mechanism to differentially reverse the rotation of said rotatably mounted drum and thereby establish the reverse speed of said clutch transmission.

1,304,991. FILING-CABINET. LUDWIG T. KURSI, Boston Harbor, Mich., assignor, by mesne assignments, to Baker-Vawter Company, Benton Harbor, Mich., a Corporation of Michigan. Filed Nov. 2, 1914. Serial No. 809,941. 7 Claims. (Cl. 45-77.)



1. In a device of the class described, a casing having an opening therein, a drawer arranged to enter said opening and be received in the casing, guides in the casing, intermediate slides received in said guides, means to limit the movement of said slides, drawer slides mounted on the drawer and engaging said intermediate slides, there being openings in the sides of the drawer and slides respectively adapted to register when the drawer is in its innermost position and leaf springs mounted within the drawer having curved offset portions adapted to enter said openings and yieldingly engage the intermediate slides.

1,304,992. CORN-PLANTER. COLONEL WOLFORD LAMMAN, Chicago, Ill. Filed Dec. 5, 1917. Serial No. 205,042. Renewed Apr. 11, 1918. Serial No. 289,410. 7 Claims. (Cl. 111-18.)



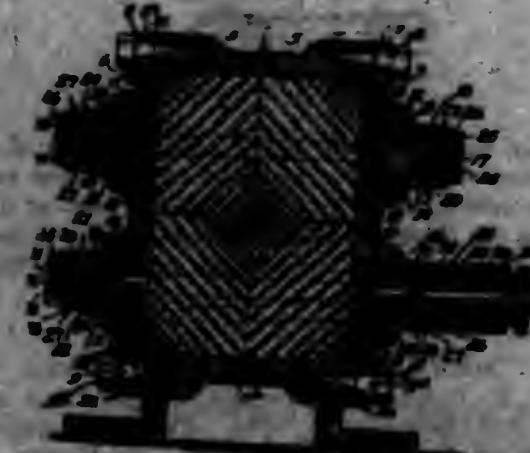
1. In a corn-planter, the combination of corn-dropping mechanism involving a casing through which the corn is intermittently fed and a corn-feeding member operating

in said casing, a shaft pivotally supporting said casing and supporting said member, a furrow-opener, and means for preventing rotation of said casing formed of cooperating elements on said casing and furrow-opener.

2. In a corn-planter, the combination of corn-dropping mechanism involving a casing through which the corn is fed intermittently and a rotary member in said casing for feeding the corn, said casing being pivotally supported on said member, a shaft supporting and operating said member, a furrow-opener and means for preventing rotation of said casing formed of cooperating elements on said casing and furrow-opener.

7. In a corn-planter, the combination of corn-dropping mechanism involving a casing through which the corn is intermittently fed, and a corn-feeding member operating in said casing, a shaft pivotally supporting said casing and supporting said member, a frame, a furrow-opener connected with said frame to swing up and down at the portion thereof adjacent said casing, spring means carried by said first-named frame and yieldingly urging said furrow-opener in a downward direction, and means for preventing rotation of said casing formed of cooperating elements on said casing and furrow-opener arranged to permit of said movement of said furrow-opener independently of said casing.

1,304,993. STRUCTURE FORMED OF MATERIALS HAVING DIFFERENT COEFFICIENTS OF EXPANSION. GEORGE I. LEONARD, Chicago, Ill., assignor to Leonard Valveless Engine Company, a Corporation of Maine. Filed Jan. 2, 1918. Serial No. 210,038. 10 Claims. (Cl. 74-7.)



1. The combination of a member, and a second member shouldered at opposite ends and confined at its shoulders in said first-named member, said members having different coefficients of expansion, the whole being so constructed and arranged as to cause the stress on said shoulders to be maintained substantially constant under variations in temperature to which said members are subjected.

1,304,994. KNOCKDOWN BANANA-CRATE. JOSEPH LIMONCHILLE, Chicago, Ill. Filed Dec. 4, 1917. Serial No. 205,304. 4 Claims. (Cl. 217-48.)

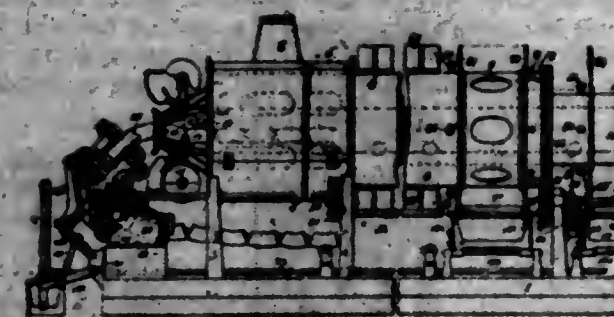
1. A knock-down polygonal crate having an articulate peripheral wall composed of a plurality of substantially equally spaced slats of equal width adapted to be turned relatively to each other to lie in a common plane; slats mounted upon the end portions of the inner faces of the slats and having beveled abutting faces adapted to maintain the slats disposed at substantially equal angles relatively to each other, manually operable means for removably coupling the end slats of the series and connecting with said slats to form and maintain the peripheral wall, the same being adapted to be completed to form a container open at both ends and adapted to receive and discharge, and closures for the ends of the peripheral wall each comprising a number of separate plates substantially equal in length to the inner diameter of the crate and of the same width as said slats and of one-half the

number of said slats, said plates angularly disposed to and overlapping each other and diametrically spanning the ends of the peripheral wall for holding the slats of



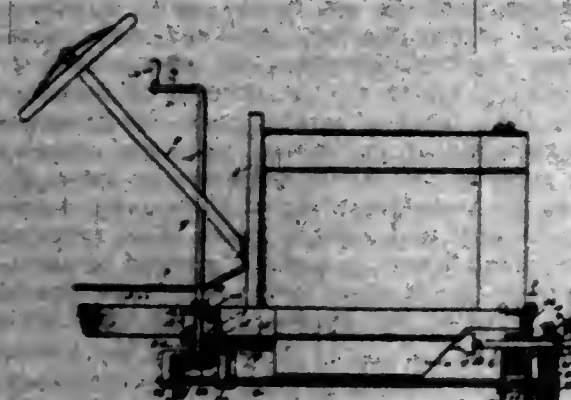
the latter in proper relative position independently of the slats and being themselves held by said slats against relative rotation and displacement.

1,304,995. MACHINE FOR MAKING RUBBERIZED FABRIC TUBES AND STRIPS. JOHN T. LISTER, Cleveland, Ohio. Filed Jan. 24, 1916. Serial No. 78,061. 23 Claims. (Cl. 154-1.)



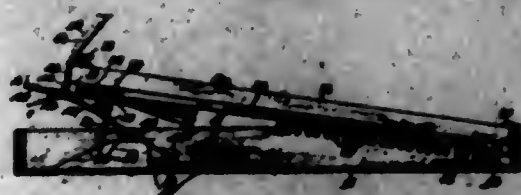
1. An apparatus for forming tubular fabric comprising a segmented traveling core, means adapted to receive a portion of said core and to cause the segments of said portion to close and assume a substantially rigid arc-shaped form, and means separate from the aforesaid means cooperating with the core to insure the proper closing of the segments thereof, and means for winding material about the core.

1,304,996. AUTOMOBILE-ENGINE STARTER. SAMUEL B. MCHENRY, Bloomsburg, Pa. Filed Apr. 17, 1918. Serial No. 229,070. 3 Claims. (Cl. 74-54.)



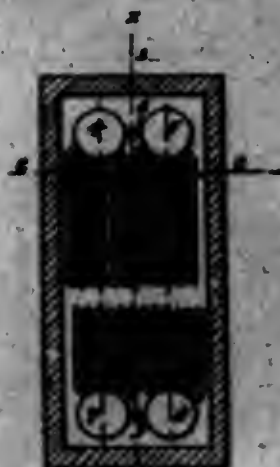
1. An engine starting device, including a driven shaft arranged longitudinally of the engine, an engine starting crank, gearing connecting said shaft with the engine starting crank, a manually operated shaft in rear of the engine, gearing connecting said manually operated shaft with the driven shaft, and means adapted to permit longitudinal movement of the driven shaft and engine starting crank.

1,304,997. **KEYED ZITHER.** CHARLES H. MARK, Chicago, Ill., assignor to The Phonograph Company, East Boston, Mass., a Corporation of Maine. Filed Dec. 18, 1918. Serial No. 137,483. 23 Claims. (Cl. 84-116.)



1. The combination of a zither, means for supporting said zither in an inverted position with the strings beneath the body thereof, a plurality of keys in operative relation to the zither below the strings, and hammers associated with said keys for striking the strings.

1,304,998. **STEAM-BOILER.** ROBERT E. MORRISON, Sharon, Pa. Filed Aug. 17, 1918. Serial No. 45,980. 2 Claims. (Cl. 122-362.)



1. In a water tube boiler having a heating chamber through which the combustion products flow from front to rear; multiple drums located side by side in said chamber and extending lengthwise from front to rear therein, in the same general direction as that of the flow of the combustion products through said chamber; banks of tubes connected to said drums and standing beside each other in said chamber, the banks being so arranged in individual design and in relation to each other that all the alleys between the tubes and extending from front to rear in the same general direction as that of the flow of combustion products are, in the entire structure, or boiler, of practically the same size and shape, such an arrangement existing throughout the greater part of the tube length by reason of the manner of bending the tubes; the tubes being in parallel rows both transversely and longitudinally of the drums, the tubes of one row standing opposite the spaces between the tubes of another row, the transverse rows of tubes being separated by alternate wide and narrow spaces, thus resulting in these rows being largely or entirely grouped in pairs, the two innermost longitudinal rows of a bank straddling the center lines of the drums to which they are connected.

1,304,999. **SHEET-METAL END STRUCTURE FOR RAILWAY-CARS.** WALTER P. MURPHY, Chicago, Ill. Continuation in part of application Serial No. 808,518, filed Dec. 28, 1912, (now Patent No. 1,346,143, issued Nov. 12, 1917.) This application filed Apr. 10, 1918. Serial No. 20,450. 7 Claims. (Cl. 106-410.)

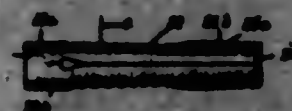
5. An end structure for a railway car comprising a sheet steel end wall panel having flat marginal portions lying in

the original plane of the sheet, the middle portion of the panel being formed with parallel corrugations lying adjacent and merging one into the other and pressed from



the plane of the marginal portions alternately in opposite directions.

1,305,000. **SHEET-METAL BOLT-ANCHOR.** JOHN EDWARD OSMAN, Cornwall, N. Y. Filed Dec. 24, 1914. Serial No. 872,844. 9 Claims. (Cl. 85-2.4.)



7. A bolt anchor comprising a tubular metal member having a tapered base, the walls of said member having transverse corrugations to receive the threads of a bolt and having the thickness of its walls increased by folding the metal together near the smaller part of the tapered member.

1,305,001. **BOLT-ANCHOR.** JOHN EDWARD OSMAN, Cornwall, N. Y. Continuation in part of application, Serial No. 872,844, filed Dec. 24, 1914. This application filed Sept. 23, 1917. Serial No. 198,038. 13 Claims. (Cl. 85-2.4.)



12. A bolt anchor formed of sheet metal having a tubular body comprising two similar semi-cylindrical members, each having a central constricted portion in which its walls are thickened by folding the sheet metal back on itself, expansion members in the respective ends of said tubular body, and wedge projections from said expansion members, said semi-cylindrical members being constructed with notches between which said projections are received.

1,305,002. **MOTION-PICTURE APPARATUS.** FRANK E. OSTEN, New York, N. Y., assignor to Jay Edward Booth, New York, N. Y., and Samuel E. Dettelbach, Cleveland, Ohio. Filed Apr. 25, 1912. Serial No. 286,776. 7 Claims. (Cl. 88-12.6.)

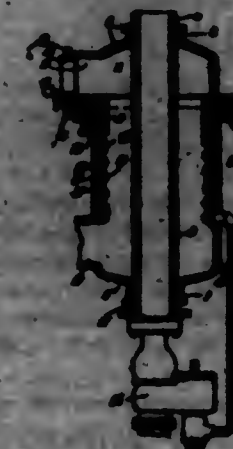
1. In a motion picture apparatus, a film guide, a member reciprocable lengthwise of the film, a reciprocatory film-engaging member carried by said first-named member and movable toward and away from the film at the limits

of movement of the first-named member, means for reciprocating said member, and a film-feeding device operating



to hold the film when the film-engaging means is disengaged from the film.

1,305,003. **FUEL-HEATER.** GEORGE O. OSMAN, Boston, Mass., assignor to United States Vaporizer Co., a Corporation of Massachusetts. Filed Sept. 12, 1918. Serial No. 119,230. 4 Claims. (Cl. 287-861.)



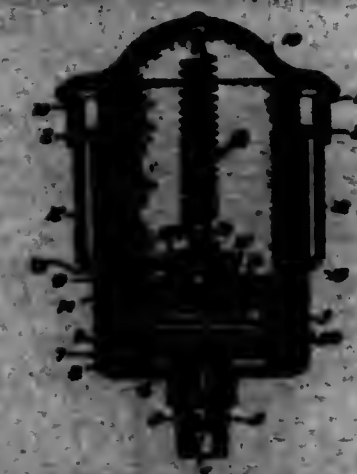
1. A device of the class described having, in combination, a vapor conductor, a casing surrounding said conductor, an exhaust pipe connected with and adapted to conduct exhaust gases to said casing, a fuel pipe encircling said casing outside of the passage for said exhaust gases, means for inducing said fuel pipe, and means for conducting air to said fuel pipe including means, whereby said air may be heated.

1,305,004. **SHOCK-ABSORBER.** FRED PARRIS, Chicago, Ill. Filed June 28, 1914. Serial No. 847,390. 3 Claims. (Cl. 267-19.)



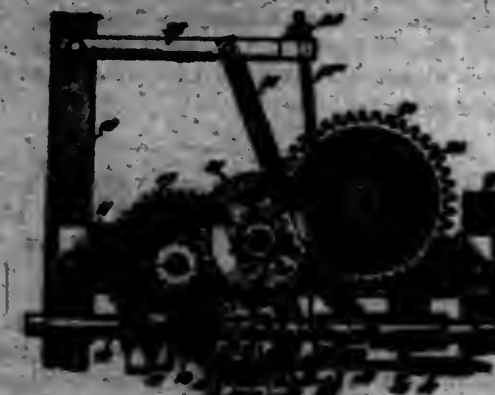
1. In a device of the class described, a lever having one end rigidly secured to the axle of a vehicle, a second lever having one end rigidly secured to the body of the vehicle-adjacent said axle, said levers being crossed at a point between their extremities and pivoted at said point of intersection, and coil springs located on each side of said pivotal point and having their extremities secured to said levers, said springs being normally under tension, whereby when said body moves toward said axle said springs will be relaxed while movement of the body away from said axle will operate to put said springs under tension.

1,305,005. **OIL-CUP.** THOMAS G. PHILPOT and FELIX C. HASTING, Chicago, Ill. Filed Aug. 17, 1912. Serial No. 239,408. 9 Claims. (Cl. 184-45.)



6. An oil-cup comprising a body portion in the form of a cylindrical cup having an outturned flange, an outlet nipple secured in the base of the cup and forming the means for attaching the same to the device to be lubricated, a permeable capillary disk lying in the base of the cup above the said nipple, a cup-shaped piston telescoping within the body of the cup and having an inwardly-opening check-valve in its head, a skirt carried by said cup-shaped piston and telescoping the outer face of the cup, and means carried by said skirt for abutting the flange of the cup to limit the outward movement of the piston, a spring lying within the cup and tending to hold the piston at the outer limit of its movement.

1,305,006. **HOISTING-JACK AND CONTROL THEREFOR.** GEORGE B. REED, Bloomington, Ill. Filed Jan. 12, 1919. Serial No. 270,783. 9 Claims. (Cl. 254-173.)



1. In a device of the class described, in combination, means connectible with a wagon for raising it, a driving element, gearing connected with the elevating means and connectible with the driving element, a suitable clutch for controlling the connection between said gearing and the driving element, a brake comprising opposed members both relatively adjustable but normally related to apply brake action when the gearing and elevating means are at rest, but yieldable relatively to permit the gears to run in the elevating action, and also relatively operable through the turning action of the gear members to develop limited brake action between the opposed members in proportion to the speed of the gear in the lowering movement for controlling the speed of such lowering action, and manually controlled means applicable to one of the brake members for spacing the latter from its opposed member to permit the lowering or retraction of said gear members in the lowering action.

1,305,007. **MACHINE FOR TURNING HEELS.** CHARLES E. REED, Chicago, Ill. Filed Aug. 10, 1918. Serial No. 286,346. 57 Claims. (Cl. 142-12.)

1. The combination with a rotary cutter in fixed bearings, of a rotary blank holder movable toward and across

the working edge of the cutter and parallel to its axis, a pattern mechanism controlling the normal movement of the blank toward and from the rotary cutter and supplemental pattern controlling devices operating by the move-

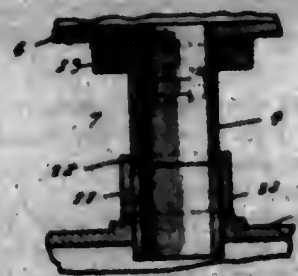


ment of said holders parallel to the cutter axis for imparting other than said normal control to the blank; whereby additional material may be added to the blank at certain portions thereof or removed therefrom, as may be desired.

1,305,008. RESILIENT RUBBER-COMPOUND MATERIAL. TALMON H. RISDER and WILLIAM B. WISLAND, Montreal, Quebec, Canada, assignors to The Goodyear's Metallic Rubber Shoe Company, a Corporation of Connecticut. Filed Apr. 25, 1916. Serial No. 93,360. 3 Claims. (Cl. 104-23.)

1. A sheet of resilient material having a non-slipping hairy surface, consisting of a vulcanized rubber binder and wool-fibers incorporated therein, the proportion of rubber to wool being such that the resulting material possesses the tensile strength and wear-resisting property of vulcanized rubber loaded with zinc oxide and the elasticity of pure rubber.

1,305,009. LOCK-NUT FOR COUPLINGS. HARRY E. ROSSERSON, Wilmington, N. C. Filed Apr. 14, 1916. Serial No. 91,128. Renewed Mar. 27, 1919. Serial No. 285,653. 1 Claim. (Cl. 285-36.)



A coupling comprising two interlocking externally threaded sections, a sectional nut fitted upon one of said sections, downwardly extending lugs formed on the meeting edges of the nut sections, means for detachably and adjustably connecting the lugs, said lugs having their inner faces threaded to engage the threaded portions of the sections.

1,305,010. FUSIBLE LINK. ARTHUR C. ROWLEY, Philadelphia, Pa., assignor to Globe Automatic Sprinkler Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 7, 1918. Serial No. 248,812. 3 Claims. (Cl. 160-24.)

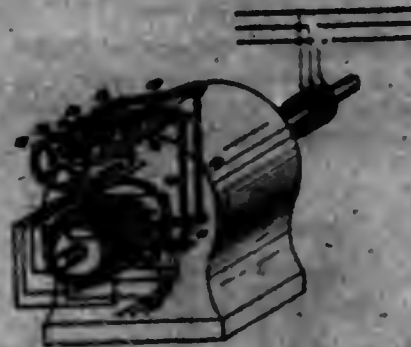
1. A fusible link consisting of two elements each having an opening for the reception of a stress-applying element; and two laterally corrugated side portions respec-

tively on opposite sides of a line connecting said openings, the corrugations of said two portions having openings at their adjacent ends, each element also having a



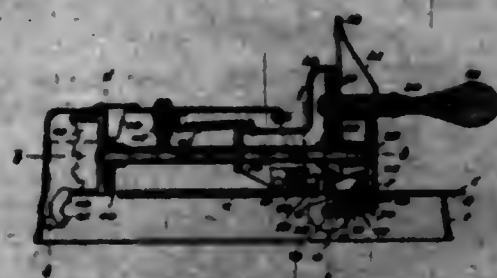
substantially central plane portion between the corrugated side portions; with relatively fusible material separably connecting said elements.

1,305,011. REGULATING COMMUTATOR-MACHINES. REINHOLD KUMMERS, Berlin-Charlottenburg, Germany, assignor to Siemens-Schuckertwerke, G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed Jan. 28, 1916. Serial No. 914,973. Renewed Oct. 22, 1918. Serial No. 289,301. 6 Claims. (Cl. 173-280.)



1. An alternating current motor comprising a rotor winding having a commutator; slip rings for supplying said rotor winding from an alternating current line; two sets of brushes bearing on said commutator; a stator winding supplied from both of said sets of brushes; and adjusting mechanism for positively shifting said sets of brushes at different velocity in opposite sense of rotation for obtaining a speed regulation of said motor and a high power factor throughout the range of speed.

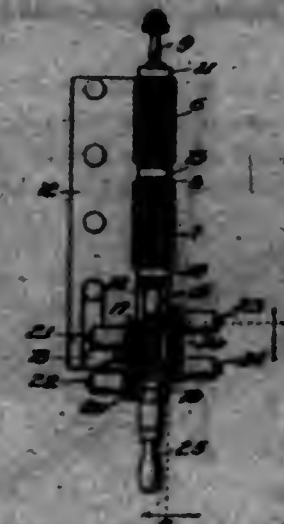
1,305,012. PRINTING-MACHINE. CHARLES H. SANFORD, Rochester, N. Y., assignor, by mesne assignments, to Todd Protograph Company, Rochester, N. Y., a Corporation of New York. Filed Feb. 12, 1914. Serial No. 616,889. 23 Claims. (Cl. 197-44.)



1. In a printing machine, the combination with a platen and a printing member having a plurality of parallel lines of type thereon of different lengths, one of said elements being movable toward and from the other to effect the printing operation, of a gage member having a plurality of rigid shoulders thereon, adjustable with the printing member when the latter is adjusted to position a line of type in printing position, said gage member being movable when the platen and the printing member are relatively moved to effect the printing operation, a feeding member for moving the work between the platen and the printing member, a member having a pawl and

reel connection with the feeding member, said member being moved in one direction by cooperation with the gage member, and a spring acting on said member in the direction opposite to that which the member is acted on by the gage member.

1,305,013. AUTOMATIC REVERSING-SWITCH. HENRY K. HANDELA, Chicago, Ill., assignor to Herbert S. Mills, Chicago, Ill. Original application filed Dec. 22, 1914. Serial No. 877,846. Divided and this application filed Sept. 12, 1916. Serial No. 119,657. 3 Claims. (Cl. 175-251.)



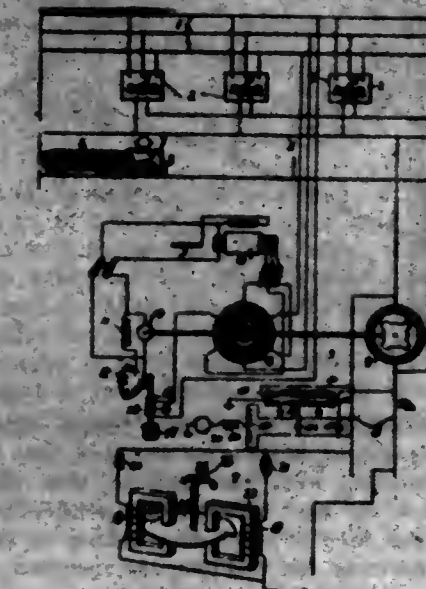
1. A reverse switch comprising a base-block, a pair of aligning solenoid coils mounted on the base-block, an electrically conducting solenoid core movable within the said coils, one end of said core being connected with one pole of a source of current, a switch-bar connected with the said core and reciprocable thereby, contact brushes carried by said base and bearing constantly against the said switch-bar, connections between some of said contact brushes and said solenoid coils on one side of the latter and between the other pole and solenoids on the opposite side.

1,305,014. FUSE AND TORPEDO HOLDING ATTACHMENT FOR RAILROAD-LANTERNS. GRANT SNEY, St. Louis, Mo. Filed Mar. 5, 1919. Serial No. 280,824. 3 Claims. (Cl. 240-1.)



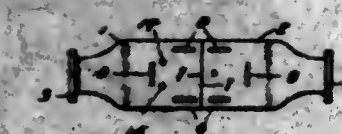
1. A fuse and torpedo holding attachment for lanterns, comprising two elongated fuse containers with removable caps chained thereto, detachably mounted one each adjacent to and in vertical alignment with the opposite side bars of the lantern; a box-like torpedo container having a hinged lid and being permanently mounted at the lower end of one of the fuse containers; and means for detachably mounting said fuse and torpedo containers upon said lantern as aforesaid.

1,305,015. ELECTRIC SYSTEM. FRANCIS H. SHERRAN, New Rochelle, N. Y., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 24, 1914. Serial No. 852,800. Renewed Oct. 20, 1918. Serial No. 280,830. 9 Claims. (Cl. 173-287.)



1. In an electrical system, the combination with a supply circuit, of a plurality of electrical devices adapted to receive energy therefrom at different points, and means disposed at certain of said points and electrically associated with the supply circuit for continuously indicating the electrical load of the entire supply circuit.

1,305,016. LOCK. SANFORD E. SHERRAN, Cincinnati, Ohio. Filed Jan. 2, 1917. Serial No. 140,308. Renewed Apr. 15, 1919. Serial No. 280,299. 5 Claims. (Cl. 70-124.)



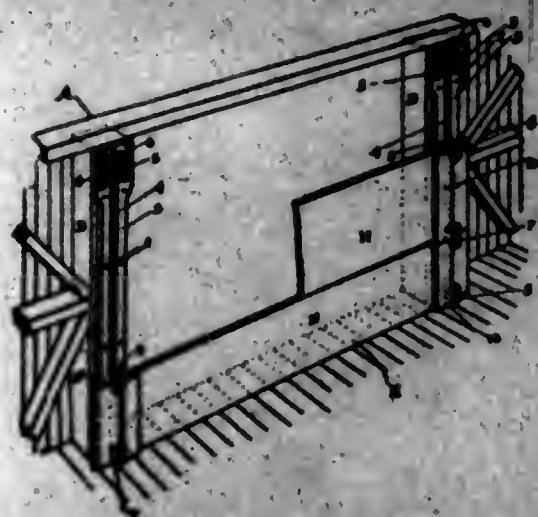
1. A device of the class described comprising a pair of open-ended longitudinally separable casings, a pair of guide plates secured to the opposite inner sides of one of the casings and projecting beyond the open end thereof into the other casing, a plate secured to each casing and provided with a laterally projecting apertured extension, and means for locking said casings together.

1,305,017. JEWELRY. ABRAHAM SHIMAN, Tuckahoe, N. Y. Filed Feb. 16, 1918. Serial No. 217,505. 3 Claims. (Cl. 63-30.)



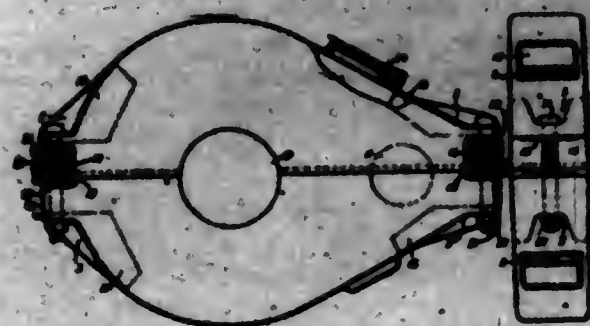
1. An article of jewelry, comprising a marginal main frame having a suitable ornament on its front face, and provided with a pocket in its rear face, a supplementary frame mounted to swing into and out of said pocket, and an ornament carried by said supplementary frame and exposed at the rear side thereof.

1,305,018. CAR-DOOR. WILSON STURM, Brewerville, Minn. Filed June 27, 1918. Serial No. 242,214. 5 Claims. (Cl. 20-30.)



1. The combination with a door frame, of a closure formed of independent horizontal sections, one above the other and extending over the face of said frame, and fastening devices for said sections independently adjustable, vertically on the face of said door frame to engage the edges of said sections for the purpose specified.

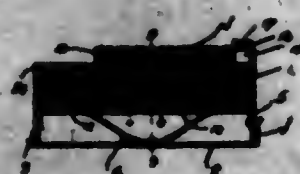
1,305,019. GEAR-CASE AND METHOD OF FORMING SAME. CHARLES W. STARKER, Pittsburgh, and GUSTAV L. S. KNOXFIELD, Wilkesburg, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 12, 1918. Serial No. 61,064. 9 Claims. (Cl. 112-116.)



1. The method of forming a gear-case member from a sheet-metal blank which consists in drawing a shell from a portion of said blank, trimming the remaining portion of said blank, bending portions of said blank to conform to the walls of said shell and folding over other portions of said blank to close portions of said shell adjacent the ends thereof.

7. A gear-case member comprising a sheet-metal trough of varying depth and having portions folded over the shallow end portions of the trough.

1,305,020. CAR-TICKET HOLDER. HARRY JAMES STUART and ROY C. MCGRAW, Ottawa, Ontario, Canada. Filed Sept. 12, 1918. Serial No. 253,744. 1 Claim. (Cl. 200-40.)



A car ticket holder comprising a ticket container having a hinged cover, a curved spring member having each end provided with fingers, the central portion of the said

spring being fixed to the center of the said hinged closure whereby the said spring will extend into the said container when the closure is closed, a pressure plate having cleats arranged thereon, in parallelism, each cleat being provided with a longitudinal lip whereby a substantially T-shaped channel is provided between the said cleats at the center of the said pressure plate, the said fingers being adapted to be received in the said channel and to move longitudinally when the said spring is expanded or contracted.

1,305,021. HANGER FOR SLIDING DOORS. JOHN H. BREWSTER, New York, N. Y. Filed Sept. 7, 1918. Serial No. 262,040. 3 Claims. (Cl. 10-100.)



1. The combination of a sliding door, a supporting element, and a hanger for supporting the door on the said element, the hanger comprising a pair of bars pivotally connected at their centers and each bar having one end pivotally connected with the sliding door and the other end pivotally connected with the supporting element, each bar having one end formed with a returned member spaced from said bar to present a recess into which the other bar ends when the sliding door is in closed position, whereby the bars will be parallel to each other and in transverse alignment.

1,305,022. TARGET. THOMAS STROTHER, Spokane, Wash. Filed Aug. 12, 1918. Serial No. 260,510. 7 Claims. (Cl. 124-15.)

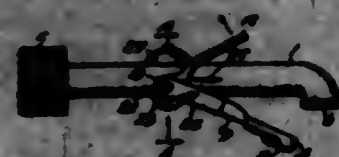


1. The combination with a pivoted post and its target member, and a flag staff arranged at right angles to the post, of a flag adjustably supported on the staff, and means for automatically raising the flag as the staff is swung to upright position.

1,305,023. FAUCHT. EDWARD R. STUART, Chicago, Ill. Filed Nov. 10, 1917. Serial No. 260,510. 2 Claims. (Cl. 252-124.)

1. A faucet, comprising a spout, a valve, a handle, connections between said handle and valve whereby the

valve may be shifted to open position by means of the handle but is permitted to move independently of the handle, a pawl and ratchet for retaining said handle in



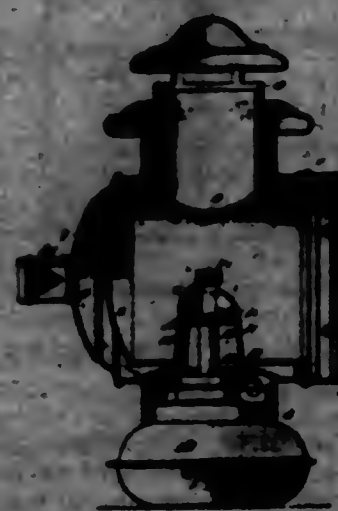
shifted position, and separate means for operating said valve, said means being arranged to release said pawl from said ratchet.

1,305,024. AUTOMATIC AUTO-LIFT. OTTO A. TAMM and EDWARD F. TAMM, Seward, Neb. Filed Oct. 11, 1918. Serial No. 257,780. 4 Claims. (Cl. 254-98.)



1. In an automatic lift for auto vehicles, a base frame, a lifter frame that rests upon the base frame and is adapted for movement longitudinally thereon, inclined ways on the base frame, roller bearings on the lifter frame adapted for traveling along the said inclined ways, automatically operating means for holding the lifter frame to its forwardly and vertically impelled position, means for releasing the said locking means operable from the motor vehicle, whereby to permit the motor vehicle to back off the lift or jack, guides on the lifter frame that slidably engage the inclined ways and adapted for holding the lifter frame down into engagement with the said inclined ways and from lateral displacement relatively to the base frame.

1,305,025. METHODS OF AND MEANS FOR DETECTING GASES. GEORGE M. S. TAY, U. S. Army. Filed Oct. 4, 1918. Serial No. 260,922. 20 Claims. (Cl. 20-9.) (Filed under the Act of Mar. 3, 1909, 22 Stat. L. 695.)



1. In a method of detecting gases, producing a characteristic colored light by heating said gases in the presence of a material which under these conditions will cause emission of such light.

1,305,026. BALANCED VALVE. FRANK TRICHMAN, Woburn, Mass. Filed July 6, 1918. Serial No. 242,090. 5 Claims. (Cl. 157-159.)



1. A valve having, in combination, a valve housing provided with a fluid conduit, a movable valve member arranged in said valve housing, a screw operatively connected with said movable valve member, means for imparting a rotary movement to said screw to move said movable valve member, means for allowing a limited axial movement of said screw during the initial movements of said screw rotating means in either direction, and hydraulic means rendered operative by the axial movements of said screw, adapted to automatically regulate the force acting independently of said screw upon said movable valve member to move said movable valve member to and hold the same in a predetermined position.

1,305,027. MEANS FOR LUBRICATING AMMUNITION. JOHN T. THOMPSON, Newport, Ky. Original application filed June 16, 1917, Serial No. 175,152. Divided and this application filed Oct. 16, 1917. Serial No. 190,982. 17 Claims. (Cl. 42-1.)



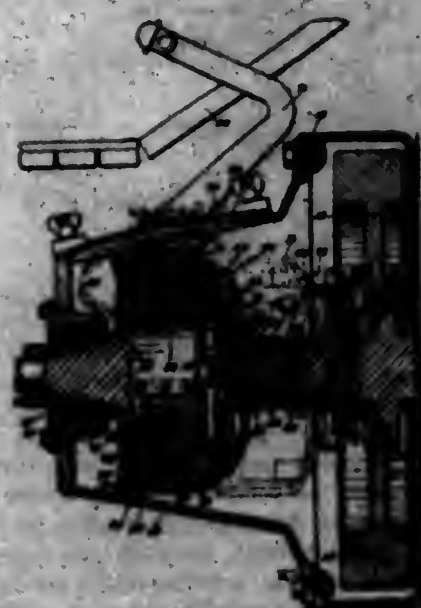
2. A gun comprising a magazine, a firing chamber, means for feeding ammunition from the magazine to the firing chamber, and means mounted in the magazine for applying lubrication to the ammunition before it enters the firing chamber.

1,305,028. MEANS FOR LUBRICATING AMMUNITION. JOHN T. THOMPSON, Newport, Ky. Original application filed June 16, 1917, Serial No. 175,152. Divided and this application filed Oct. 16, 1917, Serial No. 190,982. 8 Claims. (Cl. 42-1.)



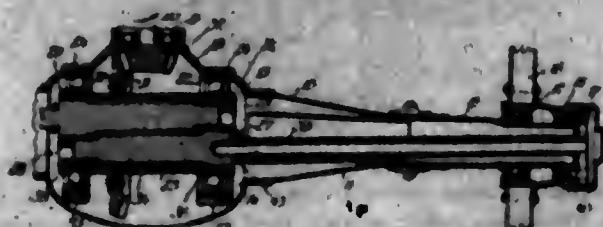
4. A gun comprising a firing chamber, means for feeding ammunition to the firing chamber, and lubricating means rotatably mounted along the path of travel of ammunition in transit to the firing chamber for lubricating the ammunition, the lubricating means being disposed transversely of the path of the ammunition so as to be rotated by the ammunition passing therealong.

1,305,029. MOTOR-VEHICLE. MILTON TIBBETTS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Mich. Filed Nov. 27, 1914. Serial No. 874,231. 13 Claims. (Cl. 192-10.)



3. In a clutch mechanism, in combination, a supporting structure, spaced bearings arranged in alignment in said structure, driving and driven shafts mounted in said bearings, inner and outer clutch members on said shafts respectively, laterally removable, clutch plates frictionally engaging to form a driving connection between said members, and means whereby the clutch members may be separated axially to permit lateral removal of the clutch plates.

1,305,030. MOTOR-VEHICLE. MILTON TIBBETTS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed June 19, 1916. Serial No. 104,461. 9 Claims. (Cl. 74-80.)



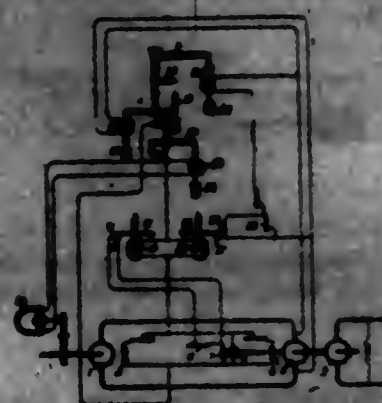
1. In a motor vehicle axle, in combination, an axle casing, a differential housing in the form of an integral cylinder having openings in its sides, bearings surrounding the ends of said housing and mounted in said casing, said housing having two bearing openings in each end offset from the axis thereof, and axle sections extending into the ends of said housing and having a bearing in said openings.

1,305,031. ELECTRICAL REGULATING SYSTEM. ALLEN A. TIBBELL, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 6, 1918. Serial No. 26,304. 6 Claims. (Cl. 171-229.)

1. The combination with a generator and a motor receiving energy therefrom, of a regulator having a pair of contact terminals for regulating the excitations of the generator and the motor to decrease the motor speed and generator voltage by reducing said excitations, the regulation being independently effected at different rates in accordance with the motor voltage and also independently in accordance with the motor speed.

2. In an electrical regulator, the combination with two cooperating contact members, and three electromagnets

adapted to be operated under different conditions, of three levers respectively operated by said electromagnets for governing the operation of said contact members, two



of said magnets and the levers associated therewith controlling the operation of one contact member and the third magnet and the lever associated therewith controlling the operation of the other contact member.

1,305,032. INSPECTION DEVICE. HAROLD E. TERRY, Murrayville, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed May 15, 1917. Serial No. 108,904. 8 Claims. (Cl. 92-14.)



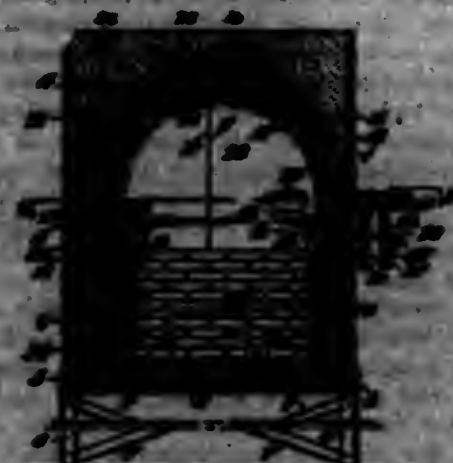
1. In a circuit interrupter, the combination with a fluid-containing receptacle, of a cylindrical member removably secured in the wall of the receptacle and having a transparent member at its inner end, and an extension device having means for advancing said cylindrical member out of engagement with the wall of the receptacle to a position adjacent the contact members of the interrupter.

1,305,033. VENDING APPARATUS. ROBERT A. TAMBURA, Rolling Park, Minn. Filed Mar. 5, 1919. Serial No. 290,745. 2 Claims. (Cl. 211-8.)



2. A vending structure of the character described having an entrance and an exit and a longitudinally extending partition between the entrance and the exit, of means at the entrance and exit for requiring traffic to enter at one side of the partition and leave at the other side thereof, the rear wall of the enclosure being of arcuate formation with its concave side toward the partition and an arcuate shield disposed transversely across the end of the partition with its convex side disposed toward said arcuate wall, to thereby constitute a laterally extending arcuate passageway disposed in the general direction of travel from the entrance to the exit.

1,305,034. LIQUID-FUEL FURNACE OR FORGE. BENJAMIN H. TAYLOR, Los Angeles, Calif., and ROBERT V. RAMMAY, Gloucester, N. J.; JOHN M. KELLEY and PATRICK A. STEWART administrators of said Hugh V. Rammay, deceased; said Tripp and said administrators assignors to The Economy Engineering Co., Camden, N. J., a Corporation of New Jersey. Filed Sept. 5, 1918. Serial No. 262,000. 8 Claims. (Cl. 263-42.)



1. In a liquid fuel furnace or forge, a combustion chamber having its upper portion composed of a plurality of matched interchangeable sections, each having inner and outer curved walls, and edges converging upwardly, an annular lower wall of refractory material, the bottom of said combustion chamber sections interlocking with the top of said annular wall, and an outer casing for said sections, one of the latter having an inlet passage there-through for the liquid fuel.

1,305,035. HYDROCARBON-MOTOR. JAMES G. VINCENT, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 14, 1915. Serial No. 21,314. 84 Claims. (Cl. 123-170.)



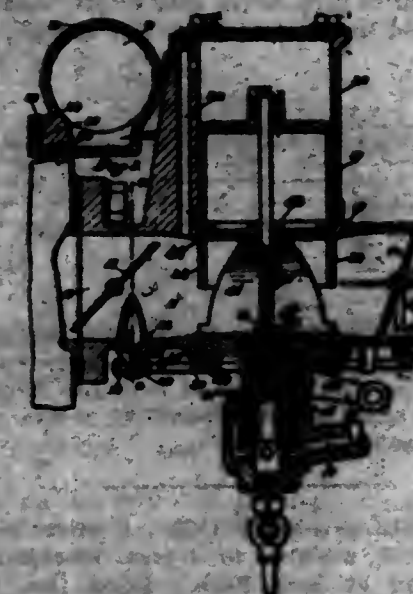
1. In a hydrocarbon motor, in combination, a pair of water-jacketed cylinder blocks arranged side by side, radiator means arranged at one end of the blocks and connected therewith, pump mechanism arranged between the ends of the blocks and supplying the jackets of both blocks, connections from the radiator means to the pump mechanism, and connections from the ends of the cylinder blocks remote from the radiator means to the pump mechanism.

1,305,036. CARBURIZER. JAMES G. VINCENT, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 19, 1916. Serial No. 79,942. 4 Claims. (Cl. 261-41.)

1. A carburizer comprising a substantially horizontal mixing chamber, having a depression adapted to collect unused liquid fuel, said depression having an air opening entering its bottom, a fuel supply means in said chamber at one side of said depression, a throttle valve at the other

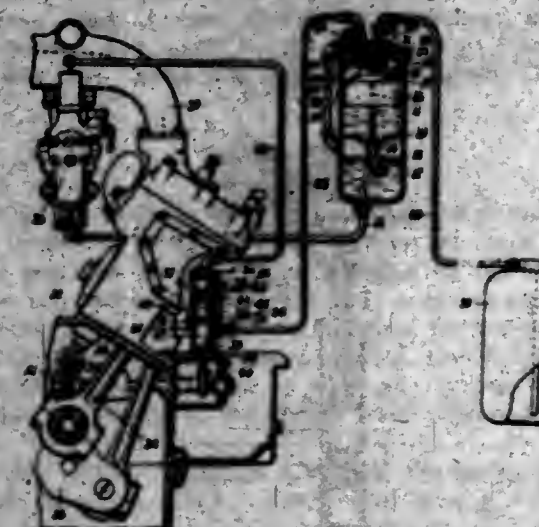
262 O. G.-30

side of said depression, a choke valve adapted to restrict the entry of air to said chamber, and means connected to



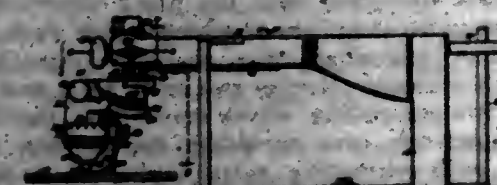
said choke valve for closing said air opening as the choke valve is opened and vice versa.

1,305,037. HYDROCARBON-MOTOR. JAMES G. VINCENT, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 30, 1916. Serial No. 117,774. 6 Claims. (Cl. 158-36.)



1. The combination with a hydrocarbon motor having a carburetor and intake chamber, of a vacuum-operated device for supplying gasoline to the carburetor, a vacuum pump connected to the motor to be continuously operated thereby, means for communicating the pump and intake chamber with the vacuum-operated device, and means operated by a predetermined vacuum in the intake chamber for opening the communication between the intake chamber and the vacuum-operated device.

1,305,038. APPARATUS FOR GRINDING OR POLISHING PRECIOUS STONES. HARRY DE VRIES, Newark, N. J., and WILLIAM ARTHUR DONALDSON, Brooklyn, N. Y. Filed June 18, 1918. Serial No. 239,770. 7 Claims. (Cl. 51-11.)



1. In an apparatus for grinding or polishing precious stones, a frame adapted to rest at one end on a support

and provided at its free end with a bearing, a hollow stem adjustably secured in the said bearing, a sector having a spindle mounted to turn in the said hollow stem, a clamping member held in the said stem and engaging the said



spindle, a set screw screwing in the said bearing against the said clamping member to force the latter in clamping contact with the said spindle to hold the latter against turning in the stem, and a dog-holding means adjustably secured to the said sector.

1,305,039. WELDING-MACHINE. ROBERT E. WAGNER, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 24, 1917. Serial No. 208,554. 4 Claims. (Cl. 219-8.)

1. An arc welding machine comprising the combination of a welding head, a welding electrode carried thereby, means for linearly moving said head to produce a weld, and an inclined support for said head for automatically lowering said electrode as the same progresses along the weld.

1,305,040. PNEUMATIC PUMP. MARION C. WALLS, Franklin township, Hendricks county, Ind., assignor of one-half to George W. West, Amo, Ind. Filed May 17, 1917. Serial No. 169,196. 9 Claims. (Cl. 103-8.)



1. A pneumatic pump including a pump cylinder, a discharge pipe connected with the cylinder, a pipe for conducting compressed air connected with the cylinder and provided with automatically-operable controlling means for controlling flow of the air to or from the air-conducting pipe, an independently-operable starting-valve for admitting compressed air to the controlling means provided with controllable operating means, and an outlet valve connected with the discharge pipe and having controlling means controlled by the operation of the valve for controlling the operation of the controllable operating means.

2. A pneumatic pump comprising two pump chambers each with an inlet valve and an outlet valve, two air-conducting pipes connected with the pump chambers respectively, two valve chambers of which one is an intake and the other an exhaust chamber, one end of each being open, each valve chamber having two inlet ports and two outlet ports, two controlling valves movable in the valve chambers respectively and extending beyond the open ends thereof, each controlling valve having ducts to alternately open and close the inlet ports and the outlet ports of the chamber, a tumbler beam pivotally supported and connected with the controlling valves, a conduit connected with one of the outlet ports of the intake valve

chamber and also with one of the intake ports of the exhaust valve chamber and having a branch connected with one of the air-conducting pipes, a conduit connected with the remaining end of the outlet ports of the intake valve chamber and also with the remaining one of the inlet ports of the exhaust valve chamber and having a branch connected with the remaining one of the air-conducting pipes, an air-controlling conduit connected with the air-conducting pipe with which the first-mentioned branch is connected and also connected with the intake valve chamber beyond the inner end of the valve therein, and an air-controlling conduit connected with the remaining one of the air-conducting pipes and also with the exhaust valve chamber beyond the inner end of the valve therein.

3. In a pneumatic pump, the combination of a hollow cylinder, a partition longitudinally arranged in and dividing the cylinder into two chambers, the bottom heads secured to one end of the cylinder and the partition to close the chambers respectively, each head having an external hollow guide and also an aperture on either side of the guide, two foot valves to normally seat upon the heads respectively and close the apertures therein, each valve having a stem movably guided in the hollow guide of the head, two top heads secured to the opposite end of the cylinder and the partition to close the chambers respectively, two outlet pipes extending through and secured to the top heads respectively, the outlet pipes extending nearly to the foot valves respectively, two valve cases secured to the outlet pipes adjacent to the foot valves respectively, each case having a check valve therein, and two air-conducting pipes secured to the top heads and having connection with the chambers respectively.

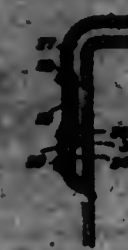
4. In a pneumatic pump, the combination with a plurality of pump chambers with inlet and outlet valves, discharge pipes extending from the outlet valves, and a plurality of air-conducting pipes connected with the pump chambers respectively, of an intake valve chamber having inlet ports and outlet ports, an exhaust valve chamber having inlet ports and outlet ports, two valves operatively connected each with the other and movable in the valve chambers respectively to open or close the ports synchronously, a conduit connected with one of the outlet ports of the intake valve chamber and also with one of the inlet ports of the exhaust valve chamber and having a branch connected with one of the air-conducting pipes, and a conduit connected with another of the outlet ports of the intake valve chamber and also with another of the inlet ports of the exhaust valve chamber and having a branch connected with the remaining one of the air-conducting pipes.

5. In a pneumatic pump, the combination with a cylinder having two pump chambers, and two air-conducting pipes connected with the two chambers respectively, of a body structure comprising a base portion and two stems fixed on the base portion, each one of the stems having a valve chamber therein, one of the stems having also an air-chamber adjacent to the valve chamber with ports between them, a conduit connected with the two valve chambers and one of the air-conducting pipes, a conduit connected with the two valve chambers and the remaining one of the air-conducting pipes, two valves in the valve chambers respectively to control the flow of air from the chamber that is in communication with the air-chamber to the air-conducting pipes and from the latter to the remaining one of the valve chambers.

1,305,041. WATER-JACKET FOR INTERNAL-COMBUSTION ENGINE. FRED J. WENDERSAHL, Rebeck, Iowa. Filed May 15, 1918. Serial No. 284,789. 2 Claims. (Cl. 127-25.)

1. In a device of the class described, a receptacle having an opening therein, a portion of the wall of which is formed with a channel extending longitudinally thereof, other portions of the wall of the opening being chamfered, a plate member normally closing the opening and engaging the chamfered and chamfered portions, a resilient member connected with the wall of the receptacle

and having a deflected end portion, said plate member being provided with a beveled edge on the side of the plate



opposite to the chambered portion, and said beveled edge being engaged by the deflected end portion of the resilient member.

1,305,042. CHAIR-IRON. ARTHUR WHITT, Shohogyan Falls, Wis. Filed Oct. 11, 1917. Serial No. 185,908. 10 Claims. (Cl. 128-34.)



2. In a chair iron, the combination of a hub member having an upstanding threaded portion, an adjusting nut threaded on the upstanding portion, means for locking the nut in adjusted position on the said upstanding portion, a sleeve rotatively carried by the adjusting nut, a seat frame positioned above the hub member, and a connection between the sleeve and the seat frame comprising springs constructed to permit both vertical and a tilting movement.

1,305,043. PHOTOGRAPHIC FILM-DEVELOPING TANK. ROBERT F. WHITE, Beckley, W. Va. Filed Nov. 25, 1918. Serial No. 264,063. 3 Claims. (Cl. 95-60.5.)

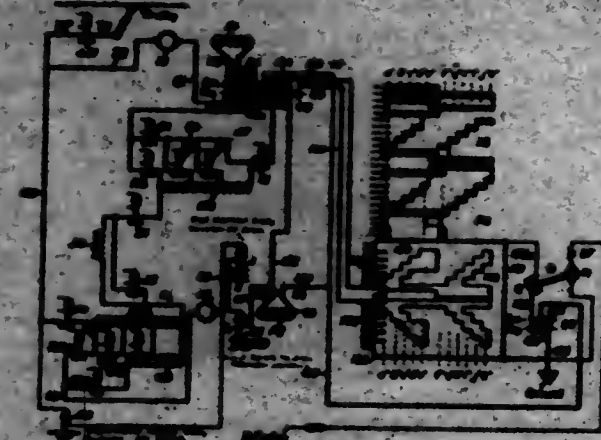


1. A photographic developing tank comprising a box, and a film supporting structure bodily removable from the box, said structure comprising a plate adapted to lie upon the bottom of the box, and a plurality of parallel upstanding ferrous partitions carried by said plate.

1,305,044. SYSTEM OF CONTROL. CHARLES C. WHITE, Wilkesburg, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 5, 1917. Serial No. 189,885. 13 Claims. (Cl. 173-179.)

1. In a system of control, the combination with a supply circuit and a momentum-driven dynamo-electric ma-

chine, of means for connecting the machine to the supply circuit, a controller for governing the machine operation,



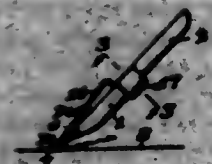
and means for maintaining the regenerated current between predetermined limits only in predetermined controller positions.

1,305,045. STOP-MOTION. ROBERT WOLFF, New Brunswick, N. J., assignor to The Crawford Manufacturing Company, New Brunswick, N. J., a Corporation of New Jersey. Filed Dec. 28, 1917. Serial No. 209,217. 4 Claims. (Cl. 66-7.)



1. The combination in a stop motion, of a casing having a series of arms; a shaft carried by each arm; a thread guide on each arm and engaged by the shaft; an arm on the inner end of each shaft; a spring attached to each arm; means arranged at an angle for independently regulating the tension of each spring, the springs being also arranged at an angle so that one spring will clear an adjoining shaft and its spring when adjusted.

1,305,046. PEN. EDWARD S. WOOD, Cinnaminson, N. J. Filed Aug. 20, 1915. Serial No. 46,412. 1 Claim. (Cl. 150-114.)

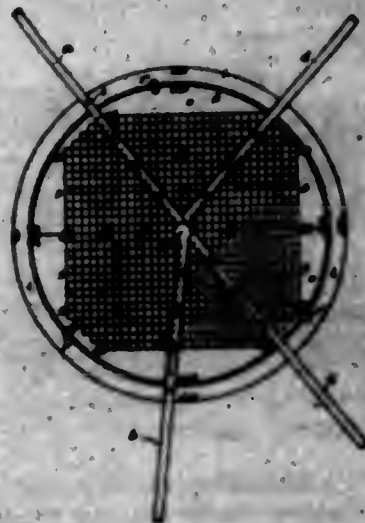


The combination with a pen provided at the free ends of its nibs with broad, flat, obliquely projecting extensions, and having an eye at the upper end of said nibs, of a finger provided at its upper end with side clips engaging the pen and formed between its ends with a lug projecting into said eye, the said finger extending along the upper side of the pen downwardly and inwardly to the junction of the nibs and oblique extensions.

1,305,047. INSTRUMENT FOR NAVIGATION AND LIKE PURPOSES. ENZO ZORA, Genoa, Italy. Filed Apr. 16, 1918. Serial No. 229,423. 1 Claim. (Cl. 53-75.)

A navigation instrument comprising a transparent disk provided with a circular scale and having two series of straight parallel lines inscribed thereon, the lines of each series being arranged at right angles to the lines of the other and being numbered from the center of said disk, an alidade having a circular scale rotatably connected

to and concentric with said disk, and four alldades extending across said disk and annulus and pivoted for independent rotation at the center of said disk, each alldade having a graduated straight edge radiating from said center.



dependent rotation at the center of said disk, each alldade having a graduated straight edge radiating from said center.

1,305,048. TOWEL-CABINET. WILLIAM W. BAGLEY, New York, N. Y. Filed May 18, 1918. Serial No. 225,380. 9 Claims. (Cl. 45-32.)



1. In combination, a basket for soiled towels, means for securing a plurality of towel carriers to the basket, a support for presenting in serviceable position a package of clean towels of one of the secured towel carriers, and a receptacle for storing the packages of clean towels of the other carriers secured to the basket.

2. A towel carrier for towel cabinets comprising a rigid member on to which towels may be threaded, a flexible member connected to one end of the rigid member, a spring-actuated catch associated with said rigid member in proximity to the flexible member, said catch presenting a portion projecting above the rigid member and a shoulder normally flush with the surface of the rigid member, said shoulder being adapted to receive but one towel, which towel when pulled toward the portion of the catch above the rigid member will spring the catch and allow the towel to slip on to the flexible member, a locking collar adapted to be secured to said rigid member in proximity to the end remote from the flexible member, and a lock for the end of the flexible member for retaining the towels thereon.

1,305,049. FOOT-PUMP. WILLIAM J. BAUGH, New York, N. Y. Filed May 2, 1918. Serial No. 221,907. 4 Claims. (Cl. 230-27.)

1. A foot pump, comprising a frame, an oscillating cylinder having its one end pivotally secured to one end of

said frame, and a piston rod projecting from the opposite end of said cylinder, a lever fulcrumed to said frame intermediate its ends, the free end of said lever being connected with the projecting end of the said piston rod,



a retractile spring secured to said lever, a pedal forming a bell crank pivotally secured to said frame, and means connecting said lever with the inner arm of said bell crank.

1,305,050. GEAR MANUFACTURE. FRANK F. BRALL, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 22, 1914. Serial No. 675,733. 6 Claims. (Cl. 78-45.)



1. The method of making gears consisting of die pressing a blank to form teeth by displacing the metal with space forming die parts, and permitting unobstructed flow of excess metal beyond the normal tops of the teeth, and then removing such excess metal.

1,305,051. THROAT-PLATE FOR SEWING-MACHINES. JOSEPH BUNSON, JR., Utica, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed July 26, 1915. Serial No. 49,691. 13 Claims. (Cl. 112-25.)

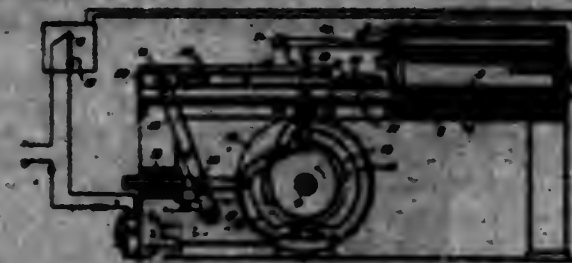


2. A throat plate for sewing machines having feed slots and two stitch tongues, one tongue being disposed in rear of the other, said rear stitch tongue being relatively narrower than the stitch tongue in front thereof, the longitudinal center line of the rear stitch tongue coinciding with the longitudinal center line of the front stitch tongue.

1,305,052. APPARATUS FOR TREATING LINK MESH MADE FROM SOLDER-CORE WIRE. RICHARD HARTLEY BURNLEY, Plainville, Mass., assignor to Whiting & Davis Company, a Corporation of New York. Filed June 5, 1918. Serial No. 226,262. 10 Claims. (Cl. 112-30.)

1. Apparatus for treating pieces of link-mesh made of solder-core wire to close the joints of the links with solder from the core of the wire, comprising the combination of a furnace and power actuated device for depositing pieces of mesh successively upon the interior of the furnace, releasing each piece to allow it to remain

within the furnace a predetermined length of time, and, after each piece has remained within the furnace for the



predetermined length of time, lifting it from its position within the furnace and carrying it to the exterior of the furnace.

1,305,053. BAND-SAW STOVE-JOINTER. HOWIE F. BUDOLZA, Buffalo, N. Y., assignor to H. & B. Holmes Machinery Company, Buffalo, N. Y., a Corporation of New York. Filed Feb. 6, 1917. Serial No. 147,611. 10 Claims. (Cl. 147-36.)



1. A stove jointer comprising a pair of supporting wheels, a hand saw mounted on said wheels and means for deflecting said saw between said wheels comprising a plurality of guide blocks arranged in a longitudinal row and engaging with the side of said saw, a flexible plate on which said blocks are mounted and means for flexing said plate.

1,305,054. ANIMAL-TRAP. GEORGE J. BLUWINS, Bremen, Ala. Filed Apr. 12, 1918. Serial No. 50,635. 1 Claim. (Cl. 43-19.)



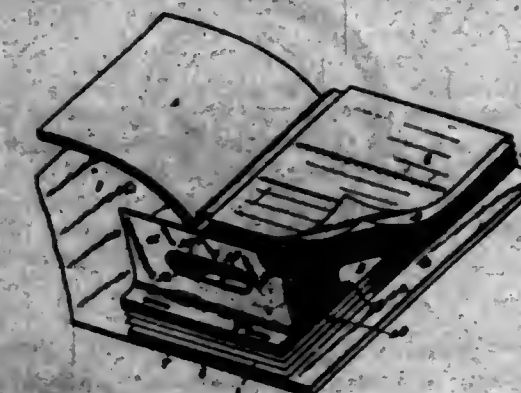
In a trap, a casing open at one end, a door biasedly secured to the top of said casing so as to be movable inwardly and upwardly thereof, means for positively limiting outward movement of said door when in lowered position, a staple carried by the door on the inner face thereof and adapted to project through the top of the casing when the door is in raised position, the top of said casing being provided with an opening to accommodate said staple, a setting rod slidably mounted on the top of the casing for movement longitudinally thereof and adapted to be inserted through the staple when in its outermost position so as to releasably hold the door in raised position, means for forcing said rod in a direction opposite to the open end of the casing so as to withdraw it from the staple, said setting rod being provided intermediate its ends with a lug having an inwardly directed substantially vertical abutment surface, a releasing rod slidably mounted for vertical movement and provided with an element disposed in the path of movement of said setting rod and adapted to engage the lug thereof when the setting rod is in operative position so as to hold said setting rod in each position, and a tread plate rockably mounted in the casing and connected to the lower end of the setting rod so as to permit raising thereof when the setting rod is moved into operative position so as to bring the lug thereof into engagement with the locking element of said tripping rod, the said plate acting to normally hold the tripping rod in depressed position so as to insure proper engagement of the locking element thereof in back of the lug of the setting rod.

1,305,055. PROCESS OF TREATING WOOL HATS. GEORGE W. BOLLMAN, Adamstown, Pa. Filed Nov. 21, 1918. Serial No. 263,534. 4 Claims. (Cl. 2-106.)



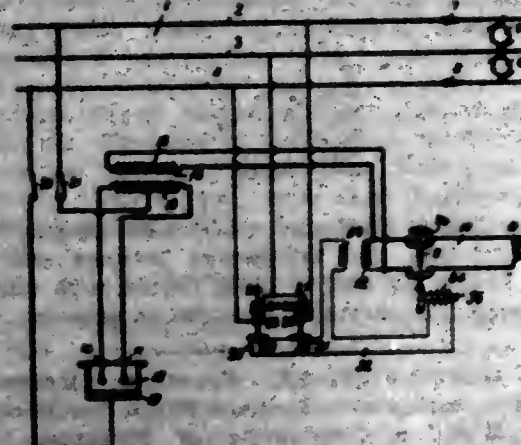
1. The process of treating wool hats which consists in subjecting the hats, after being blocked, to a baking action, while held between two metal forms.

1,305,056. MANFOLDING SALES-BOOK. EDWARD KIRBY BOTTLE, Elmira, N. Y., assignor to American Sales Book Company, Limited, Toronto, Ontario, Canada, a Corporation of Ontario. Filed Oct. 10, 1917. Serial No. 105,651. 5 Claims. (Cl. 232-22.)



1. A manfolding sales book comprising, in combination, a pad of original and duplicate record leaves, the originals being of a size to expose a portion of the companion duplicate leaves when in superposed relation, a sheet adapted to lie between the uppermost original and duplicate leaves of the pad and over said exposed portion of the duplicate leaves, said sheet being provided with transfer material on the portion between said leaves and with an opening through which inscription may be made on said exposed leaf portion.

1,305,057. ELECTRICAL PROTECTIVE DEVICE. ADAMSON H. BOGGS, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 4, 1916. Serial No. 78,161. 7 Claims. (Cl. 175-294.)



2. In a system of distribution, the combination with a multi-voltage circuit, a source of energy therefor, and a second source of energy operatively connected to the

outside conductors of the multi-voltage circuit, of means for disconnecting the said second source of energy when the voltage of the multi-voltage circuit exceeds predetermined values and when the voltage of the second source of energy falls below a predetermined value.

1,305,038. PROCESS OF EXTRACTING IODIN AND OTHER CHEMICAL PRODUCTS FROM SEAWEEDES BY DRY DISTILLATION. JACOB ANTON WALDENMAR HEDENBERG and ERIC GUNAR CROON, Stockholm, Sweden, assignors to Aktiebolaget Furus, Stockholm, Sweden, a Company of Sweden. Filed Nov. 14, 1917. Serial No. 202,023. 2 Claims. (Cl. 23-10.)

1. The process of extracting iodine and other chemical products from seaweeds, which consists in subjecting the seaweed to dry distillation in a closed retort and passing the non-condensable gases given off through a metal salt capable of absorbing volatile compounds of iodine and bromine.

1,305,039. PRESSURE-CONTROLLING DEVICE. JULIUS BUCHHE, New Orleans, La., assignor to William J. Kelly, Haverford, Pa. Filed May 23, 1917. Serial No. 171,386. 9 Claims. (Cl. 137-153.)



3. In combination a valve casing formed with a said thoroughfare and with a passage through its wall, a valve in said casing controlling the flow through said thoroughfare and means for releasably holding said valve in one position comprising a curved tube, closed at one end and having its opposite end connected to the casing, and communicating with said passage through its wall, and a pair of cooperating latching parts one of which is connected to said tube.

1,305,040. METHOD OF PRODUCING HEELS. WILLIAM C. CALLAHAN, Allentown, Pa. Substitute for application Serial No. 104,260, filed June 27, 1918. This application filed Sept. 12, 1918. Serial No. 233,812. 3 Claims. (Cl. 12-147.)



2. The method of producing a heel consisting in superimposing heel lifts and interposing between said lifts a member having its reverse sides coated with adhesive and subjecting the assembled members to pressure.

1,305,041. MOTOR-VEHICLE. HAROLD D. CHURCH, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 10, 1918. Serial No. 49,977. 7 Claims. (Cl. 100-42.)

1. In a motor vehicle, in combination, a spindle, a wheel rotatably mounted thereon and having an interior

braking surface, a gear secured to the wheel within said braking surface, a driving pinion in mesh with said gear and arranged between said gear and braking surface, a casing enclosing said gear and pinion and engaging



rating the same from the braking surface and having radial walls co-acting with the outer surface of the hub to form a chamber and brake shoes pivoted to said casing on opposite sides of said pinion, and means for operating said brake shoes.

1,305,042. MARK-UP TABLE. BENJAMIN A. CLAPP, Minneapolis, Minn. Filed Apr. 19, 1918. Serial No. 230,532. 3 Claims. (Cl. 232-1.)



1. A mark up table comprising a sheet divided by vertical and horizontal lines to form a matrix of spaces, the spaces in a vertical column at one end of the sheet having the cost prices therein and the spaces in a horizontal row at a longitudinal edge of the sheet having the retail prices therein, and the spaces on the sheet at the intersection of the horizontal and vertical columns having figures therein representing the percentage of profit of the selling price over the cost.

1,305,043. GEAR-SHIFTING MECHANISM. HAROLD D. CHURCH, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 12, 1918. Serial No. 61,978. 8 Claims. (Cl. 74-39.)



1. In a gear shifting mechanism, the combination of a shifter rod, a gear shifter lever adapted to co-act with

mesh with the shifter rods, and means to limit said oscillation in one direction at the center rod and in the other direction at an outer rod.

1,305,044. MIXER. JOHN J. COCHRAN, St. Louis, Mo., assignor to Martin-Lumaghi Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 4, 1919. Serial No. 267,549. 1 Claim. (Cl. 48-190.)



The combination with the carburetor and intake pipe of an internal combustion engine, of a tubular member interposed between said carburetor and intake pipe, a fan wheel in said tubular member, the blades of which at their periphery are in close proximity to the internal wall of said tubular member, said blades having an angularity with respect to the axis of said fan wheel of approximately 15° at the hub to approximately 35° at the periphery, said blades being spaced apart to provide approximately 40 per cent. of unrestricted passageway from said carburetor, to said intake pipe and said blades having a depth providing an area whereby the hydrocarbon laden vapors passing from the carburetor to the intake pipe are all acted upon by said blades for mixing said vapors and retarding any liquid hydrocarbon carried by said vapors and preventing said liquid hydrocarbon from entering said intake pipe.

1,305,045. SHOCK-ABSORBER. SAMUEL GEORGE CONKLIN, Brooklyn, N. Y. Filed Aug. 21, 1917. Serial No. 157,394. 2 Claims. (Cl. 267-50.)



1. A shock absorber comprising a pair of cylinders, one operable within the other, the inner ends of both said cylinders being open, and the outer end of both said cylinders being completely closed against the ingress or egress of air, a piston arranged between said cylinders and operable in one said cylinder, an air passage through said piston, and means for controlling said air passage.

1,305,046. WOVEN FINE FABRIC. JOSEPH COLEY, Worcester, Mass. Filed Apr. 11, 1917. Serial No. 161,194. 1 Claim. (Cl. 130-71.)



A double-woven fine fabric having an upper and a lower body of the same pattern but materially different

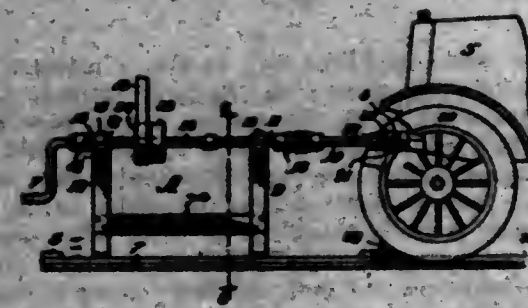
qualities and comprising sets of weft-threads for the back of each body, a plurality of pattern threads raised from the lower body and all looped over weft-threads in the back of the upper body to show the identically colored and located arrangement of individual pattern threads on both sides thereof and then lowered directly into the lower body, the weft threads being located in the front surface of each body in exactly corresponding positions therein between adjacent pairs of loops, so that two weft-threads can be introduced at each beat of the lay, and sets of binding-warps running substantially parallel to each other through the pattern threads of each body arranged identically in the two fabrics but reversed and intercrossing to bind in the various weft-threads and pattern threads.

1,305,047. CUFF. GEORGE W. COOPER, Brooklyn, N. Y. Filed May 8, 1918. Serial No. 233,207. 2 Claims. (Cl. 2-79.)



1. An article of manufacture as characterized comprising a wearing strip structurally connected with the body of said article and folded over the exposed edge thereof by means of seams concealed in the completed article, said strip being formed of fabric, the warp threads whereof extend transverse said strip and the edge-forming fold thereof.

1,305,048. AUXILIARY POWER PLANT. WESLEY G. CHORNETT, Chicago, Ill., assignor of one-half to Andrew J. Hunsaker, Chicago, Ill. Filed July 9, 1917. Serial No. 179,290. 7 Claims. (Cl. 180-52.)

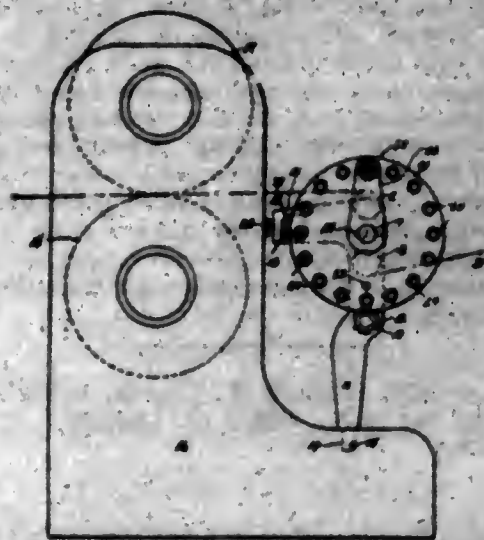


1. A portable power plant, in combination, a pulley carrying shaft, means for supporting said shaft above the ground, means for operatively connecting said shaft to the crank shaft of the motor of a motor vehicle, said supporting means having guides attached thereto and forming an extension of the bottom thereof for aligning said vehicle and shaft supporting means for operative connection therebetween, said shaft having a free end thereof provided with a detachable handle.

1,305,049. BRIDLING APPARATUS FOR ROLLING-MILLS. HENRY T. CHASE, Waterbury, Conn., assignor, by mesne assignments, of one-half to Connecticut Brass & Manufacturing Corporation, Waterbury, Conn. Filed Sept. 26, 1917. Serial No. 194,251. 10 Claims. (Cl. 50-51.)

1. A bridling apparatus for rolling mills having a bridle comprising two bridle-bars and transoms located midway between the said bars and having their axes

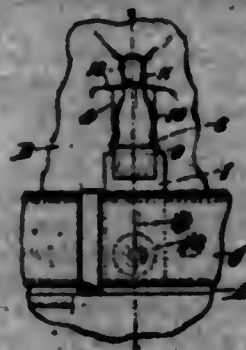
located in a plane passing through the axes thereof, the metal strip being initially wrapped upon itself upon



1,305,072. DETACHABLE SHIRT-BUTTON. LUTHER H. DAVIS, Louisville, Ky. Filed Sept. 8, 1918. Serial No. 282,487. 1 Claim. (Cl. 34-90.)

A detachable shirt button comprising a coiled button head, an upstanding neck, and a clamp portion comprising a ring connected to the aforesaid upstanding neck, a transversely bent portion in which the ring terminates and a reversely bent annular portion in which the transversely bent portion terminates, substantially as set forth.

1,305,073. MEN'S TROUSERS-SUPPORTER AND THE LIKE. GEORGE DUCKEN, Cincinnati, Ohio. Filed Sept. 4, 1917. Serial No. 189,643. 1 Claim. (Cl. 241-7.)



In a device for detachably supporting men's trousers and the like from the wearer's shirt or other upper garment, the combination of a vertical elastic strip or body-portion having a button-hole at its lower end, a single inelastic tape extending vertically from the upper end of said elastic body-portion and having a forwardly-projecting end at its upper end, and a swinging cast-off loop having a horizontal bar at its lower end adapted to have pivotal-engagement with a loop in the lower end of said inelastic tape and, also, having its upper end contracted for interlocking-engagement with the said end when the latter has a fold or gathering of the shirt goods surrounding it, the button-hole end of said elastic body-portion being adapted for engagement with a button on the trousers waist-band for elastically supporting the trousers from the shirt or other upper garment and simultaneously preventing the latter from unduly rising on the person while in use, substantially as shown and described.

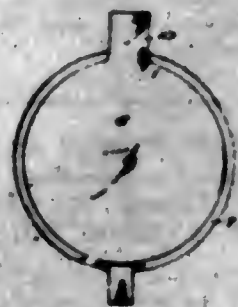
1,305,074. BASKET REINFORCEMENT. JOHN J. DUMM, McIntire, Iowa. Filed Oct. 19, 1918. Serial No. 238,812. 1 Claim. (Cl. 217-123.)



In an article of the class described, an adjustable bottom frame consisting of a frame adapted to adjustably fit within the lower rim of a basket, lateral cross braces rigidly secured thereto and a longitudinal flexible brace secured to the lateral cross braces, and means slidably attached to the said frame and rigidly attached to the walls of the basket for holding the frame in position.

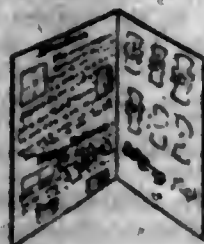
the said bars for the creation of frictional drag on the strip against the pull of the coils, and means for locking the said bridle against rotation.

1,305,070. POWDER-PUFF. MORRIS CRUPAIN, New York, N. Y., assignor of one-half to Jacob Wolf, New York, N. Y. Filed Jan. 30, 1917. Serial No. 145,422. Renewed Apr. 23, 1919. Serial No. 292,243. 1 Claim. (Cl. 16-72.)



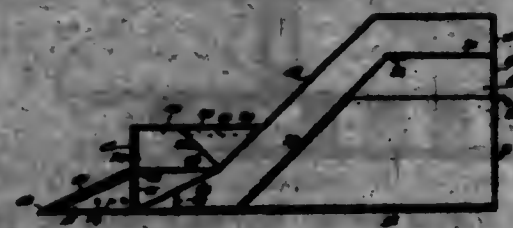
A powder puff comprising two sheets of material, one of said sheets being made of a relatively thick soft non-porous material while the other sheet is of a porous material through which powder may be sifted, said two sheets being sewn together to constitute a bag, and a tube formed from a double winged projection on the edge of the porous sheet and having its lower edge sewn to the adjacent portion of the non-porous sheet to provide a filling member for the puff, the same being so flexible as to be readily reversed and inserted in the powder puff to form a closure.

1,305,071. PAPER DOLL. ERVIN G. G. DAVIS, Salt Lake City, Utah. Filed Jan. 26, 1918. Serial No. 213,921. 1 Claim. (Cl. 46-49.)



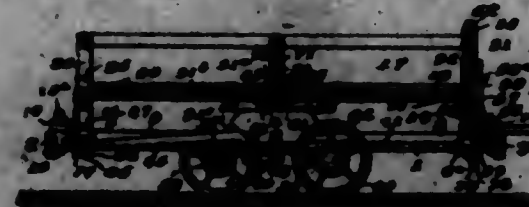
A new article of manufacture comprising a folder having illustrations of articles of apparel and decorations of said articles, patterns without decorations corresponding to the illustrations in the folder adapted to be used in cutting dolls' wearing apparel, and a doll figure to which the apparel when cut by the patterns will fit.

1,305,075. ANIMAL-TRAP. MAX E. DODSON, Chicago, Ill. Filed Feb. 15, 1918. Serial No. 216,577. Renewed Jan. 30, 1919. Serial No. 274,107. 6 Claims. (Cl. 43-28.)



1. A trap having an entrance chamber provided with an entrance opening, a tiltable platform extending inwardly from the opening into the chamber and forming the floor thereof, a barrier across the chamber at the rear end of the platform, a tiltable member loosely engageable with and actuated by the platform, and a slideable gate for the aforesaid entrance opening, and engageable by the tiltable member, said gate being normally out of the opening, and moving thereinto when the tiltable member is actuated by the tilting of the platform.

1,305,076. COAL-MINE CAR. WALTER A. DOWDY, Columbus, Ohio, assignor to The Benney-Floyd Company, Columbus, Ohio, a Corporation of Ohio. Filed June 29, 1918. Serial No. 37,068. 5 Claims. (Cl. 105-364.)



5. For a mine car having a relatively narrow floor base, provided with upwardly opening sections, and an upward and outward flared load chamber, the herein-described wall sections detachably secured rigidly to the floor base, each having a front bracket 31, which is formed integrally with an inner lower vertical bar 23 terminating in a tongue 25, an upper outer vertical bar terminating in a hinge-supporting arm 26, and an intermediate inclined bar 24, and each having a rear bracket 29 with an inner lower vertical bar and an outer upper vertical bar integral with an intervening inclined bar, and also a central bracket 27 formed with inner and outer vertical bars and an intervening inclined bar, said central bracket having guiding and supporting devices for a brake shoe, substantially as set forth.

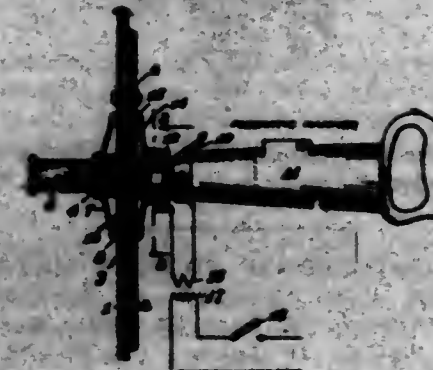
1,305,077. VARIABLE-SPEED TRANSMISSION FOR MOTOR-VEHICLES. WILLIAM BUTLER DUNBAR, Ashfield, near Sydney, New South Wales, Australia, assignor to Dunbar Motors and Palleys Limited, Sydney, New South Wales, Australia. Filed May 9, 1917. Serial No. 167,468. 10 Claims. (Cl. 64-3.)



1. A transmission mechanism for motor vehicles including a prime mover and a differential gear on the rear axle.

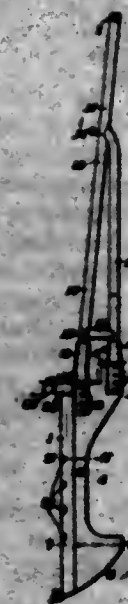
said mechanism comprising a front variable diameter pulley operatively connected with the prime mover, a rear variable diameter pulley on the rear axle, a belt operatively connecting the two pulleys, means for simultaneously and oppositely adjusting the diameter of the two pulleys, and reversible connecting means between the rear pulley and the differential gear.

1,305,078. ELECTRIC RIVETING. FRANK L. DYER, Montclair, N. J. Filed Aug. 16, 1918. Serial No. 250,117. 6 Claims. (Cl. 219-2.)



1. The method of electric riveting which consists in applying an electrode to the unheated end of the rivet blank, passing the heating current therefrom through the rivet blank to heat the same and in applying after heating a succession of rapidly recurring blows to said electrode to form the head on the rivet blank, substantially as set forth.

1,305,079. DITCHING SPADE OR SHOVEL. HAROLD I. BARON, Atlantic City, and CHARLES E. SIMPSON, Elizabeth, N. J. Filed Mar. 16, 1918. Serial No. 222,886. 6 Claims. (Cl. 55-14.)

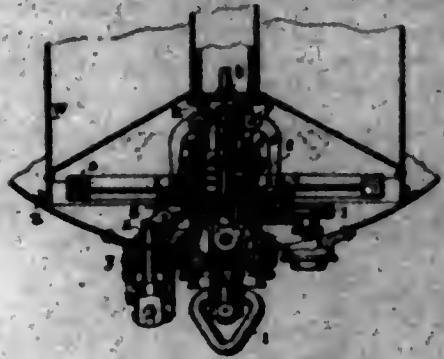


3. In a ditching spade or shovel, the combination with a handle structure of a curved blade having side walls integral therewith, said side walls being cut away at their central portion and having beveled cutting edges at the lower part of the same and said blade being apertured in its main wall to avoid suction.

1,305,080. INERTIA DEVICE FOR CONTROLLING THE FIRING OF SUBMARINE MINES. GIOVANNI EMANUELE ELIA, Paris, France, assignor to Vickers Limited, Westminster, England. Filed Sept. 15, 1914. Serial No. 863,584. 10 Claims. (Cl. 102-3.)

5. In a submarine mine in which the firing is controlled by the rotation of the mine in contact with a moving vessel, a percussion pin, locking members for a pin, a revol-

ble member provided with means for holding and releasing the locking members, and means for holding the revolvable



member against movement, said means being adapted to be released when the mine is in the water.

1,305,061. WATERPROOF ROOFING MATERIAL OR THE LIKE AND PROCESS OF MAKING SAME. JAMES P. ELLIOTT, Oak Park, Ill. Filed Mar. 11, 1916. Serial No. 83,550. 19 Claims. (Cl. 91—68.)

1. The process of manufacturing waterproofed roofing material which consists in mixing with a mass of pulp small particles of waterproofing material, working the pulp into the form of a sheet in the usual way, and then subjecting the sheet to a hot bath of liquid waterproofing material in the manner in which ordinary felt roofing is commonly treated to waterproof it.

1,305,062. CURTAIN-FASTENER DEVICE FOR VEHICLE-TOPS. ROBERT J. FRISCHMAY, Covington, Ky. Filed Oct. 4, 1917. Serial No. 104,743. 1 Claim. (Cl. 24—221.)



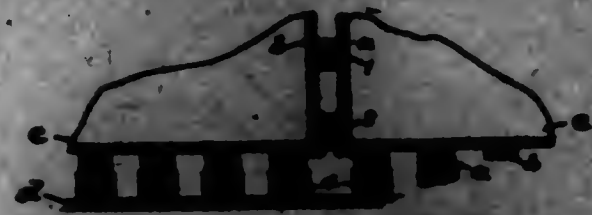
A vehicle-curtain fastener comprising an outer facing-cap, an inner backing-disk having a central orifice, an inwardly-disposed and flatly-clenched flange provided in the said central orifice, a threaded nut having a plain cylindrical extension of lesser diameter than that of itself and adapted to engage the said central orifice of the backing-disk for clenching-engagement in contact with the said clenched flange of the backing-disk, and means extended from the facing-cap for detachably-engaging the eyelet of a vehicle-curtain.

1,305,083. BOLT-PULLER. VICTOR H. FITZGERALD, Portland, Oreg. Filed Sept. 9, 1918. Serial No. 253,232. 5 Claims. (Cl. 284—22.)



1. A bolt pulling tool comprising a bar having a bifurcated end, a pair of cam jaws rotatably mounted on the furcations of said end and spaced inwardly from the free ends thereof, and a shackle bar connecting said free ends of said furcations.

1,305,084. SECONDARY OR STORAGE BATTERY. LOUIS H. FLAMMAN, Jonestown, Pa. Filed Sept. 29, 1917. Serial No. 102,005. 5 Claims. (Cl. 294—29.)



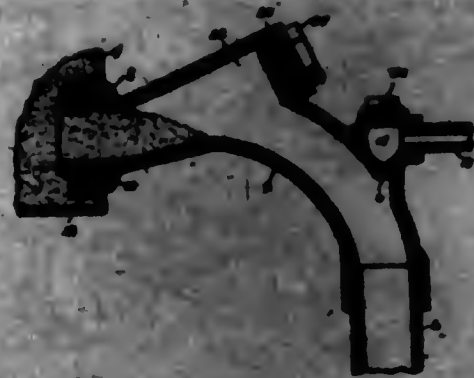
2. In a storage battery the combination of cells, a receptacle for the cells, wedge members for holding the cells in the receptacle and mounted for slight relative lateral movement, stop means on the cells for keeping the wedges above the level of the bottom of the receptacle, and tongue and groove elements at the ends of the wedge members for holding them in substantial alignment and causing them to bear uniformly throughout the height of the cells, and one of said elements being on the jar, substantially as described.

1,305,085. MANUFACTURE OF BIFOCAL LENSES AND APPARATUS THEREFOR. ROBERT JAMES FLEMING, London, England. Filed June 12, 1914. Serial No. 844,883. 5 Claims. (Cl. 51—2.)



2. In a machine for grinding the lower field of a bifocal lens, the combination of a rotatable spindle, an eccentric pin projecting from said spindle, a table mounted for movement transversely with respect to the axis of the spindle, a grinding member, a lens-holding member, one of the last-named members being provided with a depression in which the end of the said eccentric pin loosely bears, the other one of the last-named members being connected rigidly with the table, and means for operating the spindle and table simultaneously.

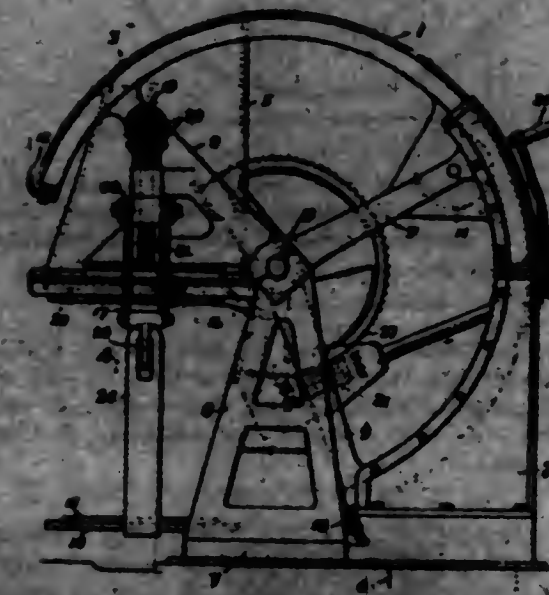
1,305,086. SANDING DEVICE. ALVA A. PETER, Kansas City, Mo. Filed Mar. 8, 1917. Serial No. 102,407. Renewed Nov. 28, 1918. Serial No. 268,983. 5 Claims. (Cl. 291—11.)



1. A sanding device comprising a tubular member having a receiving end adapted to be attached to a sand box,

the passage through said member extending on a downward curve from the receiving end of said member to the delivery end thereof, and an air pump associated with said delivery end of the member in position to discharge in a downward direction in line with the passage through, the delivery end of said pump being located out of the path of the sand flow and below the level of the receiving end of the member.

1,305,087. MACHINE FOR DUMPING BARRELS AND LIKE CONTAINERS. CHARLES D. GALLOWAY, Philadelphia, Pa. Filed Aug. 22, 1918. Serial No. 260,923. 3 Claims. (Cl. 214—129.)



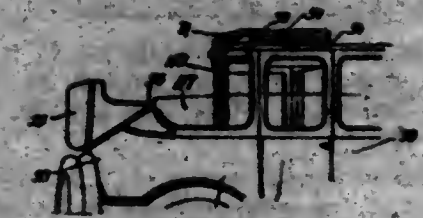
1. A machine for dumping barrels and like containers consisting of the combination of cylindrical segments in overlapping relation and whereof one is fixed and constitutes a housing and is provided with an inlet opening and whereof the other is a turnable barrel carrier and covers the inlet opening in all working positions and is provided with an opening and with means for holding a barrel in discharging relation to the last mentioned opening.

1,305,088. POWER UNIT FOR FARMING IMPLEMENTS. CHARLES M. GILLESPIE, Denver, Colo. Filed July 26, 1917. Serial No. 102,892. 12 Claims. (Cl. 199—21.)



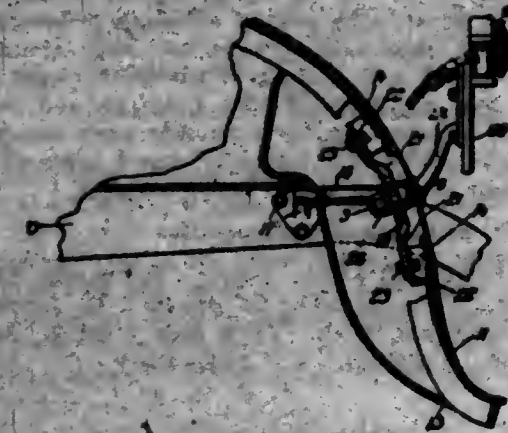
1. In a power unit of the character described, a frame, an engine mounted on said frame, a transporting track on which said frame is mounted, said track being so located that said frame and the parts which it carries are substantially balanced in a longitudinal direction thereof to adapt the arrangement for use with a similarly balanced implement, and means for transmitting power from said power unit to a separate unit to drive the latter.

1,305,089. VEHICLE-BODY. GEORGE E. GOODARD, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 6, 1918. Serial No. 65,317. 20 Claims. (Cl. 21—62.)



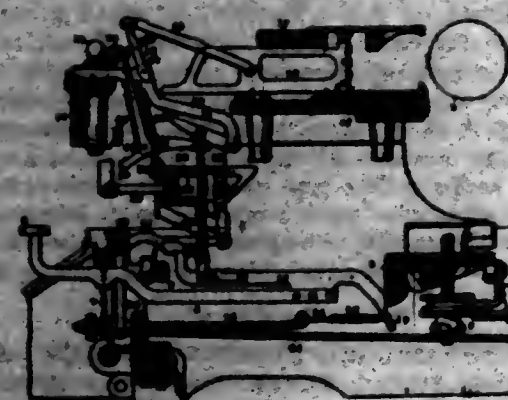
4. In a vehicle body, in combination, a roof section, a relatively movable roof section, links connecting said sections, and means for clamping the edges of the sections together and drawing downwardly on one edge relative to the other edge.

1,305,090. MOTOR-VEHICLE FENDER AND BRACKET CONSTRUCTION. GEORGE E. GOODARD, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed June 10, 1916. Serial No. 102,944. 9 Claims. (Cl. 21—22.)



1. In a motor vehicle, the combination with the frame thereof, of a fender, a pair of spaced cleats secured thereto, a bracket secured to the frame, and having a beam arranged between said cleats, said bracket also having arms secured to said cleats and a lamp bracket extending from the opposite side of the fender and having a bolt passing through the fender and into said beam.

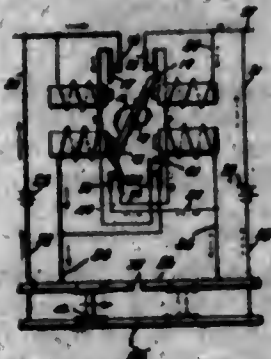
1,305,091. TYPE-WRITING MACHINE. GEORGE GOULD CORN, Middletown, Conn., assignor to The Neolium Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed Mar. 31, 1918. Serial No. 87,911. 10 Claims. (Cl. 197—27.)



2. In a typewriter machine, in combination, a type carrier, an actuating key lever therefor, operative connecting means between said elements, including two sub-levers having last motion connection, and a unitary sup-

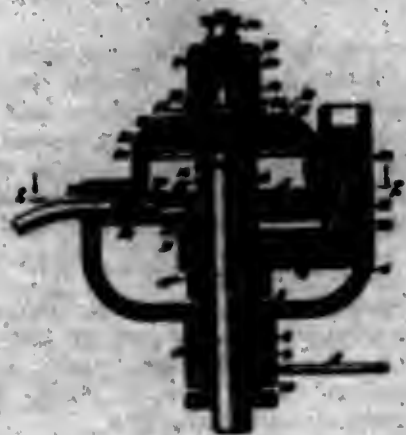
porting bracket for said sub-levers mounted for adjustment in one direction, said means also including a link pivotally connecting one of said sub-levers and said key lever and disclosed at substantially right angles to the direction of adjustability of said bracket.

1,305,092. RELAY. GEORGE E. GUILD, U. S. Army, assignor of one-half to C. T. Payton, St. Louis, Mo. Filed Mar. 23, 1918. Serial No. 224,169. 6 Claims. (Cl. 240-254.)



1. In a relay, solenoids arranged in pairs, a normally open circuit in which each pair of solenoids is located, a shunt-circuit for each pair of solenoids, each shunt-circuit being provided with a pair of normally closed contacts and a pair of normally open contacts, and means adapted to be actuated by the solenoids when energized for opening one pair of the normally closed contacts and closing one pair of the normally open contacts.

1,305,093. DISTRIBUTER. PAUL CORNELLIOUS HAAS, Ann Arbor, Mich., assignor of one-half to James C. Martin, Ann Arbor, Mich. Filed May 2, 1918. Serial No. 232,104. 7 Claims. (Cl. 122-168.)

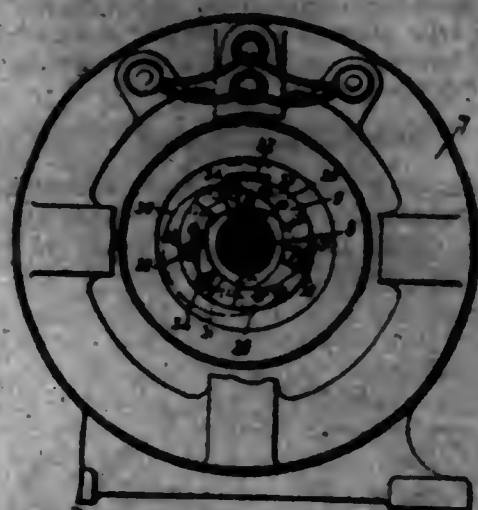


1. In a distributor for a plurality of spark plugs, revolving means for controlling a secondary circuit to the spark plugs, a pair of relatively reciprocating contacts for controlling a primary circuit, a diaphragm supporting one of the pair of contacts, and means for influencing said diaphragm operable by the revolving means so that the contact supported by the diaphragm is moved into engagement with the other contact, said engagement being broken while the revolving means maintain the secondary circuit to the spark plugs closed.

1,305,094. CENTRIFUGAL STARTING-SWITCH. JOHN E. HANSELL, Sutton, Thirsk, England, assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 26, 1914. Serial No. 962,500. Renewed Oct. 20, 1917. Serial No. 190,300. 14 Claims. (Cl. 175-310.)

12. The combination with a rotatable shaft, of a switching mechanism operable thereby and comprising a

longitudinally reciprocating carriage movable transversely to said shaft and carrying a switch member, a fixed switch member, and a centrifugally actuated device



mounted on said shaft and operable to move said carriage in one or the other direction and to cause relative engagement or disengagement of said switch members in accordance with the speed of rotation of said shaft.

1,305,095. APPARATUS FOR DEVELOPING, FIXING, AND WASHING OF PHOTOGRAPHIC FILMS AND PLATES. JENS PETER HANSEN, Copenhagen, Denmark. Filed Sept. 4, 1918. Serial No. 232,654. 5 Claims. (Cl. 95-96.)



1. An apparatus for developing, fixing and washing a film or plate in an envelop having a flexible cover plate, said apparatus comprising a tank, a frame on the tank, cushions carried by the frame and between which the enveloped film or plate is introduced, a member above the frame and having means for engaging a portion of the said cover plate to bend the same over the cushions.

1,305,096. PACKING OF PHOTOGRAPHIC RAW FILMS. JENS PETER HANSEN, Copenhagen, Denmark. Filed Dec. 10, 1918. Serial No. 206,170. 2 Claims. (Cl. 96-96.)



1. Film envelop of thick paper or the like, with a back plate with catching edges and a clidable cover plate, characterized by a back plate 1 with four bent edges 2, 3, 4, and 5 and a holding ribbon 6 or the like, all

of paper or the like in connection with a cover plate 9 with bent edges 10, also of paper, which by the drawing out of the cover plate cooperates with the bending 8, and which has also a bent edge 11.

1,305,097. PHOTOGRAPHIC CAMERA. JENS PETER HANSEN, Copenhagen, Denmark. Filed Dec. 10, 1918. Serial No. 206,172. 5 Claims. (Cl. 95-11.)



1. In a photographic camera adapted for use with film envelope, a casing having a rearwardly projecting lower edge and provided on its rear part with vertical strips, the lower ends of which terminate short of the bottom of the casing, so that they form steps for the projecting edge of the film envelope.

1,305,098. SHACKLE. ROBERT M. HARRIS, Oakland, Calif., assignor of one-fourth to Joseph Wade and one-fourth to Neil W. Wilson, Oakland, Calif. Filed June 26, 1917. Serial No. 177,061. Renewed Oct. 17, 1918. Serial No. 230,616. 3 Claims. (Cl. 97-127.)



1. In a shackle, a body portion having a hook formed upon one end thereof, the other end of said body portion being flat and provided with a transversely extending opening formed therein, and an arcuate member pivotally and laterally adjustably connected to said body portion, said arcuate member adapted for having its lower free terminal end inserted through said transverse opening.

1,305,099. COMBINED TRACTOR AND GANG-PLow. THOMAS ROBERT HANSEN, Waverly, Ill. Filed Oct. 2, 1916. Serial No. 129,470. Renewed Apr. 4, 1918. Serial No. 237,324. 6 Claims. (Cl. 97-99.)

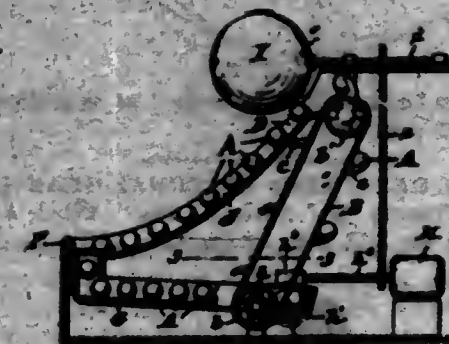
2. In a combined tractor and plow, a tractor, a plow attached to the tractor by a vertical pivot, and means

for communicating power from the tractor to the plow to exert both a lifting force on the plow and a reaction



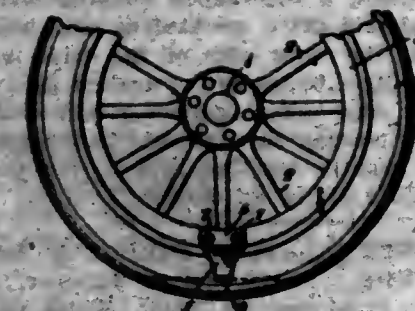
on the tractor in a manner to give a turning movement to the rear end of the tractor.

1,305,100. GAME OF FORTUNE. KOTONO HASHIMOTO, New York, N. Y. Filed Apr. 13, 1917. Serial No. 161,708. 9 Claims. (Cl. 46-61.)



3. A game embodying a plurality of balls, fortune legends contained within said balls, a chute down which said balls may roll, means for elevating the balls and delivering them to the upper end of the chute, and means for receiving the balls at the lower end of the chute and delivering them to the elevating means, any one of said balls being removable from the chute by a player for the purpose of withdrawing the fortune legend therein contained.

1,305,101. TIRE-PROTECTOR DEVICE. ALBERT W. HAYWARD, Cincinnati, Ohio, assignor to Dora S. Hayward, Cincinnati, Ohio. Filed Nov. 24, 1917. Serial No. 206,714. 3 Claims. (Cl. 116-1.)

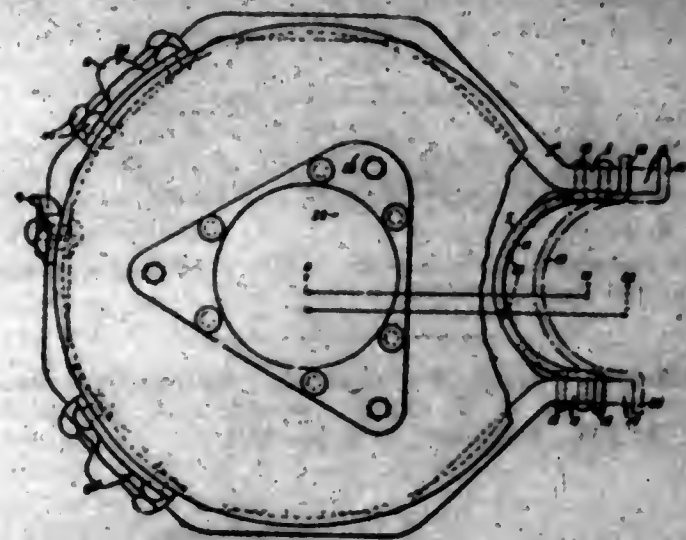


1. The combination with a pneumatic tire and a wheel therefor, of a rigid plate secured to the wheel and of a conformation to lie out of contact with the tire, said plate having a length to position its end intermediate the tread and rim of the tire, and said plate having a width adapted to raise sharply the entire wheel when the tire is sufficiently deflated to permit the end of said plate to contact with the ground.

1,305,102. DYNAMO-ELECTRIC MACHINE. RUDOLF E. HILLMANN, Swissvale, and CHARLES W. STARKER, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 24, 1916. Serial No. 125,597. 6 Claims. (Cl. 105-137.)

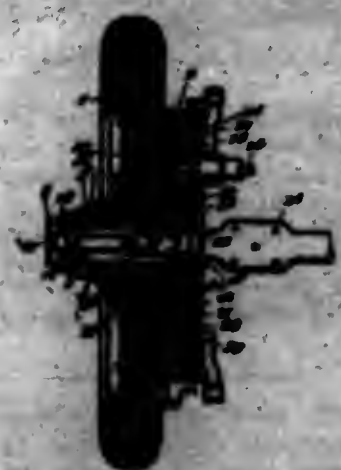
1. A magnetizable frame for inclosing the armature of a dynamo-electric machine comprising a yoke having a

gap in one side provided with outwardly-extending axle-bracket-supporting lips of a length selected to procure a



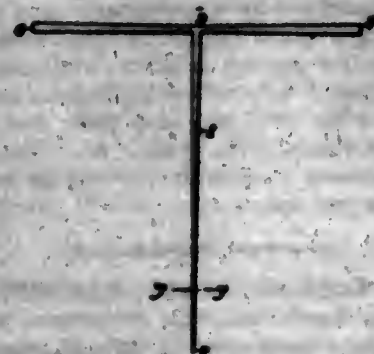
desired distance between the "center" of said frame and the axle-bracket position.

1,305,103. OIL-RETAINING INTERNAL-GEAR DRIVE. ADOLPH P. HENRY, San Antonio, Tex. Filed Aug. 23, 1918. Serial No. 251,192. 9 Claims. (Cl. 74-7.)



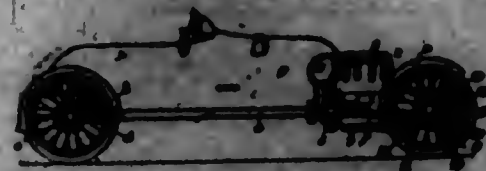
1. In combination with a drive mechanism, of a plate inclosing one side of said mechanism, said plate having a shoulder thereon, a cup-shaped housing inclosing the opposite side of said drive mechanism, said housing also extending about the outer edge of the drive mechanism, the housing having a flange fitting against said plate and having its outer edge engaging against said shoulder, and fastening means passing through said flange and plate to hold the same tightly together and to provide a fluid-tight joint, substantially as described.

1,305,104. ANTENNA FOR WIRELESS DISTRIBUTION SYSTEMS. FRED COORMA HEWITT, Ringwood Manor, N. J. Filed Aug. 12, 1916. Serial No. 114,527. 7 Claims. (Cl. 250-23.)



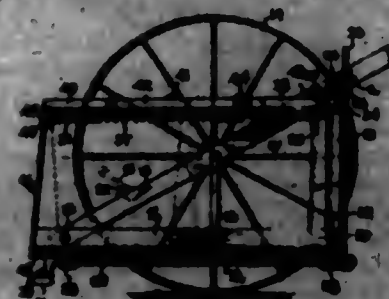
1. A tapering antenna having a diameter at its tip greater than a diameter at the ground and of such a size at all points that a corona will not form under the conditions of operation.

1,305,105. SELF-PROPELLED VEHICLE. CHARLES LOUIS HETTMANN, West Kensington, London, England. Filed July 20, 1917. Serial No. 181,788. 11 Claims. (Cl. 100-48.)



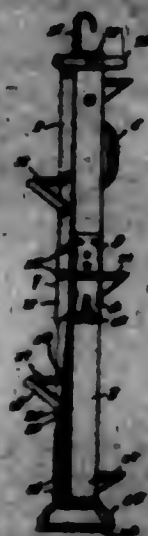
1. A self-propelled vehicle comprising in combination a vehicle main chassis with car body thereon a wheeled front carrying frame and an engine unit not only suspended between the main chassis and front carrying frame, but movable relatively to the main chassis.

1,305,106. CONVERTIBLE CART. FRANK J. HOWER, Birmingham, Ill. Filed July 2, 1918. Serial No. 242,011. 2 Claims. (Cl. 21-68.)



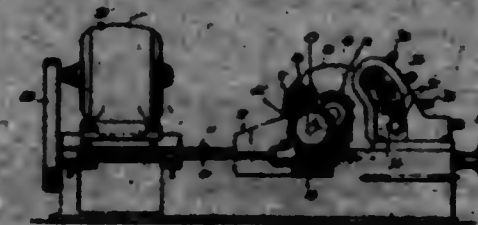
1. A vehicle including a platform, standards rising from the sides of the platform at the rear edge thereof, a stay connecting the upper ends of said standards, brackets depending from the stay, a cover constructed at one end to engage between said brackets and the stay, and a clamp carried by the front end of the cover and constructed to engage under the front edge of the platform.

1,305,107. LADDER. HARVEY HOGAN, Rockford, Ill., assignor to M. I. Morley, Rockford, Ill. Filed Feb. 21, 1918. Serial No. 218,533. 2 Claims. (Cl. 230-28.)



1. A ladder of the character described including a stile composed of upper and lower sections, a hinge connecting said upper and lower sections whereby same may be folded together, a hooked rest carried at the lower end of said lower section and projecting beyond the sides thereof, a guard fastened to the upper end of said upper stile section and projecting beyond opposite sides of said section, said rest and guard adapted to be brought close together when the two sections are folded, and a hook secured to the upper end of said upper section, substantially as described.

1,305,108. CUTTING-OFF MACHINE. CHARLES F. HOGAN, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 7, 1915. Serial No. 48,280. 4 Claims. (Cl. 20-68.)



1. In a cutting-off machine, in combination, a rigid support for one end of a bar, means for cutting off the bar adjacent said support, and a support for the other end of the bar adapted to move with the bar and relatively to the rigid support and cutting-off means.

1,305,109. APPARATUS FOR TREATING MATERIAL CONTAINING CONDENSABLE VOLATILE MATTER. CHARLES O. HOOVER, Denver, Colo., assignor, by mesne assignments, to J. D. Lamaghi, L. F. Lamaghi, and R. D. Hatten, trustees. Filed July 14, 1917. Serial No. 180,582. 5 Claims. (Cl. 202-6.)

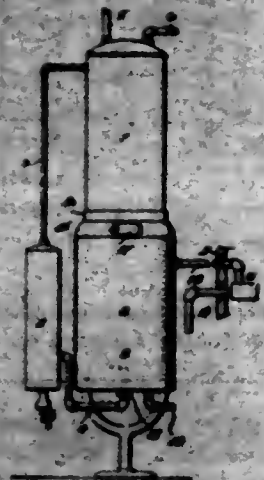


5. In apparatus for treating solid material to heat, the combination of a substantially upright chamber for receiving the material to be treated and containing an outlet near its upper end, means for subjecting the walls of said chamber to heat comprising a series of flues extending along the walls of said chamber, the bottom of said chamber being inclined and formed of a plurality of sections arranged in stepped relation with openings between their relatively overlapping ends affording a series of fluid-inlets along the bottom of said chamber, a passage for fluid extending along and beneath the bottom of said chamber and in communication with the fluid-inlets in the latter, and a conduit for fluid extending to inclined position beneath said passage and communicating at the end thereof opposite its inlet, with said passage, said passage and conduit being positioned to be subjected to the heat from said flues, whereby all the fluid entering said chamber from said conduit is caused to travel substantially the full length of said conduit before discharging into said chamber.

1,305,110. WATER-HEATER. HENRY J. HUGHES, Ottawa, Ill. Filed Jan. 19, 1917. Serial No. 148,291. 2 Claims. (Cl. 120-242.)

1. In combination, a main boiler holding lime-filled water, a comparatively low-temperature heat source in-

cluding a gas heater in fluid connection with said boiler, the heat from said heater being insufficiently great to cause the precipitation of lime in the main boiler fluid connections, and an auxiliary boiler holding rain water, receiving the lower portion of the main boiler, having a



comparatively high-temperature heat source including a furnace water-back in fluid connection with said boiler, the indirect heating of the lime-filled water in the main boiler through the auxiliary boiler also avoiding the precipitation of lime by the action of the comparatively high-temperature heat.

1,305,111. PORTABLE DRIVING AND SPEED-REDUCING DEVICE FOR REAMERS, DRILLS, AND THE LIKE. MORTON C. HURCHMAN, Woodbury, N. J., assignor of one-half to Leon G. Buckwalter, Merchantville, N. J. Filed Sept. 23, 1918. Serial No. 235,247. 5 Claims. (Cl. 74-7.)

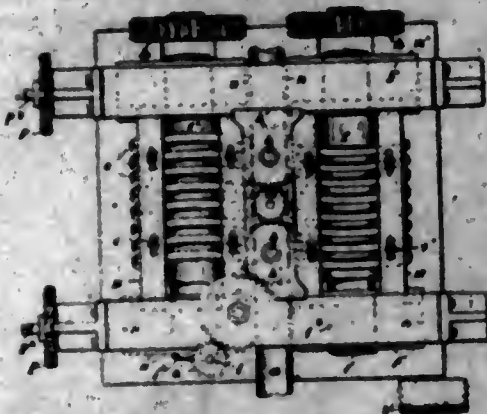


1. Is a device of the character stated, a framework having a spur gear rotatably mounted therein and having an axial polygonal socket extending therethrough for the reception of the shaft of an implement to be rotated, a driving spindle extending at an angle to said gear and mounted to bearings on said framework, a bevel pinion on said driving spindle, and speed reducing gearing intermediate said bevel pinion and spur gear.

1,305,112. SHAFT-FEEDING DEVICE. JOHN WINSLEY HAYZ, Newark, N. J. Filed Apr. 24, 1917. Serial No. 164,344. 14 Claims. (Cl. 90-48.)

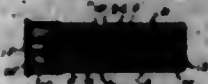
4. Means for rotating and feeding a shaft-bar, consisting of two driving-shafts mounted parallel to one another, a series of feed-disks fitted loosely to each of said shafts and driven thereby to press upon opposite sides of the shaft-bar, means for supporting the two

series of disks upon the driving-shafts in oppositely inclined relations to the shaft-bar, and guides applied



to the opposite intermediate sides of the shaft-bar to hold the same in an operative relation to the feed-disks.

1,305,113. SHOT-SHELL. ARTHUR C. JEWETT, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Nov. 29, 1918. Serial No. 264,466. 1 Claim. (Cl. 102-15.)



A shot shell having a paper body, a shot charge and a powder charge located therein, a group of driving wads interposed between the said powder charge and shot charge, an under shot wad interposed between the powder charge and the rearmost of the said driving wads and formed with a flame-transmitting opening, and a flight-marking pellet consisting of a core embedded in an envelop of ignitable material, installed in the rearmost of the said driving wads in position to have flame communicated to it from the powder charge through the under shot wad, the said pellet being separable from the wads and of sufficient carry to follow the charge of shot.

1,305,114. SHOT-SHELL. ARTHUR C. JEWETT, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Nov. 29, 1918. Serial No. 264,469. 1 Claim. (Cl. 102-15.)



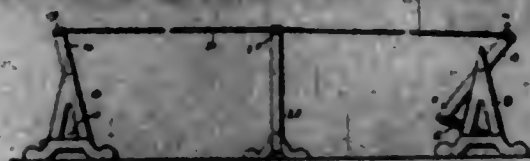
A flight-marking shot shell having an ignitable flight-marking body or pellet embedded in its powder-charge for ignition thereby, and adapted to accompany the charge of shot and to render the path thereof visible to the shooter.

1,305,115. SHOT-SHELL. ARTHUR C. JEWETT, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Nov. 29, 1918. Serial No. 264,480. 1 Claim. (Cl. 102-15.)



In a flight-marking shot shell, the combination with the paper tube, powder-charge, wads and shot-charge thereof, of one or more ignitable flight-marking pellets embedded in the shot-charge, adapted to be ignited by the concussion of the same when the shell is exploded, and having sufficient carry to follow the same so as to render the flight of the same visible to the eye of the shooter.

1,305,116. CLOTHES-LINE STRETCHER. CHARLES JOHNSON, Akron, N. Y. Filed Aug. 22, 1916. Serial No. 116,410. 1 Claim. (Cl. 68-2.)



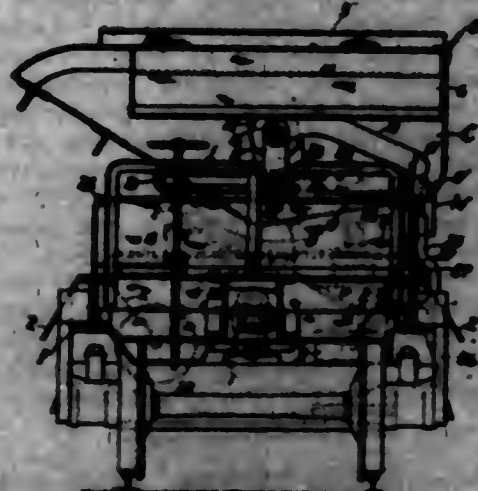
In a clothes line support, a frame-like structure including a horizontally disposed apertured bar to which clothes lines may be connected, standards in spaced relation to each other between which the frame-like structure is fitted, means for pivotally connecting the frame-like structure to the said standards, a base for the said standards, a dog pivotally connected to the said frame-like structure, and a bar connecting the base sections and constituting a detent for engaging the dog for holding the frame at different positions of adjustment.

1,305,117. ADJUSTABLE HAME-LOOP. RUDOLPH F. JOHNSON, Curacao, Nebr. Filed Dec. 12, 1916. Serial No. 186,447. 1 Claim. (Cl. 84-31.)



In a device of the character described the combination of a hame, an L-shaped flange member mounted thereon having a plurality of openings therein, a substantially U-shaped fastener having an aperture through one arm thereof adjacent its extremity, the other arm having a recess therein aligning with said opening, a casing extending outwardly from the first mentioned arm in alignment with the aperture, a spring pressed plunger slidably mounted through said casing and arm and adapted to normally seat in the recess of the adjacent arm, as and for the purpose set forth.

1,305,118. DUMP-CAR. ERNEST JUNGHEIMER, Anacosta, Mont., assignor of one-fourth to Wallace N. Tanner and one-fourth to William C. Capron, Anacosta, Mont. Filed Mar. 4, 1918. Serial No. 230,247. 16 Claims. (Cl. 105-265.)



12. In a dump-car, a car body oscillating about a given axis, means for tilting the body to dumping position, a

fixed support for said body, and suitable links interposed between said support and body for limiting the degree of oscillation of the body when dumping.

1,305,119. WINDOW CONSTRUCTION. ELMER E. KILMER, Cleveland, Ohio. Filed July 26, 1914. Serial No. 832,062. Renewed Oct. 20, 1916. Serial No. 260,459. 2 Claims. (Cl. 26-42.)



1. In a window construction, the combination of a casing; a mesh slidably mounted therein and adapted to be swung inward about its lower end; a catch resiliently mounted in said casing and adapted to prevent the swinging of said mesh beyond a certain point until manually released; and said mesh being provided with a groove adapted to cooperate with said catch to prevent the swinging of said mesh beyond a certain point except when said mesh has first been moved into its lowest position.

1,305,120. AERIAL TORPEDO. THOMAS J. JAMESON, Kinross, Cairnaird, Tenn. Filed July 24, 1918. Serial No. 246,574. 3 Claims. (Cl. 244-1.)



1. In an aerial torpedo, the combination of a master torpedo, a main explosive charge therein, an aerial supporting surface for said shell, directional means, propelling means including an engine housed within said shell, a torpedo supporting rail extending longitudinally of the torpedo shell, torpedo holding members arranged in series along said rail, a torpedo tripping member movable longitudinally of said rail for tripping the torpedo holder and releasing the torpedoes successively, said torpedo tripping member being oppositely connected with and actuated by said engine, electric ignition means for firing said charge including a battery and a switch, and contact wires arranged exteriorly of said shell and adapted upon impact with an object to throw said switch.

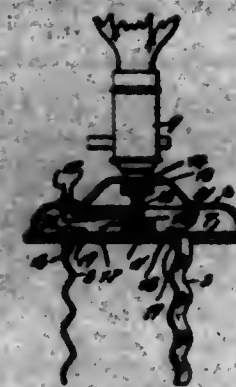
1,305,121. CHANGEABLE WINDOW DISPLAY-SIGN. PAUL KLIMOWICZ, Stevens Point, Wis. Filed Aug. 13, 1917. Serial No. 189,898. 10 Claims. (Cl. 46-140.)



4. A changeable window display sign, comprising interchangeable frame sections adapted to be connected to

form a frame of any desired dimensions, and provided with a groove upon the inner side, rectangular character blocks having a tongue upon one side and an end and a groove upon the other side and end, the tongue of one block being adapted to engage the recess in any other block, one end and side being adapted to engage the grooves in the frame sections, and auxiliary grooved members adapted to engage the tongues of the blocks and the grooves in the frame to connect the other side and end of the blocks therewith.

1,305,122. LAMP-SUPPORTING DEVICE. MAX KOSSMANN, Brooklyn, N. Y. Filed Oct. 30, 1916. Serial No. 260,242. 1 Claim. (Cl. 240-81.)

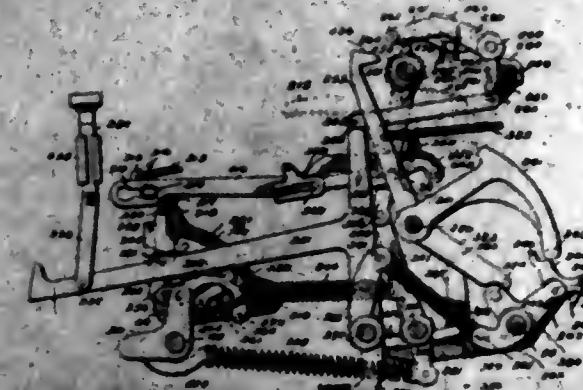


The combination of a shell having an opening to receive the threaded stud at one end of a lamp socket, a connecting device having a threaded opening to engage said stud and secure said shell to the lamp socket, said connecting device being provided with a threaded opening at the free end thereof, a plate provided with slots, a screw to secure said plate to the free end of the connecting device, and a resilient yieldable leg adjustably secured in each slot.

1,305,123. PROCESS OF PURIFYING WATER. HEINRICH KUNESCHMIDT, New York, N. Y., assignor to The Permutit Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 20, 1918. Serial No. 254,950. 6 Claims. (Cl. 210-1.)

6. The process of purifying hard water which comprises treating said water with an alkaline reagent to precipitate hardness-giving bodies with production of residual water displaying alkalinity and then adding to such water acid material in sufficient amount to remove not only caustic alkalinity but also a part or all of the phenolphthalein alkalinity which remains after the caustic alkalinity has been removed and then passing the so treated water through exchange silicates to remove the residual hardness.

1,305,124. CALCULATING-MACHINE. HENRY KUWERT, Luzerne, Pa., assignor to The Adder Machine Company, Wilkes-Barre, Pa., a Corporation of Pennsylvania. Original application filed Feb. 13, 1911, Serial No. 606,394. Divided and this application filed Apr. 7, 1916. Serial No. 89,535. 79 Claims. (Cl. 235-60.)



1. In a calculating machine; a transfer mechanism, including a shaft; numeral wheels and pinions; spring-

actuated carrying levers; detents restraining said levers; trips to release the detents; means controlled by the numeral wheels to actuate the trips; and means to lock the trips and the detents from operation except at the instant a carry is to take place.

1,305,125. NON-CONDUCTING AND WATERPROOF COMPOSITION AND METHOD OF MANUFACTURE. JOHN J. LAINE and CHARLES W. BOZING, Madison, Wis. Filed Feb. 27, 1919. Serial No. 579,844. 1 Claim. (Cl. 100-31.) Filed under the act of Mar. 3, 1883, 22 Stat. L., 625.)

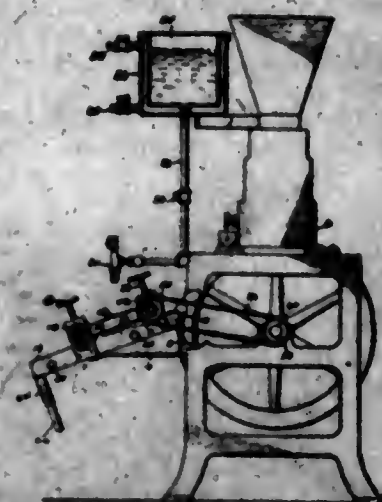
A plastic composition adapted to form a material from which molded articles can be made, comprising from one to two pounds of paper pulp and four to ten pounds of pitch.

1,305,126. SWITCHBOARD APPARATUS. BENJAMIN G. LAMMA, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 29, 1918. Serial No. 24,785. 5 Claims. (Cl. 178-306.)



1. In a switchboard, the combination with spark-producing means and electrical conducting means disposed thereon, of a relatively fine mesh wire screen disposed between the spark-producing means and the conducting means for preventing the transmission of the spark to the electrical conducting means.

1,305,127. OILING DEVICE FOR DOUGH-MOLDING MACHINES. RUBEN F. LAWSON, Kansas City, Mo. Filed Jan. 10, 1919. Serial No. 270,500. 7 Claims. (Cl. 107-9.)



6. In baking apparatus, the combination with the dough-molding machine, of an oil-imparting surface associated with the discharge outlet of said machine in position to receive the molded dough and impart oil

thereto as it traverses said surface, and an undriven continuously-driven belt overlying said surface in position to engage the molded dough as discharged from the machine and cause the same to traverse said surface.

1,305,128. MULTIWEB-PRINTING PRESS. HENRY LARSEN, Los Angeles, Calif., assignor, by mesne assignments, to Oscar L. Moore, Chicago, Ill. Filed Jan. 8, 1917. Serial No. 141,102. 1 Claim. (Cl. 270-5.)



In a multi-deck printing press, in combination, a plurality of pairs of plate and impression cylinders, said pairs being arranged in sets of two pairs each, one set in one deck and another set in another deck, each set adapted to print on opposite sides of webs, and means whereby a pair in one deck and a pair in another deck are driven comprising a pair pinions adapted to operate one pair, a main driving gear, a frame concentrically pivotally adjustable relative to said main driving gear, and intermeshing pinions carried by said frame, one of said intermeshing pinions being arranged to mesh with said pair pinion at one position of said frame, and the other at another position of said frame, said last mentioned pinion meshing with said main driving gear in either position of said frame, and being out of mesh with said pair pinion when the other frame pinion is in mesh therewith.

1,305,129. FOLDING MECHANISM FOR PRINTING-PRESSES. HENRY LARSEN, Los Angeles, Calif., assignor, by mesne assignments, to Oscar L. Moore, Chicago, Ill. Filed Jan. 8, 1917. Serial No. 141,102. 15 Claims. (Cl. 270-38.)

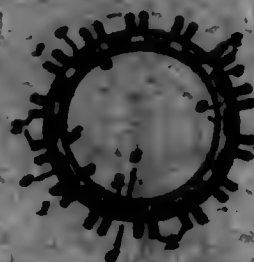


11. In an apparatus of the character described, in combination, a printing press, associating and delivering mechanism, and a folder movable into and out of position to cooperate with the printed web issuing from the press to the associating and delivering mechanism, said associating and delivering mechanism being adjustable to receive either the folded or unfolded web, and means to support said folder out of said cooperative position.

1,305,130. GUARD FOR ELECTRIC HEATERS. ROBERT G. LINES and HENRY G. GIBSON, Philadelphia, Pa., assignors to A. B. S. Corporation, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 18, 1919. Serial No. 244,000. 3 Claims. (Cl. 210-84.)

2. In a guard for electric heaters, a frame of a central ring and a plurality of members, said ring

being constructed of an annular body having therein a circular channel, and clips on the periphery of said body.



the head ends of said arms being adapted to be seated in said channel and held tightly clamped on said body by the engagement of said clips.

1,305,131. BALL-BEARING. KARL OSMAR LÖNN, Stockholm, Sweden. Filed Nov. 28, 1918. Serial No. 264,067. 1 Claim. (Cl. 94-38.)



In a ball bearing, the combination of balls, resilient races for said balls, supports for said races on either side of the tracks or surfaces of the races contacting with the balls, and supports opposite the balls on the opposite side of the races to that of the balls and located at such distance from the races that at excessive load on and bending of the races they will bear against the supports before the elastic limit of the races is reached.

1,305,132. METHOD OF FORMING AND ASSEMBLING SNAP-FASTENER SPRINGS. ARTHUR J. LEWIS, Stratford, Conn., assignor to The Baird Machine Company, Bridgeport, Conn., a Corporation of Connecticut. Original application filed Aug. 5, 1916. Serial No. 112,988. Divided and this application filed June 17, 1918. Serial No. 240,390. 9 Claims. (Cl. 79-3.)



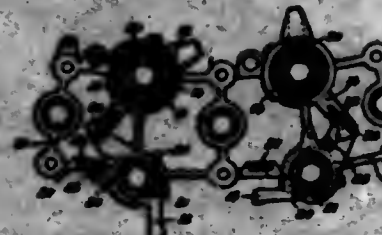
1. The method of forming springs which consists in bending a blank of wire over a rounded form and retaining it there with the ends extending outward and then pushing the ends of the blank inward and causing the ends of the blank to fold into the recess in the form.

1,305,133. ROTARY ENGINE OR PUMP. HAROLD H. LITTLE, Troy, N. Y. Filed Aug. 31, 1917. Serial No. 100,100. 2 Claims. (Cl. 121-51.)



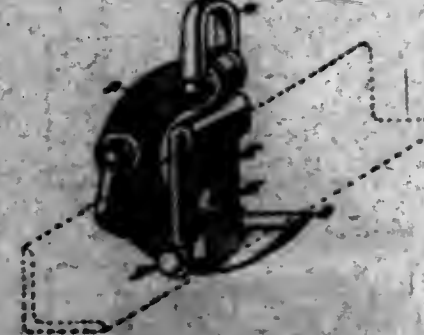
1. In a rotary engine, a horizontally rotating abutment plate, a vertically rotating piston disk operating in a plane transversely to that of the abutment disk, a packing ring carried by the abutment disk, said ring being non-circular in cross section and split diagonally, and springs arranged to bear upon the posterior portion of the ring to force the anterior portion of the ring diagonally into a fluid-tight contact with both the piston disk and the abutment disk.

1,305,134. PRIMARY-ELECTION MECHANISM FOR VOTING-MACHINES. IRVING LEE, Minneapolis, Minn., assignor, by direct and mesne assignments, to Lee Multiplex Voting Machine Company, Minneapolis, Minn., a Corporation of Minnesota. Filed May 24, 1917. Serial No. 170,734. 6 Claims. (Cl. 235-55.)



1. In a voting machine, the combination with several groups of register actuators, of actuator locks for the several groups of actuators, key-actuated means for operating said actuator locks, and a common lock operated by the first key-actuated actuator-lock, to lock all other actuator locks against movement.

1,305,135. SAFETY GRIP-HOOK. DAVID LOHRY, Davenport, Iowa. Filed Jan. 22, 1919. Serial No. 272,481. 3 Claims. (Cl. 87-0.)

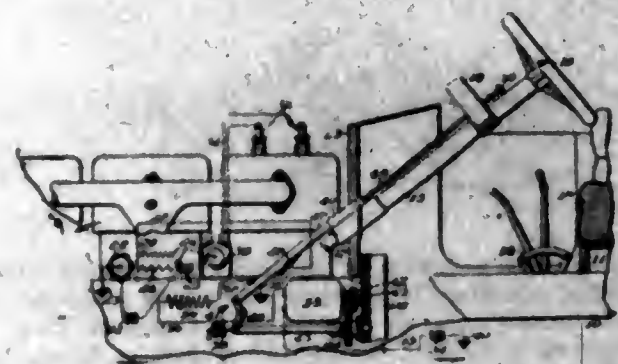


1. A lifting device, consisting of a semi-circular member having a jaw at one end, and upon which an angle iron is adapted to rest, a hook pivoted to said member and adapted to engage over the upper edge of the angle iron, and means for hoisting the device.

1,305,136. MOTOR-VEHICLE. ALLEN Loomis, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed June 24, 1912. Serial No. 705,534. 5 Claims. (Cl. 200-38.)

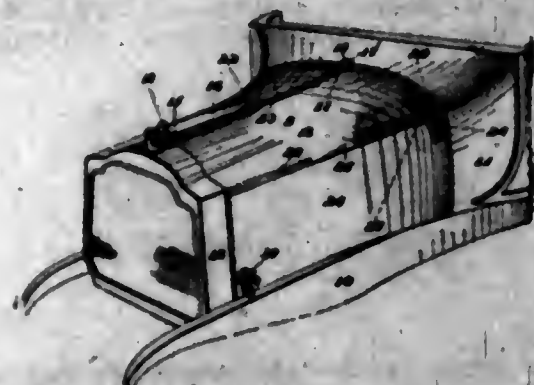
1. The combination with an internal combustion engine, and an ignition circuit therefor, of an electric start-

ing motor, an energizing circuit therefor, and a single manually operated device for closing said ignition circuit.



for connecting said starting motor to said engine, and for closing the motor energizing circuit circuit.

1,305,137. MOTOR-VEHICLE BONNET. ALLEN LOOMIS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 1, 1914. Serial No. 864,460. 17 Claims. (Cl. 74-56.)



1. In a motor vehicle, a motor bonnet comprising pivotally connected sections, having portions deviating lengthwise thereof from a straight line.

1,305,138. CHUCK. EDWARD J. McCLELLAN, New York, N. Y., assignor to The Garvin Machine Co., a Corporation of New York. Filed Aug. 17, 1917. Serial No. 186,694. 2 Claims. (Cl. 270-121.)



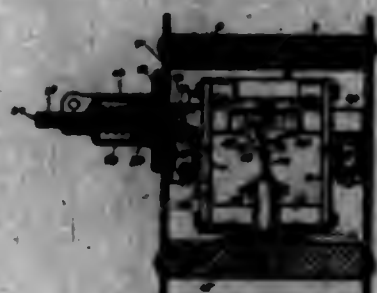
1. In a chuck, a head comprising an annular body, a plurality of radially disposed jaws slidingly mounted in said head, a block having a linearly reciprocating movement in said head, said block and jaws having engaging parts for actuating said jaws upon movement of said block, a protector plate on the front face of said head, said block having an opening therein, and a bushing in said opening secured to said protector plate.

1,305,139. VISIBLE-MEASURE DISPENSING APPARATUS. ARTHUR McKELLAR, Salt Lake City, Utah. Filed Nov. 26, 1917. Serial No. 204,080. 10 Claims. (Cl. 221-98.)



1. In a liquid dispensing apparatus, a dispensing receptacle, a dispensing outlet and hose therefor, an overflow return connection leading from an upper predetermined point in said receptacle, a drain connection leading from the lower part of said receptacle and communicating with said return connection, a control valve for said drain connection, a spring for holding said valve in the closed position, a valve handle connected to said valve and constituting supporting means for the end of said hose, the weight of said hose when resting on said handle acting to hold said drain valve in the open position.

1,305,140. IGNITION SYSTEM. SAMUEL C. McKEOWN, East Orange, N. J., assignor to Spittler Electrical Company, Newark, N. J. Filed Sept. 9, 1918. Serial No. 283,282. 15 Claims. (Cl. 123-146.)

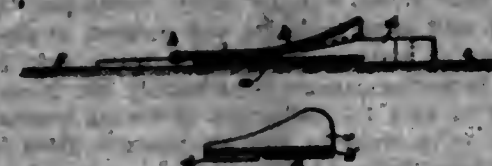


1. In an ignition system, a high tension circuit having a main spark gap therein for firing fuel and a second spark gap in said circuit for adding to the effectiveness of the sparking at the first mentioned gap, said second spark gap being automatically held in normal closed position but constructed and arranged to be introduced when desired.

1,305,141. FOLDING DEVICE FOR TREATING MULTIPLE FABRICS. DONALD DAVID MACPHERSON, Radbrook Hall, near Shrewsbury, England. Filed Nov. 22, 1918. Serial No. 208,768. 3 Claims. (Cl. 184-2.)

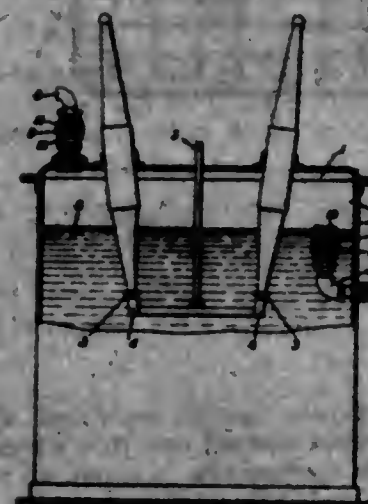
1. In apparatus of the character described, a support bar to be arranged upon a table or the like, a substantially horizontal dividing tongue secured to the support bar and spaced from the lower edge thereof to provide a

passage between the tongue and the table, and an upper laying plate secured to the support bar above the tongue.



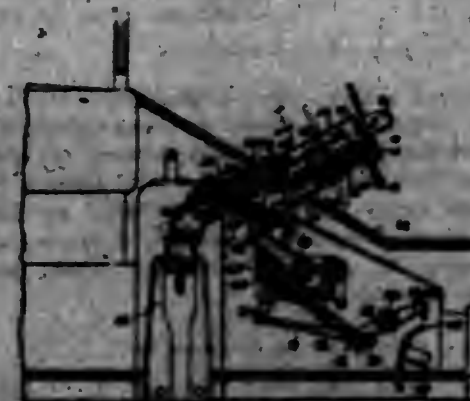
and spaced therefrom, said laying plate having a portion thereof substantially parallel with the tongue and its other portion inclined upwardly from the tongue.

1,305,142. CIRCUIT-INTERRUPTER. JOSEPH N. MANNING, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 5, 1916. Serial No. 89,108. 12 Claims. (Cl. 175-282.)



1. In a circuit interrupter, the combination with a fluid-containing receptacle and cooperating contact members disposed in the fluid, of means disposed above the fluid in the receptacle for automatically connecting the upper portion of the receptacle to the outside atmosphere when the pressure within the receptacle is below a predetermined value.

1,305,143. SELECTIVE CONTROLLING MECHANISM. CHARLES F. MARSTON, Brooklyn, N. Y. Filed Mar. 5, 1916. Serial No. 200,828. 8 Claims. (Cl. 74-81.)



1. In a selective controlling mechanism, selective levers each operable to effect a change in the device on which the selective controlling mechanism is used, and a pedal adapted to be moved bodily up and down and to be shifted sidewise, the pedal having means adapted to engage a corresponding lever to actuate the latter.

1,305,144. BALL-BEARING FOR SPINDLES. JOHN H. MAYES, Charlotte, N. C. Filed Aug. 17, 1917. Serial No. 186,765. 1 Claim. (Cl. 64-90.)



The combination with a supporting member having a counter bore extending thereinto from one end and a screw plug constituting a closure for one end of the counter bore and having a recess in the inner face thereof, of balls mounted for movement within the recess, a spindle having a tapered end bearing on said balls, a casing fitted within the counter bore and having one end abutting against the inner end of the counter bore and its other end reduced in diameter and externally screw threaded, a cap detachably engaging the reduced threaded end of said casing and cooperating therewith to hold bearing balls, a counter bore in the other end of said casing, a screw plug detachably mounted in the end thereof, a collar fitted tightly on the spindle and loosely mounted within and spaced from the wall of the counter bore in said casing, and ball bearings disposed between the collar and the inner end of the counter bore and the screw plug respectively.

1,305,145. FLUSHING APPARATUS. LOUIS MITER, San Francisco, Calif. Filed Jan. 2, 1917. Serial No. 146,038. Renewed Apr. 7, 1919. Serial No. 288,405. 5 Claims. (Cl. 4-5.)



1. The combination of a water receptacle, a flushing conduit leading therefrom, a buoyant valve for closing the entrance to said conduit from said receptacle, a source of supply of pressure water, a conduit leading therefrom to said receptacle, a valve chamber, a controlling valve therein, arranged, when closed, to close said flushing conduit, means for admitting pressure

water to press said controlling valve to its closing position, means whereby the part of said flushing conduit between the valves is then filled with water of the same pressure as in the receptacle, the parts being of such dimensions that said controlling valve is still held to its seat by said pressure water, and means, operable at will, for opening said controlling valve.

1,305,146. STRAW-FINISHING COMPOSITION. HARMAN MILANOFF, Chicago, Ill. Filed June 4, 1918. Serial No. 236,153. 6 Claims. (Cl. 134-12.)

4. A straw finishing composition comprising a mixture of zinc oxide, sulfur, gelatin, gum lacca, water and milk in about the proportions of zinc oxide forty pounds, precipitated sulfur forty pounds, gelatin two and one-half pounds, gum lacca one-fourth pound, water two gallons, and milk one quart.

1,305,147. FLY-ESCAPE SCREEN. GEORGE W. MITCHELL, Morton Grove, Ill. Filed Mar. 13, 1919. Serial No. 232,381. 3 Claims. (Cl. 156-37.)



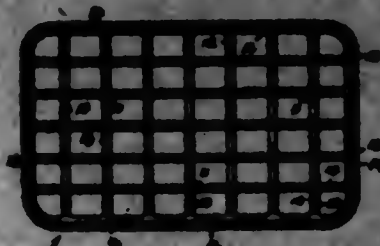
1. A fly escape screen comprising a framework including a top rail formed with a cavity therein opening on the exterior and formed intermediate the upper and lower edges thereof, said top rail being also provided with two series of openings made above and below said cavity in the upper and lower parts of said top rail, said openings being made through the outside face of the screen, and a suitable mesh material secured to said frame and to the exterior face of said top rail, the mesh material inclosing on the exterior said cavity and openings, substantially as described.

2. A fly escape screen of the character described, including a frame having a top rail provided with an elongated cavity opening out on the exterior face of said rail and made intermediate the upper and lower parts of the rail, said cavity providing a trap or prison for insects, said top rail also having a series of fly exit openings in the lower part thereof placing the cavity in communication with the room, said openings being made through the exterior face of the top rail, said top rail being also provided with a second series of fly exit openings made in the upper part of said top rail and arranged in staggered relation to the openings of said first-named series, the last named openings placing the trap or prison in communication with the outdoors and being made through the exterior face of said top rail, and a mesh material secured to said framework and to the exterior face of said top rail whereby to close the cavity and both of said series of openings, substantially as described.

3. A fly escape screen comprising vertical side stiles, horizontal top and bottom rails connecting said vertical stiles, said top rail being formed with a substantially semi-cylindrical cavity therein opening on the outside face and with numerous small openings arranged in staggered relation in the upper and lower parts of said top rail, said openings being made through the exterior face of the top rail and leading, respectively, to the

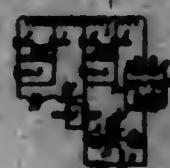
room and to the outdoors, a mesh material stretched over and secured to said framework, vertical strips connecting the side edges of said mesh material and secured to said vertical stiles, a lower strip connecting the bottom edge of said mesh material and secured to the lower rail, the top of the mesh material being left free of strips, and fastening means for securing the mesh material directly to said top rail, said fastening means being arranged in pairs close to and at opposite sides of said openings, substantially as described.

1,305,148. TRAY OR THE LIKE. ADOLF MOWBRAY, West Orange, N. J., assignor to Eastern Tool & Mfg. Company, Bloomfield, N. J. Filed Feb. 11, 1919. Serial No. 276,304. 5 Claims. (Cl. 45-38.)



4. A tray comprising spaced interlaced strips with projecting ends turned upward and then outward, and a rim having on its bottom face a series of recesses as deep as the strip ends are thick and spaced to receive said outwardly extending ends.

1,305,149. SYSTEM OF CONTROL. HENRY T. MONTE, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 28, 1914. Serial No. 908,511. 5 Claims. (Cl. 173-376.)

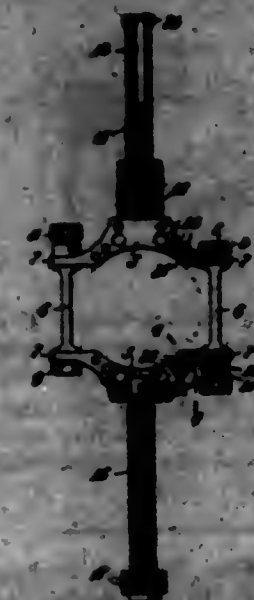


4. In a control system, the combination with a supply circuit, and a dynamo-electric machine adapted to be connected thereto, of an auxiliary source of energy, a current relay for effecting certain connections of said machine, said relay being provided with an auxiliary coil adapted to be energized in varying degrees from said auxiliary source of energy dependent upon condition of connection of said motor.

1,305,150. BALANCING APPLIANCE. CARLINO R. MYERS, Camden, N. J., assignor to Vibration Specialty Company, Philadelphia, Pa., a Corporation of Delaware. Filed Dec. 19, 1918. Serial No. 267,677. 17 Claims. (Cl. 74-4.)

1. A balancing appliance adapted to be adjustably mounted adjacent a rotatable body under examination to determine the unbalance existing in said body, said

appliance including a plurality of adjustable weights each of different mass and each arranged at a different initial



distance from the axis of rotation of said body, the appliance being in static and dynamic balance when said weights are in their initial positions.

1,305,151. PORTABLE LIGHT. JOHN D. NEWTON, New York, N. Y. Original application filed Jan. 10, 1918. Serial No. 211,300. Divided and this application filed July 10, 1918. Serial No. 244,105. 5 Claims. (Cl. 240-115.)



5. In a light fixture, the combination of a reflector, a ball therefor, a ball supporting member, a lamp holder, a screw threaded member rigid with the lamp holder and passing through the reflector and ball supporting member, and a nut adapted to be threaded on said screw threaded member to clamp the reflector between the ball supporting member and lamp holder to maintain the ball supporting member, reflector and lamp holder secured to each other.

1,305,152. RIVET-SORTING DEVICE. EMIL J. NIELSEN, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 11, 1918. Serial No. 216,484. 11 Claims. (Cl. 82-62.)



1. A machine of the character described including a feeding device, a sorting device, recesses in said sorting

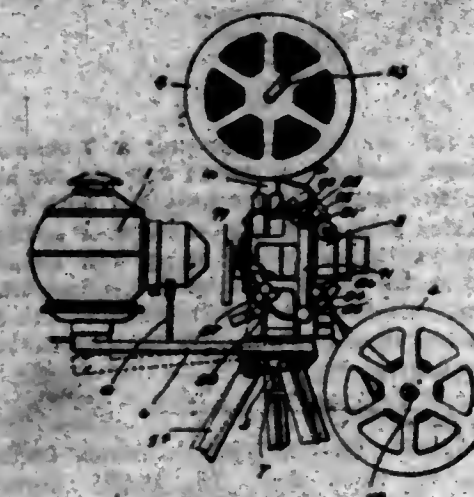
device adapted to receive articles to be sorted from said feeding device one by one as devices are operated, and mechanism for ejecting said articles from the recesses in said sorting device into different receptacles, according to the size of the articles to be sorted.

1,305,153. BINDING-POST FOR ELECTRIC CABLES. EDWARD B. NOWOSIMSKI, Bloomfield, N. J., assignor to Spittler Electrical Company, Newark, N. J. Filed Nov. 20, 1918. Serial No. 264,557. 5 Claims. (Cl. 173-380.)



4. In a device of the class described, the combination of a block of insulating material having a metallic contact piece held therein, a spring and screw carried by said contact piece and an opening into the block and contact piece adapted to receive an electric cable in such a manner that the bare ends of the cable conductor may pass between the convolutions of said spring for the purpose of being securely clamped thereby when the screw is screwed up against the spring.

1,305,154. PORTABLE MOTION-PICTURE APPARATUS. JOSEPH G. R. O'HARA, St. Louis, Mo., assignor to Educational Motion Picture Machine and Film Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 18, 1916. Serial No. 120,731. 3 Claims. (Cl. 88-17.)

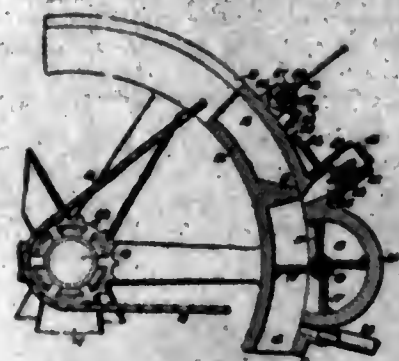


1. In an apparatus for projecting motion pictures, the combination with a tripod comprising a head and legs pivotally connected thereto, of a support for the picture projecting machine and the lamp housing associated therewith, said support comprising an elongated plate, one end of which is provided with an annular seat which is adapted to fit on the head of the tripod, means for detachably securing said plate to said head, and the opposite end of said plate being provided on the upper side with a seat which is adapted to receive the lower end of the lamp housing.

1,305,155. INTERNAL-COMBUSTION ENGINE. EDWARD FRANCIS O'HARA, Carlisle, Ind. Filed Dec. 5, 1916. Serial No. 135,101. 5 Claims. (Cl. 123-12.)

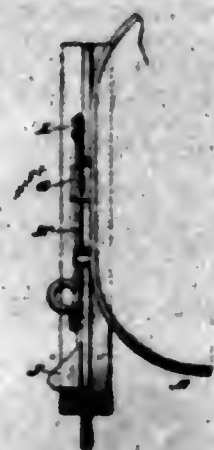
1. The method of generating power in explosive engines which comprises expanding a plurality of separate portions of hot combustion gases successively in impelling relation to a movable motor element and eliminating carbon deposit therefrom, consisting in feeding separate

charges of compressed air and a hydrocarbon to the explosion chamber for simultaneous carburetion and combustion.



bustion and regulating the supply of air and hydrocarbon by means of overflow valves.

1,305,156. CLAMP. NATHAN G. PERRY and CHARLES E. HULFING, Douglas, Ariz., assignor of one-third to Charles X. Thompson, Douglas, Ariz. Filed Oct. 11, 1918. Serial No. 257,510. 2 Claims. (Cl. 224-29.)



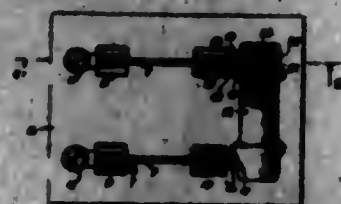
1. A clamp for canteens comprising a Y-shaped bar bent into U-shape, having a screw at one end for holding it in position, the central flange provided with a notch adapted to receive a hook on the canteen, a spring pivoted to the central flange of the clamp and adapted to hold the hook in the notch, a stop projecting laterally from the clamp, under which the free end of the spring is received, and a spring release for forcing the spring laterally of the clamp.

1,305,157. BROOM-PROTECTOR. PETER PETERSEN, Oakland, Calif. Filed Sept. 28, 1918. Serial No. 256,121. 3 Claims. (Cl. 15-22.)



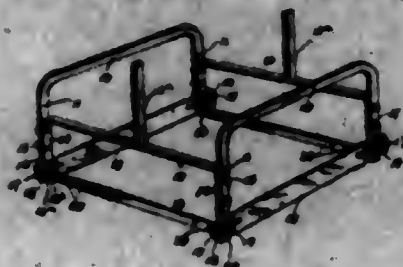
1. A broom protector comprising an elliptical band formed in two slidably engaged sections, the sections being formed to provide hooks resiliently urged toward each other and engageable through the broom straws.

1,305,158. SWITCH-HANDLE. CLARENCE D. PLATT, Bridgeport, Conn. Filed Apr. 27, 1918. Serial No. 231,241. 5 Claims. (Cl. 175-282.)



1. In combination, a switch blade, a screw threaded attaching member having a hooked portion engaged with said switch blade, a handle recessed to receive said attaching member and a portion of the edge of the switch blade and a securing screw extending through a portion of the switch handle into engagement with the threaded attaching member.

1,305,159. SAW-FRAME. THOMAS PLUNKETT, Westbury, N. I. Filed Mar. 8, 1919. Serial No. 280,806. 2 Claims. (Cl. 145-31.)



1. A saw of the class described including U-shaped side frames presenting top bars and each having depending arms at the ends, rectangular end frames between the side arms, said end frames presenting top and bottom bars and upright members integral with the top bars, the bottom bars of the end frames being set edge-wise vertically, hooks adapted to engage saw blades, and bearings for said hooks, said bearings being formed jointly by the arms of the side frames and the upright members of the end frames so that the hooks are accommodated between said arms and upright members, said hooks having tensioning nuts thereon.

1,305,160. CONSTRUCTION OF LINKS FOR AMMUNITION-BELTS OF MACHINE-GUNS. WILLIAM DE COURCY FRIDMAUX, Weymouth, England. Filed Sept. 21, 1917. Serial No. 192,839. 8 Claims. (Cl. 80-36.)



1. A link for the ammunition belt for machine guns, consisting of a body having holed projections at one of its ends and pintles at the other end, and cartridge carrying clips positioned between said holed projections.

1,305,161. AMMUNITION-BELT FOR MACHINE-GUNS. WILLIAM DE COURCY FRIDMAUX, Weymouth, England. Filed July 18, 1918. Serial No. 245,048. 1 Claim. (Cl. 80-36.)

A metallic link for an ammunition belt for machine guns comprising a plurality of clips of different diameters to respectively receive the larger and smaller por-

tions of a cartridge, the clip of larger diameter having a clearance slot so that one of the active parts of the ma-



chine gun may directly engage the cartridge and another part cooperate with the said clip of smaller diameter for the purpose specified.

1,305,162. VEHICLE-BODY. HARRY PUFF, St. Cloud, Minn. Filed Sept. 23, 1918. Serial No. 255,354. 2 Claims. (Cl. 21-7.)



1. In combination with a vehicle body, a bottom panel hinged to the bottom of the body at an end thereof and movable vertically, a top panel hinged to the top of the body and also movable vertically and two series of hinged panels having relative movement horizontally, a panel of each series being hinged to a side wall of the body, said panels when extended forming side and rear walls interspersed between the bottom panel and the top panel, and brace members interposed between the top and bottom panels and the body, said brace members each consisting of two pivotally connected levers, certain of the levers of both brace members being pivotally connected to the body, one of the levers of one brace member being connected to the bottom panel, the corresponding lever of the other brace member being pivotally connected to the top panel, each brace member adapted to function as a support, and a supporting leg for the bottom panel.

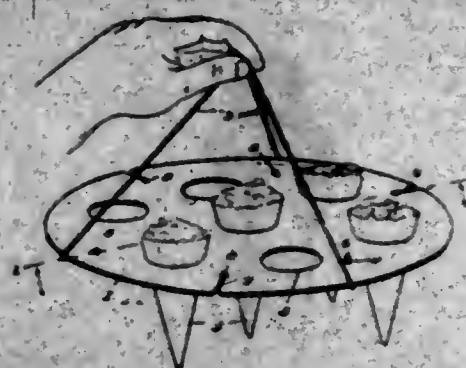
1,305,163. HEADER FOR BOILER ELEMENTS. CHARLES RABOUREN, St. Denis, France, assignor to The Societe Anonyme Des Etablissements Delaunay-Belleville, St. Denis, France, a Corporation of France. Original application filed June 31, 1915, Serial No. 35,294. Divided and this application filed Feb. 10, 1918. Serial No. 77,516. 2 Claims. (Cl. 122-300.)



1. An upper header for water tube boiler elements, having ribs extending inwardly and upwardly from one side wall thereof and forming compartments which are open at the top, one end wall of the header having inlet tube-receiving openings aligned with the compartments, said header having a passage with which all of the

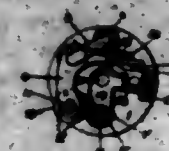
compartments communicate, the passage being arranged between the ribs and the side opposite to that by which said ribs are carried.

1,305,164. CONE-HOLDER. JAMES DE RAKE, Baltimore, Md. Filed Aug. 20, 1918. Serial No. 250,714. 3 Claims. (Cl. 229-6.)



1. A tray of the character specified, comprising a plate having openings for the cones, cords for supporting the tray and cut outs in the edge of the plate for the purpose specified, the plate having openings for the cords spaced inwardly from the edges thereof, and the cords being passed downwardly through the openings, outwardly and upwardly over the edges of the plate to be connected above the plate, whereby provision is made for securing a napkin to the tray over the contents thereof.

1,305,165. CIRCUIT-BREAKER. WILLIAM H. RATCLIFF, Newark, N. J., assignor to Spittford Electrical Company, Newark, N. J. Filed Feb. 24, 1917. Serial No. 150,050. 12 Claims. (Cl. 123-166.)

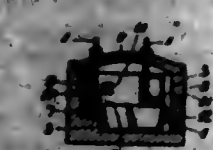


1. In a device of the character described, the combination of a mounting plate having a post located thereon, a breaker arm pivotally attached to said post and means for rocking the breaker arm about said post as a center, a contact point located on said arm to move therewith, a stationary arm having a contact point thereon adapted to cooperate with said first contact, one end of said stationary arm being pivotally attached to said post, a terminal block mounted upon said plate, and means on said block cooperating with the other end of said stationary arm to adjustably secure the latter in position.

1,305,166. ALLOY. WILLIAM J. REARDON, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 18, 1914. Serial No. 825,502. 3 Claims. (Cl. 75-1.)

1. An alloy suitable for casting without the formation of blow-holes and black specks in the castings, and containing aluminum, magnesium and less than one per cent. of vanadium.

1,305,167. ELECTRIC FURNACE. IVAR BENNERFELT, Djursholm, Sweden. Filed Oct. 3, 1918. Serial No. 250,651. 3 Claims. (Cl. 204-64.)



1. In an electric furnace the combination of a plurality of electrodes projecting downward into a heating room

toward projections from the side wall corresponding to each electrode and supporting carbonaceous contact material for arcs from the electrodes.

1,305,168. INSULATOR. OMEN L. ROSENTHAL, Macy, Ind. Filed July 31, 1916, Serial No. 110,589. Renewed Mar. 7, 1919. Serial No. 251,292. 2 Claims. (Cl. 172-314.)



1. In an insulating device for supporting electric conducting wires, a suitable supporting arm having a screw-threaded upper portion and a tapering medial portion, a ring like base of insulating material slipped over the screw-threaded portion and fitted upon the tapering medial portion said base having a top groove adapted to receive and support an electric conducting wire, and a series of interior grooves forming passage ways for the flow of moisture, and a top cap of insulating material adapted to screw upon the screw-threaded upper portion of the arm and against the base to fasten the conducting wire in the groove.

1,305,169. ARTIFICIAL HAND. KARL FELIX ROHM-MANN, St. Gallen, Switzerland. Filed Oct. 30, 1917. Serial No. 197,720. 2 Claims. (Cl. 9-12.)



1. In an artificial hand, comprising a hand body and thumb and fingers articulated thereto, a brachial sleeve, forearm supporting elements on said sleeve, lower arm supporting elements jointed to said forearm supporting elements, an inverted dish-shaped wrist member at the outer ends of said lower arm supporting elements, a cup-shaped member adapted to be secured to the arm stump, a screw bolt extending from said stump cup, a square portion to said bolt and means for rotatingly displacing said bolt relatively to said stump cup and for locking it thereto in the desired relative position, said bolt passing through, and being freely guided in, the bottom of said wrist member, means operable by said square bolt portion for simultaneously actuating the thumb and fingers, comprising a forked lever on said bolt, a tri-armed lever secured to the root of the thumb, the one arm of said lever

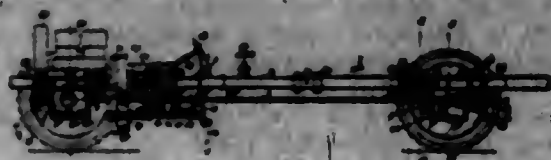
cooperating with said forked lever and actuating the thumb, the second arm actuating the two rigidly connected first fingers and the third arm actuating the remaining two fingers, and means for locking thumb and fingers in the respective cooperative position for allowing rotation of the hand, or of the stump, relative to the wrist without at the same time also actuating, or interfering with, the thumb and finger mechanisms.

1,305,170. HYDROCARBON-PREHEATER FOR CARBURETERS. GEORGE E. ROSS, Waterloo, Iowa. Filed Feb. 23, 1918. Serial No. 210,000. 2 Claims. (Cl. 257-241.)



1. In a device of the character described, a body made up of overlaid parts, one part being longitudinally troughed to embrace detachably the exhaust-pipe of an internal-combustion engine, said parts having registering grooves forming an orificed channel to receive a conduit for a liquid to be heated by conduction through said parts, and clamping-means embracing said parts and said exhaust-pipe to hold them together detachably, said parts having mating engaging-means engaging to keep them in registration when fitted about said liquid-conveying conduit.

1,305,171. MOTOR-TRUCK. HENRICH RUDOLPH, Jostetten, Germany. Filed Oct. 12, 1916. Serial No. 126,301. 7 Claims. (Cl. 100-50.)

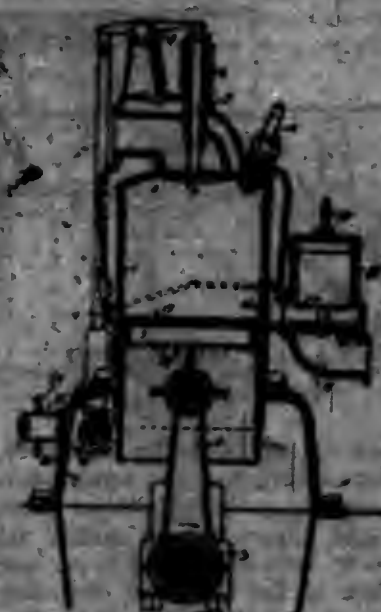


1. In a motor truck, in combination with the motor and the running gear, two steering mechanisms, one for each wheel pair, each said mechanism comprising two spaced hollow cylinders of relatively large diameter, means for preventing relative axial displacement between said cylinders, an exchangeable loose annulus forming the lower part of said outer cylinder, and the outer cylinder for steering purposes adapted to be rotated about the inner cylinder, means for limiting this relative rotary movement, and means in connection with said outer cylinder for respectively supporting the traction wheels and the differential gear mechanism for driving the traction wheels.

1,305,172. INTERNAL-COMBUSTION ENGINE. CHARLES A. SAWYER, Detroit, Mich., assignor of one-half to Sarah J. Porter, Detroit, Mich. Filed July 27, 1918. Serial No. 207,000. 49 Claims. (Cl. 120-75.)

1. In an internal combustion engine of the four cycle type, a cylinder having an intake port and an exhaust port, valves to control the intake and exhaust through the respective ports, a piston in said cylinder, and means for so controlling said intake valve that the charge will be admitted to said cylinder near the end of the suction stroke

of the piston and, at maximum load, will be less than the displacement of said piston, thereby causing a partial



vacuum to exist in said cylinder at the beginning of each compression stroke of said piston.

1,305,173. PRODUCTION OF NICKEL CATALYST. WALTER P. SCHUCK, Portland, Oreg. Filed Jan. 9, 1918. Serial No. 210,000. 3 Claims. (Cl. 25-26.)

1. A process of making a catalyst suitable for use in hydrogenation processes which comprises heating an intimate mixture comprising a nitrate of a catalytic metal and a carbohydrate to a red heat, in an unoxidizing atmosphere, said two materials being so proportioned as to directly produce an uncombined intimate mixture containing free catalytic metal and free carbon, and cooling such product in a non-oxidizing atmosphere.

1,305,174. INTAKE-MANIFOLD. CLAYTON P. SMITH, Iowa City, Iowa. Original application filed Jan. 30, 1917, Serial No. 144,700. Divided and this application filed May 2, 1918. Serial No. 232,000. 1 Claim. (Cl. 60-100.)



The herein described intake manifold of T-shape whose stem has a horizontal extension at its lower end communicating with the mixture inlet pipe, and a plurality of spaced ribs projecting from the wall into said extension and running parallel with each other and straight throughout the length of said extension, then bent at the angle between said extension and the stem of the structure and carried upwardly in said stem, and disposed spirally throughout the length of the latter.

1,305,175. GRAPPLER. LEONARD N. SMITH, Monaca, N. H. Filed Sept. 2, 1910. Serial No. 118,302. 6 Claims. (Cl. 60-22.)

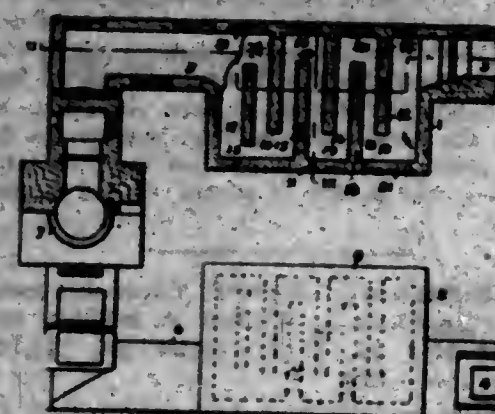
1. A grapple, comprising a shank, a main hook pivoted at one end to said shank, a series of adjustable hooks each being provided with supporting means pivoted

upon the shank of said main hook, whereby said hooks can be folded together sidewise, a sheath on the free



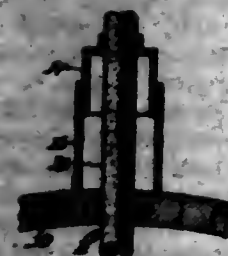
end of said shank to cover the points of all of said hooks when in a folded position, and means for holding said hooks spread apart in radial lines.

1,305,176. PREHEATING APPARATUS FOR FURNACES. HORACE E. SMITH, Pittsburgh, Pa., assignor to The E. E. Smythe Company, Pittsburgh, Pa., a Corporation of West Virginia. Filed Jan. 23, 1916. Serial No. 272,645. 3 Claims. (Cl. 263-19.)



1. In a preheating structure for air, gas, or the like, a chamber having an inlet and an outlet, and between the same a series of baffles arising alternately from the sides of the chamber and stopping short of the opposite side thereof, and also extending from the floor to the roof whereby a tortuous heating and radiating passage is provided between the said inlet and outlet and no horizontal places for the lodgment of dust are provided.

1,305,177. ELECTRIC HEATING AND MELTING FURNACE. VICTOR BROWN, Dunston-upon-Tyne, England. Filed Mar. 20, 1918. Serial No. 235,345. 3 Claims. (Cl. 204-64.)



1. In an electric furnace, the combination with a wall thereof having an opening, of an electrode closely fitting said opening, a shell erected around said opening, and electrode packing means carried by the shell and located

at such distance from the furnace wall as to be outside of the point at which the electrode becomes heated to an oxidizing temperature, substantially as described.

1,305,175. LOCK FOR SWITCH-HANDLES. ALEXANDER K. SUTHERLAND, New Britain, Conn., assignor to The Trumbull Electric Manufacturing Company, Plainville, Conn., a Corporation of Connecticut. Filed Mar. 29, 1918. Serial No. 225,449. 1 Claim. (Cl. 70-138.)



The combination with a double-throw switch, a box including the same, and a switch operating handle rocking in opposite directions for operating the double-throw switch in reverse directions, of a stop member pivotally mounted on the side of the box and provided with an outstanding lug, said switch handle having a cooperating lug adapted to be engaged by the locking lug of the stop member and to rock said stop member out of its path when the handle is rocked in one direction, and a shoulder on the handle arranged to engage the locking lug on the pivoted stop member and to shift said stop member when the handle is rocked in the reverse direction.

1,305,179. ROBE-RAIL. JOHN F. THOMAS, Peoria, Ill., assignor of one-half to William F. Schafer, Elkhart, Ill. Filed May 26, 1917. Serial No. 171,161. 1 Claim. (Cl. 45-13.)



A device of the class described comprising in its construction a pair of supporting hangers each provided with a bore, a member connecting them rigidly and having a grooved under side, mechanism concealed in the member including a pawl extending into each of the said bores, manually controlled means to retract both the pawls simultaneously, a ratchet-bar slidable in the bore of each hanger and each having a recess near its innermost end, means to elastically hold the pawls normally in engagement with the teeth of the ratchet bars, a rail pivoted at its ends to the ratchet bars adapted to snugly seat in the grooved under side of the described member for holding an article, and a spring latch secured in each hanger adapted to engage in the recess of an adjacent ratchet bar, the latches adapted to prevent the ratchet bars from separating from the hangers when the bar is drawn outwardly.

1,305,180. SPRAYING SYSTEM. CHARLES GRANT THORPE, Chicago, Ill. Filed Dec. 17, 1917. Serial No. 207,485. 31 Claims. (Cl. 91-45.)



4. In a system of the character described, a spraying booth, a drying room, and a condensation chamber, means for transmitting air and vapor from said booth and room to said chamber, and means for regulating the temperature of said booth and room respectively.

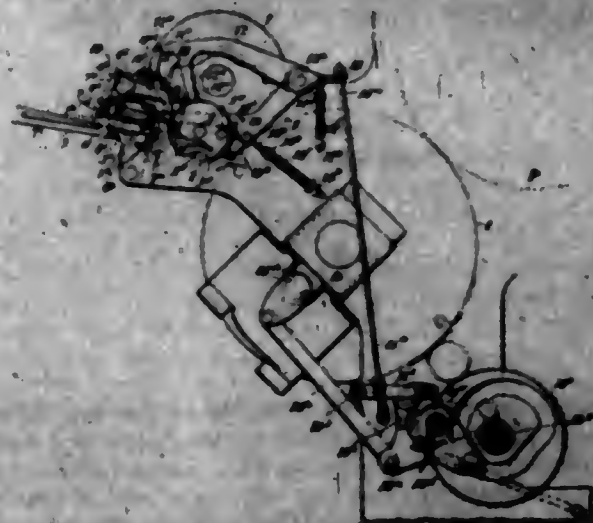
12. In a system of the character described, a spraying booth in combination with a reservoir for material to be sprayed, automatic mixing means therefor, and a source of power communicating therewith.

18. In a system of the character described, a spraying booth provided with a track, a truck thereon, and a shelf beneath said track whereon reservoirs or tanks of spray material may be deposited by said truck.

24. A spraying booth, having walls in combination with swinging doors slidably mounted on said walls whereby the effective size of the operating part of the booth may be adjusted.

28. A safety spraying booth of the character described, having a hole in the floor and a fire pole therein down which the operator may quickly slide in case of fire.

1,305,181. SHEET FEEDING AND CONTROLLING APPARATUS. BERT F. UPHAM, Boston, Mass., assignor, by means assignments, to Cross Paper Feeder Company, Portland, Me., a Corporation of Maine. Filed Jan. 2, 1917. Serial No. 140,129. 35 Claims. (Cl. 74-46.)



25. In a printing mechanism the combination of plates and impression members; means for feeding sheets thereto; grippers for taking sheets from the feeding means; and means for actuating the grippers; means for throwing off impression; a lever; and connections between said lever and the throw off device whereby the movement of said lever controls the throw off mechanism; a latch for locking said lever in normal position to prevent operation of the throw off device; sheet gages; an oscillating lever adapted to raise and lower the gages; a spring for moving said lever in one direction; and a cam

for moving the lever in the opposite direction; with sheet detecting device, and means controlled by said device whereby upon the presentation of the defective or misplaced sheet the throw off device are permitted to throw off impression, the gages are permitted to remain down, and the grippers are prevented from taking a sheet, substantially as described.

1,305,182. VALVE. CHARLES F. WALLACE, Tompkinsville, and MARTIN P. TIERMAN, Jamaica, N. Y. Filed May 4, 1918. Serial No. 232,633. 4 Claims. (Cl. 251-43.)



1. A valve comprising an externally threaded valve body; a valve seat therein; a stem axially movable to and from the seat and having an external thread in the same direction as, but of less pitch than, that on the exterior of the valve body; and an internally threaded cap, engaging the externally threaded valve body and constituting a protective cap therefor, and containing an internally threaded socket to receive and engage the externally threaded stem.

2. A valve comprising a seat and an axially movable stem, a packing through which the stem passes, a cap with which it has threaded engagement, and a valve body with which the cap has threaded engagement, the threads between the cap and the valve body being of greater pitch than those between the cap and the valve stem, whereby by turning the cap the stem will be raised or lowered with reference to its seat, but prevented by friction from being rotated.

3. A valve comprising a seat, a packing and an axially movable stem passing through the packing, a cap with an internally threaded part for engaging with the free end of the stem and with another internally screw-threaded part to screw onto the valve body, the threads between the cap and the valve body being of greater pitch than those between the cap and the valve stem, whereby the turning of the cap will raise or lower the stem with reference to its seat without rotating it.

4. A valve comprising a body, a seat and an axially movable stem, a packing through which the stem passes, a gland engaging with threads on the valve body and adapted to be screwed down on the packing, a cap with an internally threaded screw for engaging with the stem and a threaded portion engaging with threads in the valve body, the threads between the cap and the valve body being of greater pitch than those between the cap and the valve stem.

1,305,183. PASTRY-BAKING MACHINE. LEONARD C. WILLCOX, Des Moines, Iowa, assignor of one-half to National Pie Crust Company, Milwaukee, Wis., a Corporation of Wisconsin, and one-half to Alvah C. White, Des Moines, Iowa. Filed Mar. 29, 1918. Serial No. 235,424. 15 Claims. (Cl. 107-55.)

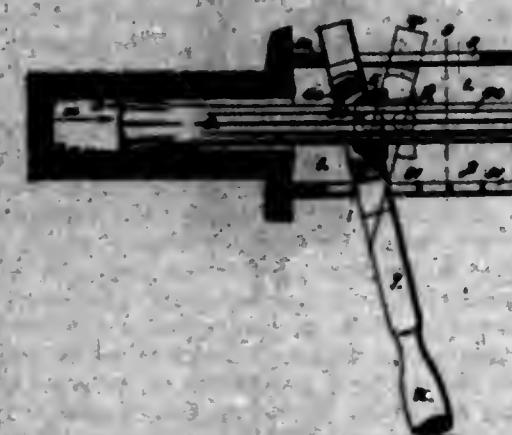
15. In a device of the class described, a pair of movable oven members, one of said members being also movable from and toward the other, means for cutting a dough blank, means for depositing the dough blank on one of said oven members, means for moving the other of

said oven members to position for coacting with the oven member on which the dough blank has been deposited, said oven members having coacting members whereby



any surplus dough on the blank is trimmed off with a shearing movement when the oven members are moved together.

1,305,184. DRILL-BIT-PULLING DEVICE. WILLIAM M. WILLIAMS, Tonopah, Nev., assignor of one-half to Barney Langston, Reno, Nev. Filed May 8, 1917. Serial No. 167,306. Renewed Mar. 28, 1919. Serial No. 235,101. 5 Claims. (Cl. 254-30.)

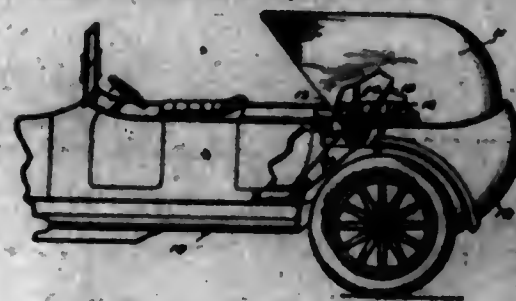


4. A device for pulling drill bits out of holes in which they become choked, said device comprising a suitable frame adapted for being seated around the drill bit shank and over the hole being drilled, said frame having diametrically opposite longitudinally extending guide slots, one of the slots opening through the outer end of the said frame, each of the slots having ratchet teeth along one edge, a lever including an apertured body portion adapted for slipping over the drill shank, the said lever having a handle extension at one end and a front extension, said handle portion and front extension being removably insertable through the longitudinal slots in the frame and having portions for engaging the ratchet teeth in the edges of their respective slots, a collar and means for clamping the collar on the drill shank, said collar having a pair of oppositely projected radial transverse and the body portion of the lever having concave seats for receiving the said transverse.

1,305,185. AUTO-TOP. SHEPHERD T. ALLEN, Los Angeles, Calif. Filed Dec. 14, 1918. Serial No. 136,948. 1 Claim. (Cl. 31-62.)

A vehicle top, comprising a series of top bows pivotally mounted upon common centers at the opposite sides of the vehicle body and at the termination of each bow member, a flexible canopy secured upon said bows, actuating chains pivotally mounted upon the centers of the bows, pins extending outwardly from said chains and adapted to individually and successively engage one of the bows

to swing it upon its center, power driven means for rotating said disks, locking grooves formed upon the



faces of the disks, and pawl members whereby the disks and bows may be locked in a raised or lowered position.

1,305,186. ILLUMINATING-PROJECTILE. AXEL G. BUNSMAN, New York, N. Y., assignor to Ordnance Engineering Corporation, New York, N. Y., a Corporation of New Jersey. Filed Feb. 17, 1917. Serial No. 149,300. 18 Claims. (Cl. 102-29.)



1. A projectile having an illuminant, a sustaining device therefor and means adapted to check the speed of the illuminant at high velocities previously to the operation of the sustaining device.

2. A projectile having an illuminant, a sustaining device therefor, and a parachute adapted to check the speed at high velocities previously to the operation of the sustaining device.

3. An illuminating shell having a sustaining device and a retarding device for a portion of its contents operating previously to the sustaining device.

4. An illuminating shell having a sustaining parachute and a retarding parachute operating previously to the sustaining parachute.

5. An illuminating shell having a retarding device adapted to check the speed of a portion of its contents at high velocities, a timing device adapted to set in operation said retarding device, and a sustaining device which acts after the retarding device.

1,305,187. ILLUMINATING-SHELL. AXEL G. BUNSMAN, New York, N. Y., assignor to Ordnance Engineering Corporation, New York, N. Y., a Corporation of New Jersey. Filed Jan. 6, 1919. Serial No. 260,762. 20 Claims. (Cl. 103-39.)

1. The combination with an illuminating shell, of an illuminant body, and means for retarding and subsequently sustaining the illuminant body consisting of a flexible connection having one end attached thereto and

a plurality of parachutes attached to the connection at different points between its free end and the illuminant



body, one of said parachutes acting to retard the illuminant body and another to sustain the same.

1,305,188. ILLUMINATING-PROJECTILE. AXEL G. BUNSMAN, New York, N. Y., assignor to Ordnance Engineering Corporation, New York, N. Y., a Corporation of New Jersey. Original application filed Feb. 17, 1917, Serial No. 149,300. Divided and this application filed Apr. 2, 1919. Serial No. 267,000. 8 Claims. (Cl. 100-39.)



1. An illuminating projectile having an outer casing, an inner casing, a retarding parachute fastened to said inner casing, an illuminant within said inner casing, and a sustaining parachute also within said inner casing, and connected to said illuminant.

1,305,189. BEARING. ALEXANDER BRACKMAN, New Orleans, La. Filed July 6, 1918. Serial No. 249,612. 2 Claims. (Cl. 64-35.)



1. A bearing including a stationary bearing section, a movable bearing section having inclined sides, take up

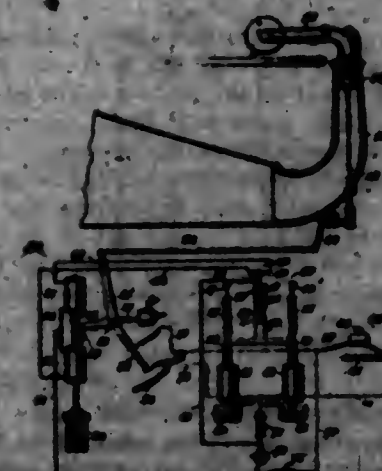
members bearing against the inclined sides of the movable section to force the latter toward the shaft and means including a pin carried by the stationary section and slidably engaging the movable section for holding the latter section and the take up members against lateral movement.

1,305,190. ALARM. CHARLES F. BONO, Hollis, N. Y. Filed Oct. 4, 1918. Serial No. 68,061. 2 Claims. (Cl. 177-814.)



1. Alarm apparatus embodying therein a battery casing, a source of electrical energy therein, a signal device and actuating means therefor carried by the battery casing, means for attaching the battery casing to a door or window structure, electrical connecting means for connecting the source of electrical energy to the actuating means for the signal device including a circuit controlling device and a flexible conductor to which the circuit controlling device is connected, said circuit controlling device normally closing the circuit and being adapted to be applied to the door or window structure and being formed to open the circuit when so applied and to become detached by the opening of the door or window, and a switch connected with the battery casing formed to be operated to close the circuit by the closing of the door or window.

1,305,191. EXPRESSION-DEVICE CONTROL. JAMES WARREN DRYCH, Bloomfield, N. J., assignor to The Aeolian Company, a Corporation of Connecticut. Filed Dec. 22, 1916. Serial No. 128,400. 3 Claims. (Cl. 172-309.)



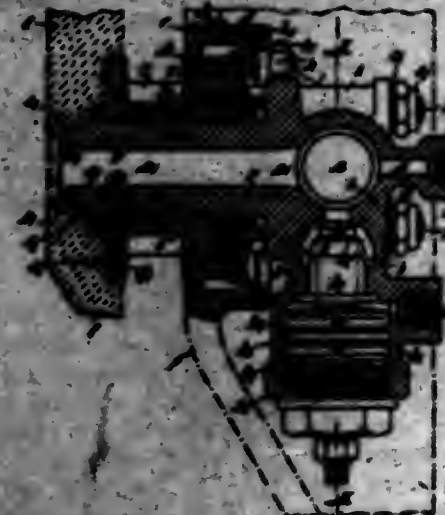
1. An expression device for musical instruments comprising a movable member, an alternating current reversible motor arranged to actuate said member different desired amounts, a reversing switch comprising a pair of actuating alternating current solenoids, circuits therefor and circuit means for the motor, said reversing switch having a movable contact and stationary contacts, a lost motion connection between said solenoids and the movable contact, a current varying device connected to be actuated by the motor an amount proportional to the movement of said member, said current varying device being in one of the actuating solenoid circuits, and a remote control device comprising a manually adjustable current varying device in the other actuating solenoid circuit.

1,305,192. GARMENT. ALICE HARRING BOWLER, Evanston, Ill. Filed Oct. 30, 1916. Serial No. 128,201. Renewed July 12, 1918. Serial No. 244,704. 1 Claim. (Cl. 2-144.)



As an improved article of manufacture, a garment consisting of two single pieces of the same configuration, each of said pieces having an extension at its front and rear upper portions, the lower portion of each piece being folded upon itself and the edges thereof sewed together to form coverings for portions of the legs of the wearer, the said sewed portions being located on the adjacent sides of the leg coverings and united at their upper ends to form a crotch, the extensions of the rear upper portions of the leg portions being projected upwardly to about the waistline of the wearer and sewed together at their adjacent edges to form a seat-flap, the said extensions of the upper part of the other pieces being projected upwardly therefrom and sewed together at the lower part of their adjacent front edges, then formed to lie over the shoulders of the wearer to form a support for the garment, then extended downwardly and sewed together at their lower meeting edges, the last named extensions having an elongated opening between their adjacent edges, said opening being contracted at each of its ends and so located that one of its contracted portions will be in the front of the wearer and the other contracted portion at the rear of the wearer, the said last named or supporting extensions having one of their ends free, and means to detachably connect said free portion thereof to the upper portion of the seat-flap.

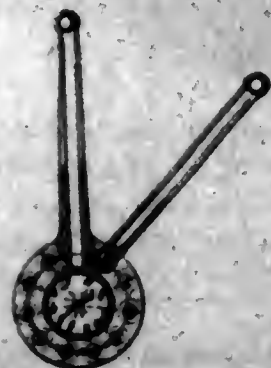
1,305,193. INTERNAL-COMBUSTION ENGINE. GEORGE J. CANNON, Bramborough, England. Filed Oct. 30, 1918. Serial No. 260,230. 5 Claims. (Cl. 123-51.)



1. In combination with the cylinder and its liner of an internal combustion engine, provided with openings in alignment, a valve housing provided with a stem having

a faced joint with the liner, a connection between the housing and the cylinder wall including a flexible member and studs by which the housing is held to the liner, substantially as described.

1,305,194. PITMAN FOR ROTARY RADIAL MOTORS. PIERRE CLEBOT, Levallois-Perret, France, assignor to Clerget, Blin & Cie, Levallois-Perret, France, a Company organized according to French law. Filed Mar. 20, 1918. Serial No. 223,680. 3 Claims. (Cl. 74-17.)



1. A compensated connecting rod coupling for rotary or radial internal combustion engines, comprising a master connecting rod provided at its inner end with a head, and auxiliary connecting rods articulated upon said head, said auxiliary connecting rods having ends thereof arranged at different relative positions with relation to said head.

2. A compensated connecting rod coupling for rotary or radial internal combustion engines, comprising a master connecting rod provided at its inner end with a circular head having a central turning point, and auxiliary connecting rods pivotally connected at their inner ends with the head at points disposed near its periphery, the pivots forming a curved group which is eccentric with relation to the central turning point of the head and surrounds the same.

1,305,195. ANTIHALATION COATING FOR PHOTOGRAPHIC PLATES AND CINEMATOGRAPH FILMS. SILVIO COCANARI, Vieux-Dieu, near Antwerp, Belgium. Filed Apr. 2, 1914. Serial No. 829,125. 2 Claims. (Cl. 95-8.)



1. A photographically sensitive element including a sensitized layer and an indelible violet colored backing for said layer, said violet colored backing being of an intensity to prevent halation, but being transparent to actinic rays and also to non-actinic red light.

1,305,196. VEHICLE-TIRE. ALBERT L. COLE, Auburn, Mass. Filed Feb. 7, 1918. Serial No. 215,787. 11 Claims. (Cl. 152-13.)



2. In a vehicle tire, a pneumatic member made up of two endless bands secured together along their longitudinal edge portions to form a tube with said marginal edge portions extending outwardly therefrom.

1,305,197. GARBAGE-PAIL COVER. MARY A. DANDROW, Ridgedale Park, N. J. Filed Aug. 10, 1917. Serial No. 195,576. 1 Claim. (Cl. 230-60.)



A fastening device for the cover of a receptacle comprising an eye member secured to the inner wall of the receptacle leaving an unobstructed passageway immediately adjacent to said wall and within the eye, and an engaging member including an element projecting downwardly from the cover and spaced from the edge thereof, an offset portion constituting a foot member secured to the cover, and an element extending at a right angle with reference to the downwardly projecting element, and at the end opposite the offset member, and there doubled upon itself and extending in a reverse direction to a point spaced from the downwardly projecting portion, said element extending at a right angle being positioned to engage the eye member from either side thereof, and the element extending downwardly preventing further rotation of the cover in the direction of engagement, subsequently to the engaging operation.

1,305,198. BAG. WALTER H. DEVEREUX, St. Paul, Minn. Filed Nov. 18, 1918. Serial No. 362,738. 2 Claims. (Cl. 230-84.)



1. In a collapsible receptacle, side walls adapted to fall against each other, a bottom adapted to fold against either of said side walls and an endless means extending through said side walls and around said bottom, a portion of said endless means forming handles and a portion forming a support for the bottom of said receptacle, said endless means causing said bottom to fold against either of said side walls when either of the handles are drawn taut.

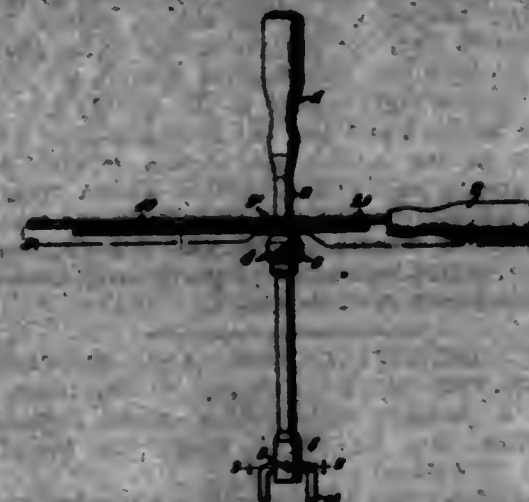
1,305,199. BAG. WALTER H. DEVEREUX, St. Paul, Minn. Filed Feb. 1, 1919. Serial No. 274,988. 1 Claim. (Cl. 230-84.)

In a market bag having side walls and a bottom, an intumed upper open end formed on said bag, a band formed of stiff material, freely held beneath said intumed end and carrying handles having their ends extending below the lower edge of said band and secured to the inner surface of the same, but said band and said handles

being free from the inner surface of the outer walls of said bag, whereby the strain or load carried by said handles is distributed to the entire inner intumed upper edge of said bag.

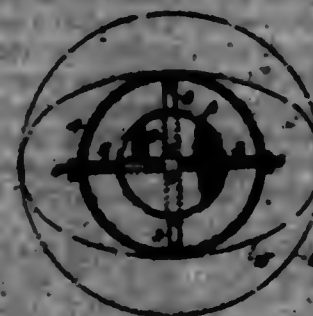


1,305,200. VALVE-GRINDING TOOL. WILLIAM DU VAUL, Ocean View, N. J., assignor of one-half to Burdette Tomlin, Millville, N. J. Filed Oct. 18, 1917. Serial No. 196,738. 1 Claim. (Cl. 74-87.)



In a device of the clam described, a shaft; a tool holder on one end of the shaft; an enlarged handle wherein the other end of the shaft is journaled; a relatively thin and light operating plate having a closed-ended slot receiving the shaft, one end of the slot being enlarged to permit the passage of the handle therethrough after the tool holder has been placed in operative position with respect to the work; a strip in contact with the plate and having a rack; means for securing the strip to the plate; a piston adjustable longitudinally of the shaft and meshing into the rack; and means for securing the piston to the shaft in adjusted positions longitudinally of the shaft.

1,305,201. CASEROLE-HOLDER. JOSEPHINE M. DYLAN, New York, N. Y. Filed Feb. 24, 1919. Serial No. 272,014. 4 Claims. (Cl. 240-41.)



1. A casserole holder comprising a central rigid base and a flexible side frame, horizontally extendible bars radiating from said base and secured to said side frame, and means for securing said bars to said base in their adjusted positions.

radiating from said base and secured to said side frame, and means for securing said bars to said base in their adjusted positions.

1,305,202. WAVE-METER. HAROLD P. DONLA, Meriden, Conn., assignor to The Connecticut Telephone & Electric Company, Meriden, Conn., a Corporation of Connecticut. Filed Dec. 15, 1917. Serial No. 207,258. 1 Claim. (Cl. 250-80.)



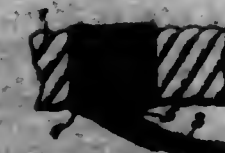
In a wave meter, a hollow support having a top portion and a dependent annular wall, said annular wall having an annular groove provided therein to receive an inductance coil, an inductance coil seated in said groove and protected thereby, and a condenser within the hollow support secured beneath the top portion thereof and inclined by the annular grooved wall as desired.

1,305,203. PROCESS OF MANUFACTURING ARTICLES FROM PULP. WALTER H. DEVEREUX, San Francisco, Calif. Filed Jan. 24, 1917. Serial No. 177,880. Renewed Jan. 24, 1918. Serial No. 215,820. 3 Claims. (Cl. 92-54.)



1. The process herein described which consists in filling a mold formed of foraminous material with pulp, introducing said pulp under pressure at a point near the bottom of the mold and forcing the pulp upwardly along the sides of the mold in a direction opposite to that in which the said pulp is introduced, and simultaneously freeing the pulp from the water contained therein.

1,305,204. CONVEYER-CABLE. HUGH F. ELLIARD, Gilmore, Idaho. Filed Sept. 25, 1916. Serial No. 122,069. 2 Claims. (Cl. 87-11.)

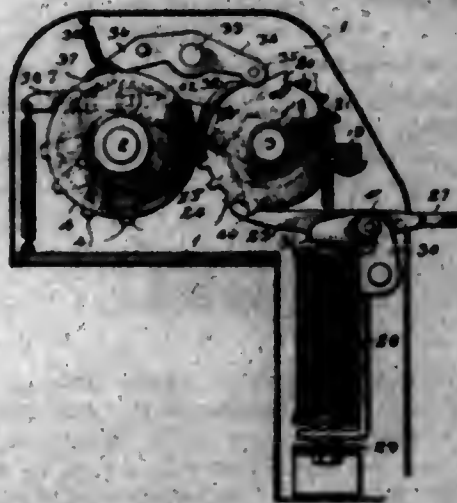


2. A conveyer comprising a cable, a hook-engaging portion paralleling said cable, the ends of said hook-engaging portion being interwoven with the strands of said cable, and a filler in the pits between said hook-engaging portion and said cable.

1,305,205. AUTOMATIC CONTROL DEVICE. CARL G. FALEHN, Dayton, Ohio. Filed Oct. 16, 1916. Serial No. 124,050. 12 Claims. (Cl. 74-46.)

6. In an apparatus of the character described, a main operating member, a normally disconnected driving member therefor, an intermittently operated clutch adapted to connect the driving and operating members, means controlling the operation of said clutch including an oscillatory spring actuated cam disk, a plurality of ratchet teeth on said disk, a detent engaging said ratchet teeth to hold the cam disk against the influence of its actuating spring, means to disengage the detent at the will of the operator, a tooth or spur upon said disk for each unit

of movement permitted said cam disk, and a finger operating in unison with the main operating member adapted



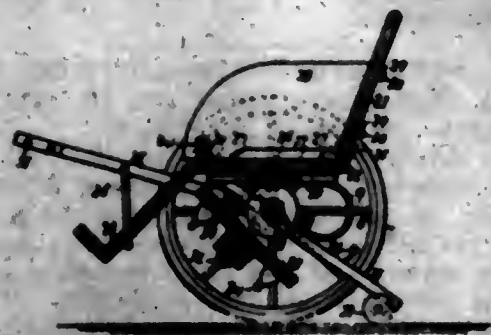
to engage a tooth of the disk at each operation to restore said disk through one unit of movement.

1,805,204. ICELESS REFRIGERATOR. ANDREW E. FETTERUP, San Diego, Calif. Filed Mar. 5, 1918. Serial No. 220,811. 1 Claim. (Cl. 45-198.)



In a refrigerator, the combination with a casing of wood having openings in its sides and back and door closed openings in its front, screening over the side and rear openings, an inner casing of metal having openings in its sides and rear registering with and smaller than those in the outer casing and flanges across the top and bottom of its front secured to the front wall of the outer casing above and below the door openings, and a removable top giving access to the space between said casings; of a series of flat water bags removably disposed in said space and each having a body of fabric, a gutter across its lower edge, and a hook-shaped handle at its upper edge, each bag when in place resting at its outer side against the screening of the outer casing and its inner side substantially closing the opening in the inner casing directly opposite all as and for the purpose set forth.

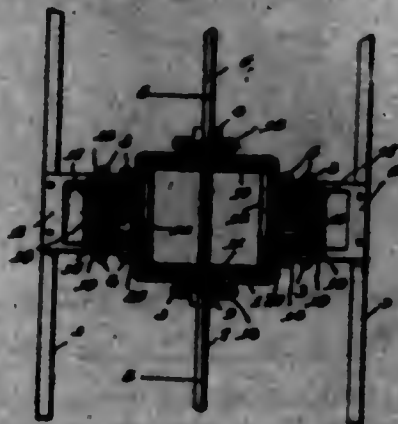
1,805,207. GO-CART. ANDREW E. FOANE, New York, N. Y. Filed May 18, 1918. Serial No. 264,988. 6 Claims. (Cl. 21-83.)



5. A go-cart comprising an axle having a pair of wheels mounted thereon, a seat with collapsible body portion

connected to the axle, and a turn table carried by the axle normally positioned below the axle when the seat is in use.

1,805,208. TRANSMISSION-GEARING. D. ROY FRICK, Alma, Mich. Filed Oct. 10, 1916. Serial No. 124,846. 1 Claim. (Cl. 74-24.)

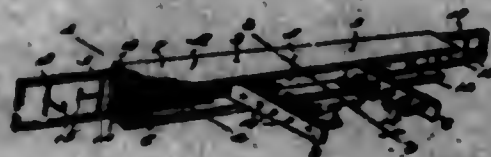


The combination of a driving shaft, a driven shaft in longitudinal alignment therewith, a friction driving wheel rotating with the driving shaft but slidably mounted thereon and having a grooved hub, a driven friction wheel rotatable with but slidable on the driven shaft and having a grooved hub transmission friction wheels journaled on axes at right angles to the driving and driven shafts and movable into and out of engagement with the peripheries of the driving and driven friction wheels, the said driving and driven friction wheels being independently movable toward and away from the centers of the transmission friction wheels, and a casing enclosing all of said friction members and the grooved hubs of the driving and driven friction wheels.

1,805,209. ARTIFICIAL FUEL AND PROCESS OF MAKING THE SAME. ALBANUS W. GOULDING, Trumpton, N. J., assignor to Edward S. Mead, Philadelphia, Pa. Filed July 12, 1918. Serial No. 244,876. 3 Claims. (Cl. 44-1.)

1. An artificial fuel comprising finely divided coal, sulfate pitch and clay mixed together in the proportions of two thousand pounds of coal to approximately seventy pounds each of the sulfate pitch and clay.

1,805,210. COMBINED GARMENT AND HAT RACK. HERMAN HANKEWITZ, Onachita, Ark. Filed Mar. 18, 1918. Serial No. 222,629. 1 Claim. (Cl. 45-18.)

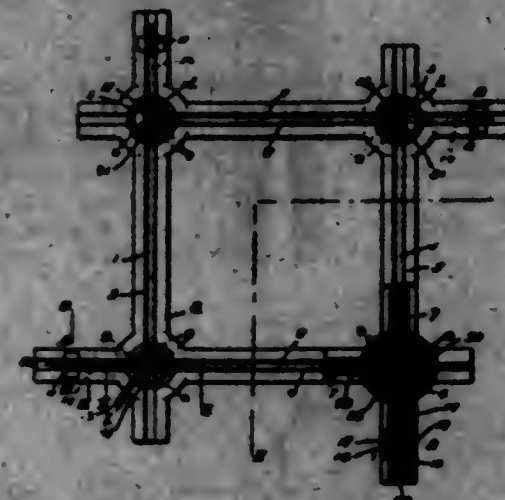


A rack comprising a horizontally-swinging arm and spaced hooks carried by said arm at intervals in the length thereof and arranged at right angles entirely at one side of the arm, in combination with upper and lower horizontal shelves between which the arm is pivotally connected adjacent to one end thereof and so as to swing in a horizontal plane from a position at right angles to the length of the shelves to a position lengthwise of and between the shelves with the hooks extending laterally outward from the arms and outwardly beyond the forward edge of the lower shelf to prevent said shelf from interfering with pendant garments on the hooks.

1,805,211. CONTINUOUS-RAIL RAILWAY-CROSSING. JOHN A. HARR, New York, N. Y. Filed Oct. 1, 1917. Serial No. 194,178. 10 Claims. (Cl. 240-573.)

1. In a rail crossing, turn tables one at the intersection of each rail, a body member providing intersecting rail parts, a separately formed carrier for each turn

table, said carriers being received in pockets formed in said body member and each carrier providing a bearing within which the respective turn table is rotatably mounted, a shaft projecting downwardly from each turn table through an opening in the respective carrier, gears fixed to said shafts, shafts carried by the body member



having gears thereon engaging the gears of the first shafts, gears connecting said second shafts together, and means carried by the body member adapted to be engaged by a passing vehicle to automatically simultaneously operate all of said turn tables by means of said shafts and gears.

1,805,212. DOOR-HOLDING DEVICE. HALBERT K. HIRSCOCK, Pittsburgh, Pa., assignor of one-half to John F. Johnson, Pittsburgh, Pa. Filed July 12, 1918. Serial No. 244,887. 12 Claims. (Cl. 70-110.)



1. In combination in a door holding device adapted to cooperate between a horizontally-swinging door member and a jamb member, a spreader member adapted to be carried by one of the members, a pair of bearing members arranged to receive the spreader member between them and apply an increasing pressure thereto at right angles to the plane of movement of the spreader member as the door member moves to closed position, and spring means permitting the spreader member to move vertically in one direction.

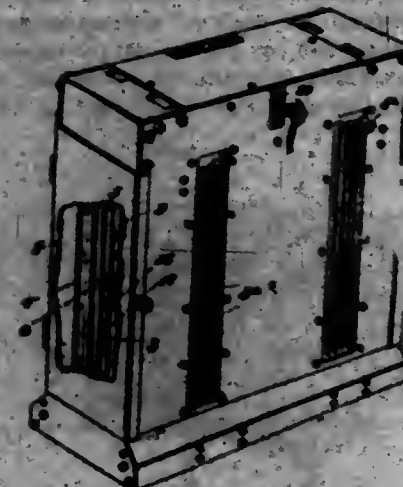
1,805,213. PICKLING FERROUS ARTICLES AND ELECTRICALLY REGENERATING THE PICKLING-BATH. ARTHUR F. HAYMAN, Pittsburgh, Pa. Original application filed Jan. 22, 1917. Serial No. 144,662. Divided and this application filed Mar. 20, 1917. Serial No. 154,193. 3 Claims. (Cl. 240-1.)

2. The process which comprises pickling ferrous metal articles in an acid solution of a ferric salt, and regenerating the said solution by oxidation added by a catalytically-acting manganese compound and electrolysis.

1,805,214. BOMB-DROPPING MACHINE. PERCIVAL M. HUNNEY and CATHERINE E. IRVING, Winnipeg, Manitoba, Canada. Filed Dec. 12, 1918. Serial No. 264,551. 5 Claims. (Cl. 244-1.)

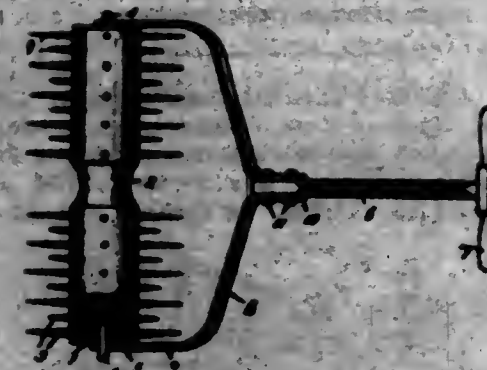
1. The combination with a bomb having stub shafts, of a casing to contain said bomb, runners vertically mov-

able in said casing and having means for engaging said shafts, means for holding said runners elevated in said



casing, means for releasing said runners, and means for disengaging said shafts from said runners.

1,805,215. SOIL-PULVERIZER. DOMENICK IODICE, Watertown, Mass. Filed Nov. 12, 1918. Serial No. 268,154. 3 Claims. (Cl. 55-24.)



1. A soil pulverizer comprising a handle, a roller rotatably mounted in the handle and provided with a groove intermediate its ends, and spikes secured to the roller on each side of the groove.

1,805,216. PROJECTILE. CLARENCE JAMES, Oneida, N. Y. Filed Dec. 11, 1917. Serial No. 264,634. 3 Claims. (Cl. 102-28.)

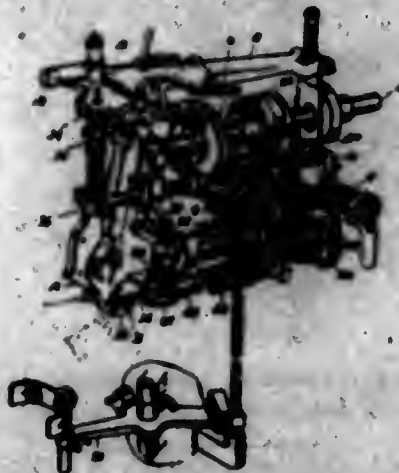


2. In a projectile, a magazine, a body portion rotatable independently of the magazine, and a firing device operated by the longitudinal movement of the magazine within the body portion.

1,805,217. LASTING-MACHINE. ARTHUR HENRY JERMAN and FRANK BYRONET KRAIL, Leicester, England, assignors, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed July 19, 1918. Serial No. 110,087. 20 Claims. (Cl. 12-2.)

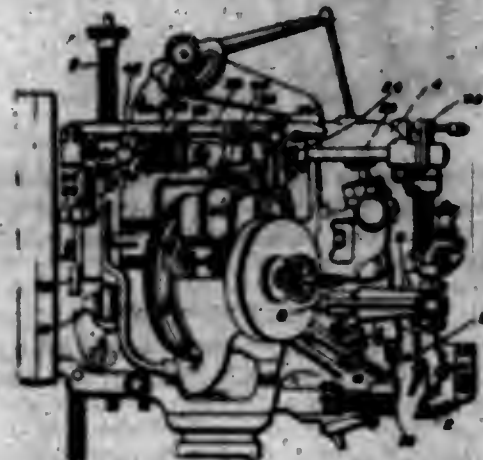
2. In a machine of the class described, the combination of an upper stretching gripper having an overdraw movement, a cooperating wiper, and means for relatively operating the gripper and the wiper to cause the wiper to advance to the gripper in its overdraw movement before the gripper releases the upper.

4. In a machine of the class described, an upper stretching gripper, means for operating the gripper yieldingly to draw the upper over the shoe bottom, a cooperating wiper, means for varying the rate of wiping movement of the wiper, and means set by the overdraw movement of the gripper for rendering the rate of movement of the wiper proportional to the overdraw movement of the gripper.



15. A machine of the class described having, in combination, a reciprocating wiper having constant positions of retraction and advance, and means for varying the path of the wiper between these positions.

1,305,218. UPPER-PULLING MECHANISM. THOMAS H. SHELLEY, Malden, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 17, 1918. Serial No. 115,535. 18 Claims. (Cl. 13-2.)



17. In a step by step lasting machine, a gripper and a wiper operating in timed relation to stretch a portion of upper over the edge of a last and then to wipe it down upon the last bottom, and an edge gage to determine the position of the shoe in the path of the wiper, combined with a gripper operating mechanism organized to prolong the action of the gripper on the margin of the stock for a substantial length of time after the wiper has begun to wipe down the stock between the edge of the last and the gripper.

1,305,219. MINE-DRILL. FRANK KALATA, Springfield, Ill. Filed Jan. 24, 1919. Serial No. 272,840. 4 Claims. (Cl. 279-79.)

1. A device of the class described comprising a socket member having an axial bore oval in cross section and the sides of the socket member communicating with said bore and forming ledges at opposite sides adjacent the with substantially T-shaped opposite openings through open end of the bore and a socket at the inner end of the bore, jaws pivoted within said openings having block portions normally projecting into said bore and relatively thin and wide finger engaging portions outwardly of said ledges and positioning springs secured to the inner sides

of the block portions of the jaws and bearing upon said ledges, whereby the outer faces of the jaws are normally



maintained flush with the opposite outer faces of the socket member.

1,305,220. TIRE OR RIM CARRIER. HENRY KAPLAN, San Francisco, Calif., assignor to Long Manufacturing Company, San Francisco, Calif., a Corporation of California. Filed May 21, 1917. Serial No. 100,040. 2 Claims. (Cl. 224-29.)



1. An automobile tire or rim carrier comprising a triangular frame, a tire support at the top of the frame, slidable bars at the bottom of the frame adapted to contact with the inside of a tire or rim, means to move said bars outwardly against said tire or rim, means to lock said bars in any desired position, and a tire retainer comprising a plate adapted to be connected with one of said arms, and adapted to surround a tire engaged therewith, and having a projecting portion adapted to be pulled into engagement with an opening in the frame for locking a dismounted tire on the carrier.

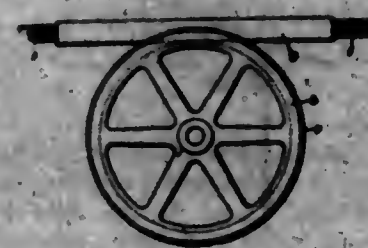
1,305,221. COMBINATION-CHAIR. FRANK KARACHUK, Bridgeport, Conn. Filed Mar. 5, 1919. Serial No. 280,757. 7 Claims. (Cl. 186-56.)



1. In a chair, the combination with a swinging seat having means, an adjustable back and an adjustable foot rest, of a swinging member comprising a frame pivoted to the

arms and a board pivoted in the frame at one side of the longitudinal center of the board, said board being adapted in its horizontal position to serve as a table, and when swung over so as to rest against the end of the frame to serve as an inclined writing desk, and the member being adapted to be swung over bodily so that the side pieces will rest upon the back and the board will serve as a head rest.

1,305,222. COMPOSITION FOR PROTECTING WIRE CABLES, ROPES, AND OTHER BEARING SURFACES. HENRY J. KENT, Boston, Mo., assignor of forty-five one-hundredths to Matthew H. Murray, Boston, Mo., and ten one-hundredths to James A. Finch, New Madrid, Mo. Filed Aug. 9, 1918. Serial No. 240,187. 3 Claims. (Cl. 100-51.)



1. The herein described composition, comprising a mixture of asphalt, a liquid hydrocarbon residuum which had been heated and stored before being mixed with the asphalt, and a quantity of fibrous material, which composition is adapted to be applied to bearing surfaces while said surfaces are in motion to form a coating upon each bearing surface and support the bearing surfaces out of contact with each other.

1,305,223. ASH-SHIFTER. WILLIAM R. KIRKMAN, Waterville, Me. Filed Mar. 5, 1919. Serial No. 280,871. 20 Claims. (Cl. 98-60.)



1. In a device of the class described, the combination of a rectangular casing provided with openings in its opposite disposed end walls and having a hopper at one end and an opening in the bottom; an annular flange surrounding said opening; a revolvable sleeve above said opening, open at both ends and having an open mesh; a screen surrounding said sleeve revolvable therewith and having a fine mesh; a receptacle at the delivery end of said casing communicating with the space between said sleeve and screen; a shaft on which said sleeve is detachably mounted; a crank for rotating said shaft; and an impervious member surrounding that portion of said sleeve extending through said end receptacle.

1,305,224. MECHANICAL TOY. FRANK F. KOLANIK, Wynn, Colo. Filed Sept. 5, 1918. Serial No. 262,734. 5 Claims. (Cl. 68-60.)

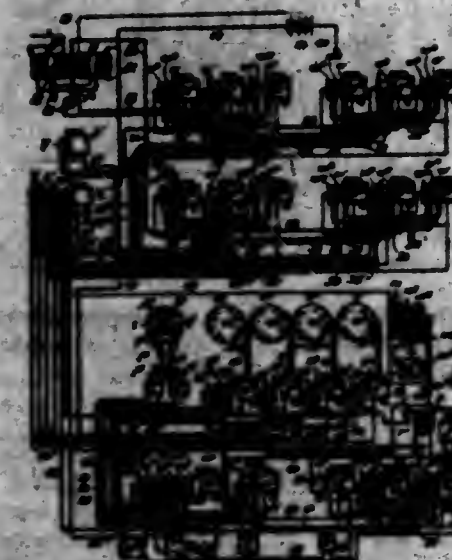
1. In a toy, a support, a figure movably mounted thereon, a second figure mounted on said support and

having a movable limb arranged to strike and move said first named figure, a barrier normally obscuring said sec-



ond figure from view, and means for operating said movable limb to bring it into view and strike said first named figure.

1,305,225. PRINTING-TELEGRAPH. CHARLES L. KAUM and HOWARD L. KAUM, Chicago, Ill., assignors to Markrum Company, Chicago, Ill., a Corporation. Original application filed Nov. 29, 1908. Serial No. 830,453. Divided and this application filed June 29, 1917. Serial No. 177,538. 3 Claims. (Cl. 178-24.)



1. In printing telegraphs in which the signals are represented by permutations of a definite number of modified line impulses, the combination of a printer, a set of selecting devices controlling all operations of said printer, a line circuit, means for bringing said selecting devices successively into operative relation with the line circuit as the impulses of each signal are received, means for maintaining said selecting devices in changed condition independently of the line circuit, and means for freeing a portion only of said set of selecting devices for further operation before the operation of said printer is completed.

1,305,226. SANITARY COMB. CLARENCE ALTOUS KOWALIK, Columbus, Ohio. Filed Aug. 2, 1918. Serial No. 262,111. 1 Claim. (Cl. 182-3.)

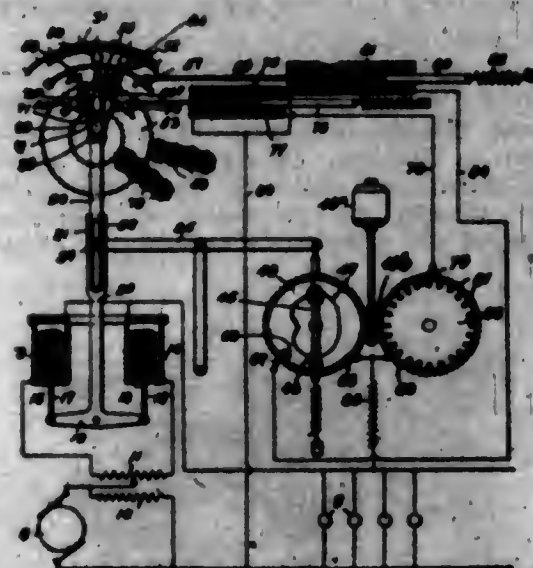
A device of the class described comprising a hollow rectangular member having a slot in its bottom and one end open, said open end having guide-ways thereon, a plurality of teeth each having its base thickened and

provided with grooves on each side thereof, said grooves engaging with the bottom on each side of the slot therein



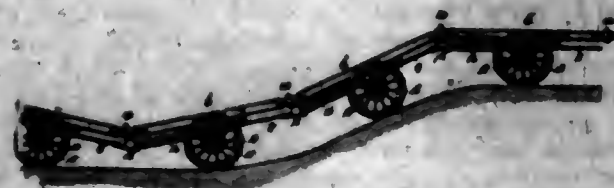
and a slide engaging with the guide-ways for holding the teeth in the member.

1,306,227. ELECTRIC METER. PAUL M. LINCOLN, Pittsburgh, Pa. Filed May 18, 1915. Serial No. 23,522. 27 Claims. (Cl. 171-270.)



16. The combination with a wattmeter adapted to indicate the average demand for power, of means for periodically summing the indications.

1,306,228. MEANS FOR APPLYING POWER TO TANDEM-COUPLED VEHICLES AND BRAKE MECHANISM THEREFOR. GLENN A. MAXWELL, Denver, Colo., assignor of one-half to Fred E. Chamberlin, Denver, Colo. Filed Apr. 19, 1915. Serial No. 22,471. 8 Claims. (Cl. 180-14.)



3. A traction system comprising a tractor and a plurality of tandem coupled trailers, flexible hollow draft connections between said vehicles, and brake-operating mechanism extending through said flexible connections.

1,306,229. TRACTION-WHEEL. LEO W. MALCHUK, La Crosse, Wis., assignor to La Crosse Tractor Co., La Crosse, Wis., a Corporation of Delaware. Filed Oct. 25, 1917. Serial No. 198,978. 3 Claims. (Cl. 21-215.)

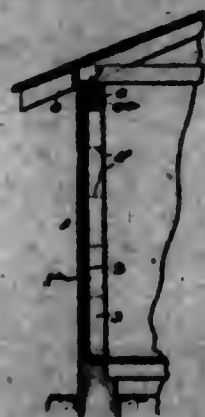
1. A traction lug for tractors comprising a body provided with a transversely extending outer edge, a base to en-

gage the rim of the wheel and a transversely extending bearing face, tapered from the base to the outer edge and



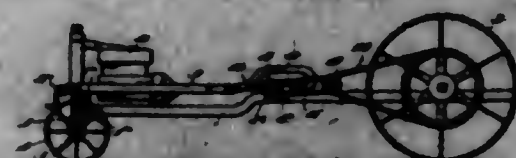
severely tapered from its center to the sides, and means to secure the lug to the wheel.

1,306,230. CONCRETE BUILDING. STUART B. MOORE, Algiers, La. Filed Mar. 1, 1916. Serial No. 21,442. 2 Claims. (Cl. 72-42.)



1. A composition building slab comprising a monolithic unit having a channel formed in its top, a lintel formed in said channel by a plastic composition poured therein, and a wall plate embedded in said lintel while the latter is in a plastic condition.

1,306,231. TRACTOR. NICHOLAS NELSON, Caribou, Me. Filed Nov. 15, 1917. Serial No. 202,104. 3 Claims. (Cl. 180-54.)



1. A tractor comprising a main horizontal frame wheel supported at its rear end, a front wheel, a central swivel connection between the front end of said frame and said axle, an auxiliary frame secured to and extending rearwardly from said front axle to substantially the center of said main frame, a central swivel connection between the rear end of said auxiliary frame and said main frame, a prime mover on said auxiliary frame, and driving connections between said prime mover and the rear wheel, said prime mover being mounted on the front end of said auxiliary frame and the latter extending rearwardly from said prime mover a considerable distance, whereby the greater part of the prime mover's weight is supported by said front axle and only a small portion of said weight by the swivel connections.

1,306,232. CANNON AND MOVING-TARGET TOY. RICHARD NICHOLS, Denver, Colo. Filed May 10, 1918. Serial No. 223,724. 1 Claim. (Cl. 46-59.)



In a cannon and moving target toy, the combination with a base, of a toy cannon for discharging projectiles

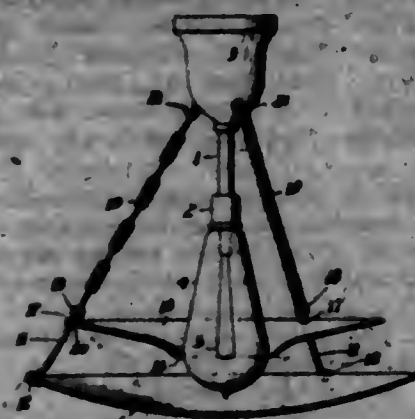
and having a crank and crankshaft, a rectangular target housing erected upon the said base and having a sight opening and a horizontal partition provided with a circular opening, a turntable arranged in the said circular opening, a revolvable wheel arranged to support the turntable, means comprising pulleys and a cord whereby the revolution of said crankshaft is communicated to said wheel to revolve the turntable, inclinatory targets supported by the turntable and arranged to pass adjacent to the said sight opening, a ball escape opening located in one corner of the said housing, and a movable closure for the said escape opening.

1,306,232. SNAP-FASTENER. FLOYD H. OGDEN, Roxbury, Mass. Filed Sept. 24, 1916. Serial No. 122,908. 6 Claims. (Cl. 24-215.)



6. A head member for a snap fastener, having a lateral flange at its periphery presenting a curved outer face and formed with spaced apart lengthwise slots, and a resilient projection extending through each slot to inter-engage with and be moved in by a socket member to which said head member is fitted.

1,306,234. LIGHTING-FIXTURE. ROBERT F. FRANKS, Collingwood, N. J., assignor, by mesne assignments, to Charles M. Horner, Philadelphia, Pa. Filed June 1, 1915. Serial No. 21,570. 2 Claims. (Cl. 240-73.)

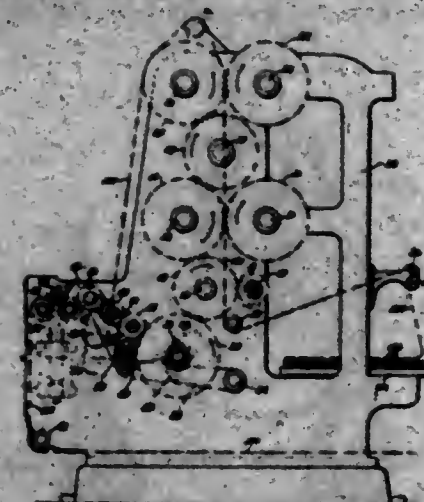


2. In a light fixture in combination a light emitting element, a substantially horizontal light reflecting and diffusing member supported underneath the said light, a substantially horizontally arranged annular light reflecting member supported above the first named member and having its inner edge practically in the plane of the lower end of the said light emitting element, said element extending upwardly from said plane and said annular member being inclined upwardly and outwardly from its inner edge, means for supporting the said members, said means including rod-like members extending through the said annular reflecting member and being provided with means underneath the same for supporting it and being provided with means at their outer ends for engaging and supporting the first named reflecting member, substantially as described.

1,306,235. WEB-PRINTING DEVICE. ROBERT H. PLANN, Upper Montclair, N. J. Filed Nov. 24, 1917. Serial No. 206,982. 9 Claims. (Cl. 101-181.)

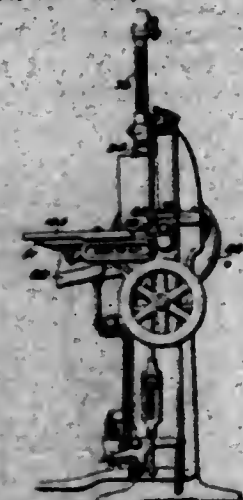
1. In a web printing machine, in combination, a revolvable web printing means capable of conveying a web, means for revolving the web printing means, conveying means for conveying the web after printing preventing the return movement of the web, accelerating means be-

tween the printing means and the conveying means and a cam movement whereby the speed of the web may be ac-



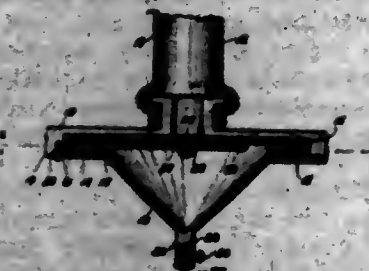
celerated past the printing means during non-printing periods.

1,306,236. BLANK-FEEDING MECHANISM FOR SKIVING-MACHINES. JOSEPH H. POPS, Hamilton, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 20, 1915. Serial No. 46,467. 26 Claims. (Cl. 13-62.)



1. Blank feeding mechanism for skiving machines comprising a fixed support, a magazine for holding blanks in a pile upon the support, mechanism for feeding the bottom blank of the pile to the skiving device, and devices for holding the pile of blanks up off the bottom blank while it is being fed.

1,306,237. SOUND-LOCATOR. JOSEPH A. RAYDER, Philadelphia, Pa. Filed Jan. 6, 1919. Serial No. 200,914. 12 Claims. (Cl. 181-24.)

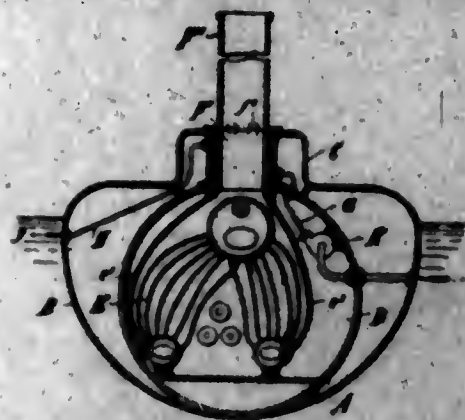


11. In a sound localizer the combination with a body, of a head, a vibratory diaphragm and a vibratory element, said head, diaphragm and vibratory element being supported in said body in spaced relation thereto.

1,306,238. SUBMARINE BOAT. CONRAD ROSENBOGEN, Kiel-Garden, and HANS TACHET, Kiel, Germany, assignors to Fried. Krupp Aktiengesellschaft Germania-Werft, Kiel-Garden, Germany. Filed Apr. 26, 1915. Serial No. 24,053. Renewed Aug. 17, 1917. Serial No. 186,526. 6 Claims. (Cl. 114-16.)

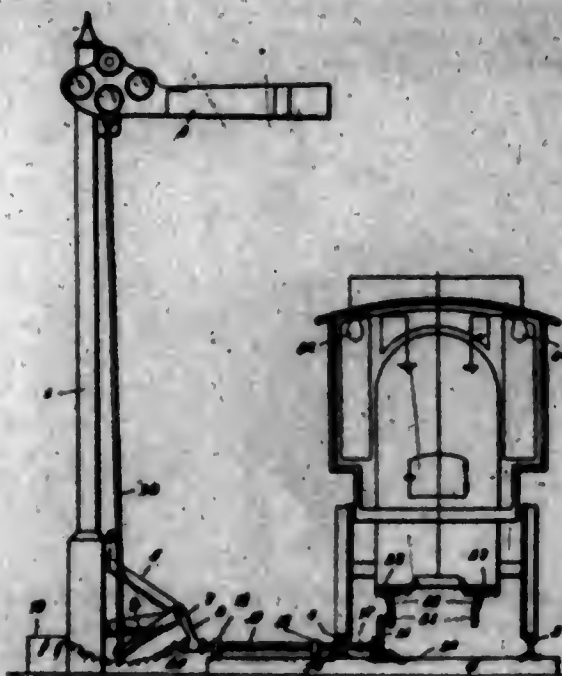
1. In a submarine boat having a steam boiler inclosed in a pressure proof inner vessel, a smoke-stack for the

boiler, said smoke-stack being provided with double walls forming a cooling chamber extending into said vessel, and



conduits for said chamber for circulating cooling medium in said chamber.

1,305,239. RAILWAY-SIGNAL. WILLIAM W. ROSS and FREDERICK H. DECKER, Frenchtown, N. J. Filed Oct. 18, 1917. Serial No. 198,440. 1 Claim. (Cl. 246-185.)



The combination with a contact rail extending along a railway, of a hollow horizontal contact rod with one end in juxtaposition to said rail, said contact rod having an insulated end section extending toward said rail, mountings for said rod whereby it is adapted for sliding movement, and an electric circuit including said insulated section of the contact rod and said rail, said circuit normally broken by a gap between said insulated section of the contact rod and said contact rail and adapted to be completed by engagement of said section against said rail in one position of said rod.

1,305,240. AUXILIARY DEVICE FOR THE ETCHING OF ARCH-SHAPED WOLLASTON WIRES FOR THE HEAT-CONDUCTORS OF THERMIC TELEPHONES. ROBERT AERNOUT BARON VAN LYNDEN, Utrecht, Netherlands, assignor to Naamloze Vennootschap de Nederlandsche Thermo-Telefoon Maatschappij, Utrecht, Netherlands, a Limited Liability Company of the Netherlands. Filed Mar. 22, 1919. Serial No. 284,488. 2 Claims. (Cl. 179-101.)



1. As an auxiliary support for Wollaston wires during the etching process, an acid-proof guard adapted to en-

gage such wires during and after the etching process and means whereby such guard may be connected detachably with a carrier of said wire.

1,305,241. JEWELRY-CASE HAVING INTERCHANGEABLE COVER. SAMUEL De LACY HENRY, Columbus, Ohio. Filed Jan. 29, 1918. Serial No. 73,127. 1 Claim. (Cl. 311-22.)



In a display tray, a base, a series of bars superimposed on the base, said bars each having their opposite side edges formed with aligned pairs of notches providing a pair of spaced shoulders for each notch, said bars having their adjacent sides abutting and the pairs of notches in register, a series of individual saddles for each bar arranged thereon with their ends disposed in the respective pairs of notches and their side edges abutting the respective shoulders of the notches so as to be held thereby against movement longitudinally of the base, compressible strips arranged over the outer sides of the outermost bars, and an inclosing frame within which the bars and base are insertible from the bottom thereof and being of a size so as to force the bars into engagement with each other and to engage said compressible strips so as to hold the bars and strips in frictional engagement with each other.

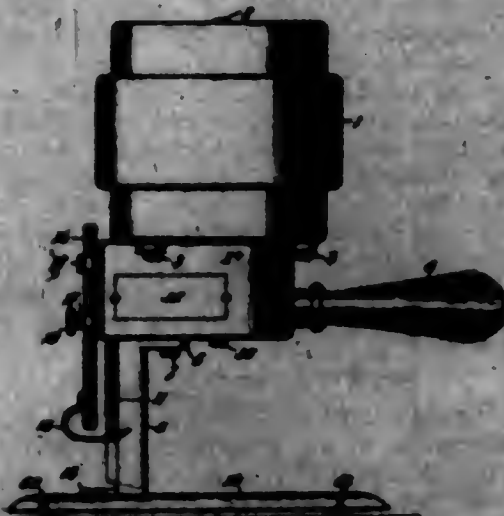
REISSUES.

14,052. PROCESS OF MAKING BRIQUETS OR OTHER MOLDED ARTICLES. CARLETON ELLIS, Montclair, N. J., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Mar. 21, 1919. Serial No. 284,222. Original No. 1,246,505, dated Nov. 18, 1917. Serial No. 787,801, filed Mar. 26, 1912. 23 Claims. (Cl. 44-1.)

1. The process of making briquets or other molded articles which comprises mixing concentrated acid sulfate cellulose waste liquor with a bulking material containing coal dust and fragments and incorporating quicklime material.

25. Fine fuel bonded by sulfate waste liquor solids rendered insoluble in water.

14,054. CLOTH-CUTTING MACHINE. ADOLPH RUMM, St. Louis, Mo. Filed Dec. 31, 1912. Serial No. 289,142. Original No. 1,323,524, dated June 5, 1917. Serial No. 25,310, filed Mar. 29, 1918. 17 Claims. (Cl. 164-75.)



1. A cloth-cutting machine, comprising a reciprocating knife, a vertical electric motor having a vertical armature

shaft, suitable casings and framing, a rotatable arm for reciprocating said knife, said arm being mounted at the lower end of said armature shaft and entirely supported thereby, and means carried by said shaft for rocking said arm.

14,055. DAVENPORT. JOHN GRANT STONEBACH, Topeka, Kans. Filed Mar. 18, 1918. Serial No. 222,572. Original No. 1,282,419, dated July 17, 1917. Serial No. 141,982, filed Jan. 12, 1917. 2 Claims. (Cl. 155-26.)



1. In a sofa, a base structure having an end, an arm having a lower edge adapted to rest on the top edge of said end when said arm is vertical, an extension projecting out from and below said lower edge of the arm and having a face angularly related to said lower edge of the arm and formed to rest against the outer face of the sofa end when said arm is in down position, and means to hinge said arm to the sofa end having its pivot located at the juncture of the angular face and the lower edge of the arm.

14,056. METAL COMPOUND AND PROCESS OF PRODUCING THE SAME. NATHAN SUTANOWSKI, New York, N. Y. Filed Dec. 12, 1917. Serial No. 286,339. Original No. 1,104,141, dated Dec. 14, 1915. Serial No. 876,494, filed Dec. 10, 1914. 15 Claims. (Cl. 23-22.)

1. Process for reducing metal-compounds, which are practically unreducible with nitrogen-hydrogen-compounds possessing reducing-action alone, consisting in treating such metal-compounds with such nitrogen-hydrogen-compounds in the presence of a catalytically acting metal.

DESIGNS.

53,240. STATUETTE. EDWARD E. ALLEN, Rutland, Vt. Filed Dec. 2, 1918. Serial No. 285,000. Term of patent 2 1/2 years.



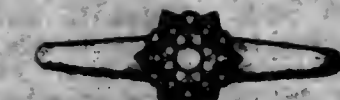
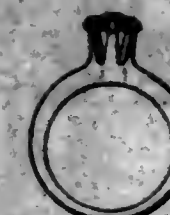
The ornamental design for a statuette as shown.

53,260. OUTER GARMENT. NANCY VICTORIA ARMSTRONG, Toronto, Ontario, Canada. Filed Feb. 3, 1919. Serial No. 374,819. Term of patent 2 1/2 years.



The design for an outer garment as herein shown.

53,261. ARTICLE OF MANUFACTURE. MAX BAUMAN, New York, N. Y. Filed Feb. 15, 1919. Serial No. 277,872. Term of patent 14 years.



The ornamental design for an article of manufacture substantially as shown.

53,262. COMBINATION-TOOL. RICHARD D. BRACE, Nassau, New Providence, Bahamas Islands. Filed Jan. 18, 1919. Serial No. 72,867. Term of patent 14 years.



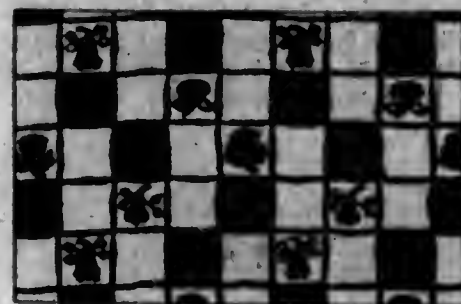
The ornamental design for a combination tool, as shown.

58,353. RAIL-TIE. JAMES E. BUDENWATER, Empire, Colo. Filed Oct. 19, 1918. Serial No. 283,904. Term of patent 3½ years.



The ornamental design for a rail tie, as shown.

58,354. PRINTED SILK. JAMES H. BUNTING, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Mar. 21, 1919. Serial No. 284,210. Term of patent 3½ years.



The ornamental design for printed silk, as shown.

58,355. PRINTED SILK. JAMES H. BUNTING, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Mar. 21, 1919. Serial No. 284,211. Term of patent 3½ years.



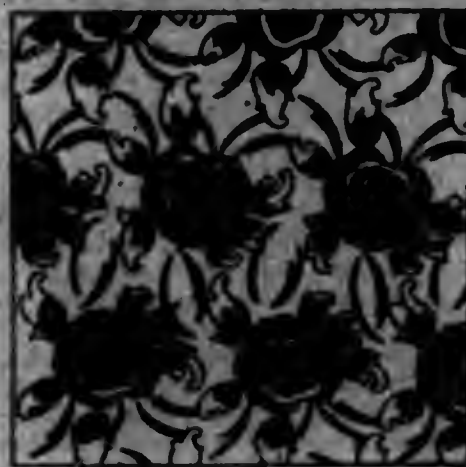
The ornamental design for printed silk, as shown.

58,356. PRINTED SILK. JAMES H. BUNTING, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Mar. 27, 1919. Serial No. 285,031. Term of patent 3½ years.



The ornamental design for printed silk, as shown.

58,357. BROCADE. JAMES H. BUNTING, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Mar. 27, 1919. Serial No. 285,032. Term of patent 3½ years.



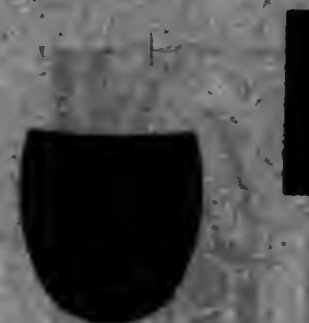
The ornamental design for brocade, as shown.

58,358. BROCADE. JAMES H. BUNTING, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Apr. 2, 1919. Serial No. 287,076. Term of patent 3½ years.



The ornamental design for brocade, as shown.

58,359. RUBBER HEEL. WALTER H. CLARK, Akron, Ohio. Filed Oct. 19, 1918. Serial No. 287,069. Term of patent 14 years.



The design for a rubber heel substantially as shown.

58,360. SIFTER-TOP CAN OR SIMILAR RECEPTACLE. MARTHA HALLOWELL COOPER, Baltimore, Md., assignor to The Decorating Company of Baltimore, Baltimore, Md., a Corporation of New York. Filed Feb. 27, 1919. Serial No. 279,003. Term of patent 7 years.



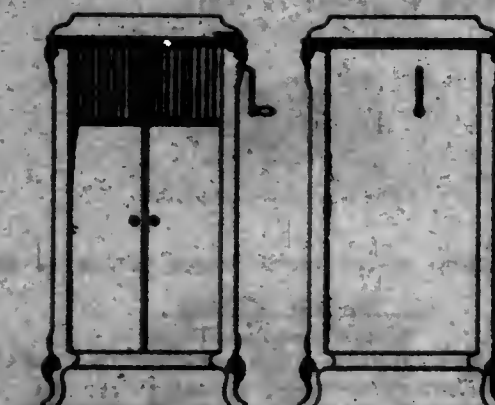
The ornamental design for a sifter-top can or similar receptacle, as shown.

58,361. DISPLAY DEVICE. FRANK W. HUMBERT, Brookline, Mass., assignor to Sweet-Nut Butter Co., Boston, Mass., a Corporation of Massachusetts. Filed Nov. 29, 1918. Serial No. 264,747. Term of patent 14 years.



The ornamental design for a display device, as shown.

58,362. PHONOGRAPH-CABINET. ALMOND L. FITCH, Omaha, Neb., assignor to Bebe and Ryan Furniture Company, Omaha, Neb., a Corporation. Filed Feb. 17, 1919. Serial No. 277,064. Term of patent 7 years.



The ornamental design for a phonograph cabinet, as shown.

58,363. SHAVING AND DRESSING STAND. LOUIS GOODMAN, Dubuque, Iowa. Filed Mar. 20, 1918. Serial No. 223,007. Term of patent 7 years.



The ornamental design for a shaving and dressing stand, as shown.

58,364. TEXTILE FABRIC. ALVIN J. GRAPPEL, Montclair, N. J., assignor to Grapin & Dolson, New York, N. Y., a Copartnership. Filed Nov. 25, 1918. Serial No. 264,111. Term of patent 7 years.



The ornamental design for a textile fabric, as shown.

53,365. LEAGUE-BUTTON. GEORGE H. GARFINK, St. Paul, Minn., assignor to Arthur C. Townley, William Lemke, and Frank B. Wood, Fargo, N. D., as members of the Executive Committee of the National Nonpartisan League. Filed Jan. 29, 1919. Serial No. 273,924. Term of patent 14 years.



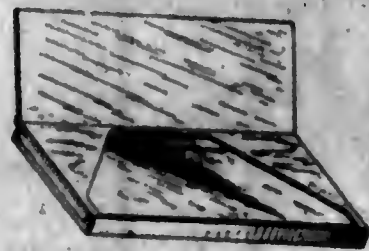
The ornamental design for a league button as shown.

53,366. INDIVIDUAL DENTAL-PLATE CLEANER. JEROME G. HOLLINGSWORTH, Kansas City, Mo. Filed Nov. 29, 1918. Serial No. 264,742. Term of patent 14 years.



The ornamental design for an individual dental plate cleaner as shown.

53,367. CIGARETTE-PAPER CASE. THOMAS J. KATZ, Chicago, Ill. Filed Sept. 12, 1918. Serial No. 253,887. Term of patent 14 years.



The ornamental design for a cigarette paper case, as shown.

53,368. FLAG OR BANNER. EUGENE W. KELLEN, North Bergen, N. J. Filed Dec. 4, 1918. Serial No. 265,297. Term of patent 3 1/2 years.



The ornamental design for a flag or banner, as shown.

53,369. FLAG OR BANNER. EUGENE W. KELLEN, North Bergen, N. J. Filed Dec. 4, 1918. Serial No. 265,298. Term of patent 3 1/2 years.



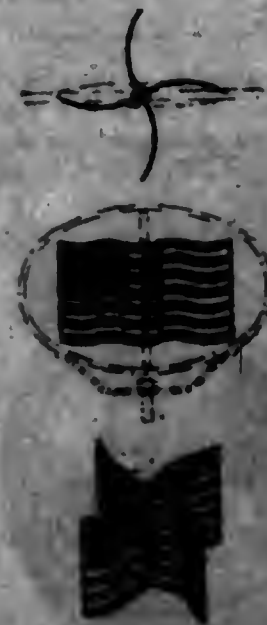
The ornamental design for a flag or banner, as shown.

53,370. ARTICLE OF MANUFACTURE. KIRMAN A. KELLY, New York, N. Y. Filed Dec. 14, 1918. Serial No. 266,820. Term of patent 3 1/2 years.



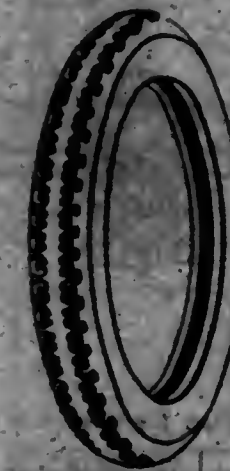
The ornamental design for an article of manufacture as shown and described.

53,371. AUTOMOBILE-RADIATOR ORNAMENT. JULIAN H. KENDRA, Pittsburgh, Pa. Filed June 14, 1917. Serial No. 174,776. Term of patent 3 1/2 years.



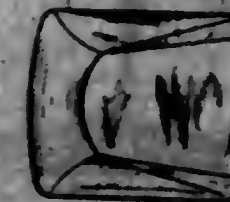
The ornamental design for an automobile radiator ornament, substantially as shown.

53,372. NON-SKID TIRE. CLARENCE E. HARTSHORN, Des Moines, Iowa, assignor to Iowa Cured Tire Company, Des Moines, Iowa, a Corporation of Iowa. Filed Mar. 6, 1919. Serial No. 291,101. Term of patent 14 years.



The ornamental design for a non-skid tire, as shown.

53,373. ENGINE-HOOD FOR A MOTOR-VEHICLE. ALFRED F. MABURY, New York, N. Y., assignor to International Motor Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 21, 1918. Serial No. 267,861. Term of patent 14 years.



The ornamental design for an engine hood for a motor vehicle, as shown.

53,374. FLAG OR EMBLEM. RICHARD W. MIRAMONTE, Webster, Mass. Filed Dec. 18, 1918. Serial No. 267,412. Term of patent 7 years.



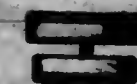
The ornamental design for a flag or emblem as shown.

53,375. ELECTRIC-LIGHT RECEPTACLE. THOMAS O'DONNELL, Ironwood, Mich. Filed Jan. 18, 1917. Serial No. 165,182. Term of patent 14 years.



The ornamental design for an electric light receptacle, as shown.

53,376. BUTTON. CHARLES J. RAUCH, Memphis, Tenn. Filed May 12, 1918. Serial No. 254,390. Term of patent 14 years.



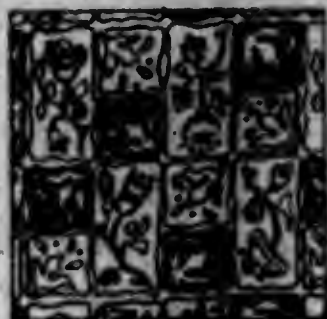
The ornamental design for a button as shown.

53,377. PRINTED SILK. WILLIAM G. REITH, New York, N. Y., assignor to Saugochanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Mar. 29, 1919. Serial No. 286,176. Term of patent 3 1/2 years.



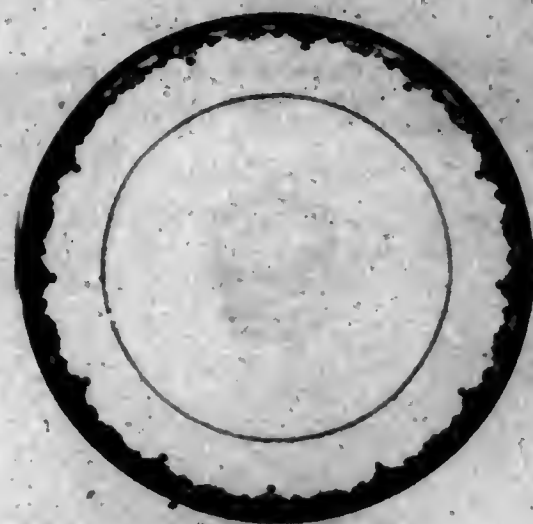
The original design for printed silk, as shown.

58,378. PRINTED SILK. WILLIAM G. ROTH, New York, N. Y., assignor to Saugochanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Mar. 28, 1919. Serial No. 286,177. Term of patent 3½ years.



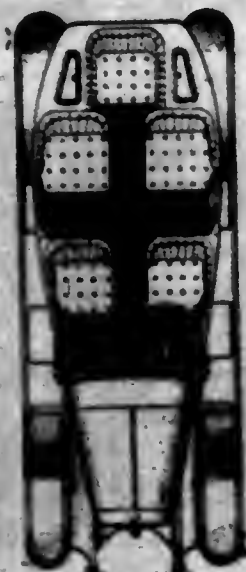
The ornamental design for printed silk, as shown.

58,379. DISH OR SIMILAR ARTICLE. EDWARD JOHN RUDWAY, Staten Island, N. Y. Filed Mar. 19, 1919. Serial No. 286,077. Term of patent 7 years.



The ornamental design for a dish or similar article, substantially as shown.

58,380. AUTOMOBILE-BODY. JAMES W. SUMMIDAY, Chicago, Ill., assignor to Woods Mobilette Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 4, 1916. Serial No. 125,091. Term of patent 3½ years.



The ornamental design for an automobile body, as shown.

58,381. SERVICE-PIN. CHARLES E. SMITH, Chattanooga, Tenn. Filed Feb. 28, 1919. Serial No. 279,666. Term of patent 3½ years.



The ornamental design for a service pin as shown.

58,382. BOOK-COVER, CALENDAR, OR SIMILAR ARTICLE. MORRIS BRISSEN, Chicago, Ill., assignor of one-half to Miami Ridgeway Bishop, Chicago, Ill. Filed Nov. 22, 1918. Serial No. 268,782. Term of patent 3½ years.



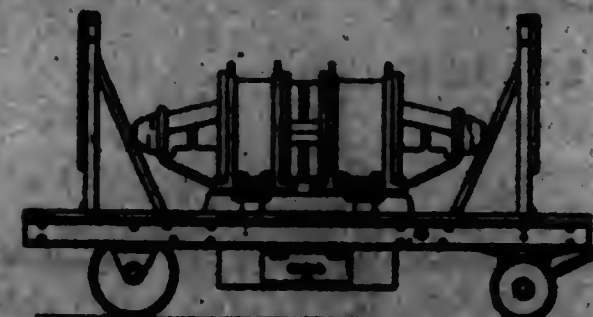
The ornamental design for a book cover, calendar, or similar article as shown.

58,383. EMBLEM, BROOCH, RING-TOP, LAVALLIERE, BUTTON, OR SIMILAR ARTICLE. JACOB H. SWIFT, North Attleboro, Mass. Filed Aug. 31, 1918. Serial No. 262,364. Term of patent 3½ years.



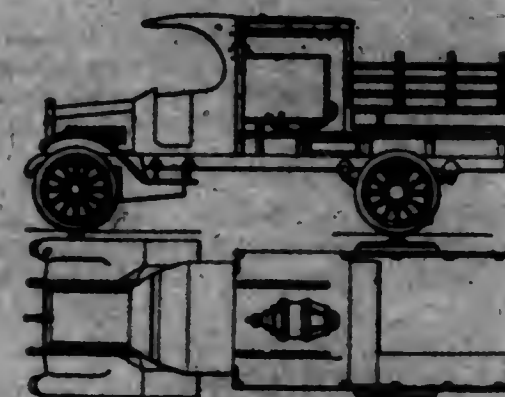
The ornamental design for an emblem, brooch, ring-top, lavalliere, button, or similar article, as shown.

58,384. PORTABLE ELECTRIC-WELDING TRUCK. WILSON E. SYMONS, New York, N. Y. Filed Oct. 28, 1916. Serial No. 128,322. Term of patent 7 years.



The ornamental design for a portable electric welding truck, substantially as shown.

58,385. ELECTRIC-WELDING AUTOTRUCK. WILSON E. SYMONS, New York, N. Y. Filed Oct. 28, 1916. Serial No. 128,323. Term of patent 7 years.



The ornamental design for an electric welding autotruck, substantially as shown.

58,386. TOBACCO-CAN. JOSEPH A. THOMAS, Birmingham, Ala. Filed Nov. 15, 1916. Serial No. 121,503. Term of patent 3½ years.



The ornamental design for a tobacco can, as shown.

58,387. DISPLAY-STAND. ANTOINE VINCIG, New York, N. Y. Filed Mar. 12, 1919. Serial No. 286,217. Term of patent 3½ years.



The ornamental design for a display stand, as shown.

58,388. VEHICLE-BODY. JOHN WAGG, St. Paul, Minn. Filed Mar. 8, 1917. Serial No. 153,517. Term of patent 14 years.



The ornamental design for a vehicle body, as shown.

58,389. LIGHT-GLOBE. FRED M. WALKER, Detroit, Mich. Filed Aug. 30, 1918. Serial No. 262,180. Term of patent 7 years.



The ornamental design for a light globe, as shown.

58,890. DISPLAY STAND. HENRIK ANTON WOLSKI and GUSTAVA HAJOSKA, Buffalo, N. Y. Filed Jan. 30, 1919. Serial No. 274,148. Term of patent 3 years.



The ornamental design for a display stand as shown.

58,891. COMBINED SCHOLAR'S COMPANION AND PUZZLE. ANTHONY EISE, Baltimore, Md. Filed Feb. 20, 1919. Serial No. 279,445. Term of patent 7 years.



The ornamental design for a combined scholar's companion and puzzle, as shown.

TRADE-MARKS

OFFICIAL GAZETTE, MAY 27, 1919.

(PUBLISHED MAY 31, 1919.)

The following trade-marks are published in compliance with section 6 of the act of February 20, 1906, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 98,091. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE M. K. FAIRBANK COMPANY, Union township, near Grafton, N. H., and Chicago, Ill. Filed Oct. 16, 1918. Under ten-year proviso.



The cross being printed in red.
Particular description of goods.—A Cooking Compound Containing Cotton-Seed Oil and Oleo-Stearin.
Claims use since 1873.

Ser. No. 100,200. (CLASS 9. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BASO PRODUCTS CO., Ltd., Zurich, Switzerland. Filed Apr. 27, 1917.

RESOPON

Particular description of goods.—Antiseptic Solutions and Salves, both for the treatment of Wounds, Sores, Burns, Eczema, Angina, Vaginitis, Erosions, Fissures, Dermatitis, Inflammation of the Mucous Membrane of the Nose, Hay-Fever, Fistulae of All Kinds, Hemorrhoids, Bad Sores, Infectious Diseases, Abscesses, Bells, and Rash from Mosquito Bites.
Claims use since Jan. 30, 1917.

Ser. No. 100,512. (CLASS 32. FURNITURE AND UPHOLSTERY.) JOHN KENNETH PORTER, Scranton, Pa. Filed Aug. 22, 1917.



Particular description of goods.—Household and Office Furniture—Mandy, Chairs, Tables, Settees, Duffs, Plant
202 O. G.—42

or Cage Stands, Breakfast Sets Consisting of Willow Tables and Chairs, Footstools, Willow Wall-Bracket Shelves, Day-Beds, Willow Wall-Pockets, Book-Racks, Fish-Bowl Holders, Porch-Swings, Book-Troughs, Clothes-Trees, Chaise-Longue, Folding Screens, Tea-Tables, Breakfast-Tables, Muffin-Stands, Tea-Carts, Kneeling-Racks, and Willow Household Umbrella-Stands.
Claims use since Feb. 15, 1918.

Ser. No. 105,882. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ED. E. VAIL BUTTERING CO., Chicago, Ill. Filed Aug. 25, 1917.

BAKERS NEED

Particular description of goods.—Oleomargarin.
Claims use since July 10, 1917.

Ser. No. 107,428. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THOMAS L. CARROLL, Chicago, Ill., assignor, by mesne assignments, to The Carrolene Company, a Corporation. Filed Nov. 17, 1917.

@rolene

Particular description of goods.—A Compound of Refined Nut-Oils and Evaporated Whipped Milk for Use as a Substitute for Milk or Cream.
Claims use since June 1, 1917.

Ser. No. 100,576. (CLASS 38. CLOTHING.) JOHN McBRATT, Rockland, Mass. Filed Jan. 21, 1918.

IASISTU

Particular description of goods.—Shoes, Boots, and Slippers Made of Leather.
Claims use since Nov. 16, 1917.

[Vol. 202 No. 4.]

Ser. No. 109,222. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) W. C. HENDERSON, Baltimore, Md. Filed Feb. 26, 1918.

Wis-Ko
IT'S HOT

No claim being made to the exclusive use of the words "It's Hot."
Particular description of goods.—Non-Alcoholic Maltless Beverages Not of a Cereal Nature to be Sold as Soft Drinks.
Claims use since Feb. 19, 1918.

Ser. No. 109,430. (CLASS 40. FOODS AND INGREDIENTS OF FOODS.) THE EDWARDS COMPANY, Cattleland, N. Y. Filed Mar. 7, 1918.

TECO

Particular description of goods.—Self-Rising Pancake-Flour and Mixed Flour.
Claims use since May, 1910.

Ser. No. 109,441. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) LANDERS, FRANK & CLARK, New Britain, Conn. Filed Mar. 8, 1918.

VOLTEX

Particular description of goods.—Electrically-Heated Appliances—Namely, Chafing-Dishes, Coffee-Percolators, Coffee-Machines, Curling-Irons, Grills, Heating-Pads for Household Use, Tea-Ball Teapots, Samovars, Stoves, Toasters, Sad-Irons, Shaving-Mugs, and Hot-Water Heaters.
Claims use since January, 1918.

Ser. No. 109,998. (CLASS 30. CLOTHING.) THE HOUSE OF MITCHELL, Pittsburgh, Pa. Filed Mar. 21, 1918.



Applicant disclaims exclusive use of the pictorial illustration.
Particular description of goods.—Tailor-Made Suits for Men and Boys.
Claims use since January, 1916.

Ser. No. 109,799. (CLASS 30. CLOTHING.) JAMES T. CARADINE, St. Louis, Mo. Filed Mar. 22, 1918.



Particular description of goods.—Waterproof and Non-Waterproof Coats, Suits, Aprons, Embroidered Dental, Medical, and Surgical Aprons; Pouches, Hats, Overalls, Pants, and Leggings.
Claims use since July, 1916.

Ser. No. 109,880. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WALTER V. WALLACE, Chicago, Ill. Filed Mar. 20, 1918.



Particular description of goods.—Hair-Tonic.
Claims use since Feb. 1, 1917.

Ser. No. 110,161. (CLASS 12. CONSTRUCTION MATERIALS.) ALEX CHAMBLAY, Philadelphia, Pa. Filed Apr. 12, 1918.



No claim being made to the words "Concrete Enters" apart from the mark shown.
Particular description of goods.—Concrete Blocks, Concrete Columns, Concrete Arches, and Concrete Vault-Light Constructions.
Claims use since January, 1917.

Ser. No. 110,294. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) G. C. HANFORD MANUFACTURING Co., Syracuse, N. Y. Filed Apr. 18, 1918.

CELVIRA

Particular description of goods.—Remedy to be Taken Internally as a General Nerve-Tonic for Neuritis, Nervous Headache, Fatigue, Nervous Exhaustion, Sleeplessness, and Similar Nervous Disturbances.
Claims use since on or about Dec. 15, 1917.

[Vol. 202. No. 4.]

Ser. No. 110,292. (CLASS 40. FOODS AND INGREDIENTS OF FOODS.) THE H. K. FARMER COMPANY, Union Township, near Grafton, N. J., and Chicago, Ill. Filed Apr. 23, 1918.

COVO

Particular description of goods.—A Vegetable-Oil Product Containing Cotton-Seed Oil and Peanut-Oil for Salads and Cooking.
Claims use since Apr. 6, 1918.

Ser. No. 110,408. (CLASS 40. FOODS AND INGREDIENTS OF FOODS.) CLOVER LEAF MILKING COMPANY, Wollington, Mo. Filed Apr. 24, 1918.



Particular description of goods.—Cream Products—Namely, Curd-Cream, Curd-Flour, Oats, and Honey.
Claims use since Mar. 12, 1918.

Ser. No. 110,551. (CLASS 10. PAINTS AND PAINTERS' MATERIALS.) E. I. DU PONT DE NEMOURS & COMPANY, Wilmington, Del. Filed May 17, 1918.

Flow-Kote

Particular description of goods.—Ready-Mixed Paints.
Claims use since March, 1912.

Ser. No. 111,329. (CLASS 40. FOODS AND INGREDIENTS OF FOODS.) O. W. FRANCH COMPANY, La Fayette, Ind. Filed June 12, 1918.

PECO

Particular description of goods.—Canned Fruits, Canned Vegetables, Dried Fruits, Preserved Fruits; Canned Fish, Lobsters, and Oysters; Canned Soups, Canned Milk, Sterilized Milk, Condensed Milk, Canned Pork and Beans, Pickled-Spices, Prepared Mustard, Tomato Catsup, Chili Sauce, Oyster-Cocktail Sauce, Tea, Baked Oats, Stuffed Olives, Green Olives, Mince-Meat, Macaroni, Spaghetti, Stewed Dried Beef, Sweet and Sour

[Vol. 202. No. 4.]

Pickles, Needles, Peanut-Butter, Vinegar, Apple-Cider Vinegar, Worcestershire Sauce, Curr-Syrup, Maple-Syrup, Cane and Maple Syrup, Molasses, Red-Pepper Sauce, Green-Pepper Sauce, Strained Honey, Horseradish, Cotton-Seed Cooking-Oil, Corn Cooking-Oil, Salad-Dressing, Dehydrated Coconut, Dried Codfish, Cheese, Krust, Olive-Oil, Honey.

Claims use since Apr. 1, 1918.

Ser. No. 112,301. (CLASS 10. PAINTS AND PAINTERS' MATERIALS.) JNO. C. HANLON, Bridgeville, N. Y. Filed July 15, 1918.



Particular description of goods.—Ready-Mixed Paints.
Claims use since about July 1, 1918.

Ser. No. 112,845. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CONSOLIDATED PHARMACEUTICAL LABORATORIES, Los Angeles, Calif. Filed Aug. 28, 1918.

LIBERTY

Particular description of goods.—A Foot-Powder.
Claims use since Jan. 1, 1918.

Ser. No. 112,961. (CLASS 30. CLOTHING.) IGWATE CROSS, Los Angeles, Calif. Filed Aug. 29, 1918.

LIBERTY MAIDEN

The trade-mark being printed in colors, substantially as represented, the upper border and the words "Liberty Maiden" being red and stars and the lower border being blue.

Particular description of goods.—Girls' Caps, Suits, and Overcoats.
Claims use since the 5th day of August, 1915.

Ser. No. 112,060. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) NORTH BRITISH RUBBER Co., Limited, Edinburgh, Scotland. Filed Sept. 6, 1918.

CLINCHER CROSS

No claim is made to the word "Cross" apart from the mark shown in the drawing.
Particular description of goods.—Golf-Balls.
Claims use since July 1, 1917.

[Vol. 202. No. 4.]

Ser. No. 113,268. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Voss Manufacturing Company, Nashville, Tenn. Filed Sept. 16, 1918.

"Voles"

Particular description of goods.—Hair-Grower; Temple-Grower, a Preparation for Growing Hair on Thin and Nearly Bald Temples; Pressing-Oil for Offing Hair Prior to Use of Hot Instruments, Dandruff-Ointment, Hair and Scalp Tonic, Shampoo.

Claims use since Jan. 1, 1910.

Ser. No. 113,519. (CLASS 15. OILS AND GREASES.) GEORGE W. WOOLLEY, Pasadena, Calif. Filed Oct. 1, 1918.

VICTORY-GAS

No claim being made to the word "Gas" apart from the mark as shown in the drawing.

Particular description of goods.—Liquid Fuel for Internal-Combustion Engines.

Claims use since the 23d day of September, 1918.

Ser. No. 114,200. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MARSHALL MILLING CO., Marshall, Minn. Filed Nov. 22, 1918.



No claim being made for the word "Verabest" apart from the band, which is lined to indicate yellow.

Particular description of goods.—Cornmeal.

Claims use since about the 15th day of July, 1918.

Ser. No. 114,468. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. M. SIMMONS, Denver, Colo. Filed Nov. 27, 1918.



The word "Kash-Karry" not being claimed except in connection with the other features of the mark.

Particular description of goods.—Maple-Syrup, a Blend of Corn and Maple Syrup, Canned Tomatoes, Canned Peas, Canned Corn, Coffee, and Bread.

Claims use since Oct. 15, 1918.

[Vol. 308. No. 6.]

Ser. No. 114,388. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) AMERICAN ZINC LEAD & SHEET-ING CO., Boston, Mass., and St. Louis, Mo. Filed Dec. 7, 1918.



No claim is made to the exclusive use of the words and characters "American Zinc L. & S. Co." apart from the other features shown.

Particular description of goods.—Zinc Oxide for Use as Paint-Pigments.

Claims use since about Nov. 21, 1918.

Ser. No. 114,512. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) AMERICAN ZINC LEAD & SHEET-ING CO., Boston, Mass., and St. Louis, Mo. Filed Dec. 7, 1918.



No claim is made to the exclusive use of the words and characters "American Zinc L. & S. Co." apart from the other features shown.

Particular description of goods.—Zinc Oxide for Use as Paint-Pigments.

Claims use since about Nov. 21, 1918.

Ser. No. 114,388. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) AMERICAN ZINC LEAD & SHEET-ING CO., Boston, Mass., and St. Louis, Mo. Filed Dec. 7, 1918.



No claim is made to the exclusive use of the words and characters "American Zinc L. & S. Co." apart from the other features shown.

Particular description of goods.—Zinc Oxide for Use as Paint-Pigments.

Claims use since about Nov. 21, 1918.

Ser. No. 114,505. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KANSAS PACKING COMPANY, Davenport, Iowa. Filed Dec. 9, 1918.



The word "Daisy" is disclaimed except in connection with the other features of the mark as shown in the drawing. The representation of the seal is lined for blue, the upper and lower panels, the bottom, punctuations, and embellishments being lined for red.

Particular description of goods.—Cured and smoked Clear-Plate Pork.

Claims use since the 31st day of July, 1917.

Ser. No. 114,512. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) AMERICAN ZINC LEAD & SHEET-ING CO., Boston, Mass., and St. Louis, Mo. Filed Dec. 7, 1918.

REVLOC

Particular description of goods.—Coal.

Claims use since the 5th day of November, 1902.

[Vol. 308. No. 6.]

Ser. No. 114,351. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLINTON ELIOTT, New York, N. Y. Filed Dec. 28, 1918.

Fru-ties

Particular description of goods.—Candies.

Claims use since Dec. 9, 1918.

Ser. No. 114,578. (CLASS 25. CLOTHING.) ALBERT M. DAVIS, Philadelphia, Pa. Filed Dec. 30, 1918.



No claim is made for the word "Quality" apart from the mark shown on the drawing.

Particular description of goods.—Felt Hats.

Claims use since about Dec. 10, 1910.

Ser. No. 114,889. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SAN ANTONIO DAVIS CO., San Antonio, Tex., and New York, N. Y. Filed Dec. 28, 1918.

FIDELITY

Particular description of goods.—Liniments for Use in the Treatment of Cuts, Wounds, Sprains, Bruises, Burns, Neuralgia, Lumbago, Sciatica, Rheumatism, Stiff Joints, and for Use as a Disinfectant and Germicide in the Killing of Ticks, Fleas, Grease-Worms, and the Lice and in the Treatment of Barbed-Wire Cuts, Sore, Ac.; Cordial for Use in the Treatment of Irregularities of the Bowels; Tonic for Use in the Treatment of Nervous Diseases, Neuralgia, Rheumatism, Nervous Debility, and Dyspepsia; Capsules and Injections for Use in the Treatment of Gonorrhea, Gleet, and Leucorrhea; Vegetable Compound for Stimulating the Action of the Liver; a Tonic for Anemia, Loss of Weight, Nervous Exhaustion, and Convalescence from Wasting Diseases; a Medicine for the Treatment of Diseases of the Kidneys and Bladder; Elixir for Acute or Chronic Lumbago, Rheumatism, and Gout; Vegetable Prescription for the Treatment of Female Weaknesses, Painful Menstruation, Cramps, Inflammation and Bearing-Down Pains; Pile Remedy; Headache-Tablets; Cold-Tablets; Cough-Syrup; Syrup of Hypophosphites Compound for Use as a Nerve and Tissue Tonic; Witch-Hazel Salve; Anise Salve; Anesthetic Salve; Mentholated Ointment; Carbolic Salve; Liquid for Use as an Antiseptic, Germicide, Deodorant, Gargle, and Nasal Spray; Sore-Throat Remedy; Toothache-Drops; Eye-Lotion; Milk of Magnesia; Liver-Pills; Kidney-Pills; Castor-Oil; Sarsaparilla with Potassium Iodid for Use as a Blood-Purifier; Corn Medicine; Essence of Jamaica Ginger; an Alkaline Antiseptic Deodorizing and Non-Irritating Solution for Use as a Mouth-Wash, Gargle, and Throat Spray; Fly and Worm Compound Liniment; Dental Cream, and Antiseptic Suppositories.

Claims use since 1914.

Ser. No. 114,999. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FULVEX COMPANY, INC., Rochester, N. Y. Filed Jan. 2, 1919.

JOY-MINT

No claim is made to the use of the word "Mint" apart from the mark as shown.
Particular description of goods.—Chewing-Gum.
Claims use since Nov. 20, 1918.

Ser. No. 115,130. (CLASS 39. CLOTHING.) STAR SHIRT MANUFACTURING COMPANY, New York, N. Y. Filed Jan. 11, 1919.

ROYAL ZEPHYR

Particular description of goods.—Men's Cotton Negligé Shirts and Men's Cotton Pajamas.
Claims use since Feb. 7, 1917.

Ser. No. 115,197. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BURNELL-DEGEN Co., Indianapolis, Ind. Filed Jan. 15, 1919.



The Chinese characters and the words "Don Sung," translated, mean "egg-laying." The Chinese characters and the words "Don Sung" are hereby disclaimed except in the fanciful manner in which they are shown.
Particular description of goods.—Poultry Tonic Tablets.
Claims use since August, 1917.

Ser. No. 115,332. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SALLIE PEARL VAUGHN, Memphis, Tenn. Filed Jan. 16, 1919.



Particular description of goods.—Hair-Oil, Hair-Tonics, and Frowning-Oil.
Claims use since Jan. 1, 1919.

Ser. No. 115,333. (CLASS 39. CLOTHING.) CROWN MILLINERY Co., St. Louis, Mo. Filed Jan. 21, 1919.



Particular description of goods.—Ladies', Misses', and Children's Hats.
Claims use since Nov. 1, 1918.

Ser. No. 115,355. (CLASS 39. CLOTHING.) MAX MAYER & SONS Co., New York, N. Y. Filed Jan. 21, 1919.



The lining therein merely representing shading.
Particular description of goods.—Men's, Women's, Misses', Children's, and Baby's Suits made from Wool, Worsted, Cotton, Silk, and other Fibers.
Claims use since about July 7, 1918.

Ser. No. 115,375. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FIVE POINT COMPANY INCORPORATED, Richmond, Va. Filed Jan. 22, 1919.

FIVE-POINT FOR 5% WOMEN

No claim being made to the words "For Women" apart from mark shown in drawing.
Particular description of goods.—Pills to be Used Internally as a Laxative and Purgative; Medicines and Preparations Made into a Suppository Containing Antiseptic, Anodyne, and Tonic Medicines for Treatment of the Female Organs.
Claims use since the 1st day of October, 1918.

Ser. No. 115,411. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) MARSH-BROWNELL CORPORATION, New York, N. Y. Filed Jan. 24, 1919.



Particular description of goods.—Insulated Electrical Conductors.
Claims use since Sept. 19, 1918.

Ser. No. 115,601. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RICHMOND CANNY COMPANY, Boston, Mass. Filed Feb. 3, 1919.



Particular description of goods.—Candles.
Claims use since Oct. 1, 1918.

[Vol. 522. No. 4.]

Ser. No. 115,502. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WHITTEN CHEMICAL COMPANY, INC., Redwood, S. D., and Hutchinson, Minn. Filed Feb. 14, 1919.

IODOTHOL

Particular description of goods.—An Antiseptic Solution.
Claims use since Mar. 1, 1917.

Ser. No. 115,543. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Feb. 15, 1919.

ROBENA

Particular description of goods.—Biscuits.
Claims use since as early as Jan. 30, 1919.

Ser. No. 115,592. (CLASS 10. PAINTS AND PAINTERS' MATERIALS.) THOMAS BRADY, New York, N. Y. Filed Feb. 18, 1919. Under ten-year proviso.



Particular description of goods.—Lights of Turpentine.
Claims use since about Oct. 2, 1919.

Ser. No. 115,597. (CLASS 10. PAINTS AND PAINTERS' MATERIALS.) EDGAR W. SMITH, Indianapolis, Ind. Filed Feb. 15, 1919.



LIBERTY

Particular description of goods.—A Furniture and Automobile Polish.
Claims use since Mar. 15, 1919.

[Vol. 522. No. 4.]

Ser. No. 115,591. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MARVEL MACHINERY COMPANY, Minneapolis, Minn. Filed Feb. 17, 1919.



Particular description of goods.—Pistons for Engines.
Claims use since Mar. 1, 1918.

Ser. No. 115,600. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOSEPH F. DWYER, Seattle, Wash. Filed Feb. 18, 1919.

IDEAL

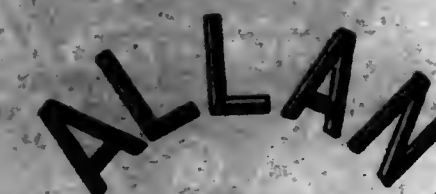
Particular description of goods.—Ticket-Dispensing Machines.
Claims use since Jan. 4, 1919.

Ser. No. 115,600. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOSEPH F. DWYER, Seattle, Wash. Filed Feb. 18, 1919.

NATIONAL

Particular description of goods.—Ticket-Dispensing Machines.
Claims use since Jan. 2, 1919.

Ser. No. 115,603. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) A. ALLAN & SON, Harrison, N. J. Filed Feb. 19, 1919. Under ten-year proviso.



Consisting of the word "Allen."
Particular description of goods.—Non-Ferrous Alloys—viz., Bearing-Brasses, Babbitt Metals, and Antifriction Metals.
Claims use since 1891.

[Vol. 522. No. 4.]

Ser. No. 116,028. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FANNY FARMER CANDY SHOPS, INC., Rochester, N. Y. Filed Feb. 20, 1919.

Fanny Farmer

Particular description of goods.—Candy.
Claims use since Feb. 6, 1919.

Ser. No. 116,060. (CLASS 30. CLOTHING.) "ALL" TRADING CORPORATION, Chicago, Ill. Filed Feb. 24, 1919.



In respect of the expression "We Serve the World" no claim to exclusive appropriation is herein made.
Particular description of goods.—Men's, Women's, and Children's Shoes Made of Leather or Combinations Thereof.
Claims use since about the 18th of November, 1918.

Ser. No. 116,071. (CLASS 30. CLOTHING.) C. & C. ARCH RELOCATING SHOE CO., Boston, Mass. Filed Feb. 24, 1919. Under ten-year proviso.

Corrective

Particular description of goods.—Men's, Women's, and Children's Leather Shoes.
Claims use since the year 1888.

Ser. No. 116,022. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) AUTO COMPONENTS, INC., Chicago, Ill. Filed Feb. 24, 1919.

RED STAR

Particular description of goods.—Engines for Internal Combustion Engines.
Claims use since the 20th day of January, 1909.

[Vol. 299. No. 4.]

Ser. No. 116,124. (CLASS 24. MEASURING AND MECHANICAL APPLIANCES.) CARSON-HUNTER COMPANY, Newark, N. J. Filed Feb. 23, 1919.

ARROW

Particular description of goods.—Calipers.
Claims use since the 8th day of April, 1918.

Ser. No. 116,122. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORTMANN & HUFFMANN CO., Passaic, N. J. Filed Feb. 25, 1919.

Suedelaine

Consisting of the word "Suedelaine."
Particular description of goods.—Woolen Piece Goods.
Claims use since Feb. 1, 1919.

Ser. No. 116,124. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORTMANN & HUFFMANN CO., Passaic, N. J. Filed Feb. 25, 1919.

Velduvyne

Consisting of the word "Velduvyne."
Particular description of goods.—Woolen Piece Goods.
Claims use since Feb. 1, 1919.

Ser. No. 116,125. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORTMANN & HUFFMANN CO., Passaic, N. J. Filed Feb. 25, 1919.

Cachmirtyne

Consisting of the word "Cachmirtyne."
Particular description of goods.—Woolen Piece Goods.
Claims use since Feb. 1, 1919.

Ser. No. 116,204. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, East Pittsburgh, Pa. Filed Mar. 4, 1919.

COZY GLOW

Particular description of goods.—Electric Heaters.
Claims use since Oct. 28, 1918.

Ser. No. 116,423. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NASHUA MFG. CO., Nashua, N. H. Filed Mar. 6, 1919.

NASHUAMOR

Consisting of the word "Nashuamor."
Particular description of goods.—Cotton Piece Goods and Cotton Blankets.
Claims use since Feb. 19, 1909.

Ser. No. 116,437. (CLASS 30. CLOTHING.) CRANOCK-TIMNEY COMPANY, Lynchburg, Va. Filed Mar. 10, 1919.



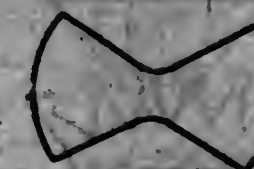
Particular description of goods.—Ladies' Boots and Shoes Made of Leather or of Leather and Fabric.
Claims use since Jan. 10, 1919.

Ser. No. 116,439. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ANDREW C. BRICKSON, Los Angeles, Calif. Filed Mar. 10, 1919.

SHIN-A-TOP

Particular description of goods.—Shoe-Polishing Machines.
Claims use since June 19, 1917.

Ser. No. 116,443. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LATROBE TOOL COMPANY, Latrobe, Pa. Filed Mar. 10, 1919.



Particular description of goods.—Twist-Drills.
Claims use since Jan. 25, 1919.

Ser. No. 116,468. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORTMANN & HUFFMANN CO., Passaic, N. J. Filed Mar. 12, 1919.

Corduvel

Consisting of the word "Corduvel."
Particular description of goods.—Woolen Piece Goods.
Claims use since Feb. 1, 1919.

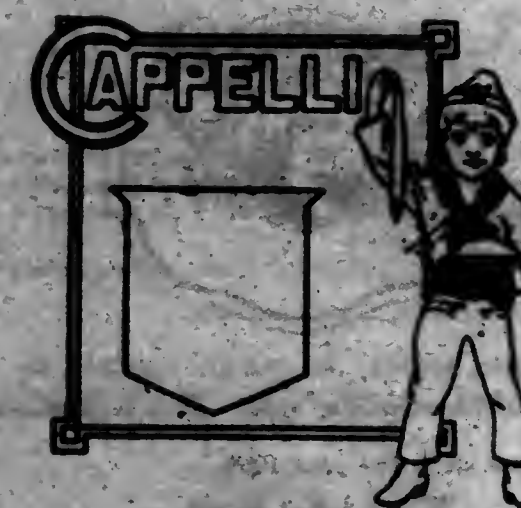
Ser. No. 116,469. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORTMANN & HUFFMANN CO., Passaic, N. J. Filed Mar. 12, 1919.

Evorette

Consisting of the word "Evorette."
Particular description of goods.—Woolen Piece Goods.
Claims use since Feb. 1, 1919.

[Vol. 299. No. 4.]

Ser. No. 116,500. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL MACARONI CO., Providence, R. I. Filed Mar. 12, 1919.



Particular description of goods.—Macaroni.
Claims use since Jan. 1, 1919.

Ser. No. 116,540. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) INDEPENDENT CRACKER & BISCUIT CO., San Francisco, Calif. Filed Mar. 13, 1919.



Particular description of goods.—Crackers and Biscuits.
Claims use since Oct. 9, 1917.

Ser. No. 116,550. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PERFECTION BISCUIT CO., Fort Wayne, Ind. Filed Mar. 13, 1919.



Particular description of goods.—Bread.
Claims use since Aug. 17, 1917.

Ser. No. 116,572. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) EVAN W. HOOK & Co. Inc., Baltimore, Md. Filed Mar. 14, 1919.



Particular description of goods.—Preserved Maraschino Cherries.
Claims use since the year 1909.

Ser. No. 116,609. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ROYAL EMBROIDERY WORKS, NADAT & FLEISCHER, New York, N. Y. Filed Mar. 15, 1919.

DUVELTYNE de la Reine

Consisting of the words "Duveltyne de la Reine."
Particular description of goods.—Silk Fabrics.
Claims use since Aug. 14, 1918.

Ser. No. 116,611. (CLASS 2. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) SAMUEL ROSENSTOCK, New York, N. Y. Filed Mar. 15, 1919.

GUARANTO

Particular description of goods.—Trunks, Travelling Bags, and Valises.
Claims use since about Mar. 8, 1919.

Ser. No. 116,700. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SAMUEL P. FINIGAN, Cleveland, Ohio. Filed Mar. 19, 1919.



The trade-mark consists of the representation of a carrot having the words "Carro Salve" imprinted thereon, as shown in the drawing, the word "Salve" being disclaimed except as used in connection with the other elements of the trade-mark.

Particular description of goods.—A Disinfecting, Soothing, and Healing Salve.
Claims use since Mar. 1, 1919.

Ser. No. 116,712. (CLASS 28. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL SILVER COMPANY, Jersey City, N. J., and Madison, Conn. Filed Mar. 19, 1919.

SILCO

Particular description of goods.—Table-Knives Made of Base-Metal.
Claims use since Feb. 7, 1919.

Ser. No. 116,726. (CLASS 28. MEASURING AND SCIENTIFIC APPLIANCES.) PRIZMA, Incorporated, New York, N. Y. Filed Mar. 19, 1919.

PRIZMA

Particular description of goods.—Motion-Picture Films.
Claims use since about Sept. 14, 1918.

Ser. No. 116,782. (CLASS 28. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE REX FILM COMPANY, Newcomertown, Ohio. Filed Mar. 20, 1919.



Particular description of goods.—Files and Rasps.
Claims use since Jan. 1, 1919.

Ser. No. 116,784. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAMS CHOCOLATE CO., Scranton, Pa. Filed Mar. 20, 1919. Under ten-year provision.

Sorry, What You Crying For?



Woods'

Particular description of goods.—Cough-Drops.
Claims use since Jan. 1, 1919.

[Vol. 288. No. 4.]

Ser. No. 116,787. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) WHITE AND BROWN, INCORPORATED, Philadelphia, Pa. Filed Mar. 20, 1919. Which consists of the word "Certisanta."

CERTIFICATE

Particular description of goods.—Non-Ferrous Metals.—Namely, Copper, Alloys of Copper, Alloys of Tin, Alloys of Lead, Alloys of Zinc, Alloys of Antimony, Alloys of Aluminum, Red Brass, Yellow Brass, Bronze, Dabbitt Metals, Bearing Metals, and Type-Metal—in Ingot Form.
Claims use since about Jan. 15, 1919.

Ser. No. 116,796. (CLASS 28. CLOTHING.) ROSSMAN FINE COMPANY, New York, N. Y. Filed Mar. 21, 1919.

"FREDDYMAN"

Consisting of the word "Freddyman."
Particular description of goods.—Men's Outer Suits in One and Two Piece Garments.
Claims use since spring, 1914.

Ser. No. 116,812. (CLASS 28. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BRUCE MANUFACTURING COMPANY, Inc., Binghamton, N. Y. Filed Mar. 22, 1919.



Particular description of goods.—Miller Cut-Outs.
Claims use since Dec. 29, 1918.

Ser. No. 116,817. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) MARSH TRADING CORPORATION, New York, N. Y. Filed Mar. 22, 1919.

Hitest

Particular description of goods.—Stock Feed.
Claims use since about Nov. 1, 1918.

Ser. No. 116,899. (CLASS 12. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) YARWAY COMPANY, Philadelphia, Pa. Filed Mar. 24, 1919.

YARWAY

Particular description of goods.—Blow-Off Valves, Pipe-Joint Clamps, Hydraulic Valves, Unloading-Valves for Air-Compressors, Spray-Nozzles for Cooling Water and Quenching Metals, and Boiler-Stimmers.
Claims use since about May 1, 1918.

[Vol. 288. No. 4.]

Ser. No. 116,899. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH AN JENNA, New York, N. Y. Filed Mar. 25, 1919.

ENESLOTARIA

Consisting of the word "Eneslotaria."
Particular description of goods.—A Medicinal Tonic for the Treatment of Nervous Diseases and Stomach Troubles.
Claims use since Mar. 17, 1919.

Ser. No. 116,900. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) G. A. REUTER COMPANY, Chicago, Ill. Filed Mar. 25, 1919.

O-U-NUT

No claim is made to the word "Nut" appearing in the drawing apart from the mark as shown.
Particular description of goods.—Chocolate-Coated Candies.
Claims use since 1916.

Ser. No. 116,907. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Mar. 25, 1919.



Particular description of goods.—Dry Batteries.
Claims use since Dec. 1, 1911.

Ser. No. 117,016. (CLASS 5. ADHESIVES.) ALICE MANNING, Freehold, N. J. Filed Mar. 29, 1919.

Kwikfix

Particular description of goods.—Rubber Cement.
Claims use since Jan. 22, 1919.

Ser. No. 117,025. (CLASS 15. OILS AND GREASES.) THE TEXAS COMPANY, Houston, Tex., and New York, N. Y. Filed Mar. 29, 1919.

TRACTOIL

Particular description of goods.—Petroleum Products—viz., Lubricating-Oils, and Particularly Motor and Machine Oils and Tractor-Lubricants.
Claims use since Mar. 11, 1919.

Ser. No. 117,076. (CLASS 27. PAPER AND STATIONERY.) BENJAMIN BUCHHEIMER, New York, N. Y. Filed Apr. 1, 1919.

ARTCRAFT

Particular description of goods.—Wall-Papers.
Claims use since July 1, 1918.

Ser. No. 117,088. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) OAKLEY CHEMICAL COMPANY, New York, N. Y. Filed Apr. 1, 1919.



Particular description of goods.—Granulated Chemical Cleansing Compound.
Claims use since Feb. 2, 1900.

Ser. No. 117,092. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE RIMSBY TRIMMER COMPANY, Springfield, Ohio. Filed Apr. 1, 1919.



Particular description of goods.—Decorators' and Paper-Hangers' Tools and Supplies—to wit, Straight-Edges for Tools for Trimming Wall-Paper, Combination Plumbs and Levels; Combination Plumb-Robs and Chalk-Lines, Plumb-Bobs, Scales for Wall-Paper.
Claims use since Mar. 1, 1907.

Ser. No. 117,108. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE E. W. CARPENTER MANUFACTURING CO., Bridgeport, Conn. Filed Apr. 2, 1919.

ECCO

Particular description of goods.—Safety-Rasors.
Claims use since Mar. 1, 1919.

Ser. No. 117,109. (CLASS 14. PAINTS AND PAINTING MATERIALS.) THE FARMALL CHEMICAL COMPANY, Muncie, Ind. Filed Apr. 2, 1919.

Fingeline

Particular description of goods.—A Preparation for Removing Paint and Varnish.
Claims use since Mar. 12, 1919.

Ser. No. 117,250. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) UNITED MANUFACTURING & DISTRIBUTING COMPANY, Chicago, Ill. Filed Apr. 7, 1919.

UNITED

Particular description of goods.—Spark-Plugs.
Claims use since Feb. 15, 1919.

Ser. No. 117,424. (CLASS 15. OILS AND GREASES.) WARREN OIL COMPANY OF PENNSYLVANIA, Warren, Pa. Filed Apr. 12, 1919.



Particular description of goods.—Petroleum Products—to wit, Illuminating and Lubricating Oils and Greases, Crude Petroleum, and Gasoline.
Claims use since May 1, 1918.

Ser. No. 117,704. (CLASS 16. METALS AND METAL CASTINGS AND FORGING.) BAKER AND COMPANY INCORPORATED, Newark, N. J. Filed Apr. 22, 1919.

Naiflo

Particular description of goods.—Solder for Precious Metals.
Claims use since Jan. 1, 1920.

[Vol. 292. No. 4.]

TRADE-MARK REGISTRATIONS GRANTED

MAY 27, 1919.

125,553. CANNED SALMON. ANACOSTIA FISHERIES Co., Seattle, Wash.

Filed September 2, 1918. Serial No. 112,908. PUBLISHED FEBRUARY 25, 1919.

125,554. SASH-PUTTIES. WILLIAM T. BAKER, Inc., Jersey City, N. J.

Filed November 27, 1918. Serial No. 114,900. PUBLISHED JANUARY 28, 1919.

125,555. SASH-PUTTIES. WILLIAM T. BAKER, Inc., Jersey City, N. J.

Filed November 27, 1918. Serial No. 114,901. PUBLISHED JANUARY 28, 1919.

125,556. CERTAIN NAMED CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF. A. BALDWIN & Co., Limited, New Orleans, La.

Filed June 10, 1918. Serial No. 111,452. PUBLISHED JANUARY 28, 1919.

125,557. DENTAL AND HYPODERMIC SYRINGES AND METALLIC WASHERS FOR THE SAME. ALBERT BARDMAN, New York, N. Y.

Filed August 6, 1918. Serial No. 112,580. PUBLISHED JANUARY 14, 1919.

125,558. SALVE FOR EXTERNAL APPLICATION FOR CERTAIN NAMED COMPLAINTS. THE BASCHCO Co., Brooklyn, N. Y.

Filed October 10, 1918. Serial No. 112,942. PUBLISHED FEBRUARY 18, 1919.

125,559. SALVES USED IN THE TREATMENT OF CUTS, BURNS, BRUISES, AND CHAPPED HANDS. H. R. BURTON, New York, N. Y.

Filed September 11, 1917. Serial No. 109,174. PUBLISHED FEBRUARY 18, 1919.

125,560. CERTAIN NAMED BRUSHES. THE CELLO-LLOYD COMPANY, Newark, N. J. and New York, N. Y.

Filed March 7, 1918. Serial No. 109,420. PUBLISHED FEBRUARY 18, 1919.

125,561. METALLIC FENCE-POSTS. CHICAGO STEEL POST COMPANY, Chicago, Ill.

Filed April 2, 1918. Serial No. 109,939. PUBLISHED NOVEMBER 19, 1918.

125,562. WHEAT-FLOUR. THE COMMERCIAL MILLING Co., Detroit, Mich.

Filed December 26, 1918. Serial No. 114,816. PUBLISHED FEBRUARY 25, 1919.

125,563. TOOTH-BRUSHES, NAIL-BRUSHES, HAIR-BRUSHES, HAND BRUSHES OR SCRUBS. ED- MUND DANTE CUTINO, Kansas City, Mo.

Filed November 4, 1918. Serial No. 114,022. PUBLISHED FEBRUARY 4, 1919.

125,564. CANNED SALMON. DEEP SEA SALMON COMPANY, Seattle, Wash.

Filed November 29, 1918. Serial No. 114,414. PUBLISHED FEBRUARY 18, 1919.

125,565. CANNED SALMON. DEEP SEA SALMON COMPANY, Seattle, Wash.

Filed November 29, 1918. Serial No. 114,415. PUBLISHED FEBRUARY 18, 1919.

125,566. COFFEE. DWINELL-WRIGHT COMPANY, Boston, Mass.

Filed December 2, 1918. Serial No. 114,445. PUBLISHED FEBRUARY 25, 1919.

125,567. CERTAIN NAMED FOODS. FARCO FOOD PRODUCTS Co., Fargo, N. D.

Filed August 22, 1917. Serial No. 105,797. PUBLISHED FEBRUARY 25, 1919.

125,568. DAIRY FEED. FOSTER FLOURING MILLS COMPANY, Seattle, Wash.

Filed November 19, 1918. Serial No. 114,287. PUBLISHED FEBRUARY 25, 1919.

125,569. ELECTRIC-MASSAGE VIBRATORS. THE FITZGERALD MFG. COMPANY, Torrington, Conn.

Filed June 27, 1918. Serial No. 111,848. PUBLISHED FEBRUARY 11, 1919.

125,570. EMULSION FOR ALL FORMS OF INFLUENZA, MALARIAL FEVER, AND ANEMIA. ONANTO FLORES, Dayton, Ohio.

Filed December 30, 1918. Serial No. 114,738. PUBLISHED FEBRUARY 18, 1919.

125,571. CIGARS. GENERAL CIGAR Co., Inc., New York, N. Y.

Filed December 17, 1917. Serial No. 109,010. PUBLISHED FEBRUARY 11, 1919.

125,572. WHEAT-FLOUR. GOMER FLOUR MILLS Co., Newton, Kans.

Filed August 20, 1918. Serial No. 112,700. PUBLISHED FEBRUARY 25, 1919.

125,573. CANNED VEGETABLES. LYMAN P. HAVILAND, Camden, N. Y.

Filed August 5, 1918. Serial No. 112,523. PUBLISHED FEBRUARY 18, 1919.

125,574. COCOANUT-BUTTER. KAOLA COMPANY, Portland, Oreg.

Filed March 30, 1918. Serial No. 109,887. PUBLISHED FEBRUARY 25, 1919.

125,575. CONFECTION KNOWN AS MINTRA. L. P. LARSON JR. COMPANY, Chicago, Ill.

Filed November 25, 1918. Serial No. 114,244. PUBLISHED FEBRUARY 18, 1919.

125,576. CERTAIN NAMED CANNED VEGETABLES. LANOS CANNING Co., Eau Claire, Wis.

Filed November 25, 1918. Serial No. 114,243. PUBLISHED FEBRUARY 4, 1919.

125,577. LIQUID PREPARATION FOR USE AS A BOILER-SCALE CLEANER AND SCALE-PREVENTIVE. METLAKIN Co., Inc., Rochester, N. Y.

Filed January 9, 1919. Serial No. 115,007. PUBLISHED FEBRUARY 18, 1919.

125,578. FOLDING BEDS. MOORE MANUFACTURING COMPANY, Muncie, Ind.

Filed October 14, 1918. Serial No. 113,720. PUBLISHED FEBRUARY 11, 1919.

125,579. SODIUM CYANID. NITROGEN PRODUCTS COMPANY, Providence, R. I.

Filed February 7, 1918. Serial No. 108,808. PUBLISHED FEBRUARY 25, 1919.

125,580. CIGARS. E. POTTER & Co., Inc., New York, N. Y.

Filed December 19, 1918. Serial No. 114,719. PUBLISHED FEBRUARY 11, 1919.

125,581. CERTAIN NAMED CLOTHING FOR MEN, WOMEN, AND CHILDREN. ALEXANDER PROFFER Co., Inc., New York, N. Y.

Filed November 8, 1918. Serial No. 114,106. PUBLISHED JANUARY 21, 1919.

125,582. BREAD. CHAS. R. ROBERTS, Knoxville, Tenn.

Filed December 13, 1918. Serial No. 114,620. PUBLISHED FEBRUARY 25, 1919.

125,583. CANNED PEACHES AND CANNED APRICOTS. SAN FERNANDO CANNING CO., San Fernando, Calif.

Filed November 25, 1918. Serial No. 114,354. PUBLISHED FEBRUARY 18, 1919.

125,584. CANNED APRICOTS AND CANNED PEACHES. SAN FERNANDO CANNING CO., San Fernando, Calif.

Filed November 25, 1918. Serial No. 114,360. PUBLISHED FEBRUARY 18, 1919.

125,585. FRESH ONIONS. SAWYER & DAY, INC., Boston, Mass.

Filed December 28, 1918. Serial No. 114,368. PUBLISHED FEBRUARY 18, 1919.

125,586. CABINETS FOR TALKING-MACHINE RECORDS AND CABINETS HAVING EJECTING DEVICES FOR TALKING-MACHINE RECORDS. FRANK F. SLOCOMB, Wilmington, Del.

Filed August 16, 1918. Serial No. 112,760. PUBLISHED NOVEMBER 19, 1918.

125,587. COMPOUNDED NATURAL OILS, USED IN THE MANUFACTURE OF PERFUMES AND TOILET PREPARATIONS TO IMPART ODOR. STEVENSON & HOWELL, LIMITED, London, England.

Filed January 3, 1919. Serial No. 114,960. PUBLISHED FEBRUARY 18, 1919.

125,588. FRESH CITRUS FRUITS—NAMELY, ORANGES. ALEXANDER CLEMENT TERWILLIGER, Titusville, Fla.

Filed January 13, 1919. Serial No. 115,167. PUBLISHED FEBRUARY 25, 1919.

125,589. METAL FENCE-POSTS AND FENCES. THE THIELE & BAKER MANUFACTURING COMPANY, Marion, Ohio, assignor, by mesne assignments, to Chicago Steel Post Company, Chicago, Ill., a Corporation of Illinois.

Filed April 4, 1918. Serial No. 109,993. PUBLISHED NOVEMBER 5, 1918.

125,590. FERTILIZER. WILLIAM B. TILGHMAN CO., Salisbury, Md.

Filed January 3, 1917. Serial No. 100,344. PUBLISHED FEBRUARY 18, 1919.

125,591. WOODEN TOY. THE TOY TINKERS, Evanston, Ill.

Filed July 11, 1917. Serial No. 104,994. PUBLISHED FEBRUARY 18, 1919.

125,592. CANNED PEACHES. UNITED CANNING COMPANY OF CALIFORNIA, Oakland, Calif.

Filed December 31, 1918. Serial No. 114,933. PUBLISHED FEBRUARY 18, 1919.

125,593. CANNED PEACHES. UNITED CANNING COMPANY OF CALIFORNIA, Oakland, Calif.

Filed December 31, 1918. Serial No. 114,934. PUBLISHED FEBRUARY 18, 1919.

125,594. CANNED PEACHES. UNITED CANNING COMPANY OF CALIFORNIA, Oakland, Calif.

Filed December 31, 1918. Serial No. 114,935. PUBLISHED FEBRUARY 18, 1919.

125,595. CANNED PEACHES. UNITED CANNING COMPANY OF CALIFORNIA, Oakland, Calif.

Filed December 31, 1918. Serial No. 114,936. PUBLISHED FEBRUARY 18, 1919.

125,596. INSECTICIDE. VALDESTA CHEMICAL COMPANY, Valdosta, Ga.

Filed September 26, 1918. Serial No. 113,441. PUBLISHED FEBRUARY 18, 1919.

125,597. WHEAT-FLOUR. WASHBURN CROSBY CO., Minneapolis, Minn.

Filed December 12, 1918. Serial No. 114,032. PUBLISHED FEBRUARY 25, 1919.

125,598. WHEAT-FLOUR. WASHBURN CROSBY CO., Minneapolis, Minn.

Filed December 12, 1918. Serial No. 114,033. PUBLISHED FEBRUARY 25, 1919.

125,599. WHEAT-FLOUR. WASHBURN CROSBY CO., Minneapolis, Minn.

Filed December 12, 1918. Serial No. 114,034. PUBLISHED FEBRUARY 25, 1919.

125,600. WHEAT-FLOUR. WASHBURN CROSBY CO., Minneapolis, Minn.

Filed December 12, 1918. Serial No. 114,035. PUBLISHED FEBRUARY 25, 1919.

125,601. DOLLS. MARTHA ST. CLAIR WINOCH, Los Angeles, Calif.

Filed December 20, 1918. Serial No. 114,931. PUBLISHED FEBRUARY 18, 1919.

125,602. OBSTETRICAL PACKAGES CONSISTING OF CERTAIN NAMED ARTICLES. THE WOODCOCK COMPANY, Oklahoma, Okla.

Filed November 26, 1918. Serial No. 114,967. PUBLISHED FEBRUARY 18, 1919.

125,603. OINTMENT FOR CERTAIN NAMED AILMENTS. YALOWICH BROS. DRUG CO., Rochester, N. Y.

Filed October 10, 1917. Serial No. 104,700. PUBLISHED SEPTEMBER 24, 1918.

125,604. TOILET, STAND, WALL, EXTENSION, TRIP-LICATE, HAND, RASHEL, TRENCH, MENTAL, AND BATH-ROOM MIRROR. THE ACME SPECIALTY MANUFACTURING COMPANY, Toledo, Ohio.

Filed October 17, 1918. Serial No. 113,701. PUBLISHED FEBRUARY 11, 1919.

LABELS

REGISTERED MAY 27, 1919.

21,278.—Title: "BONE DRY GEN-U-WINE (GENU-INE)." (For a Soft Drink.) SAM RUD COOK, Woodstock, Ill. Filed March 13, 1919.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

SARGENT AND KOCH v. VETTER.

Decided January 31, 1919.

1. INTERFERENCE—PRIORITY.

Evidence reviewed and held to establish that V. reduced to practice the inventions of counts 2 and 3 of the issue prior to S. and K.'s conception, and priority awarded to V. as to these counts.

2. SAME—SAME—DEFENSE.

Evidence reviewed and held that V. was the first to conceive the invention of count 1 of the issue and the first to reduce to practice and that there was no corroboration of his testimony as to what he was doing with the invention at the time S. and K. entered the field and several months thereafter, and priority awarded to S. and K. as to this count.

APPEAL FROM EXAMINERS-IN-CHIEF.

SEEKING AN INJUNCTION.

Mr. Albert G. Davis for Sargent and Koch.

Mr. Frederick W. Winter for Vetter.

WHITEHEAD, First Assistant Commissioner:

This is an appeal by Sargent and Koch from a decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority to Vetter.

The invention relates to sockets for incandescent electric lamps, in which the lamp-receiving sleeve is made freely rotatable in one direction, so that the lamp cannot ordinarily be unscrewed therefrom, and means are provided for holding the socket from rotation when desired, so that the lamp may be removed.

Vetter shows an abutment or shoulder on the side of the socket, through which a member may be passed for holding the disk from rotation, and having a threaded opening at right angles to the main opening, whereby when a threaded plug is screwed therein the main opening is closed. The plug is provided with a specially-shaped head to be rotated by a key having a similarly-shaped socket.

Sargent and Koch show a cap on the side of the shell, having a keyway therein at right angles to a keyway in the shell, so that when the key is first inserted it does not come in contact with the rotary disk, but must be rotated through a right angle and then passed through the keyhole in the shell.

Claim 1 specifies means for holding the rotatable part against rotation and a barrier arranged to prevent the holding means from engaging the ro-

[Vol. 328.

tatable part. Claims 2 and 3 do not include the barrier, but merely specify that the shell is provided with a keyway and a key, which is adapted to be inserted through the keyway to engage only the insulating-disk.

It is contended by Sargent and Koch that they should be awarded priority under the ruling in *Beckman v. Wood*, (89 O. G., 2459; 15 App. D. C., 484,) since Vetter's application was originally passed to issue with one narrow claim, was allowed to forfeit, and was renewed with broader claims after he knew of the manufacture of Sargent and Koch's device.

In the case of *McBerty v. Cook* (90 O. G., 2295; 16 App. D. C., 123) the court held that the ruling in *Beckman v. Wood* was not applicable to a case where the invention in issue was clearly shown and described in the specification of the original application.

As pointed out by the Law Examiner in his decision denying Sargent and Koch's motion to dissolve, the invention in issue was fully shown in Vetter's application as originally filed.

The lower tribunals found that Vetter had established a reduction to practice of the invention, as set out in counts 2 and 3, prior to Sargent and Koch's date of conception and that he had established a conception of the invention, as set out in count 1, prior to that date and diligence thereafter. Sargent and Koch claim to have conceived the invention in October, 1912, and to have made and tested a device embodying that invention in November or December, 1912.

The holding as to Vetter's reduction to practice is based on the testimony as to the building of a device like that which is in evidence as Exhibit B, in which the shell of the lamp is provided merely with an opening, through which a device of some sort may be passed to hold the disk from rotating. The holding as to conception of the invention of count 1 is based on the testimony as to the making of the drawing showing a device substantially like that shown in Vetter's patent involved herein.

Vetter testifies that in the summer of 1912 he had built and tested a device which was substantially the same as the device which is in evidence as Exhibit B and as shown in his Patent No. 1,078,512, which was granted on an application filed September 24, 1912, that he showed the device to

645

Clarke for the purpose of making an application for patent, and that at the same time he disclosed to him in detail the key-release attachment just as it was subsequently manufactured. According to his answer to Q. 22 by "key release attachment" he meant the construction shown in his application involved herein.

Vetter is corroborated as to the making and testing of a device like Exhibit B by Kafka. Clarke testifies that at the time Vetter consulted him he showed him such a device and also a sketch of the key-release attachment and that it was in accordance with his advice that the latter was not shown in the application filed September 24, 1912. Bradley testifies that he made the drawings for the application from a model and sketch.

It is contended on behalf of Sargent and Koch that Exhibit B does not disclose the invention of counts 2 and 3, first, because, since it merely has a hole in the outer casing, it would not be effective to prevent theft, and, secondly, because that opening is not a keyway, as this term necessarily means that the socket is provided with a specially-shaped opening.

As pointed out by the Examiners-in-Chief, it was not new to lock the rotating socket of a lamp by a key inserted through the shell, and the novelty of the invention set out in counts 2 and 3 does not depend upon the shape of the key or the keyhole, but on direct engagement of the key with the outwardly-extending periphery of the rotating insulating member. Exhibit B embodies this invention, and as the testimony establishes that a device substantially the same as this exhibit was made and tested in the summer of 1912, which is prior to any date of invention which can be accorded Sargent and Koch, priority was properly awarded Vetter as to these counts.

The invention set out in count 1, in which a barrier is provided for preventing the holding means from engaging the rotatable part, is shown to have been disclosed by Vetter to Clarke prior to Sargent and Koch's claimed date of conception; but no claim is made by Vetter to have reduced this invention to practice. His story is that he sought to sell the device to the Penn Auto Specialty Company, with which he was at that time connected and which he was struggling to keep out of bankruptcy, that the company went into bankruptcy in November, 1912, and that immediately thereafter he started out to organize a new company, which he succeeded in doing in April, 1913. He testifies that he interviewed a number of people, some of whom seemed to be favorably inclined, but finally refused to put any money in it, that he succeeded in organizing the Best Electric Company in April, 1913, and that immediately thereafter drawings were made and steps taken to manufacture the device, which was put on the market the latter part of that year.

There is no corroboration whatever of Vetter's testimony as to what he did from the latter part of 1912 until the Best Electric Company was organized in the spring of 1913. The Examiners-in-Chief

(Vol. 262,

state in support of their holding that Vetter was diligent that they fall back on their own knowledge of the fact that companies for manufacturing articles in competition with old and strongly-established concerns do not spring up spontaneously over night, but have their origin as a result of long and arduous exertions on the part of somebody.

There is, however, no testimony but Vetter's own that he was doing anything whatever with the invention when Sargent and Koch entered the field. He may have had a great deal of trouble in organizing his company; but he is not corroborated in any way that he started to organize it prior to the time that Sargent and Koch conceived the invention and disclosed it to others.

Furthermore, it has been repeatedly held (see *Seeburger v. Dodge*, 114 O. G., 2382; 24 App. D. C., 476, and *Leas & Spennberg v. Scott*, 122 O. G., 352; 26 App. D. C., 354) that an attempt to raise money to commercially manufacture a device does not excuse the failure to reduce it to practice or constitute diligence in so doing. In the present case it admittedly would have cost but a few dollars to have had a device embodying the invention made; but this was not done. It must be held, therefore, that while Vetter has established a conception of the invention of count 1 prior to Sargent and Koch's entry into the field in the latter part of 1912 he has not established that he was diligent at that time and subsequently in reducing it to practice. Priority as to this count should have been awarded to Sargent and Koch.

The decision of the Examiners-in-Chief is affirmed as to counts 2 and 3 and reversed as to count 1 and priority as to that count awarded to Sargent and Koch.

DECISIONS OF THE U. S. COURTS

Court of Appeals of the District of Columbia.

SARGENT AND KOCH v. VETTER. VETTER v. SARGENT AND KOCH.

Decided March 21, 1919.

1. INTERFERENCE—PRIORITY.

Evidence reviewed and held to establish that V. reduced to practice the invention of counts 2 and 3 of the issue prior to S. and K.'s conception, and priority held properly awarded to V.

2. SAME—SAME—DILIGENCE.

V., who was the first to conceive the invention, but the last to reduce to practice, testified that at the time he made his invention he was connected with a company which subsequently went into bankruptcy; that he then started to organize a new company, but met with difficulties in interesting persons with capital; that some months later he succeeded in forming a company and immediately thereafter began preparations for commercial manufacture and put lamps on the market embodying the invention. Held that V. was not lacking in diligence and was entitled to the award of priority.

Mr. A. G. Davis, Mr. W. W. Ammon, Mr. J. F. Bartlett, and Mr. E. O. Edwards for the appellants.

Mr. F. W. Winter for the appellees.

No. 4.)

VAN ORSBY, J.:

These appeals are from the decision of the Commissioner of Patents in an interference proceeding. Vol. 262 O. G., p. 645.

Sargent and Koch filed their application for patent on January 27, 1914. Vetter filed July 31, 1913, and renewed January 7, 1915, on which patent issued October 19, 1915.

The invention relates to sockets for incandescent electric lamps in which the metal sleeve into which the lamp is screwed may be freely rotated in the opposite direction, so that the lamp cannot be unscrewed from the receiving-socket. The object of the invention is to prevent the theft of lamps. Before the lamp can be removed, a key is inserted—through the outer shell to engage directly with the periphery of an insulating member on the rotatable socket.

The invention is defined in the following counts:

1. In an incandescent lamp socket, the combination of a shell, an insulating body whereof a part is stationary in the shell and a part rotatable with the lamp, means for holding said latter part against rotation, and a barrier arranged to prevent said holding means from engaging said rotatable part.

2. In an incandescent lamp socket, the combination of a shell provided with a keyway, of a body of insulating material in said shell and stationary therein, of an insulating disk rotatable relative to said insulating body and with the lamp and located immediately adjacent said insulating body and provided on its periphery with a key engaging part which is removed from the lamp receiving threaded metal sleeve, and a key adapted to be inserted through said keyway to engage only said insulating disk.

3. In an incandescent lamp socket, the combination of a shell provided with a keyway, of an insulating body stationary in said shell, an insulating disk located directly adjacent said insulating body and rotatable therein and with the lamp and projecting peripherally beyond the lamp receiving threaded metal sleeve and provided with a key engaging part, and a key adapted to be inserted through the keyway in the shell and engage only said insulating disk.

The Examiner of Interferences and the Board of Examiners-in-Chief awarded priority as to all the counts to Vetter. The Commissioner affirmed the Board as to counts 2 and 3, and reversed it as to count 1; hence, the cross appeals.

The earliest date claimed by Sargent and Koch is their alleged date of conception—October, 1912; while Vetter alleges reduction to practice in August of that year. We agree with the tribunals below that the evidence conclusively establishes the making of a socket by Vetter in September, 1912, which amounted to a reduction to practice of the invention described in counts 2 and 3. Counts 2 and 3 do not include the "barrier" defined in count 1, but only call for a keyway and key which may be inserted in such manner as to engage the insulating disk. That Vetter had a socket answering these conditions and drawings of a device meeting the requirements of count 1 as early as September, 1912, is settled by reliable testimony beyond reasonable controversy.

The contention of Sargent and Koch that any device, such as a toothpick, nail or wire, can be inserted through the hole of Vetter's 1912 socket and hold it from rotating, is completely answered by the tribunals below by reference to prior patents which demonstrate that it is old to lock a rotating socket with a key inserted through the shell. (Sargent Patent No. 954,823; Kempen Patent No. 1,082,862.)

262 O. G.—43

(Vol. 262,

The novelty here consists in the key engaging the periphery of the insulator, as provided in count 2; the insulator projecting peripherally beyond the lamp-receiving threaded metal sleeve, as defined in count 3.

This brings us to a more difficult question—the diligence of Vetter as to the invention defined in count 1. Unquestionably, Vetter had disclosed the invention of count 1 before Sargent and Koch entered the field, but he does not claim to have reduced it to practice. It was on the ground of lack of diligence that the Commissioner refused to award priority as to this count to Vetter.

It appears, briefly, that, during the period from September, 1912, to April, 1913, Vetter was engaged in an effort to interest parties to take up his invention in order to raise additional capital. He was connected, at this time, with the Penn Auto Specialty Company, and offered his invention to it; but it was apparently in financial straits, since it went into bankruptcy in November, 1912. Vetter then started out to organize a new company, but met with difficulty in interesting persons with capital until he finally succeeded in forming the Best Electric Company in April, 1913. Following the organization of that company, Vetter immediately began preparations for commercial manufacture, and had lamps on the market during that year. We think that, for a man in Vetter's circumstances, the time occupied in exploiting his invention was not unreasonably long. It is not a case of an inventor laying his invention aside to look after other business; for Vetter, according to the testimony, did nothing else. He devoted his whole time and energy in devising means to put his invention on the market.

The application of the rule of diligence depends, more or less, upon the circumstances in each case, and it is for the court, in each instance, to draw the inferences from the testimony upon which to base its conclusions. What would be held to constitute lack of diligence in one case, may be excused in another. Much depends upon the character of the invention, the skill of the inventor and his ability to develop and commercialize it. True, as suggested by the Commissioner—

in the present case it admittedly would have cost but a few dollars to have had a device embodying the invention made, but this was not done.

Undoubtedly, that would have been the safe course to pursue, but Vetter seems, by his conduct, to have been oblivious of any danger in delay, since he was moving forward from day to day in constant expectancy that his object would immediately be achieved. Persistent efforts of this sort are not to be discouraged by a too strict application of the rule.

The decision of the Commissioner of Patents is reversed as to count 1 and affirmed as to counts 2 and 3, and the clerk is directed to certify these proceedings as by law required.

Reversed as to count 1, and affirmed as to counts 2 and 3.

No. 4.)

U. S. Circuit Court of Appeals—First Circuit.

BALLARDVALE SPRINGS CO. v. UNITED METAL SEAL CO.

Decided September 12, 1918.

[258 Fed. Rep., 432.]

1. PATENTS—VALIDITY—CAP FOR BOTTLES.

The Recht patent, No. 790,256, for improvement in caps for bottles, held void for lack of patentable novelty in view of the prior art.

2. SAME—IMPROVEMENT PATENTS—VALIDITY.

In considering the claims of a first improver upon a specific device, when asserted against third persons, it is often useful to inquire whether his claims could have been asserted by the improver against the inventor and patentee of the specific device upon which the improvement was made.

APPEAL from the District Court of the United States for the District of Massachusetts; Frederic Dodge, Judge.

Suit in equity by the United Metal Seal Company against the Ballardvale Springs Company. Decree for complainant, and defendant appeals. Reversed.

Mr. James O. Rice (Mr. Alfred H. Hildreth on the brief) for the appellant.

Mr. Harrison F. Lyman (Messrs. Fish, Richardson & Neave on the brief) for the appellee.

Before BINGHAM and JOHNSON, Circuit Judges, and BROWN, District Judge.

BROWN, Dis. J.:

This is an appeal from a decree of the district court, holding valid and infringed claims 1 and 5 of Letters Patent to F. Recht, No. 790,256, August 1, 1905, for improvements in caps for bottles.

Claim 1 is typical:

1. The combination, with a metal cap adapted to be locked over the mouth of a bottle, of a tenacious metal disk contained within the cap, and a disk of compressible material interposed between the cap and metal disk, the whole organized to effect a sealing contact between the metal contained in the cap and the mouth of the bottle.

The "tenacious metal disk" is the element claimed to be new; the other elements being contained in prior art devices.

The manufacturer of defendant's device has taken a bottle-cap of the old type, described in the earlier patent to W. Painter, No. 408,258, February 2, 1902, consisting of a cap of hard metal with a corrugated flange and a sealing-disk of cork, a kind of bottle closure in very extensive use, and known as the "crown cork and seal," and for the purpose of preventing contamination of the contents of the bottle, and to prevent leakage through the pores or defects of the cork sealing-disk, has applied to the side of the disk which comes in contact with the contents of the bottle a disk of tin-foil or a thin sheet of tin.

(1) The defendant relies upon the patented art prior to Recht as disclosing this protective means, and as justifying its use by defendant, irrespective of the patent in suit.

The use of a "thin sheet of pure tin" for this purpose in sealing devices for bottles, jars, and other vessels, is shown in the British patents to Weissenthanner, No. 7,507 of 1898, and No. 12,352 of 1879. The use of tin-foil is described in the Laurent British patent, No. 6,920 of 1897, the

Jovignot British patent, No. 12,957 of 1902, the United States patent to Chrysler, No. 51,080 of 1895, and other patents.

The district court said:

The use of cork disks covered with a tin foil coating was old, as is not denied; such coating being intended to prevent contact between the cork and the liquid contents of the bottle—a contact found liable to injure carbonated or other waters when so contained.

The plaintiff seeks to avoid the disclosures of the prior art by contending that the Recht patent relates to the special art of "crown caps" for bottles, which began with the Painter patent, No. 408,258, and which involves the use of considerable pressure in applying the caps to the bottles.

It seems clear that Painter, the prior patentee of the crown-cap, who had invented a new form of bottle-cap, could not be deprived of the right to use in connection with that invention the familiar and well-known means of avoiding contamination, which was applicable to the general art of bottle-closure upon which he improved. In the present case it appears that the problem of preventing the contamination of the contents of a bottle by a cork, or by reason of imperfections of a sealing-disk, had been solved by interposing a sheet of tin between cork and contents.

The mere fact that, after Painter, Recht, or any one else may have been first to do this for a crown-cap, does not in the least assist in showing that invention was involved in so doing. Nor does the fact that it has proved very useful, because so many crown-caps are used, tend to show invention. It is useful with crown-caps, exactly as it was useful with caps of other kinds, and for the same reason.

The idea of using with Painter's new type of cap the same protection—tin—which was commonly used for that purpose was not an inventive idea, unless the new construction presented obstacles to its use non-existing in old forms and requiring to be overcome by a new idea of means.

The new feature introduced by Recht is said to be "a tenacious metal disk"—i. e., a disk which will not be torn when it is subjected to the considerable pressure used in attaching crown-caps to bottles. The patentee says of his protective disk:

It is of such thickness, usually three to five thousandths of an inch, and of such tenacity that when the requisite pressure is applied for fitting the cap and the metal disk is clamped between the wood disk and the mouth of the bottle the metal disk will properly fold and adjust itself to the mouth of the bottle without tearing and effect a proper sealing contact.

There is no evidence from which it can be inferred that the problem of preventing disruption of a protective disk presented any practical difficulty that required more than ordinary common sense for its solution.

Assuming that there was presented the problem of providing a lining that would withstand a pressure heavier than that applied to former bottle-caps, and that this problem was solved by thickening the material already selected by prior-art users on account of its insolubility, we are unable to regard this as involving invention.

[Vol. 258, No. 4.]

In estimating the value of the defendant's argument that the patent in suit was for an improvement in a special class of bottle-closures, we must remember that the crown-cap was an old and complete invention, which in common with other closures uses a cork which comes into contact with the liquid. The means for obviating the direct contact between cork and contents was well known. Tin or tin-foil had been selected because of the quality of insolubility, and it performed the protective function in the devices of the prior art exactly as in the crown-caps protected by the same kind of substance. The fact that there are many patents for other means of protection for corks, whether in crown-caps or in caps of other kinds, and that various experiments were made to find other means, does not detract from the fact that tin was already described in prior patents, relating to the art of sealing devices for bottles and other vessels, as suitable for this purpose.

(2) In considering the claims of a first improver upon a specific device when asserted against third persons it is often useful to inquire whether his claims could have been asserted by the improver against the inventor and patentee of the specific device upon which the improvement was made. The inventor of a specific improvement in the art of craling bottles does not by securing an improvement patent cut off himself or others from resort to the prior art upon which he improved. That he established a new art or subart by his species improvement must be shown by contrasting what he did with the devices of the prior art upon which he improved. Upon the question of the scope of his invention the prior art may be cited against him, and against all improvers upon his specific device. The crown-cap patents do not begin that branch of the art of bottle-closure which has to do with protection interposed between cork and contents. This is an old and special feature of the general art, and in order to show that what was old when applied to other structures is new when applied to a crown-cork

we must consider first whether any new function was effected. So far as appears, the function of the insoluble tin was the same as before.

We may next inquire whether there was any mechanical difficulty in applying tin to a crown-cap which did not exist in applying it to prior devices, and which had to be overcome by inventive skill. It is said that, as the crown-cap was subjected to greater pressure, it had to be made of material sufficiently tenacious to resist that pressure. The Weissenthanner patents and the Jovignot patent show the protective sheet of tin conforming to pressure and adapting its form to the compression of the cork which it covers and keeps from contact with the contents, and are a sufficient indication to a mechanic that the protective sheet must be strong enough to withstand such strains as are used to compress the cork. Aside from this we think it obvious that a protective sheet applied to cork which is to undergo pressure must be strong enough to withstand the degree of pressure to be applied, and that this would be obvious to any person of ordinary skill who was seeking to apply to crown-caps the same kind of protective covering used on caps of other descriptions.

The history of the experiments and failures of others is much relied upon to prove invention. It is true that the argument that apparent simplicity in means shows non-invention may be met by the answer that many tried and nobody thought of it; but this avails nothing against prior patents which describe the means and show that, even if there was reinvention at a later time, there was nevertheless no patentable novelty.

As we are of the opinion that the claims in suit are invalid for want of patentable novelty, it is unnecessary to consider the defenses of double patenting and laches.

The decree of the district court is reversed, and the case is remanded to that court, with instructions to dismiss the bill. The appellant recovers costs in both courts.

[Vol. 258, No. 4.]

INDEX

TO THE DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

MAY, 1919.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter A.]

TABLE OF CASES.

	Page.		Page.
* Baker Co., J. E., v. Kennedy Refrigerator Co. et al.	481	* Hushner-Toledo Breweries Co. v. Mathews Gravity Carrier Co.	313
* Ballardvale Springs Co. v. United Metal Seal Co.	648	Hurt. In re	168
* Barrett Company, The, formerly Barrett Manufacturing Company. In re	167	* Kawneer Manufacturing Company. In re	167
* Ekrood. In re	168	Sargent and Koch v. Vetter	645
* Field v. Hugh	168	* Sargent and Koch v. Vetter, etc.	646
* Fisher v. Chas. R. Long, Jr., Co.	168	* Stein. In re	168
Hillard. In re	167		

SUBJECT-MATTER INDEX.

	Page.		Page.
Adaptation of old devices to other structures equally old and well known, change in form, improvement in degree, selecting and putting together of parts of various machines making new machine, not invention, * Hushner-Toledo Breweries Co. v. Mathews Gravity Carrier Co.	313	Particular patents, Mathews and Lister, No. 800,917, and Mathews, No. 978,408, gravity-carriers, void for lack of invention and state of the art, * Hushner-Toledo Breweries Co. v. Mathews Gravity Carrier Co.	313
Appeal from Commissioner's holding, case abandoned, appeal dismissed, * In re Stein	168	Recht, No. 798,246, bottle-cap, void, lack of patentable novelty, * Ballardvale Springs Co. v. United Metal Seal Co.	648
Case before the courts twenty-three years, unanimous decisions of the Patent Office tribunals holding claims anticipated, decision of the Commissioner affirmed, * In re Hillard	167	Priority of invention, award, * Field v. Hugh	168
Devices old and well known fitted to structures equally old and well known, mechanical still not invention, * Hushner-Toledo Breweries Co. v. Mathews Gravity Carrier Co.	313	Sargent and Koch v. Vetter	645
Improvement in degree, change in form, not in means or result, not invention, * Hushner-Toledo Breweries Co. v. Mathews Gravity Carrier Co.	313	* Sargent and Koch v. Vetter, etc.	646
Infringement, issue between two products, similar functions, different characteristics, identity or difference, * J. E. Baker Co. v. Kennedy Refrigerator Co. et al.	481	Reduction to practice, first to conceive and last to reduce to practice, lack of diligence gives priority to first to reduce to practice, Sargent and Koch v. Vetter	645
Invention, commercial success and criterion only when validity of patent is in doubt, * Hushner-Toledo Breweries Co. v. Mathews Gravity Carrier Co.	313	Rejection of claims, ground of anticipation, unanimous decisions of tribunals of Patent Office, decision of Commissioner affirmed, * In re Hurt	168
"Magdelite," double-burned dolomite, with certain specified characteristics, used in metallurgical furnace, not anticipated by "lundyum," with different characteristics, though accomplishing the same results, * J. E. Baker Co. v. Kennedy Refrigerator Co. et al.	481	Uniform decisions of the tribunals of the Patent Office, decision affirmed, * In re Ekrood	168
New machine, but parts of different machines, operation and result same, not invention, * Hushner-Toledo Breweries Co. v. Mathews Gravity Carrier Co.	313	Specific device, first improvement, claims asserted against third person. Query: Could these claims be asserted against inventor and patentee of specific device. * Ballardvale Springs Co. v. United Metal Seal Co.	648
Particular patents, Baker, No. 1,608,368, material for use in metallurgical furnace, known as "magdelite," * J. E. Baker Co. v. Kennedy Refrigerator Co. et al.	481	Trade-marks, Commissioner refuses to register as trade-mark for roofing design stamped over entire surface, applicant appeals, decision of the Commissioner affirmed, * In re The Barrett Company, formerly Barrett Manufacturing Company	167
		The word "Easyset," for window-sash, because descriptive, applicant appeals, Commissioner sustained, * In re Kawneer Manufacturing Company	167
		Opposition proceedings, "Stalbrits," for varnish and paint preserver, goods of same descriptive properties, Commissioner sustained, * Fisher v. Chas. R. Long, Jr., Co.	168

INDEX

DECISIONS OF THE COMMISSIONER OF PATENTS
AND OF THE UNITED STATES COURTS

DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

MAY, 1919.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter c.]

CHANGE IN DEGREE.

See Invention, 1.

COMBINATION OF OLD ELEMENTS.

See Invention, 2.

COMMERCIAL SUCCESS.

INVENTION—VALENTY.

Commercial success is never a sole criterion of invention, except in cases of doubtful validity of the patent.
[* *Mathews-Telede Breweries Co. v. Mathews Gravity Carrier Co.*, 212.]

CONCEPTION OF INVENTION.

See Priority of Invention.

DILIGENCE.

See Priority of Invention, 2, 4.

EVIDENCE.

See Priority of Invention, 1, 2, 1.

IDENTITY OF INVENTION.

See Infringement.

IMPROVEMENT PATENTS.

GRADING DEVICE—VALENTY.

In considering the claims of a first inventor upon a specific device, when claimed against third parties, it is often useful to inquire whether his claims could have been anticipated by the inventor against the inventor and patentee of the specific device upon which the improvement was made.
[* *Ballardvale Springs Co. v. United Metal Seal Co.*, 602.]

INFRINGEMENT.

See Improvement Patents; Particular Patents, 2.

PRODUCT PATENT—ROBERTS.

Where the issue of infringement arises on a product patent, the processes are immaterial, except as they show characteristics of the two products that are either identical or different.
[* *J. E. Baker Co. v. Kennedy Refractories Co. et al.*, 601.]

INVENTION.

See Commercial Success; Improvement Patents; Particular Patents, 1, 2, 4.

1. PATENTS—ARRANGEMENT OF OLD DEVICES.

To adapt an old and familiar device to another structure equally old and familiar is not to exercise the inventive faculty, but to merely adapt the old device.
[* *Mathews-Telede Breweries Co. v. Mathews Gravity Carrier Co.*, 212.]

2. SAME—IMPROVED RESULT.

A mere carrying forward of the original idea, a change in form, an improvement in degree, without substantial change in other means or result, is not invention.
[* *Id.*]

3. SAME—COMBINATION OF OLD ELEMENTS.

The selection and putting together of the most desirable parts of different machines in the same or kindred arts, making a new machine, but in which each part operates in the same way as it operated before and effects the same result, cannot be invention.
[* *Id.*]

MECHANICAL SKILL.

See Invention, 1.

OLD DEVICES.

See Invention, 1, 2.

OLD METHODS.

See Particular Patents, 1.

PARTICULAR PATENTS.

1. BAKER—No. 1,422,122—MATERIAL FOR USE IN METALLURGICAL FURNACES—INVENTION.

The Baker patent, No. 1,422,122, for a material for use in making up, repairing, and replacing linings, etc., of metallurgical furnaces, known as "magnesite," which consisted of a product having new characteristics produced by successive burnings of dolomite by two old methods, *held valid*, showing invention.
[* *J. E. Baker Co. v. Kennedy Refractories Co. et al.*, 601.]

2. SAME—SAME—IMPROVEMENT—PRODUCTS SAME FUNCTION, DIFFERENT CHARACTERISTICS.

The Baker patent, No. 1,422,122, for a material for use in making up, repairing, and replacing linings, etc., of metallurgical furnaces, which consisted in a double-burned dolomite known as "magnesite," having certain specified characteristics, *held not infringed* by a product known as "magnesite," which had different characteristics, although it accomplished substantially the same results.
[* *Id.*]

3. MAUREWS AND LEWIS—No. 829,917—MATHESON—No. 978,400—GRAVITY-CARRIER—VALENTY.

The Mathews and Lewis patent, No. 829,917, and the Mathews patent, No. 978,400, each for improvements in gravity-carriers, are both void for lack of invention in view of the prior art.
[* *Mathews-Telede Breweries Co. v. Mathews Gravity Carrier Co.*, 212.]

4. ROBERTS—No. 704,222—CASE FOR BOTTLES—VALENTY.

The Robert patent, No. 704,222, for improvement in caps for bottles, *held void* for lack of patentable novelty in view of the prior art.
[* *Ballardvale Springs Co. v. United Metal Seal Co.*, 646.]

PATENTABILITY.

See Invention; Particular Patents, 4.

PRIORITY OF INVENTION.

1. CONCEPTION—REDUCTION TO PRACTICE.

Evidence reviewed and *held* to establish that V. reduced to practice the invention of counts 2 and 3 of the issue prior to B. and K.'s conception, and priority awarded to V. as to these counts.
[* *Jurgent and Koch v. Vetter*, 645.]

2. SAME—SAME—DILIGENCE.

Evidence reviewed and *Held* that V. was the first to conceive the invention of count 1 of the issue and the last to reduce to practice and that there was no corroboration of his testimony as to what he was doing with the invention at the time S. and K. entered the field and several months thereafter, and priority awarded to S. and K. as to this count. *Id.*

3. SAME—SAME.

Evidence reviewed and *Held* to establish that V. reduced to practice the invention of counts 2 and 3 of the issue prior to S. and K.'s conception, and priority *Held* properly awarded to V. *P. Sargent and Koch v. Veiter, etc., 648.*

4. SAME—SAME—DILIGENCE.

V., who was the first to conceive the invention, but the last to reduce to practice, testified that at the time he made his invention he was connected with a company which subsequently went into bankruptcy; that he then started to organize a new company, but met with difficulties in interesting persons with capital; that some months later he succeeded in forming a company and immediately thereafter began preparations for commercial manufacture and put lamps on the market embodying the invention. *Held* that V. was not lacking in diligence and was entitled to the award of priority. *P. 14.*

PRODUCT.

See Infringement; Particular Patents, 1, 2.

REDUCTION TO PRACTICE.

See Priority of Invention.

RESULT.

See Invention, 2, 3; Particular Patents, 2.

SPECIFIC DEVICES.

See Improvement Patents.

STATE OF THE ART.

See Particular Patents, 3, 4.

TESTIMONY.

See Priority of Invention, 2, 4.

VALID PATENTS.

See Particular Patents, 1.

VALIDITY OF PATENTS.

See Commercial Success; Improvement Patents.

VOID PATENTS.

See Particular Patents, 3, 4.

ALPHABETICAL LIST OF PATENTEEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF MAY, 1919.

- A. Mecky Company. (See Ledig and Gerson, assignors.)
 A. Schrader's Son. (See Hammond, William P., assignor.)
 A. C. Gilbert Company, The. (See Gilbert, Alfred C., assignor.)
 A-C Manufacturing Company. (See Sebastian and Capes, assignors.)
 A. E. Peck Manufacturing Co. (See Peck, Arthur B., assignor.)
 Aalborg, Christian. (See Conrad and Aalborg.)
 Abbott, Osborne H., London, England. Drying-chamber. No. 1,302,400; May 6; v. 262; p. 2.
 Abel, John H., Monaca, Pa. Bag-remover. No. 1,302,228; May 13; v. 262; p. 171.
 Abernethy, Charles F., West Amherst, N. C. Surgical appliances. No. 1,302,151; May 6; v. 262; p. 51.
 Abraham, Winfield J., Baltimore, Md. Railway-splines. No. 1,302,002; May 6; v. 262; p. 100.
 Abramovitch, Hyman L. (See Gemenow and Abramovitch.)
 Achtmeyer, William, assignor to The Russell Manufacturing Co., Middletown, Conn. Covering. No. 1,302,224; May 13; v. 262; p. 171.
 Acme Car Seal Co., The. (See Petry, William, assignor.)
 Acme Harvesting Machine Co. (See Werchle, Frank W., assignor.)
 Adams-Barnall Electric Co., The. (See Horton, William M., assignor.)
 Adams, Harry W., Minneapolis, Minn. Cooling system for gas-tractors. No. 1,302,808; May 6; v. 262; p. 100.
 Adams, Orlando F., New Orleans, La. Valve. No. 1,302,782; May 6; v. 262; p. 51.
 Adair Machine Company, The. (See Kacstater, Henry, assignor.)
 Adair Machine Company, The. (See Pestrucot, Arthur, assignor.)
 Adellian Company, The. (See Bryce, James W., assignor.)
 Adellian Company, The. (See White, Harold B., assignor.)
 Arneson, Gordon H. (See Fox and Arneson.)
 Ahlman, Charles C., Chester, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del. Producing anilin hydrochlorid. No. 1,302,804; May 13; v. 262; p. 242.
 Aktiebolaget Fucus. (See Bredenberg and Cron, assignors.)
 Aktiebolaget Svenska Kullagerfabriken. (See Hultgren and Rydbeck, assignors.)
 Aktiebolaget Zeon. (See Westman, Carl J., assignor.)
 Ahrens, Henry, Portland, Ore. Bearing-machine. No. 1,302,143; May 6; v. 262; p. 127.
 Ahlg, William O., Adrian, Mich. Combined blacking container and dauber. No. 1,302,881; May 13; v. 262; p. 228.
 Albino, José A., Saladillo, Argentina. Air-motor. No. 1,302,880; May 6; v. 262; p. 78.
 Aldin, Arthur J., assignor to C. A. Parsons, Wallasey, England. Turbine-blade attachment. No. 1,302,004; May 6; v. 262; p. 100.
 Allen, Joseph, Perth Amboy, N. J. Wheelbarrow toy. No. 1,304,141; May 20; v. 262; p. 574.
 Alexanderson, Ernst F. W., Schenectady, N. Y., assignor to General Electric Company. Electrical system of power transmission. No. 1,304,230; May 20; v. 262; p. 393.
 Alexanderson, Ernst F. W., Schenectady, N. Y., assignor to General Electric Company. Electrical system of ship propulsion. No. 1,304,240; May 20; v. 262; p. 393.
 Allandri, Albert G., assignor to C. Kenyon Company, Kings county, N. Y. Life-saving suit. No. 1,302,144; May 6; v. 262; p. 127.
 Allen, Arthur H., East Orange, N. J., assignor to Automatic Sprinkler Company of America, New York, N. Y. Fire-alarm apparatus. No. 1,302,805; May 6; v. 262; p. 100.
 Allen, Edward F. (See Naugler, Walter E., assignor.)
 Allen, Herbert L., assignor to Electron Chemical Company, Portland, Me. Electrolysis. No. 1,302,236; May 13; v. 262; p. 171.
 Allen, Samuel L., Moorestown, N. J., assignor to S. L. Allen & Co., Cultivator. No. 1,304,226; May 27; v. 262; p. 622.
 Allen, Sherman T., Los Angeles, Calif. Auto-top. No. 1,304,108; May 27; v. 262; p. 611.
 Alliance Co. (See Hagill, Ashton C., assignor.)
 Alliphan, Willard J., Portland, Ore. Electrical fixture. No. 1,302,000; May 6; v. 262; p. 101.
 Allport, Thomas, and W. W. Shoen, assignors to The Philadelphia Drying Machinery Company, Germantown, Philadelphia, Pa. Drying and conditioning machine. No. 1,304,648; May 27; v. 262; p. 810.
 Alquist, Karl, Schenectady, N. Y. Gearing. No. 1,304,241; May 20; v. 262; p. 393.
 Alquist, Karl, Schenectady, N. Y. Assembling gearing. No. 1,304,242; May 20; v. 262; p. 393.
 Alton, James B. (See Stanfield, Jasper H., assignor.)
 Altpeter, Walter, assignor of one-third to E. Smet, Chicago, and one-third to F. H. Edwards, Crystal Lake, Ill. Curtain-fastener. No. 1,304,557; May 27; v. 262; p. 459.
 Alwood, James O., Richmond, Va. Hydrocarbon-burner. No. 1,304,277; May 27; v. 262; p. 542.
 Altmann, Peter F., Brooklyn, N. Y. Electric braising-switch. No. 1,304,007; May 6; v. 262; p. 101.
 American Can Company. (See Motherall, John M., assignor.)
 American Can Company. (See Nowack, Charles H., assignor.)
 American Can Company. (See Stollberg, Charles, assignor.)
 American Dan Stopper Company. (See Nordstrom, Elod, assignor.)
 American Encaustic Tiling Co. (See Lillbridge, Harry D., assignor.)
 American Fork & Hoe Company, The. (See Withington, Winthrop, assignor.)
 American Gasaccumulator Company. (See Daldie, Gustaf, assignor.)
 American Hat Mfg. Co., The. (See Davis, David L., assignor.)
 American Hoist & Derrick Co. (See Strom, Gustaf E., assignor.)
 American Hotel Register Co. (See Hall, William H., assignor.)
 American Incandescent Heat Company. (See Brooker, Harry O., assignor.)
 American Laundry Machinery Company, The. (See Brakley, Charles L., assignor.)
 American Laundry Machinery Company, The. (See Couch and Weber, assignors.)
 American Marine Equipment Corporation. (See Row and Davis, assignors.)
 American Mechanical Improvement Company. (See Slate, Thomas B., assignor.)
 American Mine Door Company, The. (See Bowman, Newton K., assignor.)
 American Morgan Company. (See Morgan, Edmund C., assignor.)
 American Optical Company. (See Arnold, Arthur A., assignor.)
 American Optical Company. (See Baker and Parsons, assignors.)
 American Optical Company. (See Herbert, Pitt H., assignor.)
 American Optical Company. (See Reeve, Howard T., assignor.)
 American Paper Goods Company, The. (See Cooley, Henry B., assignor.) (Reissue.)
 American Safety Razor Company. (See Fuller, Franz A., assignor.)
 American Sales Book Company. (See Bottle, Edward K., assignor.)
 American Sleeve-Valve Motor Company. (See Williams, Martin L., assignor.)
 American Steam Roller Cleaner Co. (See Schreiber, Norbert, assignor.)
 American Steam Conveyor Corporation. (See Griffin, Lorne A., assignor.)
 American Steel and Wire Company of New Jersey, The. (See Markt, Gustav A., assignor.) (Reissue.)
 American Steel Foundries. (See Whitney, Loren L., assignor.)
 American Steel Foundries, The. (See Mitchell, Ormah R., assignor.)
 American Steel Foundries, The. (See Psyche, Ormand H., assignor.)
 American Warp Drawing Machine Company. (See Blair, Charles E., assignor.)
 American Warp Drawing Machine Company. (See Hathaway and Lee, assignors.)
 Amer-Bonnet Company, The. (See Jqbst, Conrad, assignor.)
 Ammann, Henry A., assignor to Diamond Individual Towel System Co., Spokane, Wash. Individual-towel cabinet. No. 1,302,753; May 6; v. 262; p. 51.
 Amund, George A., Littleton, assignor to The Lamon Company, Boston, Mass. Can-carrier. No. 1,302,611; May 13; v. 262; p. 377.
 Amstalden, William L., Coloma, Calif. Adjustable window-shade. No. 1,302,491; May 6; v. 262; p. 2.

Anchor Company. (See Bowman, Thomas B., assigner.)
 Anderson, Alfred. (See Ross and Anderson.)
 Anderson, Alfred, Quincy, Ill. Dust-remover and the like. No. 1,303,000; May 6; v. 202; p. 101.
 Anderson, Emil, Yonkers, N. Y. Exhaust-gas turbine and silencer. No. 1,304,920; May 27; v. 202; p. 602.
 Anderson, George, Weymouth, Wis. Curtain-rod and shade-roller hanger. No. 1,303,313; May 13; v. 202; p. 377.
 Anderson, George G. (See Kohn and Anderson.)
 Anderson, Henry R. W., et al., executors. (See Thomas and Davies.)
 Anderson, Herman C. (See Verner, James F., assigner.)
 Anderson, James E., Leavenworth, Mo. Automatic door-alarm. No. 1,304,243; May 20; v. 202; p. 304.
 Anderson, Joseph H., Concord, Conn. Train-control system. No. 1,303,227; May 13; v. 202; p. 171.
 Anderson, Lewis, assigner of one-half to L. Tittle, Hamlock, Oreg. Log-splitting machine. No. 1,304,536; May 27; v. 202; p. 300.
 Andrew, Tom, Manchester, England. Conditioning and drying machine. No. 1,303,000; May 6; v. 202; p. 101.
 Andrews, Charles B., assigner to Taylor Wharton Iron and Steel Company, High Bridge, N. J. Gyratory crusher-head. No. 1,303,447; May 13; v. 202; p. 310.
 Angier, Edward H. (See Whelidon, William H., assigner.)
 Anglin, Steve J., et al. (See Arch, Charles J., assigner.)
 Anglo, Lloyd A. and J. P. Sager, assigners to Art in Buttons Incorporated, Rochester, N. Y. Button. No. 1,303,230; May 13; v. 202; p. 171.
 Angus, Charles H., West Haven, Conn. Adjustable roll-curtain fixture. No. 1,303,010; May 6; v. 202; p. 102.
 Angus, Donald J., assigner to Esterline & Angus, Indianapolis, Ind. Carburizer. No. 1,303,220; May 13; v. 202; p. 172.
 Anson, Edward C. and H. B. Klein, Glenwood, Pa. Automobile-signal. No. 1,303,764; May 13; v. 202; p. 304.
 Anthony, David W., Minneapolis, Minn. Oil-dispensing machine. No. 1,303,145; May 6; v. 202; p. 157.
 Anthony, David W., Worthington, Minn. Oil-dispensing machine. No. 1,303,215; May 6; v. 202; p. 160.
 Anthony Liquid Vending Machine Company. (See Brown, George A., assigner.)
 Anthony, Thomas P., Edgewater Park, assigner to United States Cast Iron Pipe and Foundry Company, Burlington, N. J. Core-bar puller. No. 1,304,143; May 20; v. 202; p. 374.
 Antonietti, Ferdinando, San Francisco, Calif. Coupling. No. 1,303,448; May 13; v. 202; p. 310.
 Antonietti, Ferdinando, San Francisco, Calif. Fire-hydrant and coupling therefor. No. 1,303,449; May 13; v. 202; p. 310.
 Antonoff, George M., London, England. Electric battery. No. 1,303,843; May 20; v. 202; p. 321.
 Antonoff, George M., London, England. Electric battery. No. 1,303,844; May 20; v. 202; p. 321.
 Apollo Magneto Company. (See Schmid and Fuesel, assigners.)
 Appel, Alfred. (See La Marche and Appel.)
 Apple, Vincent G., and J. G. King, Dayton, Ohio; said King assigner to said Apple. Contact member for vibrating current-controlling regulators. No. 1,303,632; May 6; v. 202; p. 27.
 Appleby, William H., Chicago, Ill. Latch. No. 1,304,244; May 20; v. 202; p. 304.
 Appleby, William H., Chicago, Ill. Lock-fitting. No. 1,304,245; May 20; v. 202; p. 304.
 Applegate, Harold G., and H. H. Taylor, Williamsburg, Pa., assigners to Westinghouse Electric and Manufacturing Company. Electrical measuring instrument. No. 1,303,140; May 6; v. 202; p. 128.
 Arcade Manufacturing Company. (See Tscherning, Henry, assigner.)
 Arch, Charles J., assigner of one-fifth to V. B. Mimica, one-fifth to S. J. Angus, one-fifth to J. N. Marovich, and one-fifth to B. M. Farnich, Douglas, Ariz. Automatic troyer-cleaner for metallurgical converters. No. 1,303,755; May 13; v. 202; p. 294.
 Archibald, James F. J., New York, N. Y., and G. A. Woodman, Chicago, Ill. Automobile-signal. No. 1,303,147; May 6; v. 202; p. 128.
 Arenberg, Albert L., Chicago, Ill. Lighting unit. No. 1,302,402; May 6; v. 202; p. 3.
 Arenberg, Albert L., Chicago, Ill. Shade-holder. No. 1,302,403; May 6; v. 202; p. 3.
 Areon, Neil, Portland, Oreg. Scaffolding-bracket for wooden ship building. No. 1,303,148; May 6; v. 202; p. 128.
 Armbrust, Ellwood, Gillespie Depot, Ontario, Canada. Automatic magazine-phonograph. No. 1,304,246; May 20; v. 202; p. 304.
 Armstrong, John J. (See Booth, Robert B., assigner.)
 Armstrong, Marie H., Spokane, Wash. Christmas-tree decoration. No. 1,302,754; May 6; v. 202; p. 51.
 Arnold, Arthur A., assigner to American Optical Company, Southbridge, Mass. Edging-machine. No. 1,302,404; May 6; v. 202; p. 3.
 Arnold, Stanley B., Chicago, Ill. Valve. No. 1,304,920; May 27; v. 202; p. 603.
 Arnold, Thomas R., Langdon, N. D. Water-supply system. No. 1,304,920; May 27; v. 202; p. 600.
 Art in Buttons, Inc. (See Anglo and Sager, assigners.)

Art in Buttons Incorporated. (See Hastings, Herbert, assigner.)
 Art Metal Construction Co., The. (See Bullock and Leve, assigners.)
 Arton, Alessandro, Turin, Italy. Receiving instrument for wireless signaling. No. 1,303,000; May 13; v. 202; p. 300.
 Arundel, Hubert. (See Hargrave and Arundel.)
 Aschmole, Friedrich, Perth Amboy, N. J. Street-car indicator. No. 1,302,400; May 6; v. 202; p. 3.
 Asher, William J., Newark, N. J. Non-child chain. No. 1,302,400; May 6; v. 202; p. 4.
 Associated Manufacturers Company. (See Meager, Theodore C., assigner.)
 Astrum Company, The. (See Wood, William H., assigner.)
 Atlantic Reeling Company, The. (See Burger, Charles B., assigner.)
 Atlantic Reeling Company, The. (See Nichols, Howard M., assigner.)
 Aubert, Albert M., Billancourt, France. Regenerative tipping furnace. No. 1,304,735; May 27; v. 202; p. 308.
 August, Johannes R. C., Halifax, England. Treatment of soil. No. 1,303,140; May 6; v. 202; p. 128.
 August, Johannes R. C., Halifax, England. Apparatus for the treatment of soil. No. 1,303,140; May 6; v. 202; p. 128.
 Aurand, Frank E., Oak Park, assigner of one-half to G. W. Liden, Riverside, Ill. Commutator-clotting machine. No. 1,303,011; May 6; v. 202; p. 102.
 Ausbrooks, James A. (See Taylor, Ewing H., assigner.)
 Austin, Basil G. (See Austin, John T. and B. G., assigners.)
 Austin, Frederick C. (See Seiden, Alexander L., assigner.)
 Austin, Henry R., Reading, Mass. Tire-indicating pump. No. 1,304,920; May 27; v. 202; p. 603.
 Austin, John T. and B. G., assigners to Austin Organ Company, Hartford, Conn. Electrically-governed re-operated mechanism. No. 1,303,000; May 13; v. 202; p. 300.
 Austin Manufacturing Co. (See Laddell, Moses V., assigner.)
 Austin Organ Company. (See Austin, John T. and B. G., assigners.)
 Automatic Electric Company. (See Keith, Alexander H., assigner.)
 Automatic Electric Company. (See Lushberger, Fritz, assigner.)
 Automatic Electric Company. (See Martin, Talbot G., assigner.)
 Automatic Electric Company. (See Powell, Winfred T., assigner.)
 Automatic Electric Company. (See Ray, Arthur J., assigner.)
 Automatic Railway Control Company. (See Well, Maximilian, assigner.)
 Automatic Reclining Circuit Breaker Company, The. (See Haney, Estelle C., assigner.)
 Automatic Sprinkler Company of America. (See Allen, Arthur B., assigner.)
 Automatic Sprinkler Company of America. (See Lowe, Ernest A., assigner.)
 Automatic Ticket Selling and Cash Register Company, The. (See Heisel, Reuben H., assigner.)
 Automotive Manufacturing Company. (See York, Lorne M., assigner.)
 Avery Company. (See Bartholomew, John B., assigner.)
 Avery Company. (See Strite, George T., assigner.)
 Avery, Henry W., Cleveland, Ohio. Mottile barrel. No. 1,303,853; May 13; v. 202; p. 320.
 Ayer, Gilman T., Dade City, Fla. Currycomb. No. 1,302,755; May 6; v. 202; p. 52.
 B. F. Avery & Sons. (See Ray, Charles T., assigner.)
 B. F. Sturtevant Company. (See Bentley, Oliver D. H., assigner.)
 B. J. and R. Chas. (See McCall, Sel W., assigner.)
 Bach, Leopold, and R. Kibler, New York, N. Y. Vest-pocket lock. No. 1,302,800; May 6; v. 202; p. 70.
 Bacon, Nathaniel T., Peace Dale, R. I., assigner to The Solvay Process Company, Solvay, N. Y. Recovering salts of potassium from solutions thereof. No. 1,304,921; May 27; v. 202; p. 603.
 Bacon, Nathaniel T., Peace Dale, R. I., assigner to The Solvay Process Company, Solvay, N. Y. Purifying nitrogen. No. 1,304,922; May 27; v. 202; p. 603.
 Badger Packard Machinery Co. (See Hammann, John P., assigner.)
 Bagby, Arthur P., and J. B. Thompson, Birmingham, Ala. Safety elevator appliance. No. 1,302,623; May 6; v. 202; p. 27.
 Bagby, William W., New York, N. Y. Towel-cabinet. No. 1,303,040; May 27; v. 202; p. 300.
 Bailey, Henry J., et al. (See Bauer, Otto V., assigner.)
 Bailey, Homer A., Elberta, Mich. Stovepipe holder and brace. No. 1,304,120; May 27; v. 202; p. 300.
 Bailey, Arthur P., Trenton, N. J. Folding swing-chair. No. 1,303,012; May 6; v. 202; p. 102.
 Bainbridge, George K., Elgin, Calif. Rolling-machine for plastic materials. No. 1,303,013; May 6; v. 202; p. 102.
 Bainbridge, George K., Elgin, Calif. Candy-cutting machine. No. 1,303,151; May 6; v. 202; p. 129.
 Balman, Henry C., Rockford, Mass. Apparatus, by name assignment, to The Cleveland Metal Products Company, Cleveland, Ohio. Treatment of iron or steel or other articles. No. 1,303,027; May 13; v. 202; p. 302.

Baird Machine Company, The. (See Lewis, Arthur J., assigner.)
 Baker, Frank, Barberton, Ohio. Vehicle-signal. No. 1,302,756; May 6; v. 202; p. 52.
 Baker, Howard H., Ash, Oreg. Silo. No. 1,304,921; May 27; v. 202; p. 603.
 Baker, Nelson E., and H. K. Parsons, assigners to American Optical Company, Southbridge, Mass. Ophthalmic measuring. No. 1,303,000; May 13; v. 202; p. 300.
 Baker, Ralph, Wilkes-Barre, Pa., assigner to Westinghouse Electric & Manufacturing Company, Westinghouse, Pa. Welding-tool. No. 1,304,230; May 13; v. 202; p. 172.
 Baker-Victor Company. (See Kuel, Ludwig T., assigner.)
 Baldwin, Robert H., Richmond, Va. Road-crossing recorder. No. 1,304,127; May 27; v. 202; p. 300.
 Baldwin, W. M., administrator. (See Korman, James L., assigner.)
 Ball, Albert, and T. O'Leary, assigners to Sullivan Machinery Company, Claremont, N. H. Rock-drill. No. 1,304,922; May 27; v. 202; p. 603.
 Ball, Earl, Halesburg, Oreg. Railway signaling system. No. 1,303,000; May 13; v. 202; p. 300.
 Ballou, Holden P., New York, N. Y., assigner to C. A. Doh, Flatbush, N. Y. Piano-action. No. 1,303,451; May 13; v. 202; p. 210.
 Ballou, Marcus H., Pittsburgh, Pa. Tape attachment. No. 1,303,750; May 13; v. 202; p. 300.
 Balmain, Harry G., assigner to Combination Auto Lock Company, St. Louis, Mo. Valve. No. 1,302,901; May 6; v. 202; p. 70.
 Bamberg, Henry, assigner to R. E. Oliver, Newark, N. J. Sewing-machine attachment. No. 1,303,153; May 6; v. 202; p. 129.
 Bannock Service Corporation. (See Nibbet, Robert B., Jr., assigner.)
 Baran, Andrew, Fabry, Conn. Hoof-plate. No. 1,304,920; May 27; v. 202; p. 603.
 Barber, Andrew, Detroit, Mich. Pump-and bearing. No. 1,304,757; May 6; v. 202; p. 52.
 Barber-Colman Company. (See Colman, Howard D., assigner.)
 Barber-Colman Company. (See Greenwood, Fred H., assigner.)
 Barber, Salvatore, Long Island City, N. Y. Shoe. No. 1,304,040; May 27; v. 202; p. 310.
 Barber, George H., Pittsburgh, Pa. Rolling flanged sections. No. 1,302,907; May 6; v. 202; p. 70.
 Barco, George N., Wabash, Ind. Detachable spring-hinge. No. 1,304,000; May 20; v. 202; p. 301.
 Barco, George N., Indianapolis, Ind. Insulator. No. 1,304,947; May 20; v. 202; p. 300.
 Barnaby, Charles W., New York, N. Y. Type-writer. No. 1,302,902; May 6; v. 202; p. 70.
 Barnes, Albert M., Brighton, England. Search-light and other mirror. No. 1,304,944; May 27; v. 202; p. 603.
 Barnes, Frank D., Cummings, Calif. Trap-meat. No. 1,304,945; May 27; v. 202; p. 603.
 Barnett, George M. (See Judy, Andrew W., assigner.)
 Barnes, Jacob L., St. Clair, Mo. Clothes-basket. No. 1,303,231; May 13; v. 202; p. 172.
 Barum, Leslie P., Detroit, Mich. Making paper reed. No. 1,304,143; May 20; v. 202; p. 302.
 Baron, Joseph, New York, N. Y. Heat-distributor. No. 1,304,728; May 27; v. 202; p. 603.
 Barrett Company, The. (See Devina, Charles R., assigner.)
 Barron, Ora M., Scottsbluff, Nebr. Self-oiling lamp. No. 1,302,406; May 6; v. 202; p. 4.
 Barrows, John E., Westcliffe, Wash. Transmission-chain. No. 1,304,943; May 27; v. 202; p. 603.
 Barrow, Charles R., Albany, Ala. Porting-machine. No. 1,304,441; May 20; v. 202; p. 433.
 Bartholomew, John B., assigner to Avery Company, Peoria, Ill. Gang-plate. No. 1,303,232; May 13; v. 202; p. 172.
 Barton, Charles N., Indianapolis, Ind. Ticket-holder. No. 1,302,624; May 6; v. 202; p. 27.
 Basick Co., The. (See Diaz, Albert B., assigner.)
 Bata, Milo, Gary, Ind. Hammer. No. 1,304,647; May 27; v. 202; p. 611.
 Bathurst, Charles, et al., executors. (See Thomas and Davies.)
 Bauer, Otto V., assigner of one-ninth to H. J. Bailey, one-ninth to G. L. Bigelow, one-ninth to W. E. Campbell, one-ninth to C. A. Smith, one-ninth to J. G. Orville, one-ninth to A. B. Greiner, one-ninth to P. F. Volz, and one-ninth to H. C. Stevens, Alameda, Colo. Rotary placer-gold separator. No. 1,303,233; May 13; v. 202; p. 172.
 Bauer, William J., New York, N. Y. Foot-pump. No. 1,303,040; May 27; v. 202; p. 300.
 Baumann, Karl, Urmsen, England, assigner to The British Westinghouse Electric and Manufacturing Company Limited. Condensing steam-turbine plant. No. 1,304,144; May 20; v. 202; p. 378.
 Baxter, William M., Chicago, Ill., assigner to W. H. Kauer, Dubuque, Iowa. Charcoal-burner. (Balance.) No. 14,045; May 20; v. 202; p. 450.
 Bayles, Lewis C., and P. M. Slater, Hoston, Pa., assigners to Ingersoll-Rand Company, Jersey City, N. J. Cylinder and crank construction for hammer-drills. No. 1,304,442; May 20; v. 202; p. 403.
 Beard Chain Manufacturing Company, The. (See Gagne, William J., assigner.)

Beall, Frank F., assigner to Packard Motor Car Company, Detroit, Mich. Gear manufacture. No. 1,303,000; May 27; v. 202; p. 600.
 Beall, Frank W., New York, N. Y. Smoking-pipe. No. 1,304,420; May 13; v. 202; p. 241.
 Beaton, Malcolm S., Joppatown, and S. Youngson, City Deen, Transvaal, South Africa. Rock-drill-base connection. No. 1,304,248; May 20; v. 202; p. 305.
 Beatty, William G., Ferris, Ontario, Canada. Transmission-gear. No. 1,304,445; May 27; v. 202; p. 611.
 Bechtel, Virgil L., Evanston, Ill. Powder-box. No. 1,303,000; May 13; v. 202; p. 300.
 Bechtel, Milton W., assigner to The Borden Company, Warren, Ohio. Dis-stock. No. 1,304,249; May 20; v. 202; p. 305.
 Bechtold, Lemuel J., Denver, Colo. Moving-picture indicator. No. 1,304,010; May 20; v. 202; p. 351.
 Beers, Herbert P., Chicago, Ill. Collapsible bag or sack. No. 1,303,757; May 13; v. 202; p. 307.
 Belawinger, William C. (See Nicholson and Belawinger.)
 Belcher, Rudolph, Chicago, Ill. Adjustable gasket for envelope. No. 1,304,148; May 20; v. 202; p. 378.
 Beliding, Harry, Los Angeles, Calif. Expansion-bushing. No. 1,304,230; May 20; v. 202; p. 304.
 Bell, John R., Brooklyn, N. Y. Marine boiler. No. 1,304,758; May 13; v. 202; p. 307.
 Bell-Kandha, Julia, New York, N. Y. Stage-scenery. No. 1,304,040; May 27; v. 202; p. 311.
 Bellamy, Harry C., Oak Park, Ill., and J. C. Smith, assigners to Western Electric Company, Incorporated, New York, N. Y. Process of and apparatus for drawing glass. No. 1,303,452; May 13; v. 202; p. 210.
 Belyavin, Paul, Petrograd, Russia, and C. G. Robertson, Harrow-in-Purman, England. Scavenging of internal-combustion engine. No. 1,304,443; May 20; v. 202; p. 433.
 Benard Barber & Tarenne. (See Granat, Elie, assigner.)
 Benoit, Louis, Chelsea, Ohio. Producing lampblack. No. 1,303,720; May 27; v. 202; p. 300.
 Bendure, Orville D., Mount City, Kans. Riding attachment for cultivators. No. 1,303,533; May 13; v. 202; p. 230.
 Benham, Albert H., Rochester, N. Y. Typographic numbering-machine. No. 1,303,014; May 6; v. 202; p. 102.
 Benjamin Electric Manufacturing Company. (See Harlow, Clarence R., assigner.)
 Benjamin, George H., New York, N. Y. Evaporator. No. 1,302,625; May 6; v. 202; p. 27.
 Benner, Raymond C., and H. F. French, Fremont, Ohio, assigners, by name assignments, to National Carbon Company, Inc. Electric battery. No. 1,303,453; May 13; v. 202; p. 211.
 Bennett, Albert L., Kansas City, Mo. Cushion-wheel. No. 1,304,011; May 20; v. 202; p. 351.
 Bennett, Ernest C., New York, N. Y. Removable denture. No. 1,302,400; May 6; v. 202; p. 4.
 Bennett, Stevens A., assigner to Wilson & Bennett Mfg. Co., Chicago, Ill. Protecting-ring for barrels. No. 1,303,151; May 6; v. 202; p. 129.
 Benson, Andrew, assigner to Janesville Products Company, Janesville, Wis. Ball-bearing hub. No. 1,303,235; May 13; v. 202; p. 172.
 Benson, Andrew, assigner to Janesville Products Company, Janesville, Wis. Sheet-metal wheel and the like and making same. No. 1,303,236; May 13; v. 202; p. 172.
 Bentley, Oliver D. H., Roslindale, assigner to B. F. Sturtevant Company, Hyde Park, Mass. Lubricating device. No. 1,304,780; May 27; v. 202; p. 600.
 Bergen-Stierhof, George M., St. Louis, Mo. Hydrocarbon-burner. No. 1,304,121; May 27; v. 202; p. 300.
 Berger, Joseph, Jr., Utica, N. Y., assigner to Union Special Machine Company, Chicago, Ill. Throat-plate for sewing-machines. No. 1,305,051; May 27; v. 202; p. 500.
 Bergerson, Alexander J., Des Moines, Iowa. Machine for submarine salvage operations. No. 1,304,012; May 20; v. 202; p. 351.
 Bergman, Axel G., assigner to Ordnance Engineering Corporation, New York, N. Y. Illuminating-projectile. No. 1,305,100; May 27; v. 202; p. 612.
 Bergman, Axel G., assigner to Ordnance Engineering Corporation, New York, N. Y. Illuminating-shell. No. 1,305,101; May 27; v. 202; p. 612.
 Bergman, Axel G., assigner to Ordnance Engineering Corporation, New York, N. Y. Illuminating-projectile. No. 1,304,103; May 27; v. 202; p. 612.
 Bergmann, Conrad, Philadelphia, Pa. Gas-boiler. No. 1,304,921; May 27; v. 202; p. 603.
 Berkeley, Laurence J., Racine, Wis., assigner to The P & M Company, Chicago, Ill. Rail-anchor. No. 1,304,237; May 13; v. 202; p. 173.
 Berkeley, Laurence J., Racine, Wis., assigner to The P & M Company, Chicago, Ill. Rail-anchor. No. 1,304,238; May 13; v. 202; p. 173.
 Berkeley, Laurence J., Racine, Wis., assigner to The P & M Company, Chicago, Ill. Rail-anchor. No. 1,304,239; May 13; v. 202; p. 173.
 Berkley, Richard H., Plainville, Mass., assigner to Whiting & Davis Company. Apparatus for treating link-mech made from solder-core wire. No. 1,303,002; May 27; v. 202; p. 500.

Berkovitz, Samuel, New York, N. Y. Spool-holding apparatus for factory-machines. No. 1,303,015; May 6; v. 262; p. 102.
 Berry, Louis H., Minneapolis, Minn. Automobile-jack. No. 1,303,240; May 13; v. 262; p. 173.
 Bertram, Herman, Halle-on-the-Saale, Germany. Machine for dividing and working dough. No. 1,303,484; May 13; v. 262; p. 211.
 Bertoldi, David, Portland, Ore. Electrically-heated pad-iron. No. 1,304,146; May 20; v. 262; p. 275.
 Bewler, Frank E., Akron, Ohio. Insulator tube. No. 1,304,147; May 20; v. 262; p. 275.
 Best Brothers Keene's Cement Company, The. (See Best, John C., assignor.)
 Best, Frank. (See Drlica, Ferdinand, assignor.)
 Best, John C., assignor to The Best Brothers Keene's Cement Company, Medicine Lodge, Kans. Manufacture of Keene's cement. No. 1,304,146; May 20; v. 262; p. 275.
 Betz, Charles A., New York, N. Y. Toilet partition. No. 1,304,013; May 20; v. 262; p. 252.
 Beudet, Maurice. (See Kotschick and Beudet.)
 Beugler, Edwin F., assignor to E. & B. Holmes Machinery Company, Buffalo, N. Y. Band-saw stove-jointer. No. 1,305,053; May 27; v. 262; p. 587.
 Bewan, James O., Onley, Va. Portable acetylene-gas generator. No. 1,304,251; May 20; v. 262; p. 335.
 Bibb, William B., Salinas, Calif. Canner and evaporator. No. 1,304,014; May 20; v. 262; p. 252.
 Biddle, Walter H., Eastbourne, England. Automatic train-control apparatus. No. 1,303,631; May 13; v. 262; p. 243.
 Biddle, William E., Cincinnati, Ohio. Transfer-ticket. No. 1,302,754; May 6; v. 262; p. 52.
 Bidelman, William P., Los Angeles, Calif. Reinforced joint for carbon electrodes. No. 1,304,444; May 20; v. 262; p. 424.
 Biele, John M., assignor to Boston Woven Hose & Rubber Co., Boston, Mass. Rubber composition and making the same. No. 1,302,750; May 13; v. 262; p. 397.
 Bigelow, Opher L., et al. (See Bauer, Ott V., assignor.)
 Bigham, Richard C., Spokane, Wash. Repair-bed. No. 1,304,184; May 6; v. 262; p. 129.
 Bijur, Joseph, New York, N. Y., assignor, by means assignments, to Bijur Motor Appliance Company. Engine starting device. No. 1,304,262; May 20; v. 262; p. 394.
 Bijur, Joseph, New York, N. Y., assignor, by means assignments, to Bijur Motor Appliance Company. Electric regulator. No. 1,304,522; May 20; v. 262; p. 449.
 Bijur, Joseph, New York, N. Y., assignor, by means assignments, to Bijur Motor Appliance Company. Light system. No. 1,304,934; May 27; v. 262; p. 583.
 Bijur, Joseph, New York, N. Y., assignor, by means assignments, to Bijur Motor Appliance Company. Electrical apparatus. No. 1,304,945; May 27; v. 262; p. 584.
 Bijur Motor Appliance Company. (See Bijur, Joseph, assignor.)
 Billingshurst, Charles B., Pierre, S. D. Device for neutralizing shock. No. 1,302,750; May 6; v. 262; p. 52.
 Bingham, Charles H., London, England. Blast-furnace. No. 1,303,155; May 6; v. 262; p. 129.
 Bird, Charles S., East Walpole, Mass. Assignor to Bird Machine Company. Rotary screen for paper-stock. No. 1,304,353; May 20; v. 262; p. 396.
 Bird Machine Company. (See Bird, Charles S., assignor.)
 Blackburn, Bruce, Los Angeles, Calif. Screened window. No. 1,303,455; May 13; v. 262; p. 211.
 Blackman, Alexander, New Orleans, La. Bearing. No. 1,303,160; May 27; v. 262; p. 612.
 Blackmore, Charles C., Dayton, Ohio. Ambulance. No. 1,303,016; May 6; v. 262; p. 103.
 Blaine, Joseph R., Oak Park, Ill. Assignor to Mible Printing Press & Manufacturing Company, Chicago, Ill. Plate-clamp for printing-presses. No. 1,304,723; May 27; v. 262; p. 528.
 Blaloe, Walter E., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,304,723; May 27; v. 262; p. 527.
 Blair, Charles E., Dorchester, Mass. Assignor to American Warp Drawing Machine Company. Warp-replenishing mechanism. No. 1,304,846; May 27; v. 262; p. 548.
 Blair, William E., Wellsburg, W. Va. Oil-can. No. 1,303,845; May 20; v. 262; p. 321.
 Blais, Joseph W., and G. Leclerc, Montreal, Quebec, Canada. Rack for boots and shoes. No. 1,304,847; May 27; v. 262; p. 548.
 Blake, Charles O., St. Johnsbury, Vt. Dirigible head-light. No. 1,303,017; May 6; v. 262; p. 103.
 Blakely, William W., Detroit, Mich. Securing device for articles. No. 1,303,456; May 13; v. 262; p. 211.
 Blanchard, Frederick C., assignor to Detroit Lubricator Company, Detroit, Mich. Forced-feed lubricator. No. 1,304,149; May 20; v. 262; p. 276.
 Blankenship, Earl. (See Ralston and Blankenship.)
 Blauvelt, Augustus, Paterson, N. J. Square. No. 1,303,846; May 20; v. 262; p. 321.
 Blaylock, Gifford E., Baltimore, Md. Tag and checking device. No. 1,304,150; May 20; v. 262; p. 276.
 Blot, Robert, trustee. (See Stuart, Alexander T., assignor.)

Blevins, General J., Bremen, Ala. Animal-trap. No. 1,303,064; May 27; v. 262; p. 587.
 Blevins, Charles L., Elmwood, Iowa. Loading-machine. No. 1,304,445; May 20; v. 262; p. 424.
 Block, Alexander E., St. Louis, Mo. Foot-supporter. No. 1,302,700; May 6; v. 262; p. 52.
 Blomberg, Charles J. D., Bridgeport, S. D. Curtain-light. No. 1,302,890; May 6; v. 262; p. 4.
 Bloom, Benjamin L., Brooklyn, assignor to Julius Kayser & Co., New York, N. Y. Thread-spinning mechanism. No. 1,303,630; May 6; v. 262; p. 27.
 Bloom, John, Rockford, Ill. Safety-raser. No. 1,304,734; May 27; v. 262; p. 537.
 Bloom, Karl, New York, N. Y. Truck-wheel impeller. No. 1,303,334; May 13; v. 262; p. 226.
 Bloomberg, Carl. (See Froedrichsen, Hilder, assignor.)
 Bloomer, Harry. (See Kotschick and Bloomer.)
 Blose, John, Seattle, Wash. Key-ring holder. No. 1,304,016; May 20; v. 262; p. 252.
 Blumberg, Hamilton G., San Antonio, Tex. Valve mechanism for gas-engines. No. 1,304,735; May 27; v. 262; p. 537.
 Boardman, Charles H., Vivian, W. Va. Signaling device. No. 1,304,936; May 27; v. 262; p. 584.
 Boardman, Ervin E., Thorp, Wis. Key-strap and fastener. No. 1,304,523; May 27; v. 262; p. 449.
 Bobbitt, Kinderman M., Toledo, Ohio. Automobile-radiator. No. 1,302,827; May 6; v. 262; p. 23.
 Bobo, Charles P., Hollis, N. Y. Alarm. No. 1,303,160; May 27; v. 262; p. 612.
 Bochs, Thomas, N. Y. Rod. No. 1,304,030; May 27; v. 262; p. 511.
 Boddie, Clarence A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric-current meter. No. 1,303,341; May 13; v. 262; p. 174.
 Boddie, Clarence A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Amper-hour meter. No. 1,303,342; May 13; v. 262; p. 174.
 Boddie, Clarence A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Amper-hour meter. No. 1,303,343; May 13; v. 262; p. 174.
 Boddie, Clarence A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Maximum-demand meter. No. 1,303,344; May 13; v. 262; p. 174.
 Boddie, Clarence A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Maximum-demand meter. No. 1,303,345; May 13; v. 262; p. 211.
 Bodine, David B., North St. Paul, Minn. Wall and wall-tie. No. 1,304,061; May 27; v. 262; p. 511.
 Boeck, Jay H., et al. (See Oiler, Frank E., assignor.)
 Boehmer, Ferdinand, et al. (See Miller, Jacob J., assignor.)
 Boggs, Addison E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical protective device. No. 1,303,007; May 27; v. 262; p. 587.
 Bois, Nathaniel, San Francisco, Calif. Interlocking stair-form. No. 1,304,523; May 27; v. 262; p. 449.
 Boker, Carl F. (See Neff, Robert C., assignor.)
 Bohas, Harold, Brighthelm, Bristol, England. Soapstone or aeroplane. No. 1,304,062; May 27; v. 262; p. 511.
 Boiling, Charles W. (See Laiting and Boiling.)
 Bollman, George W., Adamstown, Pa. Treating wool hats. No. 1,305,065; May 27; v. 262; p. 587.
 Bone, David E., Oglesby, Ark. Kila. No. 1,302,700; May 13; v. 262; p. 207.
 Bonel, Spire A., Detroit, Mich. Vehicle-body construction and upholstery therefor. No. 1,303,336; May 13; v. 262; p. 226.
 Bonney-Floyd Company, The. (See Dorsey, Walter A., assignor.)
 Bontempi, Arthuro Corporation, The. (See Bontempi, Augustus, assignor.)
 Bontempi, Augustus, Cortesville, N. Y., assignor to The Bontempi Arthuro Corporation, New York, N. Y. Calculating-machine. No. 1,303,501; May 6; v. 262; p. 8.
 Booth, Robert R., assignor to J. J. Armstrong, Honolulu, Hawaii. Hose-coupling. No. 1,304,063; May 27; v. 262; p. 512.
 Borden Company, The. (See Bechtel, Milton W., assignor.)
 Borgstrom, Carl A. (See Wickstrom and Borgstrom.)
 Bork, Frank J., Galveston, Pa. Emergency-brake. No. 1,304,254; May 20; v. 262; p. 335.
 Boston Woven Hose & Rubber Co. (See Biele, John M., assignor.)
 Boswell, Fletcher O., Philadelphia, Pa. Automobile-lock. No. 1,302,502; May 6; v. 262; p. 8.
 Bott, Orlando W., Shreve, Ohio. Folding umbrella. No. 1,304,016; May 20; v. 262; p. 252.
 Bottin, Edward K., Miami, N. Y., assignor to American Sales Book Company, Limited, Toronto, Ontario, Canada. Manufacturing sales-book. No. 1,304,068; May 27; v. 262; p. 517.
 Bouchette, John W., Philadelphia, Pa. Airship. No. 1,304,054; May 27; v. 262; p. 513.
 Boudet, Joseph, St. Louis, Mo. Micro-meter-indicator. No. 1,303,245; May 13; v. 262; p. 174.
 Bound Brook Oil-Less Bearing Company. (See Hickman, Francis, assignor.)

Bourgeois, David, assignor to G. W. J. Murphy Co., Amherst, Mass. Separable fastener. No. 1,302,638; May 6; v. 262; p. 28.
 Bowman, Herbert H., U. S. Navy, assignor to the United States of America. Automobile torpedo. No. 1,304,365; May 20; v. 262; p. 393.
 Boustelle, Joseph, Bouilly-sur-Seine, France. Carburetor for internal-combustion engines. No. 1,303,761; May 13; v. 262; p. 207.
 Boyia, Vincent, Flushing, N. Y. Hat and making same. No. 1,303,240; May 13; v. 262; p. 175.
 Boyers, Frank R., Indianapolis, Ind. Colony-brooder. No. 1,304,446; May 20; v. 262; p. 424.
 Bowman, Earl M., assignor of one-half to W. A. Smith, Tulsa, Okla. Hydrocarbon-burner. No. 1,304,548; May 27; v. 262; p. 548.
 Bowman, Newton K., Canton, Ohio, assignor to The American Mine Drier Company, Cable-splice. No. 1,304,334; May 27; v. 262; p. 449.
 Bowman, Thomas M., New York, N. Y., assignor to Anchor Company, Chicago, Ill. Rail-ancher. No. 1,302,508; May 6; v. 262; p. 8.
 Boya, Charles E. (See Kline, Albert A., assignor.)
 Boyd, Hugh T. (See Oberhill and Boyd.)
 Boyer, Harrison D., Farmington, Conn. by means assignments to L. W. Riddle, Glen Riddle, Pa. Lubricator. No. 1,304,535; May 27; v. 262; p. 449.
 Boyer, Harrison D., Philadelphia, assignor, by means assignments to L. W. Riddle, Glen Riddle, Pa. Lubricator. No. 1,304,536; May 27; v. 262; p. 449.
 Boyer, Harrison D., Philadelphia, assignor, by means assignments to L. W. Riddle, Glen Riddle, Pa. Grease-gun. No. 1,304,537; May 27; v. 262; p. 451.
 Bozic, Joseph, Johnstown, Pa. Com-processor. No. 1,304,937; May 27; v. 262; p. 584.
 Bozich, Giovanni, Philadelphia, Pa. Shoe-polishing machine. No. 1,304,447; May 20; v. 262; p. 424.
 Brabant, Max H., Paris, Tex. Flow. No. 1,303,813; May 13; v. 262; p. 277.
 Brachman, William, Newark, N. J., assignor to The Ocean Leather Co., Inc., New York, N. Y. Shrimling sharp-shin. No. 1,304,550; May 20; v. 262; p. 397.
 Bradford, Robert D., London, England. Mixing-valve. No. 1,303,708; May 13; v. 262; p. 206.
 Bradford, Robert D., London, England. Combination packing and valve. No. 1,304,738; May 13; v. 262; p. 206.
 Brain, George. (See Kirk and Brain.)
 Brain, Charles L., Rochester, N. Y., assignor to The American Laundry Machinery Company, Cincinnati, Ohio. Garment-press. No. 1,304,347; May 13; v. 262; p. 178.
 Brand, Frederick F., Pittsfield, Mass. Assignor to General Electric Company. Electrical apparatus. No. 1,304,257; May 20; v. 262; p. 337.
 Brandon, William C. (See Dumas, Walter W., assignor.)
 Brandner, Peter R., Reading, Pa. Soft-metal alloy. No. 1,304,448; May 27; v. 262; p. 549.
 Brandt, Thomas F., New Bedford, assignor to Draper Corporation, Hopedale, Mass. Shuttle for side-modes feeder-leaves. No. 1,302,630; May 6; v. 262; p. 28.
 Brasher, Harry O., Winchester, assignor to American Inducement Heat Company, Inc., Boston, Mass. Utilizing fuel in the treatment of metals. No. 1,304,253; May 20; v. 262; p. 337.
 Brashers, J. A. W., and R. G. Croe, assignors to Aktiebolaget Fecora, Stockholm, Sweden. Extracting resin and other chemical products from sawwoods by dry distillation. No. 1,304,064; May 27; v. 262; p. 512.
 Braun, Charles M., Dayton, Ohio. Dia. No. 1,304,151; May 20; v. 262; p. 376.
 Breidenbach, William F., Indianapolis, Ind. Safety device for high-pressure gas-tanks. No. 1,303,345; May 13; v. 262; p. 175.
 Bremer, Otto A., Burlington, Iowa. Connecting-rod-hub-mitting. No. 1,304,533; May 27; v. 262; p. 441.
 Brenneke, Herman J., assignor to R. Malcom, Chicago, Ill. Safety-coupler. (Release.) No. 1,304,151; May 20; v. 262; p. 376.
 Bretherton, Francis J. (See Robson and Bretherton.)
 Breis, John, Jr., Detroit, Mich. Piston-ring remover. No. 1,304,460; May 13; v. 262; p. 211.
 Briggs, Robert F. (See Fenn, George V., assignor.)
 Briggs, Robert F. (See Fenn and Briggs.)
 Bright, Theodore, Rock Island, Ill. Metal-loading machine. No. 1,304,152; May 20; v. 262; p. 376.
 Brice, Theodore R., Westfield, Mass. Hand sleigh and sled. No. 1,304,255; May 13; v. 262; p. 342.
 Briggs, Arthur M., Rockledge Beach, Calif. Rotary internal-combustion engine. No. 1,302,504; May 6; v. 262; p. 8.
 Brinkham, Hugo, Brooklyn, N. Y. Dams-reinforcing device. No. 1,304,538; May 27; v. 262; p. 441.
 Brinkman, Louis H., Glen Ridge, N. J., assignor to General Industries Company. Apparatus for making shaped pipes. No. 1,304,539; May 27; v. 262; p. 441.
 Brinkman, Louis H., Glen Ridge, N. J., assignor to General Industries Company. Making shaped pipes. No. 1,304,540; May 27; v. 262; p. 441.
 Brinkman, John, Toronto, Ontario, Canada. Means for lubricating cylinders. No. 1,304,540; May 27; v. 262; p. 441.

Bristol, Cyrus J., assignor of one-half to Globe Machinery and Supply Company, Des Moines, Iowa. Auxiliary water-cooling system for automobiles. No. 1,304,940; May 27; v. 262; p. 585.
 Bristol, Edgar H., assignor to The Foxboro Company, Foxboro, Mass. Gage. No. 1,303,018; May 6; v. 262; p. 103.
 British Westinghouse Electric and Manufacturing Company, The. (See Baumann, Karl, assignor.)
 Britton, William J. (See Murphy and Britton.)
 Britton, Samuel B., Paterson, N. J. Safety gas-valve. No. 1,303,166; May 6; v. 262; p. 150.
 Broad, Charles E., assignor to Stanley Motor Carriage Company, Newton, Mass. Apparatus for utilizing liquid fuels. No. 1,302,505; May 6; v. 262; p. 8.
 Broadway, Prentice C., Asheville, N. C. Armored war apparatus. No. 1,303,764; May 13; v. 262; p. 208.
 Brock, Arthur, Jr., and L. J. R. Holst, Philadelphia, Pa., assignors to said Brock. Angle brine and transposing device. No. 1,304,017; May 20; v. 262; p. 252.
 Brock, Frederick C., assignor to The J. P. Gordon Company, Columbus, Ohio. Seat-cover for automobiles. No. 1,303,019; May 6; v. 262; p. 103.
 Brock, Frederick C., assignor to The J. P. Gordon Company, Columbus, Ohio. Covering for backs and seats of automobiles. No. 1,304,020; May 6; v. 262; p. 103.
 Brock, Frederick C., assignor to The J. P. Gordon Company, Columbus, Ohio. Slip-cover. No. 1,303,021; May 6; v. 262; p. 103.
 Brock, Matthias, Boston, Mass. Assignor, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J. Bed-wiper mechanism for lasting-machine. No. 1,303,847; May 20; v. 262; p. 322.
 Brockton Manufacturing Company. (See Poole, John H., assignor.)
 Brockway, Carl P., assignor to The Willys-Overland Company, Toledo, Ohio. Spine-shaft spanner-wrench. No. 1,303,157; May 6; v. 262; p. 150.
 Brodton, Edward R., Washington, D. C., assignor, by means assignments, to Sypho-Chemical Sprinkler Corporation, New York, N. Y. Automatic fire-extinguishing apparatus. No. 1,303,705; May 13; v. 262; p. 206.
 Brooks, Edward J., East Orange, N. J. Box-seal. (Release.) No. 1,304,449; May 20; v. 262; p. 425.
 Brochart, Jacob L., Trenton, Mo. Pipe-coupling. No. 1,303,346; May 20; v. 262; p. 377.
 Brown, Charles F. (See Crane, Newton, assignor.)
 Brown, Charles J., River Falls, Wis. Antislipping ladder attachment. No. 1,304,018; May 20; v. 262; p. 252.
 Brown, George A., assignor to Anthony Liquid Vending Machine Company, Minneapolis, Minn. Attachment for liquid-vending machines. No. 1,304,150; May 6; v. 262; p. 130.
 Brown, George M. (See Shuttleworth and Brown.)
 Brown, Herbert W., Ashland, Ohio. Headlight. No. 1,304,706; May 13; v. 262; p. 208.
 Brown, James M., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Tube clamp. No. 1,303,349; May 13; v. 262; p. 175.
 Brown-Lipe-Chapin Co. (See Ormsby and Legue, assignors.)
 Brown, Lloyd N., Charlotte, N. C. Hoisting-tile. No. 1,304,023; May 6; v. 262; p. 104.
 Brown, Marvin H., assignor to H. J. McQuinn, R. O'Connor, R. M. Vigouroux, San Francisco, and C. P. Buziot, Oakland, Calif. Internal-combustion engine. No. 1,304,019; May 20; v. 262; p. 253.
 Brown, Theodore P., assignor to Simpler Player Action Company, Worcester, Mass. Music-sheet-guiding device. No. 1,304,256; May 13; v. 262; p. 342.
 Brown, Walter. (See Kieckhefer and Brown.)
 Browning, Edna A., Chicago, Ill. Window-cleaner. No. 1,304,756; May 27; v. 262; p. 537.
 Browning, Walter H., Wembley, England. Ink-ribbon feed and similar reversing mechanism. No. 1,303,160; May 6; v. 262; p. 130.
 Browning, William H., Welleville, N. Y. Cooking utensil. No. 1,304,448; May 20; v. 262; p. 424.
 Bruckman, Frederick A., Portland, Ore. Boxing mechanism for ice-cream-cone machines. No. 1,302,633; May 6; v. 262; p. 29.
 Bruchhaber, Martin W., Oak Park, assignor to The Goss Printing Press Company, Chicago, Ill. Folder. No. 1,302,504; May 6; v. 262; p. 79.
 Bruna, Arthur, and C. H. Stone, Coleville, Tex. Cotton-cleaning machine. No. 1,303,160; May 6; v. 262; p. 130.
 Bruner, Louis N., Zurich, Switzerland. Grinding-machine. No. 1,302,406; May 6; v. 262; p. 6.
 Bruner, Joseph H., Leopolis, Wis. Concrete-form for hiped roofs. No. 1,304,251; May 13; v. 262; p. 342.
 Bruck, Alexander P., Detroit, Mich. Carburetor. No. 1,304,449; May 20; v. 262; p. 424.
 Brumard, Martin, Los Angeles, Calif. Hydrocarbon-burner. No. 1,303,252; May 13; v. 262; p. 176.
 Bryan, Harry F. (See Robbins and Bryan.)
 Bryan, Robert W., Aberdeen, Wash. Shock-absorber for automobiles. No. 1,302,630; May 6; v. 262; p. 28.
 Bryant, Elmer J., assignor to The Taft-Petree Manufacturing Company, Woonsocket, R. I. Sine-bar fixture. No. 1,303,632; May 13; v. 262; p. 245.

Bryant, Richard H. deceased; O. H. Jobaki, special administrator, assignor, by means assignments, to The Standard Parts Company, Cleveland, Ohio. Machine for forming transmittal rims. No. 1,303,840; May 20; v. 262; p. 322.

Bryce, James W., Bloomfield, N. J., assignor to The Acolian Company. Expression-device control. No. 1,303,191; May 27; v. 262; p. 612.

Bubblitz, Charles W., Richmond Hill, N. Y., assignor to Frederick Owsen Company. Article of manufacture. No. 1,303,536; May 13; v. 262; p. 224.

Bubblitz, Frank H., Chicago, Ill. Bicycle. No. 1,304,480; May 20; v. 262; p. 434.

Buchanan, Frank, Syracuse, N. Y. Switch. No. 1,304,656; May 27; v. 262; p. 512.

Buchel, Jules, New Orleans, La., assignor to W. J. Kelly, Haverford, Pa. Pressure-controlling device. No. 1,303,680; May 27; v. 262; p. 568.

Buchwald, Carl, Berlin, P. G. G., assignor to Friedmann, near Berlin, and H. Viertel, Lichtenberg, near Berlin, assignors to Gebroeder Siemens & Co., Berlin, Germany. Negative electrode for search-lights, projectors, and the like. No. 1,302,805; May 6; v. 262; p. 50.

Buck, Herman J., assignor to Matthews Gravity Carrier Company, Milwaukee City, Pa. Automatic ejector for straight-lift elevators. No. 1,302,681; May 6; v. 262; p. 26.

Buchham, George T. (See Dawson and Buchham.)

Buchham, George T., assignor to Vickers Limited, Westminster, London, England. Mounting of automatic guns. No. 1,303,623; May 6; v. 262; p. 104.

Buchham, George T., assignor to Vickers Limited, Westminster, London, England. Gun-mounting. No. 1,303,624; May 6; v. 262; p. 104.

Buchwalter, Leon G. (See Hutchinson, Morton C., assignor.)

Buckwalter, Tracy V., Canton, Ohio. Building. No. 1,303,253; May 13; v. 262; p. 176.

Buerger, Charles R., assignor to The Atlantic Refining Company, Philadelphia, Pa. Operating stills and removing coke therefrom. No. 1,302,761; May 6; v. 262; p. 53.

Buffalo Bolt Company. (See Peirce, William R., assignor.)

Bugge, Bertha M., assignor to C. H. Quigley, Spokane, Wash. Arm-riding. No. 1,304,153; May 20; v. 262; p. 377.

Buhl, Carl H., Cleveland, Ohio. Electric bell. No. 1,303,459; May 13; v. 262; p. 212.

Bullard, Ellerslie W. (See McLaughlin, Elias J., assignor.)

Bullock, Charles F., Schenectady, N. Y., assignor to General Electric Company. Indicating instrument. No. 1,304,239; May 20; v. 262; p. 397.

Bullock, Raymond G., and H. M. Leave, assignors to The Art Metal Construction Co., Inc., New York, N. Y. Metallic structure. No. 1,303,660; May 20; v. 262; p. 322.

Bunting Brass & Bronze Company, The. (See Donaldson, Augustus F., assignor.)

Burgess, Avery B., et al. (See McLaughlin, William D., assignor.)

Burgess, Mortimer B., Adelphi, Jamaica, British West Indies. Keyless lock. No. 1,302,880; May 6; v. 262; p. 80.

Burt, Steven, New York, N. Y. Cuff. No. 1,303,264; May 13; v. 262; p. 176.

Burke, James P., Struthers, Ohio. Safety push-pin. No. 1,303,628; May 6; v. 262; p. 104.

Burnham, Loche H., Pittsfield, Mass., assignor to General Electric Company. Transformer. No. 1,304,481; May 20; v. 262; p. 435.

Burnip, William. (See Segur and Burnip.)

Burns, William D., Amenia, N. Y. Roller-bearing. No. 1,303,767; May 13; v. 262; p. 260.

Burns, William J., assignor to The Peerless Vulcanite Company, Bridgeport, Conn. Making plastic articles. No. 1,304,661; May 27; v. 262; p. 549.

Burrows, Edward T., Portland, Me. Folding card-table. No. 1,304,540; May 27; v. 262; p. 491.

Busacker, John, assignor of one-half to H. Hoffmann, Utica, N. Y. Garment with adjustable waistband. No. 1,304,483; May 20; v. 262; p. 435.

Butler, Albert F., Sharon, Pa. Bowling-alley. No. 1,302,997; May 6; v. 262; p. 80.

Butler, Alice H., Evanston, Ill. Garment. No. 1,303,193; May 27; v. 262; p. 612.

Butler, Frank M., et al. (See Cole, Melville R., assignor.)

Butler, William, Jr. (See McGrath, Patrick J., assignor.)

Butterworth, Samuel D., Lansing, Mich. Method and apparatus for loading automobiles. No. 1,304,666; May 27; v. 262; p. 512.

Byrnes, Clarence P., Sewickley, Pa. Vaporizing-carburator. No. 1,302,762; May 6; v. 262; p. 53.

C. E. G. Company. (See Chamier and Curtis, assignors.)

C. E. G. Company. (See Alford, Albert G., assignor.)

Cabot, Geoffrey L. (See Crommett, Charles F., assignor.)

Cabrita, Margarito, San Antonio, Tex. Cotton-cleanser. No. 1,303,626; May 6; v. 262; p. 104.

Cadenet, Louis, Paris, France. Electromagnetic locking device. No. 1,304,453; May 20; v. 262; p. 435.

Cadieux, Joseph O., assignor to Connecticut Telephone & Electric Company, Inc., Meriden, Conn. Push-button switch. No. 1,303,634; May 13; v. 262; p. 244.

Cadman, Addi E., Beloit, Wis., assignor by means assignments, to Warner Manufacturing Company, South Beloit, Ill. Trailer-truck. No. 1,304,561; May 20; v. 262; p. 397.

Cadman, Arthur W., Fanwood, N. J., assignor to The W. F. Powers Company, New York, N. Y. Display device. No. 1,304,737; May 27; v. 262; p. 637.

Cady, Minna J., Chicago, Ill. Box. No. 1,302,507; May 6; v. 262; p. 4.

Cain, Wesley R., Port Jervis, N. Y. Machine-brake. No. 1,303,460; May 13; v. 262; p. 212.

Cain, William H., Los Angeles, Calif. Gas-radiator. No. 1,304,154; May 20; v. 262; p. 377.

Calcaterra, Joe. (See Younger, Frank, assignor.)

Caldwell, William L., Indianapolis, Ind. Intake-manifold heater. No. 1,304,738; May 27; v. 262; p. 638.

Calif, Harry R., assignor to United States Wire Mat Company, Decatur, Ill. Box or curtain. No. 1,304,480; May 20; v. 262; p. 434.

Call, Franklin H., Portland, Ore. Operating device for clock mechanism. No. 1,302,768; May 6; v. 262; p. 52.

Callahan, Americus P., Chicago, Ill. Combined blank for letter or message writing. No. 1,303,636; May 13; v. 262; p. 244.

Callahan, William C., Allentown, Pa. Producing heat. No. 1,303,660; May 27; v. 262; p. 549.

Callan, James P., Southboro, Mass. Rake. No. 1,304,941; May 27; v. 262; p. 564.

Callan, James P., Southboro, Mass. Rake. No. 1,304,942; May 27; v. 262; p. 564.

Callithers, Edward R., London, England. Parachute-launching device. No. 1,302,880; May 6; v. 262; p. 80.

Camfield, Emory L., St. Louis, Mo. Engine-valve. No. 1,304,155; May 20; v. 262; p. 377.

Cammen, Leon, New York, N. Y. Thermostatic control means for motors. No. 1,302,768; May 13; v. 262; p. 52.

Campbell, Benjamin H., Chicago, Ill. Harrow. No. 1,304,760; May 13; v. 262; p. 397.

Campbell, Patrick F. (See Taylor, Thomas, assignor.)

Campbell, Walter E., et al. (See Bauer, Otto V., assignor.)

Campodolice, John J., Stockton, Calif. Transmission. No. 1,302,764; May 6; v. 262; p. 52.

Canby, Thomas, Huddersfield, England. Machine for cropping or shearing cloth. (Belgium.) No. 14,042; May 6; v. 262; p. 142.

Cannon-Swenson Company. (See Kerner, Martin J., assignor.)

Cannon, William W. (See Boustie and Cannon.)

Cap-Hold Inc. (See Kupper, James H., assignor.)

Capen, Delbert E. (See Robinson and Capen.)

Capron, William C., et al. (See Jungmann, Ernest, assignor.)

Caproni, Federico, Milan, Italy. Aeroplane. No. 1,302,880; May 6; v. 262; p. 80.

Capstad, John G., assignor to Eastman Kodak Company, Rochester, N. Y. Method of and article for making photographic positive prints. No. 1,303,636; May 13; v. 262; p. 244.

Carborundum Company, The. (See Tunc, Frank J., assignor.)

Carleton Rube Company, The. (See O'Donnell, John W., assignor.)

Carlisle, Fred E., White River Junction, Vt. Adjusting and securing device for closures. No. 1,304,454; May 20; v. 262; p. 434.

Carlson, George, New York, N. Y. Poultry-disinfecter. No. 1,303,661; May 20; v. 262; p. 549.

Carlson, John, Jr., Portland, Me. Horse-bridge for railway-tracks. No. 1,302,683; May 6; v. 262; p. 26.

Carman, Herbert L., New York, N. Y. Self-cleaning fountain-pen. No. 1,304,739; May 27; v. 262; p. 638.

Carpenter, Paul, Glenview, Ill. Baking-pan. No. 1,304,740; May 27; v. 262; p. 638.

Carpenter, Samuel P., and L. A. Patterson, Portland, Va. Toy. No. 1,303,461; May 13; v. 262; p. 212.

Carr Fastener Company. (See Carr, Fred R., assignor.)

Carr, Fred R., assignor to Carr Fastener Company, Cambridge, Mass. Turn-button fastener. No. 1,303,770; May 13; v. 262; p. 260.

Carr, George R., Boston, Mass. Belt. No. 1,303,637; May 6; v. 262; p. 244.

Carrier, Albert H., assignor of one-half to B. W. Grova, Asheville, N. C. Cement. No. 1,302,768; May 6; v. 262; p. 52.

Carroll, Thomas, assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,302,880; May 6; v. 262; p. 80.

Carver, Arthur E., Brattleboro, Vt. Film-roll and casing therefor. No. 1,304,621; May 20; v. 262; p. 512.

Carver, George J., Bromborough, England. Internal-combustion engine. No. 1,303,193; May 27; v. 262; p. 612.

Carver, George E., Oklahoma, Okla. Lifting-trap. No. 1,304,630; May 13; v. 262; p. 244.

Carver, George T., Ellsworth, N. J., assignor of one-half to F. L. Kraemer, Fort Washington, N. Y. Rotary engine. No. 1,303,255; May 13; v. 262; p. 176.

Cartwright, George W., Sacramento, Calif. Road and street planer. No. 1,304,741; May 27; v. 262; p. 638.

Cashmore, George H. W., London, England. Lorry-gun magazine. No. 1,303,640; May 6; v. 262; p. 104.

Caster, Melvin M., Lowell, Mass. Ignition device. No. 1,301,771; May 13; v. 262; p. 200.

Cattucci, Philip, Newark, N. J., assignor by means assignments, to Otto Holmman Phonograph Supply Co., Inc., New York, N. Y. Governor-brake. No. 1,304,667; May 27; v. 262; p. 549.

Cavanagh, James, Boston, Mass., assignor by means assignments, to United Shoe Machinery Corporation, Paterson, N. J. Retaining member for edge-cutting tools. No. 1,302,510; May 6; v. 262; p. 7.

Cavanagh, John F., assignor to The Connecticut Telephone & Electric Co., Inc., Meriden, Conn. Electric switch. No. 1,303,161; May 6; v. 262; p. 121.

Cavanagh, John F., assignor to The Connecticut Telephone & Electric Co., Inc., Meriden, Conn. Spark-coil. No. 1,303,162; May 6; v. 262; p. 121.

Central Railway Signal Company. (See Detscher, Frank, assignor.)

Central West Electric Co. (See Gordon, David D., assignor.)

Cervin, Rolf G., Stockholm, and B. Sjöström, Arboga, Sweden. Side scuttle. No. 1,303,637; May 13; v. 262; p. 244.

Chadwick Chemical Company. (See Ellis, Carlston, assignor.)

Chamberlain, Fred R. (See Maxwell, Glen A., assignor.)

Chamberlain, Rufus N., Chicago, Ill., assignor to Gould Storage Battery Company. Storage-battery plate and treating tank. No. 1,304,662; May 27; v. 262; p. 549.

Chambers, Adam, New York, N. Y. Automobile driving-mittens. No. 1,302,768; May 6; v. 262; p. 52.

Chamier, Frederic W., and W. Curtis, Hyde Park, assignors to C. F. G. Company, Limited, London, England. Hand-grenade and the like. No. 1,304,153; May 6; v. 262; p. 121.

Chamier, Frederic W., Hyde Park, assignor to C. F. G. Company Limited, London, England. Hand-grenade and the like. No. 1,303,164; May 6; v. 262; p. 121.

Chapman, Edward B. (See Parsons, Cook, and Chapman.)

Chapman, George H., Chicago, Ill. Electropneumatic organ-valve. No. 1,302,511; May 6; v. 262; p. 7.

Chapman, Matthew T., Aurora, Ill. Pumping machinery. No. 1,303,660; May 6; v. 262; p. 549.

Charles J. Tagliabue Manufacturing Co. (See Roach, Alfred, assignor.)

Chase, Charles H., and O. B. Hutchings, Belgrade, Mont. Stone-gatherer. No. 1,304,154; May 20; v. 262; p. 377.

Chase Companies, The. (See Kirchbaum, John, assignor.)

Chase, George L., Seattle, Wash. Seat-cushion. No. 1,303,662; May 20; v. 262; p. 549.

Chase, Hercules H., assignor to United States Hoffman Machinery Company, Syracuse, N. Y. Garment-pressing machine. No. 1,304,665; May 27; v. 262; p. 549.

Chase, William D. (See Ward and Chase.)

Chavanne, George. (See Simon and Chavanne.)

Check, Tolbert F., Lyndhurst, N. J., assignor to Philharmonic Piano Player Corporation, New York, N. Y. Pressure-controlled pump for musical instruments. No. 1,303,660; May 6; v. 262; p. 549.

Chervya, Samuel, et al. (See Wilson, Charles W., assignor.)

Chemical Equipment Company. (See La Bear and Grunsky, assignors.)

Chemical Works, formerly Sandoz. (See Knecht, Oscar, assignor.)

Chicago Automatic Machine Company. (See Jann, John H., assignor.)

Chicago Railway Equipment Company. (See Hawkins, Arthur W., assignor.)

Chicago Railway Equipment Company. (See Huber, Earl, assignor.)

Chicago Railway Equipment Company. (See Williams, Charles H., assignor.)

Chile Exploration Company. (See Menrath, Gustav, assignor.)

Chile Exploration Company. (See Page, William K., assignor.)

Christ, Charles A., Los Angeles, Calif. Milk-can washer. No. 1,304,280; May 20; v. 262; p. 512.

Christiana Transmittal. (See Lund, Ole H., assignor.)

Christopher, Carl E., assignor to Dexter Folder Company, Pearl River, N. Y. Pneumatic sheet-feeder. No. 1,304,282; May 20; v. 262; p. 512.

Chrysl, William A. (See Kettering and Chrysl.)

Church, Harold D., assignor to Packard Motor Car Company, Detroit, Mich. Gear-shifting mechanism. No. 1,303,663; May 27; v. 262; p. 549.

Cirolli, Francesco, Philadelphia, Pa. Sound-reproducing machine. No. 1,302,880; May 6; v. 262; p. 80.

Clapp, Albert L., Braintree, assignor to The Metallite Company, Amherst, Mass. Gun-and felt and making. No. 1,302,512; May 6; v. 262; p. 7.

Clapp, Albert L., Marblehead, assignor to The Metallite Company, Amherst, Mass. White leather-board and making same. No. 1,302,513; May 6; v. 262; p. 7.

Claremont Machinery Company. (See Gilman, George H., assignor.)

Clark, Alfred L., Dubuque, Iowa. Roller-awning. No. 1,302,633; May 6; v. 262; p. 20.

Clark, Arthur J. (See King, Clifford G., assignor.)

Clark, Charles, Oquir, Utah. Lubricating device. No. 1,303,773; May 13; v. 262; p. 260.

Clark, Charles E. (See Sparks and Clark.)

Clark, Charles H., New York, N. Y. Flexible coupling. No. 1,303,633; May 20; v. 262; p. 549.

Clark, Caylor L., Danversville, Ohio. Convertible shield for troops. No. 1,304,541; May 27; v. 262; p. 491.

Clark, Don A., and C. M. Lowe, assignors to The Clyde R. Lowe Company, Cleveland, Ohio. Tire-core. No. 1,303,256; May 13; v. 262; p. 176.

Clark, Earl W., Sharon, Pa. Vehicle. No. 1,303,654; May 20; v. 262; p. 549.

Clark, Edwin W., Kansas City, Mo., assignor to Photo Motion Company. Mechanical movement for motion-picture machines. No. 1,304,544; May 27; v. 262; p. 491.

Clark, Marion H., Philadelphia, Pa. Machine for applying samples to cards. No. 1,304,545; May 27; v. 262; p. 491.

Clark, William M. (See Sparks and Clark.)

Clarke, John B., Piquetteville, Ky. Furnace for evaporators. No. 1,304,543; May 27; v. 262; p. 491.

Clason, Henry P., Mount Vernon, and C. L. Goodrum, assignors to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,302,767; May 6; v. 262; p. 52.

Clement, Charles G. (See Marshall and Clement.)

Clement, Foster R. (See Touchette, William H., assignor.)

Clement, John W. (See Jones and Clement.)

Clement Talbot Limited. (See Roach, Alfred, assignor.)

Clements Company, The. (See Kennedy, Joseph, assignor.)

Clements, Everett G., Washington, D. C., assignor to The Preet-O-Lite Company, Inc. Battery-grid-pasting apparatus. No. 1,303,630; May 6; v. 262; p. 105.

Clegg, Birger A., Minneapolis, Minn. Mark-up table. No. 1,303,663; May 27; v. 262; p. 549.

Clerget, Edin & Co. (See Clerget, Pierre, assignor.)

Clerget, Pierre, assignor to Clerget, Edin & Co. Lavallois-Pareet, France. Pitman for rotary radial motors. No. 1,303,164; May 27; v. 262; p. 121.

Cleveland-Cliff Iron Company, The. (See Hudson and Merriam, assignors.)

Cleveland Metal Products Company, The. (See Baines, Henry C., assignor.)

Clin, John J. (See Payne, Charles H., assignor.)

Cline, Albert R., Easton, assignor to William Wharton, Jr., and Company, Incorporated, Philadelphia, Pa. Switch-rod. No. 1,303,165; May 6; v. 262; p. 121.

Cloett, Peabody & Co. (See Thomas, James A., assignor.)

Clover Appliance Gas Lamp Co. (See Conatky, Nathan, assignor.)

Clyde R. Lowe Company, The. (See Clark and Lowe, assignors.)

Coats Machine Tool Company. (See Tucker, Benjamin W., assignor.)

Cobey, Frank, East Berlin, Conn. Chuck. No. 1,304,658; May 27; v. 262; p. 512.

Cobey, Frank, East Berlin, Conn. Chuck. No. 1,304,659; May 27; v. 262; p. 512.

Coburn, James W., Highland Park, Mich. Front axle and bolster construction for vehicles. No. 1,302,634; May 6; v. 262; p. 20.

Coccarri, Silvio, Vieux-Dieu, near Antwerp, Belgium. Anti-halation coating for photographic plates and cinematograph-films. No. 1,303,166; May 27; v. 262; p. 121.

Cochran, John J., assignor to Martin-Lamagni Manufacturing Company, St. Louis, Mo. Mixer. No. 1,303,664; May 27; v. 262; p. 549.

Coe, Walter S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Slug-casting machine. No. 1,304,660; May 27; v. 262; p. 549.

Coffin, Abbott S. (See Huber, George T., assignor.)

Cogwell, Arthur C., Detroit, Mich. Water-waste control. No. 1,304,157; May 20; v. 262; p. 377.

Cohn, Isaac, assignor to Eye Brand Confectionery, Inc., Brooklyn, N. Y. Candy-mold. No. 1,303,773; May 13; v. 262; p. 260.

Colborn, William G., Ravenna, Va. Automatic cut-off. No. 1,303,168; May 6; v. 262; p. 122.

Cole, Albert L., Amherst, Mass. Vehicle-tire. No. 1,303,166; May 27; v. 262; p. 121.

Cole, Samuel F., Purcellville, Va. Electrical indicating device. No. 1,304,622; May 20; v. 262; p. 512.

Cole, Melville R., assignor of one twenty-fourth to C. R. Floyd, one twenty-fourth to C. L. Fuller, Budora, Kans., and one-twelfth to F. M. Butler, Excelsior Springs, Mo. Road-working machinery. No. 1,304,263; May 20; v. 262; p. 298.

Coleman, James M., Montreal, Quebec, Canada. Freight-car. No. 1,304,623; May 20; v. 262; p. 512.

Coleman, William C., Wichita, Kans. Vapor-burner. No. 1,303,662; May 13; v. 262; p. 244.

Coley, Joseph, Worcester, Mass. Woven pile fabric. No. 1,303,666; May 27; v. 262; p. 549.

Collett, Emil, Christiania, Norway. Manufacture of ammonium perchlorate. No. 1,303,167; May 6; v. 262; p. 132.

Colman, Howard D., assignor to Barber-Colman Company, Rockford, Ill. Textile apparatus. No. 1,304,661; May 27; v. 262; p. 512.

Colwell, Allen J., Providence, R. I., assignor to Colwell Cigar Machine Company Incorporated. Machine for making cigars. No. 1,303,855; May 20; v. 262; p. 223.

Colwell Cigar Machine Company. (See Colwell, Allen J., assignor.)

Combination Auto Lock Company. (See Balthasar, Harry G., assignor.)

Compagnie D'Applications Mecaniques. (See Roussel, Louis, assignor.)

Concannon, William F., Bridgeport, and F. R. Kiefer, Milford, Conn. Rotary brush. No. 1,304,543; May 27; v. 262; p. 402.

Conce, Frank L., Windsor, Vt., assignor, by mesne assignments, to The National-Acme Company, Cleveland, Ohio. Single-drive metal-working machine. No. 1,303,216; May 6; v. 262; p. 141.

Condon, Charles H., East Stroudsburg, Pa. Retainer. No. 1,304,469; May 20; v. 262; p. 496.

Conklin, Oliver E. (See Hollnagel and Conklin.)

Conklin Pen Manufacturing Company, The. (See Mooney, Frank H., assignor.)

Conkling, Samuel G., Brooklyn, N. Y. Shock-absorber. No. 1,306,049; May 27; v. 262; p. 589.

Connecticut Brass & Manufacturing Corporation, The. (See Cross, Henry T., assignor.)

Connecticut Telephone & Electric Co., The. (See Cavanaugh, John F., assignor.)

Connecticut Telephone & Electric Company. (See Cavanaugh, John F., assignor.)

Connecticut Telephone & Electric Company, The. (See Donle, Harold P., assignor.)

Connell, Thomas, Iowa City, Iowa. Damper-regulator. No. 1,302,632; May 6; v. 262; p. 29.

Connor, John H., Boston, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Manufacture of shoes. No. 1,302,955; May 6; v. 262; p. 96.

Connor, Thomas F., Decorah, Iowa. Envelope-opener. No. 1,302,514; May 6; v. 262; p. 7.

Conover, Courtney, Philadelphia, Pa., and H. D. Gibbs, San Francisco, Calif. Manufacture of anthraquinone. No. 1,306,168; May 6; v. 262; p. 182.

Conrad, Frank, Pittsburgh, and C. Aalborg, Wilkesburg, Pa. assignors to Westinghouse Electric and Manufacturing Company, East-Pittsburgh, Pa. Hand-grenade. No. 1,304,544; May 27; v. 262; p. 402.

Consolidated Car Heating Company. (See Hyman, Leo P., assignor.)

Constable, John P., assignor to New Jersey Patent Company, West Orange, N. J. Phonograph or talking-machine. No. 1,304,153; May 20; v. 262; p. 378.

Continental Lona Co., The. (See Quimbly, Clarence E., assignor.)

Continental Motors Corporation. (See Weinhardt, Robert A., assignor.)

Cook, John W., T. E. Leigh, and J. Jowett, Manchester, England. Apparatus for stripping carding-engines. No. 1,303,538; May 13; v. 262; p. 226.

Cook, Stanley B. (See Parsons, Cook, and Chapman.)

Cook, Stanley B. (See Parsons, Walker, Cook, and Stimson.)

Cook, Wallace L., Chicago, Ill. Protector. No. 1,304,934; May 20; v. 262; p. 554.

Cook, Walter E., Cleveland, Ohio. Vehicle-tire. No. 1,304,742; May 27; v. 262; p. 523.

Cooley, Henry R., Kensington, Conn., assignor to The American Paper Goods Company, Montclair, N. J. Drinking-cup. (Reissue.) No. 14,690; May 20; v. 262; p. 451.

Cooper, Charles H. (See Crane, Ernest W., assignor.)

Cooper, Christopher C., Roby, Tex. Device for printing blue-prints. No. 1,303,774; May 13; v. 262; p. 370.

Cooper, George W., Brooklyn, N. Y. Cuff. No. 1,303,067; May 27; v. 262; p. 589.

Cooper Hewitt Electric Company. (See Evans, William A. D., assignor.)

Copland, James P., Cleveland, Ohio. Vehicle-wheel. No. 1,304,944; May 27; v. 262; p. 564.

Copsey, Edwin L., assignor to F. W. Brackett & Company Limited, Colchester, England. Valveless rotary pump. No. 1,303,100; May 6; v. 262; p. 182.

Corbin, Julian E., Alameda, Calif. Door-hanger. No. 1,303,775; May 13; v. 262; p. 270.

Corcoran-Victor Company, The. (See Macneale, Neil, assignor.)

Corning Glass Works. (See Sullivan and Taylor, assignors.)

Corn, Alfred J. M., Quinsigamont, W. Va. Phonograph attachment. No. 1,304,031; May 6; v. 262; p. 105.

Cortner, Wheeler D., Oswatimie, Kans. Firearm. No. 1,303,032; May 6; v. 262; p. 105.

Cortisano, Marco, Pittsburgh, Pa. Sand toy. No. 1,304,456; May 20; v. 262; p. 433.

Costello, Frederick A., Southbridge, assignor to Thomson Electric Welding Company, Lynn, Mass. Electric soldering device. No. 1,304,545; May 27; v. 262; p. 402.

Couch, Forrest J. and W. F. Welber, Rochester, N. Y., assignors to The American Laundry Machinery Company, Cincinnati, Ohio. Tilting-type pressing-machine. No. 1,303,397; May 13; v. 262; p. 174.

Coulter, Arthur D., Seattle, Wash. Fireproof safe. No. 1,304,835; May 27; v. 262; p. 549.

Coulter, Charles J., assignor of one-half to O. T. Ellis, Long Beach, Calif. Grapple. No. 1,304,643; May 6; v. 262; p. 106.

Cowan, Archie E., McKeesport, Pa. Tri-runner sleigh. No. 1,303,657; May 13; v. 262; p. 244.

Cowd, William C., assignor of one-half to A. T. Moloney, Chicago, Ill. Telegraph sending-machine. No. 1,304,936; May 20; v. 262; p. 554.

Country, Nathan, assignor to Cluster Appliances Gas Lamp Co., New York, N. Y. Gas-lamp. No. 1,303,901; May 6; v. 262; p. 51.

Craig, Fenton D., Memphis, Tenn. Tractor-carrier. No. 1,304,743; May 27; v. 262; p. 523.

Craig, Walter L., Washington, D. C. Motor-cycle stand. No. 1,304,467; May 20; v. 262; p. 450.

Craigville, John, Danville, Ill. Switch-signal. No. 1,304,170; May 6; v. 262; p. 132.

Cramer, John, Toronto, Kans. Cultivator-clevis. No. 1,303,034; May 6; v. 262; p. 104.

Crane, Ernest W., assignor of one-half to C. H. Cooper, Buena Vista, Fla. Liquid-conveyor. No. 1,303,914; May 13; v. 262; p. 277.

Crane, Newton, Boston, assignor, by direct and mesne assignments, to C. F. Brown, Reading, Mass. Electrical safety-rasor. No. 1,306,189; May 13; v. 262; p. 227.

Crane, Thomas R., East Orange, N. J., assignor, by mesne assignments, to B. White, West Hartford, and E. F. von Wettberg, Fairfield, Conn. Lubricating device for shears. No. 1,303,463; May 13; v. 262; p. 212.

Crane, William H., Poughkeepsie, N. Y., assignor to Moline Plow Company. Folding divider for harrow. No. 1,302,768; May 6; v. 262; p. 54.

Craven, Claude C., Kansas City, Mo. Agricultural machine. No. 1,302,636; May 6; v. 262; p. 29.

Crawford, Carl H. (See Wickman, Magnus, assignor.)

Crawford Manufacturing Company, The. (See Wolf, Rudolf, assignor.)

Crawford, Ralph F., Monticello, N. Y. Tractor attachment for motor-cars. No. 1,303,886; May 20; v. 262; p. 523.

Craymer, Henry J., Peckham, London, England. Unleaded or discharging device. No. 1,304,656; May 20; v. 262; p. 364.

Crellin, Edward T., Fender, Neb. Tractor transmission device. No. 1,302,760; May 6; v. 262; p. 54.

Cremens, William F., White-Barre, Pa. Broke-hanger. No. 1,304,682; May 27; v. 262; p. 513.

Crescent Stove Works. (See Dietrich, Henry C., assignor.)

Crevelling, John L., Auburn, N. Y. Electric regulation. No. 1,303,778; May 13; v. 262; p. 270.

Crews, Ralph L., and G. F. Smith, Winston-Salem, N. C. Sawing-machine. No. 1,302,770; May 6; v. 262; p. 54.

Crisner, Harry H., assignor to E. Urfer, Fort Madison, Iowa. Hog-killer. No. 1,303,518; May 13; v. 262; p. 277.

Crommett, Charles F., Malden, assignor to G. L. Cabot, Boston, Mass. Separating mixed gas. No. 1,304,027; May 20; v. 262; p. 364.

Cron, Ernst G. (See Brodenberg and Cron.)

Cronacher, Bernhard H. (See Kerckhoff, Jacob C., assignor.)

Crosbright, Wesley G., assignor of one-half to A. J. Hunnaker, Chicago, Ill. Auxiliary power plant. No. 1,304,648; May 27; v. 262; p. 549.

Crook, Powell, Jr., Cincinnati, Ohio. Explosive-engine parts. No. 1,302,637; May 6; v. 262; p. 29.

Cross, Donald. (See Bishop and Cross.)

Cross, Harry B. (See Stow and Cross.)

Cross, Henry T., assignor of one-half to Connecticut Brass & Manufacturing Corporation, Waterbury, Conn. Bridling apparatus for rolling-mills. No. 1,303,689; May 27; v. 262; p. 569.

Cross Paper Feeder Company. (See Upham, Bert F., assignor.)

Crosswick, Joseph M., Toronto, Ontario, Canada. Latheseg. No. 1,304,043; May 27; v. 262; p. 513.

Cron, Kenneth L., Mountville, W. Va. Saw-tooth. No. 1,303,258; May 13; v. 262; p. 177.

Crouse, Emory, Wichita, Kans. Gasoline-dispensing device. No. 1,304,028; May 20; v. 262; p. 364.

Crouse-Hinds Company. (See Olney, Edwin A., assignor.)

Crowe, Henry, Ralburn, England. Hydraulic valve casting. No. 1,303,035; May 6; v. 262; p. 106.

Crumble Steel Company of America. (See Shennard, Harold W., assignor.)

Crumo, Albert, Behrsfeld, Calif. Beet-harvester. No. 1,304,657; May 20; v. 262; p. 554.

Crumph, Frank H., Los Angeles, Calif. Binder. No. 1,304,540; May 13; v. 262; p. 237.

Crymble, Morris, assignor of one-half to J. Wolf, New York, N. Y. Powder-puff. No. 1,303,070; May 27; v. 262; p. 560.

Cullen, James, Denver, Colo. Beet-harvester. No. 1,304,658; May 20; v. 262; p. 554.

Cunningham, George C., East Orange, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telegraph system. No. 1,303,036; May 6; v. 262; p. 104.

Cunningham, Peter J., and A. R. Hammond, Jarbridge, Nev. Clothes-line attachment. No. 1,302,771; May 6; v. 262; p. 55.

Curtis, David P., Chicago, Ill. Holder for paper cups. No. 1,303,171; May 6; v. 262; p. 132.

Curtis, William. (See Chamber and Curtis.)

Curtis, William W., Chicago, Ill. Grinding-wheel for dental purposes. No. 1,303,541; May 13; v. 262; p. 227.

Curtis, J. W. G. (See Fraser, Lester C., assignor.)

Cutter-Hammer Mfg. Co., The. (See Henderson, Clark T., assignor.)

Cutter-Hammer Mfg. Co., The. (See Horton, Albert J., assignor.)

Cutter-Hammer Mfg. Co., The. (See Simon, Arthur, assignor.)

Cutter-Hammer Mfg. Co., The. (See Zimmer, Paul H., assignor.)

Cutting, Benjamin N. (See Land, Charles H., Jr., assignor.)

Cyclose Manufacturing Company, The. (See Speicher, Paul J., assignor.)

D Green Watch Company, The. (See Green, Frederick D'Arcy, assignor.)

D'Arcy, Frank P., Kalamazoo, Mich. Hose-clamp. No. 1,304,545; May 27; v. 262; p. 492.

D'Arcy, George W., Boston, Mass. Apparatus for humidifying air. No. 1,302,518; May 6; v. 262; p. 7.

Da Silva, Raul E., Rio de Janeiro, Brazil. Treating hides and skins. No. 1,304,030; May 20; v. 262; p. 345.

Dada, Thomas G., Fort Smith, Ark. Manufacturing wheel-tracks. No. 1,303,650; May 20; v. 262; p. 324.

Dahlstrom, John. (See Thomas and Dahlstrom.)

Dale, Joseph, assignor to Deere & Company, Moline, Ill. Driftless driving-wheel. No. 1,304,029; May 20; v. 262; p. 354.

Daley Manufacturing Company. (See Lefever, Charles F., assignor.)

Dalbey, Carl W., Derry, Idaho. Combined flash-light and mirror. No. 1,304,934; May 27; v. 262; p. 554.

Dalbey, William E. (See Wilson and Dalbey.)

Dalby, Gustaf, Lidings, Stockholm, Sweden, assignor to American Gasaccumulator Company, Elizabeth, N. J. Long and similar apparatus. No. 1,303,030; May 20; v. 262; p. 324.

Dalla, Gustaf, Lidings, Stockholm, Sweden, assignor to American Gasaccumulator Company, Elizabeth, N. J. Means for opening and closing valves in certain determined intervals of time. No. 1,304,169; May 20; v. 262; p. 378.

Dalla, Gustaf, Lidings, Stockholm, Sweden, assignor to American Gasaccumulator Company, Elizabeth, N. J. Storing means for gas dissolved in liquid and producing the same. No. 1,304,160; May 20; v. 262; p. 378.

Dall, Charles A. (See Ballou, Holden P., assignor.)

Dallen, Gordon, Canterbury, England. Fountain-pen. No. 1,304,964; May 20; v. 262; p. 565.

Dandrew, Mary A., Ridesfield Park, N. J. Garbage-pail cover. No. 1,305,197; May 27; v. 262; p. 614.

Daniels, Edward T., assignor of one-half to E. Weldon, Townsend, Del. Tractor. No. 1,302,638; May 6; v. 262; p. 29.

Danner, Edward, assignor to The Libbey Glass Company, Toledo, Ohio. Gage. No. 1,303,259; May 13; v. 262; p. 177.

Darr, Edwin E., Washington, D. C. Line-indicator and signal for type-writing machines. No. 1,304,455; May 20; v. 262; p. 450.

Darshett, Bennett R., Saline, Mo. Fence-post. No. 1,302,772; May 6; v. 262; p. 55.

Decomann, Charles, Brooklyn, N. Y. Grinding and polishing machine. No. 1,303,661; May 20; v. 262; p. 324.

Deyer, John F., Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Pasteur-inserting machine. No. 1,302,510; May 6; v. 262; p. 7.

Davidson, Edgar. (See Riddle and Davidson.)

Davidson, Harry O., assignor to The Hydraulic Pressed Steel Company, Cleveland, Ohio. Concrete-form. No. 1,304,945; May 27; v. 262; p. 564.

Davidson, James, Toronto, Ontario, Canada. Base-up motion for the tension-fallers of spinning-mules. No. 1,304,664; May 27; v. 262; p. 514.

Davidson, Lyman C., Chicago, Ill. Adjustable retainer for glass in boxes. No. 1,304,266; May 20; v. 262; p. 364.

Davis, Francis, Providence, R. I., assignor to Nathan Manufacturing Company, Flushing, N. Y. Percussion-gun for shells or projectiles. No. 1,302,902; May 6; v. 262; p. 91.

Davis, James A., Swisecole, Pa., assignor to Westinghouse Electric & Manufacturing Company. Control mechanism for compound turbines. No. 1,302,439; May 6; v. 262; p. 80.

Davis, John, Liverpool, and W. H. Jones, Wallacey, England. Manufacture of heat-insulating chambers, walls, floors and ceilings. No. 1,304,267; May 20; v. 262; p. 364.

Davis, William R. (See Thomas and Davis.)

Davis, David L., South Norwalk, assignor to The American Hat Mfg. Co., Inc., Norwalk, Conn. Hat. No. 1,304,348; May 20; v. 262; p. 330.

Davis, Elmer G., Salt Lake City, Utah. Paper doll. No. 1,305,071; May 27; v. 262; p. 590.

Davis, Francis M., Chicago, Ill. Storage structure. No. 1,303,842; May 20; v. 262; p. 224.

Davis, Frederick C., St. Joseph, Mo. Separable scaff-pole. No. 1,303,173; May 6; v. 262; p. 132.

Davis, George H., West Orange, N. J. Electric perforating and recording machine. No. 1,303,863; May 20; v. 262; p. 324.

Davis, Harry P., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, East-Pittsburgh, Pa. Hand-grenade. No. 1,303,280; May 13; v. 262; p. 177.

Davis, Howard C. (See Bow and Davis.)

Davis, James M., Dallas, Tex. Distant-control-switch socket for electric lights, etc. No. 1,303,464; May 13; v. 262; p. 213.

Davis, John B., Springfield, assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass. Measuring-pump. No. 1,302,640; May 6; v. 262; p. 20.

Davis, Lockey C., Boley, Ohio. Gun and projectile therefor. No. 1,304,857; May 27; v. 262; p. 540.

Davis, Lyman H., Louisville, Ky. Detachable shirt-button. No. 1,305,072; May 27; v. 262; p. 590.

Davis, Merrill, Detroit, Mich. Wheel-finishing machine. No. 1,304,547; May 27; v. 262; p. 492.

Davis, Michael R., Kemp, Ohio. Case-stripping machine. No. 1,302,908; May 6; v. 262; p. 51.

Davis, Orry E., Zanesville, Ohio. Card or ticket holder for receipts. No. 1,304,031; May 20; v. 262; p. 355.

Davis, William J. (See Hughes and Davis.)

Davis, William J., Chicago, Ill. Holder. No. 1,303,904; May 20; v. 262; p. 325.

Dawson, W. E., trustee. (See Saxton and Menard, assignors.)

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Breech mechanism of ordnance. No. 1,302,517; May 6; v. 262; p. 8.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Lock mechanism of breech-loading gun. No. 1,302,518; May 6; v. 262; p. 8.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Ordnance. No. 1,302,519; May 6; v. 262; p. 8.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Breech-loading ordnance. No. 1,302,520; May 6; v. 262; p. 8.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Air-blast gear of breech-loading ordnance. No. 1,302,521; May 6; v. 262; p. 8.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Gun-mounting. No. 1,302,522; May 6; v. 262; p. 8.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Breech-loading ordnance. No. 1,302,523; May 6; v. 262; p. 8.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Percussive firing mechanism of ordnance. No. 1,302,524; May 6; v. 262; p. 8.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Gun-mounting. No. 1,302,525; May 6; v. 262; p. 8.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Loading apparatus for ordnance. No. 1,302,526; May 6; v. 262; p. 8.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Gun-mounting. No. 1,302,528; May 6; v. 262; p. 10.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Percussive firing mechanism of ordnance. No. 1,302,529; May 6; v. 262; p. 10.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Hand-gre device for breech-loading ordnance. No. 1,302,530; May 6; v. 262; p. 10.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Lock mechanism of ordnance. No. 1,303,638; May 13; v. 262; p. 244.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Distant control of mechanism such as gun sights or turrets. No. 1,304,269; May 20; v. 262; p. 359.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Rail-and-socket joint. No. 1,304,270; May 20; v. 262; p. 359.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Breech mechanism of ordnance. No. 1,304,271; May 20; v. 262; p. 359.

Dawson, Arthur T. and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Sighting apparatus for anti-aircraft guns. No. 1,304,272; May 20; v. 262; p. 390.

Dawson, Arthur T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, London, England. Ammunition-boasting apparatus. No. 1,302,827; May 6; v. 262; p. 9.

Day, Albert, Leeds, England. Burner applicable for use with incandescent mantles for gas-lighting. No. 1,304,273; May 20; v. 262; p. 400.

Day, Samuel, Bridgeton, N. J. Light for vehicle-curtains. No. 1,303,777; May 13; v. 262; p. 270.

Dayton Engineering Laboratories Company, The. (See Kettering and Christ, assignors.)

Dayton Steel Foundry Company, The. (See Walther, George, assignor.)

De Buge & Company. (See Shaw, Richard, assignor.)

De Felice, Carlo, New York, N. Y. Gun-loading mechanism. No. 1,304,274; May 20; v. 262; p. 400.

De Franco, Marcell E., Bellevue, Pa. Brake-shoe. No. 1,304,172; May 6; v. 262; p. 132.

De Franco, Marcell E., Bellevue, Pa. Brake-shoe. No. 1,303,178; May 6; v. 262; p. 132.

De Gay, Ernest, Livingston Heights, Va. Ribbon cleaner and drier. No. 1,304,275; May 20; v. 262; p. 400.

De Haeseleer, Henry, Paris, France, assignor to The Troy Wagon Works Company, Troy, Ohio. Truck-coupling. No. 1,304,276; May 20; v. 262; p. 400.

De La Fontaine, Mitchell, New York, N. Y. Combination photograph and picture-reproducer. No. 1,303,217; May 6; v. 262; p. 141.

De Lalande, Dimitri E., New York, N. Y. Bearing for casting-machines. No. 1,302,641; May 6; v. 262; p. 30.

De Long, William A., Jr., Plainfield, N. J. Vehicle-seat attachment. No. 1,303,043; May 6; v. 262; p. 107.

De Normanville, Samuel A., London, England. Spray-guard for telescopes. No. 1,304,548; May 27; v. 262; p. 493.

De Rake, James, Baltimore, Md. Cone-holder. No. 1,305,164; May 27; v. 262; p. 607.

De Rooy, William, New York, N. Y. Pneumatic tire. No. 1,302,662; May 20; v. 262; p. 325.

De Schamps, John W., Muskogee, Okla. Air-pressure governor for air-brake systems. No. 1,304,162; May 20; v. 262; p. 378.

De Stefano, John E., New York, N. Y. Airship. No. 1,303,174; May 6; v. 262; p. 132.

De Vaul, William, Ocean View, assignor of one-half to B. Tomlin, Millville, N. J. Valve-grinding tool. No. 1,305,200; May 27; v. 262; p. 615.

De Vries, Harry, Newark, N. J., and W. A. Donaldson, Brooklyn, N. Y. Apparatus for grinding or polishing precious stones. No. 1,305,035; May 27; v. 262; p. 583.

De Vry Corporation, The. (See De Vry, Herman A., assignor.)

De Vry, Herman A., assignor to The De Vry Corporation, Chicago, Ill. Motion-picture machine. No. 1,303,542; May 13; v. 262; p. 227.

De Vry, Herman A., assignor to The De Vry Corporation, Chicago, Ill. Motion-picture machine. No. 1,303,543; May 13; v. 262; p. 227.

Dean, John F. (See Cove, Henry H., assignor.)

Dear, Charles, assignor to The Mirra Steel Company Limited, London, England. Manufacture of steel. No. 1,304,946; May 27; v. 262; p. 566.

Dear, Charles, assignor to The Mirra Steel Company Limited, London, England. Manufacture of steel. No. 1,304,947; May 27; v. 262; p. 566.

Dear, Charles, assignor to The Mirra Steel Company Limited, London, England. Manufacture of steel. No. 1,304,948; May 27; v. 262; p. 566.

Decatur Brick Manufacturing Company. (See McCune, Herbert R., assignor.)

Decker, Frederick H. (See Rogers and Decker.)

Decker, George, Cincinnati, Ohio. Man's trousers-supporter and the like. No. 1,305,078; May 27; v. 262; p. 590.

Decowski, John, assignor of one-half to M. Mondsten, McKees Rocks, Pa. Balloon equilibrium device. No. 1,304,553; May 27; v. 262; p. 550.

Deere & Company. (See Dain, Joseph, assignor.)

Deere & Mansour Company. (See Dooley, Harry L., assignor.)

Defiance Machine Works, The. (See Gartner, John T., assignor.)

Defiance Machine Works. (See McCarty, William F., assignor.)

Del Greco, James, New Haven, Conn. Small-arm. No. 1,303,287; May 20; v. 262; p. 329.

DeLaughter, James A., Houston, La. Envelop. No. 1,304,161; May 20; v. 262; p. 378.

Demuth, John J., McIntire, Iowa. Basket reinforcement. No. 1,305,074; May 27; v. 262; p. 590.

Desbans, Earl W., Wilkesburg, Pa. Assignor to Westinghouse Electric and Manufacturing Company. Revolving fan. No. 1,303,261; May 13; v. 262; p. 177.

Denning, Ansel C., Johnson City, N. Y. Substitute material for making box-toes for shoes. No. 1,303,262; May 13; v. 262; p. 177.

Des Isles, Leonard H., Chicago, Ill. Electrical thermometer system. No. 1,304,277; May 20; v. 262; p. 400.

Deser, Theodore H., West Haven, Conn. High-speed spindle machine. No. 1,304,378; May 20; v. 262; p. 401.

Det Norske Aktieselskab for elektrokemisk Industri, Norsk Industri-Hypothekbank. (See Ravner and Goldschmidt, assignors.)

Detroit Lubricator Company. (See Blanchard, Frederick C., assignor.)

Detterbach, Samuel E., et al. (See Otter, Frank E., assignor.)

Detwiler, Forest V., Pottstown, Pa. Hydrocarbon-burner. No. 1,303,596; May 20; v. 262; p. 325.

Deubener, Walter H., St. Paul, Minn. Bag. No. 1,305,186; May 27; v. 262; p. 614.

Deubener, Walter H., St. Paul, Minn. Bag. No. 1,305,189; May 27; v. 262; p. 614.

Devlin, Cathleen, Providence, R. I. Stove-polish. No. 1,304,163; May 20; v. 262; p. 378.

Dewey Davenport Company. (See Dewey, Josiah A., assignor.)

Dewey, Josiah A., assignor to Dewey Davenport Company, San Francisco, Calif. Couch-bed. No. 1,302,776; May 6; v. 262; p. 81.

Dexter Folder Company. (See Christopher, Carl E., assignor.)

Diamond Individual Towel System Co. (See Ammann, Henry A., assignor.)

Dibble, Frank Y., Oakland, Calif. Triple valve. No. 1,303,263; May 13; v. 262; p. 177.

Dickerson, Arthur, Salt Lake City, Utah, assignor to Dickerson Engine Company. Internal-combustion engine. No. 1,304,744; May 27; v. 262; p. 529.

Dickerson Engine Company. (See Dickerson, Arthur, assignor.)

Dickinson, Seed-planter. No. 1,303,264; May 13; v. 262; p. 178.

Dickinson, Raymond L., Richmond, Calif. Variable-speed transmission. No. 1,302,775; May 6; v. 262; p. 81.

Dickson, Fremont, Sonoma, Calif. Resilient wheel. No. 1,304,164; May 20; v. 262; p. 379.

Dieball, Otto. (See Skibbe and Dieball.)

Dickinson, Harry S., Moline, Ill. assignor to Moline Plow Works, Moline, Ill. Assignor to E. W. Blinn Company, Brooklyn, N. Y. Automobile torpedo. No. 1,305,036; May 27; v. 262; p. 583.

Dieter, William, assignor to E. W. Blinn Company, Brooklyn, N. Y. Automobile torpedo. No. 1,305,036; May 27; v. 262; p. 583.

Dieter, William, assignor to E. W. Blinn Company, Brooklyn, N. Y. Automobile torpedo. No. 1,305,036; May 27; v. 262; p. 583.

Dieter, William, assignor to E. W. Blinn Company, Brooklyn, N. Y. Starting-valve for torpedoes. No. 1,305,045; May 27; v. 262; p. 583.

Dietrich, Henry C., assignor to Crescent Stone Works, Evansville, Ind. Damper for combination coal and gas ranges. No. 1,304,935; May 27; v. 262; p. 514.

Dietrich, Henry C., Los Angeles, Calif. Foldable camp bed. No. 1,304,379; May 20; v. 262; p. 401.

Ditely, Paul W., Seaview, Wash. Cranberry-harvester. No. 1,302,531; May 6; v. 262; p. 10.

Dillmeier, Josephine M., New York, N. Y. Cane-roller. No. 1,305,201; May 27; v. 262; p. 615.

Dimes, Joseph, Brooklyn, N. Y. Seamless metallic boat construction. No. 1,305,046; May 27; v. 262; p. 583.

Diagle, William G., Los Angeles, Calif. Method of and apparatus for producing liquid hydrocyanic acid. No. 1,304,745; May 27; v. 262; p. 529.

Diagle, William G., Los Angeles, Calif. Fumigating and spraying apparatus. No. 1,304,746; May 27; v. 262; p. 529.

Dingle, William G., Los Angeles, Calif. Fumigating. No. 1,304,747; May 27; v. 262; p. 529.

Disbrow, Reuben B., St. Paul, Minn. Milking apparatus. No. 1,304,280; May 20; v. 262; p. 401.

Disubra, Walter W., assignor to Brandon Printing Co., Nashville, Tenn. Filing-cabinet. No. 1,305,778; May 13; v. 262; p. 270.

Diss, Albert B., Newark, N. J., assignor to The Beach Co., Bridgeport, Conn. Caster. No. 1,304,749; May 27; v. 262; p. 530.

Ditson, James, assignor to The J. Geo. Layner Engineering Works Company, Littleton, Colo. Drill-chamber. No. 1,304,459; May 20; v. 262; p. 457.

Divkey, Harvey J., Aurora, Ill. Sanitary pump base and bracket for sinks. No. 1,304,949; May 27; v. 262; p. 566.

Divine, Charles A., Columbus, Ohio. Finishing or surfacing signs. No. 1,304,749; May 27; v. 262; p. 530.

Divine, Robert E., assignor to The Twitchell Process Company, Cincinnati, Ohio. Mineral-oil sulfonic acid and making. No. 1,303,779; May 13; v. 262; p. 271.

Dobbins, Floyd E., Stone, Ky. Meat-saw. No. 1,304,889; May 27; v. 262; p. 530.

Dobbin, Timothy C., Huntington Park, Calif. Vehicle-wheel. No. 1,304,165; May 20; v. 262; p. 379.

Dodson, Carroll E., Kansas City, Mo. Sounding wheeled toy. No. 1,302,778; May 6; v. 262; p. 81.

Doehler Die Casting Company. (See Pack, Charles, assignor.)

Doerder, John C., Goldsboro, N. C. Automobile-jack. No. 1,304,460; May 20; v. 262; p. 457.

Dole, Frederick J., New York, assignor of one-half to H. D. Penney, Padua, N. Y. Automobile-lamp shade. No. 1,304,999; May 27; v. 262; p. 609.

Donaldson, Augustus E., assignor to The Rusting Brass & Bronze Company, Toledo, Ohio. Band-trimming machine. No. 1,302,832; May 6; v. 262; p. 10.

Donaldson, William A. (See De Vries and Donaldson.)

Doole, Harold P., assignor to The Connecticut Telephone & Electric Company, Meriden, Conn. Wave-meter. No. 1,305,252; May 27; v. 262; p. 615.

Doonan, Thomas H., Syracuse, N. Y. Animal-trap. No. 1,304,268; May 13; v. 262; p. 178.

Donnelly, Frank P. (See McDade and Donnelly.)

Donner, Percy E. (See Snyder, Jacob E., assignor.)

Donner, Percy E. (See Snyder and Fleming, assignors.)

Donovan, John S., Frederickton, New Brunswick, Canada. Sheep-pick. No. 1,303,687; May 6; v. 262; p. 108.

Donovan, Patrick, et al. (See Miller, Jacob J., assignor.)

Dooley, Harry L., Rock Island, Ill. assignor to Deere & Mansour Company, Moline, Ill. Planter. No. 1,303,780; May 13; v. 262; p. 271.

Dorr, Lucius B., Buffalo, N. Y. Aeroplane. No. 1,303,544; May 13; v. 262; p. 228.

Dorner, Max E., Chicago, Ill. Animal-trap. No. 1,305,075; May 27; v. 262; p. 591.

Dorney, George, Seattle, Wash. Telephone attachment. No. 1,304,681; May 20; v. 262; p. 457.

Dorsey, Walter A., assignor to The Deany-Floyd Company, Columbus, Ohio. Coal-mine car. No. 1,305,076; May 27; v. 262; p. 591.

Doeh, Oliver L., and M. Hambl, Elizabeth, N. J., assignors to The Slager Manufacturing Company. Sewing-machine. No. 1,304,750; May 27; v. 262; p. 530.

Dougan, Kennedy, Minneapolis, Minn. Submarine artillery. No. 1,303,265; May 13; v. 262; p. 178.

Doughty, Edgar E., Red Wing, Minn. Amusement apparatus. No. 1,302,642; May 6; v. 262; p. 30.

Douglas, Charles D., Watford, England. Motive-power engine. No. 1,303,761; May 13; v. 262; p. 271.

Douglas Packing Company. (See Douglas, Robert, assignor.)

Douglas, Robert, assignor to Douglas Packing Company, Inc., Rochester, N. Y. Food product and its manufacture. No. 1,304,166; May 20; v. 262; p. 379.

Devor, George W., Cranston, and W. H. Hadden, Providence, assignors to George W. Devor, Incorporated, Providence, R. I. Safety-catch for breeches and similar articles. No. 1,304,698; May 27; v. 262; p. 514.

Dowdell, Albert T. (See Hecht and Dowdell.)

Dovale, James H., San Antonio, Tex. Impression-plate. No. 1,303,545; May 13; v. 262; p. 228.

Downing, Edward, San Francisco, Calif. Automobile-bumper. No. 1,304,957; May 13; v. 262; p. 515.

Downing, Eugene B., New York, N. Y. Development of exposed sensitized medium. No. 1,302,777; May 6; v. 262; p. 81.

Down, Charles E., Chicago, N. J., assignor to The Barrett Company. Treating hydrocarbons. No. 1,305,039; May 13; v. 262; p. 583.

Downs, Joseph, and T. Yamada, Honolulu, Hawaii. Can-stamping machine. No. 1,304,042; May 6; v. 262; p. 107.

Dyer, Walter H., San Francisco, Calif. Manufacturing articles from pulp. No. 1,305,202; May 27; v. 262; p. 615.

Drakefield, Bernard F., Jr., New York, N. Y. Glass and making the same. No. 1,303,266; May 13; v. 262; p. 178.

Drakefield, Bernard F., Jr., New York, N. Y. Glass and making the same. No. 1,303,266; May 13; v. 262; p. 178.

Draper, Charles H., assignor to The Draper Manufacturing Company, Cleveland, Ohio. Sheet-metal container. No. 1,304,176; May 6; v. 262; p. 132.

Draper Corporation. (See Brown, Thomas P., assignor.)

Draper Corporation. (See Leonard, Harry A., assignor.)

Draper Corporation. (See Osgood, Dana, assignor.)

Draper Manufacturing Company, The. (See Draper, Charles H., assignor.)

Draper, Andrew, Wapakoneta, Ohio. Funnel. No. 1,304,370; May 13; v. 262; p. 178.

Drayner, Charles A. (See Walker and Drayner.)

Drayner, Thomas, Porton Gate, assignor to J. Stone and Company Limited, Deptford, England. Expansion-joint. No. 1,302,779; May 6; v. 262; p. 81.

Deveraux, Vigna, Brooklyn, assignor to West Virginia Pulp & Paper Company, New York, N. Y. Ligno tanning material and producing the same from waste sulfite liquor. No. 1,303,176; May 6; v. 262; p. 132.

Deveraux, Vigna, Brooklyn, assignor to West Virginia Pulp & Paper Company, New York, N. Y. Producing ligno tanning material from waste sulfite liquor. No. 1,303,177; May 6; v. 262; p. 132.

Driver, Charles H., assignor to J. M. Jones, Racine, Wis. Hack-saw-blade adjuster. No. 1,302,643; May 6; v. 262; p. 31.

Driscoll, Ferdinand, assignor of one-half to F. Brod, Detroit, Mich. Automobile-hood. No. 1,304,751; May 27; v. 262; p. 530.

Droitcour, Michael A., Delphos, Ohio. Sheet-delivery mechanism. No. 1,303,646; May 6; v. 262; p. 107.

Droitcour, Michael A., Delphos, Ohio. Sheet-delivery mechanism. No. 1,303,647; May 6; v. 262; p. 107.

Drying Products Co. Ltd. A/S. (See Gildie, Albert, assignor.)

De Bala, Clarence L., Woodbury, and W. Payne, Philadelphia, Pa., assignors to The Industrial Manufacturing Company, Camden, N. J. Sewing-machine. No. 1,304,981; May 27; v. 262; p. 609.

De Bala, Marcy J., assignor to Fawcett Metal Ware Company, Fawcett, N. J. Container. No. 1,303,406; May 13; v. 262; p. 218.

De Pont, Francis L., Wilmington, Del. Means to protect submarine-mine fields. No. 1,304,549; May 27; v. 262; p. 493.

Dedley, Howard M., Philadelphia, Pa. Fiber-treating device. No. 1,304,982; May 27; v. 262; p. 609.

Dedley, Howard M., Philadelphia, Pa. Fiber-treating device. No. 1,304,983; May 27; v. 262; p. 609.

Dedley, Lytle E., San Francisco, Calif. Shock-absorber. No. 1,304,980; May 27; v. 262; p. 607.

Duffy, George F., assignor to Pacific Porcelain Ware Company, San Francisco, Calif. Urinal. No. 1,304,782; May 27; v. 262; p. 530.

Duke, John J., Berkeley, Calif. System of trench warfare. No. 1,302,904; May 6; v. 262; p. 81.

Duffy, James P. H. (See Murphy, Thomas J., assignor.)

Dufour, Joseph N. (See Trembley and Dufour.)

Dugan, Thomas H., Jersey City, N. J. Liquid shellac and making same. No. 1,305,782; May 13; v. 262; p. 271.

Duke, William. (See Wright and Duke.)

Dunbar Motors and Pallets Limited. (See Dunbar, William B., assignor.)

Dunbar, William B., Ashfield, near Sydney, assignor to Dunbar Motors and Pallets Limited, Sydney, New South Wales, Australia. Variable-speed transmission for motor-vehicles. No. 1,305,077; May 27; v. 262; p. 591.

Dunham, Charles L., Pennsboro, W. Va. Underreamer. No. 1,304,167; May 20; v. 262; p. 379.

Dunham, Everett E., Seattle, Wash. Violin. No. 1,302,466; May 13; v. 262; p. 218.

Dunham, Melbourne K., Chicago, Ill. Cutting-torch. No. 1,303,178; May 6; v. 262; p. 132.

Dunkles, Emory J., Hackensack, N. J. Cloth renapping and reshaping machine. No. 1,304,281; May 20; v. 262; p. 401.

Durdie, Oswald, assignor to Oram-Robertson Lamp Works Limited, London, England. Means for supporting electrodes in lamp tubes. No. 1,304,282; May 20; v. 262; p. 401.

Durgin, Edgar E., assignor to New Jersey Optical Co., Newark, N. J. Temple for spectacles. No. 1,304,168; May 20; v. 262; p. 379.

Durst, John A., Portland, Oreg. Emergency safety-brake for elevators. No. 1,303,271; May 13; v. 262; p. 179.

Duchnitz, Bertalan, Berlin, Germany. Arrangement for forming electrical area. No. 1,304,169; May 20; v. 262; p. 380.

Dutcher, Frank Verneille, assignor to Central Railway Signal Company, Pittsburgh, Pa. Spring holding-clip for railway signal-torpedoes. No. 1,305,040; May 13; v. 262; p. 515.

Dwyer, Leo E., Columbus, Ohio. Chair-cover. No. 1,304,753; May 27; v. 262; p. 530.

Dyer, Frank L., Montclair, N. J. Spark-plug. No. 1,304,682; May 20; v. 262; p. 457.

Dyer, Frank L., Montclair, N. J. Electric riveting. No. 1,305,076; May 27; v. 262; p. 591.

Dyke, Herbert H., Montclair, N. J. Wardrobe-trunk. No. 1,305,041; May 13; v. 262; p. 245.

E. Rabine Company. (See Rabine, Emerich, assignor.)

E. & B. Holman Machinery Company. (See Reagler, Ed. W. F., assignor.)

E. H. Stafford Manufacturing Co. (See Stafford, Ezra H., assignor.)

E. I. du Pont de Nemours and Company. (See Ahlum, Charles C., assignor.)

E. I. du Pont de Nemours & Company. (See Kessler, Johannes M., assignor.)

E. I. du Pont de Nemours & Company. (See Snyder, Charles I., assignor.)

E. W. Spruell Company. (See Hunter, Thomas F., assignor.)

Earnest, George W., Bedford, Pa. Cap for muscage-bottles. No. 1,303,179; May 6; v. 262; p. 123.

Eastern Tool & Mfg. Company. (See Montan, Adolf, assignor.)

Eastman, Charles H., assignor to F. Eastman, Union City, Pa. Fog-car. No. 1,302,779; May 6; v. 262; p. 81.

Eastman, Frank. (See Eastman, Charles H., assignor.)

Eastman Kodak Company. (See Capata, John G., assignor.)

Eastman Kodak Company. (See Folmer, William F., assignor.)

Eastman Kodak Company. (See Kroedel, Robert, assignor.)

Eaton, Charles C., Brockton, Mass. assignor by means assignments to United Shoe Machinery Corporation, Paterson, N. J. Heeling-machine. No. 1,303,567; May 20; v. 262; p. 225.

Eaton, Harold I., Atlantic City, and C. R. Simpson, Elizabeth, N. J. Ditching spade or shovel. No. 1,305,079; May 27; v. 262; p. 591.

Keeling, Charles W., New York, N. Y. Synchronizing means for motion-picture projectors and sound-producing mechanisms. No. 1,305,047; May 6; v. 262; p. 108.

Eberhardt, George O., assignor of one-half to J. Jerome, Batterliver, Minn. Potato-harvester. No. 1,305,180; May 6; v. 262; p. 134.
 Eberle, John A., St. Louis, Mo. Swing. No. 1,304,961; May 27; v. 262; p. 567.
 Eberly, Arthur J., Independence, Ind. Knife attachment for kicker-arms of binders. No. 1,302,644; May 6; v. 262; p. 31.
 Ebert, Alfred O. H., assignor to Woodstock Type-writer Company, Woodstock, Ill. Margin-roller. No. 1,303,783; May 13; v. 262; p. 271.
 Eby, Eugene D., Pittsfield, Mass. Assignor to General Electric Company. Insulating-bushing. No. 1,304,233; May 20; v. 262; p. 402.
 Ecker, Walter A., Denver, Colo. Dust-catching radiator-cap. No. 1,303,181; May 6; v. 262; p. 124.
 Economy Engineering Co., The. (See Tripp and Ramsey, assignor.)
 Edelmann, Philip E., St. Paul, Minn. Means and method of developing photographic films. No. 1,304,032; May 20; v. 262; p. 355.
 Edge Moor Iron Company. (See Sellers, William F., assignor.)
 Edison Storage Battery Company. (See Monahan, James F., assignor.)
 Edison, Thomas A., Jr., Burlington, N. J. Fuel-feeding device. No. 1,304,550; May 27; v. 262; p. 458.
 Edmondson, William F., Wellington, Kans. Chain-pump driving mechanism. No. 1,304,033; May 20; v. 262; p. 353.
 Edstrom, Otto E., San Francisco, Calif. Automatic stop for window-shade rollers. No. 1,303,182; May 6; v. 262; p. 124.
 Educational Motion Picture Machine and Film Company. (See O'Hara, Joseph G. R., assignor.)
 Edward Ratzinger Company. (See Jackson, Joseph G., assignor.)
 Edwards, Francis E., et al. (See Altpeter, Walter, assignor.)
 Edwards, Isaac L., Aurora, Ill. Nut-lock. No. 1,304,097; May 27; v. 262; p. 514.
 Edwards, James L., Dallas, Tex. Steam-engine. No. 1,304,964; May 27; v. 262; p. 551.
 Edwards, Levi T., Philadelphia, Pa. Assignor to Talbot Air Lift Company. Air-lift pump. No. 1,302,780; May 6; v. 262; p. 34.
 Edwards, Victor E., assignor to Morgan Construction Company, Worcester, Mass. Shearing mechanism. No. 1,304,034; May 20; v. 262; p. 353.
 Egerton, Henry C., Passaic, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Phonograph-transmitter. No. 1,303,183; May 6; v. 262; p. 124.
 Egg Freezing and Storage Co. (See Nichols, Ennis M., assignor.)
 Eggers, Anton C., Brooklyn, N. Y., assignor to The Good-year's India Rubber Glove Manufacturing Co., Norwalk, Conn. No. 1,303,540; May 13; v. 262; p. 228.
 Eggleston, C. P., et al. (See Brown, Marvin H., assignor.)
 Ehret, Cornelius D., Philadelphia, Pa. Method of and apparatus for controlling electrical energy. No. 1,303,184; May 6; v. 262; p. 124.
 Eichling, Charles W., Jr., Memphis, Tenn. Storage and display stand. No. 1,303,185; May 6; v. 262; p. 124.
 Eklund, Albert, Pendleton, Oreg. Shoe-lace. No. 1,303,868; May 20; v. 262; p. 325.
 Electron Chemical Company. (See Allen, Herbert I., assignor.)
 Elgin Gas Motor Company. (See Redeker and Thompson, assignor.)
 Ella, Giovanni E., Turin, Italy. Anchor for submarine mines. No. 1,303,272; May 13; v. 262; p. 179.
 Ella, Giovanni E., Paris, France. Assignor to Vickers Limited, Westminster, England. Inertia device for controlling the firing of submarine mines. No. 1,303,060; May 27; v. 262; p. 591.
 Ellard, Hugh F., Gilmore, Idaho. Conveyor-cable. No. 1,305,204; May 27; v. 262; p. 618.
 Elliott, Charles G., Brooklyn, N. Y. Liquid-fuel tank. No. 1,303,642; May 13; v. 262; p. 245.
 Elliott, Frederick S. (See Randall, Ogden, and Elliott, assignor.)
 Elliott, James P., Oak Park, Ill. Waterproof roofing material or the like and making same. No. 1,305,081; May 27; v. 262; p. 592.
 Elliott, Patrick J., assignor of one-half to E. Streng, Jackson Bay, British Columbia, Canada. Logging-book. No. 1,303,048; May 6; v. 262; p. 108.
 Elliott, Robert H., Carthage, Mo. Dispensing vessel. No. 1,304,463; May 20; v. 262; p. 438.
 Ellis, Carleton, Montclair, N. J., assignor to Chadeloid Chemical Company, New York, N. Y. Composition of matter adapted for use as disinfecting solutions, &c. No. 1,302,905; May 6; v. 262; p. 81.
 Ellis, Carleton, Montclair, N. J., assignor, by means assignments, to Surface Combustion, Inc., Wilmington, Del. Gas-distribution apparatus. No. 1,304,754; May 27; v. 262; p. 581.
 Ellis, Carleton, Montclair, N. J., assignor, by means assignments, to Surface Combustion, Inc., Wilmington, Del. Domestic gas heating apparatus. No. 1,304,755; May 27; v. 262; p. 581.
 Ellis, Carleton, Montclair, N. J., assignor to Ellis-Foster Company. Making briquets or other molded articles. (Reissue.) No. 14,608; May 27; v. 262; p. 622.
 Ellis-Foster Company. (See Ellis, Carleton, assignor.)
 Ellis-Foster Company. (See Rabinovitch, Louis, assignor.)
 Ellis, Milan A., Davenport, Iowa, assignor of one-fourth to G. C. Week. Current-water-meter machine. No. 1,304,284; May 20; v. 262; p. 402.
 Ellis, Oswald T. (See Coulter, Charles J., assignor.)
 Ellison, Thomas J., Torrid, Ky. Animal-trap. No. 1,304,547; May 13; v. 262; p. 228.
 Ellithorpe, Gilbert S., assignor of one-fourth to N. D. Fraser, Chicago, Ill. Hoof-clip. No. 1,303,500; May 20; v. 262; p. 328.
 Elvin, Albert G., Plandome, and A. E. Fahnstock, Great Neck, N. Y.; said Fahnstock assignor to said Elvin. Mechanical-stoker shovel. No. 1,304,464; May 20; v. 262; p. 438.
 Elwell, Frank T., Los Angeles, Calif. Trolley-wheel. No. 1,304,385; May 20; v. 262; p. 403.
 Emaden, Paul, Berlin, Germany, assignor to General Electric Company. Valve-gear. No. 1,304,386; May 20; v. 262; p. 402.
 Emerson, John W., Scotland, Ark. Self-adjustable water-hoist conveyor. No. 1,304,465; May 20; v. 262; p. 438.
 Emery, Raymond D., assignor to W. M. Whitney, Winchendon, Mass. Instrument for laying out the cutting edges of cutter-knives. No. 1,302,645; May 6; v. 262; p. 31.
 Emery, Walter R., Peoria, Ill. Nut-lock. No. 1,303,784; May 13; v. 262; p. 271.
 Emmet, William L. R., Schenectady, N. Y., assignor to General Electric Company. Ship propulsion. No. 1,304,237; May 20; v. 262; p. 402.
 Emmet, William L. R., Schenectady, N. Y., assignor to General Electric Company. Ship propulsion. No. 1,304,238; May 20; v. 262; p. 402.
 Emmet, William L. R., Schenectady, N. Y., assignor to General Electric Company. System of ship propulsion. No. 1,304,239; May 20; v. 262; p. 402.
 Emmet, William L. R., Schenectady, N. Y., assignor to General Electric Company. Electric system of ship propulsion. No. 1,304,240; May 20; v. 262; p. 402.
 Endreessen, John, Brooklyn, N. Y. Leak-stopper. No. 1,303,049; May 6; v. 262; p. 108.
 Engel, Arthur, Chicago, Ill. Case-holder for books. No. 1,304,666; May 27; v. 262; p. 514.
 Engel, Louis, Cleveland, Ohio. Surfacing-machine for boring-alloy. No. 1,303,643; May 13; v. 262; p. 245.
 Engler, William F., and J. M. Remy, Los Angeles, Calif. Railway-crowding signal. No. 1,304,965; May 27; v. 262; p. 551.
 English, James M., Alliance, Ohio. Stopper for bottom-pour ladles. No. 1,303,549; May 13; v. 262; p. 228.
 Engstrom, Frederick, Wallula, Idaho. Drift-bolt puller. No. 1,304,669; May 27; v. 262; p. 514.
 Enloe, David E., River Falls, Wis. Leveler. No. 1,304,962; May 27; v. 262; p. 551.
 Ensign, Russell, Storm, Iowa. Extension hay-loader. No. 1,303,644; May 13; v. 262; p. 245.
 Erdle, Reiner W., Weehawton, N. J. Chain-pendulum. No. 1,304,170; May 20; v. 262; p. 380.
 Erickson, Otto H., Minneapolis, Minn. Artificial leg. No. 1,303,645; May 13; v. 262; p. 245.
 Erickson, William A., Milaca, Minn. Can-washing apparatus. No. 1,303,186; May 6; v. 262; p. 124.
 Ernsold, Edward, New York, N. Y. Bottle-labeling machine. No. 1,304,319; May 20; v. 262; p. 409.
 Eshelby, William, Calgary, Alberta, Canada. Anti-burst-tube for lining water-pipes. No. 1,304,036; May 20; v. 262; p. 353.
 Esselmann, Louis H., St. Louis, Mo. Batter-feeder for pastry-form machines. No. 1,303,218; May 6; v. 262; p. 141.
 Estate Store Company, The. (See Kaba, Bertrand B., assignor.)
 Esterline & Angus. (See Angus, Donald J., assignor.)
 Ester Organs Company. (See Haskell, William E., assignor.)
 Etchells, Harry. (See Groves and Etchells.)
 Ethershank, Roy, Vancouver, British Columbia, Canada. Fishing-bait. No. 1,303,467; May 13; v. 262; p. 213.
 Evans, Adele K., executrix. (See Evans, Henry E.)
 Evans, Cornelius T., American, Kans. Means for preserving. No. 1,303,549; May 13; v. 262; p. 228.
 Evans Dollar Pen Company. (See Fowler, Harold B., assignor.)
 Evans, Henry E., deceased, London, England; A. K. Evans, executrix. Motion-picture apparatus. No. 1,304,466; May 20; v. 262; p. 438.
 Evans, James R. (See Knater, Emerson C., assignor.)
 Evans, Mary E., et al. (See Wilson, Charles W., assignor.)
 Evans, William A. D., New York, N. Y., assignor to Cooper Hewitt Electric Company, Hoboken, N. J. Electrotherapeutic device. No. 1,303,273; May 13; v. 262; p. 179.
 Evans, William A. D., New York, N. Y., assignor to Cooper Hewitt Electric Company, Hoboken, N. J. Electrotherapeutic device. No. 1,303,274; May 13; v. 262; p. 179.
 Evans, William K., et al. (See Wilson, Charles W., assignor.)
 Exchange By-Products Company. (See Loufald, Rufus F., assignor.)
 Exchange Confectionery. (See Cohn, Isaac, assignor.)

F. A. Patrick & Company et al. (See Witherell, Earl M., assignor.)
 F. W. Beckett & Company. (See Copsey, Edwin L., assignor.)
 Faber, Henry A. (See Kormer and Faber.)
 Fahnstock, Adam E. (See Elvin and Fahnstock.)
 Faller, Bern K., Springfield, Mo. Boat construction. No. 1,304,966; May 27; v. 262; p. 551.
 Falkner, Ralph E., et al. (See Ryan, Neta M., assignor.)
 Falkner, Carl G., Dayton, Ohio. Automatic control device. No. 1,303,550; May 27; v. 262; p. 518.
 Famous Players-Lasky Corporation. (See Wyckoff and Handberg, assignor.)
 Falmus, William C., assignor to W. M. Whitney, Winchendon, Mass. Knife-marker. No. 1,302,646; May 6; v. 262; p. 31.
 Farrell Foundry and Machine Company. (See Schneck, Carl F., assignor.)
 Farum, Paul F., Hartford, Conn. Window-shade bracket. No. 1,302,781; May 6; v. 262; p. 56.
 Fawcett, George, Butler, Pa. Plastic manifolding composition. No. 1,304,291; May 20; v. 262; p. 403.
 Feder, Milton, Oakland, Calif. Baking-oven. No. 1,303,275; May 13; v. 262; p. 179.
 Feder, Milton, Chicago, Ill. Baking-oven. No. 1,303,276; May 13; v. 262; p. 179.
 Federal Adding Machine Corporation, The. (See Wales, Charles, assignor.)
 Federlewick, John, Yardley, Pa., and M. Otisak, Trenton, N. J. Combined knife and wire-cutter. No. 1,303,577; May 13; v. 262; p. 180.
 Fee, Horatio A., and G. H. Acersman, San Antonio, Tex. Twisting cotton-wool. No. 1,304,670; May 27; v. 262; p. 515.
 Felghery, Eugene J., Covington, Ky. Curtain-fastener device for vehicle-top. No. 1,303,082; May 27; v. 262; p. 108.
 Felstrup, Andrew R., San Diego, Calif. Iceless refrigerator. No. 1,303,206; May 27; v. 262; p. 510.
 Ford, Roland H., assignor to Woods Motor Vehicle Company, Chicago, Ill. Automobile. No. 1,303,570; May 20; v. 262; p. 328.
 Ferguson, George, Westport, Mass. Assignor, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J. Rubber sole for turn-shoes. No. 1,303,671; May 20; v. 262; p. 330.
 Ferruccio, Hubert M. (See Murdock, William J., assignor.)
 Fern, John, Cincinnati, Ohio. Wippen connection for player-pianos. No. 1,302,647; May 6; v. 262; p. 31.
 Fernandez, Abel, Washington, D. C. Switch-box. No. 1,304,467; May 20; v. 262; p. 438.
 Fernandez, Abel, Mexico, assignor to J. V. Torres, San Luis Potosi, and A. H. Lopez, Mexico, Mexico. Cartridge-receiving receptacle. No. 1,304,468; May 20; v. 262; p. 438.
 Ferris, John W., Salt Lake City, Utah. Holder for writing implements. No. 1,304,171; May 20; v. 262; p. 380.
 Ferrell, Eugene D., Wayzata, Minn. Hydrovaporizer. No. 1,303,187; May 6; v. 262; p. 124.
 Ferrell, Eugene D., Wayzata, Minn. Push-button attachment for steering-posts. No. 1,303,188; May 6; v. 262; p. 124.
 Ferra Corporation. (See Michel, Georges, assignor.)
 Field, Jacob W., Peoria, Ill. Ticket-vender. No. 1,303,578; May 13; v. 262; p. 180.
 Field, Martin, and H. A. Schell, Chicago, Ill. Life-saving apparatus. No. 1,303,672; May 20; v. 262; p. 330.
 Fields, William J. (See Gilbert, Battle E., assignor.)
 Fieck, Ernest D., New York, N. Y., and H. E. Wheller, Rahway, N. J., assignors to L. J. Wing Manufacturing Company. Air-propeller. No. 1,304,671; May 27; v. 262; p. 518.
 Finch, James A., et al. (See Keith, Ephraim J., assignor.)
 Finlayson, Alexander W., Detroit, Mich. Forming cores for hollow castings. No. 1,303,785; May 13; v. 262; p. 271.
 Finlayson, Alexander W., Detroit, Mich. Forming radiator tubes. No. 1,304,361; May 27; v. 262; p. 403.
 Fips, John P., Stockton, Calif. Double-speed wrench. No. 1,304,756; May 27; v. 262; p. 581.
 Fischer and Procter. (See Procter, Walter H., assignor.)
 Fish, Harry R., Chicago, Ill. Yarn-reclaiming machine. No. 1,302,906; May 6; v. 262; p. 81.
 Fisher, Clarence G., Rochester, N. Y. Paper-facturer. No. 1,303,579; May 13; v. 262; p. 180.
 Fisher, Frank M. (See Wallace, Harry B., assignor.)
 Fisher, James B., assignor to Westinghouse Motor Company, Westinghouse, Wis. Governor for internal-combustion engines. No. 1,304,973; May 27; v. 262; p. 515.
 Fish Rubber Company, The. (See Manquett, Melvon A., assignor.)
 Fish, Jonathan P. H., New York, N. Y. Wall construction and channel-brick therefor. No. 1,304,583; May 27; v. 262; p. 508.
 Fitch, John W., assignor to The Racine Engine & Machinery Co., Racine, Wis. Farming-machine. No. 1,304,180; May 20; v. 262; p. 380.
 Fitzgerald, John J., Los Angeles, Calif. Reflecting signal or advertising medium. No. 1,303,782; May 13; v. 262; p. 271.
 Fitzgerald, Victor H., Portland, Oreg. Bolt-puller. No. 1,303,663; May 27; v. 262; p. 328.
 Flagg, Phillips P., Milwaukee, Wis. Metal roofing-cap. No. 1,303,664; May 6; v. 262; p. 108.
 Flanagan, Fred J., et al. (See Wilson, George A., assignor.)
 Flanders, Louis H., Jenkintown, Pa. Ventilation of storage batteries. No. 1,302,648; May 6; v. 262; p. 31.
 Flanders, Louis H., Jenkintown, Pa. Secondary or storage battery. No. 1,303,665; May 27; v. 262; p. 502.
 Flagg, Albert L., Racine, Wis. Magazine-pen. No. 1,304,362; May 20; v. 262; p. 403.
 Fleming, Harry W. (See Snyder and Fleming.)
 Fleming, Robert J., London, England. Manufacture of bifocal lenses and apparatus therefor. No. 1,305,066; May 27; v. 262; p. 632.
 Fletcher, Louis, San Francisco, Calif. Hat-renewing machine. No. 1,303,190; May 6; v. 262; p. 125.
 Flindner, Helen M., Cleveland, Ohio. Drawing-board. No. 1,303,189; May 6; v. 262; p. 125.
 Flower, Owen C., San Francisco, Calif. Agricultural implement. No. 1,303,661; May 6; v. 262; p. 109.
 Floyd, Chas. B., et al. (See Cole, Melville R., assignor.)
 Floyd, George G., Riverside, Ill. Casing. No. 1,304,967; May 27; v. 262; p. 551.
 Floyd, George G., Riverside, Ill. Shaft-operating device. No. 1,304,968; May 27; v. 262; p. 551.
 Floyd, George G., Riverside, Ill. Scraping element. No. 1,304,969; May 27; v. 262; p. 557.
 Foams, Andrew B., New York, N. Y. Go-cart. No. 1,303,507; May 27; v. 262; p. 510.
 Foote, Herbert T., East Orange, N. J., assignor to National Electric Company, New York, N. Y. Container-carts. No. 1,303,575; May 20; v. 262; p. 328.
 Foote, Benjamin, Youngstown, Ohio. Liquid-fuel burner. No. 1,304,292; May 20; v. 262; p. 404.
 Folmer, William F., assignor to Eastman Kodak Company, Rochester, N. Y. Aeroplane-camera. No. 1,304,673; May 27; v. 262; p. 515.
 Folson, Arthur E., assignor to W. M. Whitney, Winchendon, Mass. Hopper-feed for woodworking-machines. No. 1,302,649; May 6; v. 262; p. 31.
 Foote, Frank M., Arcade, N. Y. Freight-car. No. 1,302,650; May 6; v. 262; p. 10.
 Foote, Thomas W., Cleveland, Ohio. Chair-base. No. 1,304,640; May 13; v. 262; p. 241.
 Forde, Michael. (See Robinson, Ulysses R., assignor.)
 Ford, Archibald H., London, England. Collapsible boat. No. 1,303,550; May 13; v. 262; p. 228.
 Fore River Shipbuilding Corporation et al. (See Peck, Harry H., assignor.)
 Forner, Henry A., Joplin, Mo. Demountable-rim spreader. No. 1,304,674; May 27; v. 262; p. 516.
 Fortescue, Charles L., Pittsburgh, Pa. Assignor to Westinghouse Electric and Manufacturing Company. Non-inductive interference system. No. 1,303,251; May 13; v. 262; p. 180.
 Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Distributing system for minimizing inductive interference. No. 1,303,252; May 13; v. 262; p. 181.
 Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Double resonant circuit. No. 1,304,294; May 20; v. 262; p. 404.
 Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric-railway system. No. 1,304,295; May 20; v. 262; p. 404.
 Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Radio-signaling system. No. 1,304,296; May 20; v. 262; p. 404.
 Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Railway signaling system. No. 1,304,297; May 20; v. 262; p. 404.
 Fortuna, Herbert O., Norfolk, Va. Game apparatus. No. 1,303,574; May 20; v. 262; p. 328.
 Foster, Ernest H., Dongan Hill, N. Y. Expanding super-heater-tubes. No. 1,304,954; May 27; v. 262; p. 567.
 Fouch, James R., Los Angeles, Calif. Dynamometer. No. 1,303,786; May 13; v. 262; p. 272.
 Fougner American Steelconcrete Shipbuilding Company. (See Fougner, Nicolay K., assignor.)
 Fougner, Nicolay K., Christiania, Norway, assignor to Fougner American Steelconcrete Shipbuilding Company, Wilmington, Del. Floating craft of reinforced concrete. No. 1,303,647; May 13; v. 262; p. 246.
 Fowler, Benjamin F., Minneapolis, Minn. Folding bed. No. 1,303,575; May 20; v. 262; p. 326.
 Fowler, Harold B., assignor to Evans Dollar Pen Company, Waterloo, Iowa. Combination instrument. No. 1,303,783; May 6; v. 262; p. 57.
 Fowler, Jonathan O., New York, N. Y. Sealed, safety, fountain-instand. No. 1,303,468; May 13; v. 262; p. 213.
 Fowler, Leonard H., Loudonville, Ohio. Gear-shifting means for motor-driven vehicles. No. 1,304,955; May 27; v. 262; p. 567.
 Fowler, William, assignor of one-half to C. H. Krippen-Good, Cincinnati, Ohio. Machine for trimming the canvas of reinforced insoles. No. 1,303,288; May 13; v. 262; p. 181.

Fox, William R., Grand Rapids, Mich. Flexible shaft-coupling. No. 1,304,757; May 27; v. 262; p. 551.
 Fox, William R., Jackson, Mich. Flexible shaft-coupling. No. 1,304,758; May 27; v. 262; p. 551.
 Fox, William R., Jackson, Mich. Flexible shaft-coupling. No. 1,304,759; May 27; v. 262; p. 552.
 Foxboro Company, The. (See Bristol, Edgar H., assignor.)
 Francis, Arthur R., Cleveland, Ohio. Electric switch. No. 1,304,876; May 20; v. 262; p. 527.
 Franco, Cesare, New York, N. Y. Power-developing machine. No. 1,304,296; May 20; v. 262; p. 464.
 François, Petrus J., Quebec, Quebec, Canada. Projector. No. 1,308,977; May 20; v. 262; p. 527.
 Frank, Harrison J. L., Detroit, Mich. Knife-blade switch. No. 1,304,284; May 12; v. 262; p. 181.
 Frank, John J., Pittsford, Mass. Assignor to General Electric Company. Oil-filled lead-battery. No. 1,304,469; May 20; v. 262; p. 489.
 Frauke, Arthur H., Manitowish, Wis. Phonograph-stop mechanism. No. 1,302,050; May 6; v. 262; p. 32.
 Franklin, Charles S., London, England. Assignor to Marconi Wireless Telegraph Company of America, New York, N. Y. Wireless-telegraph transmitter. No. 1,304,868; May 27; v. 262; p. 552.
 Franklin, Henry T., assignor to M. E. Reed. Dawmont, Vt. Coal-loading machine. No. 1,304,939; May 27; v. 262; p. 552.
 Fraser, Lester C., assignor to J. W. O. Currier, Los Angeles, Calif. Combination valve and oil-burner. No. 1,304,299; May 20; v. 262; p. 465.
 Fraser, Norman D. (See Hiltz, Gilbert R., assignor.)
 Fraser, Charles R. (See Smith, Martin C., assignor.)
 Frederick Omana Company. (See Bublitz, Charles W., assignor.)
 Frederick Omana Company. (See Masterson, James H., assignor.)
 Frederick, Hilder, assignor to C. Bloemberg. Chicago, Ill. Carburetor attachment. No. 1,302,334; May 6; v. 262; p. 11.
 Fredrikson, Carl, Lachawanna, N. Y. Direction-signal for vehicles. No. 1,304,173; May 20; v. 262; p. 180.
 Freeman, Frank L., Omaha, Neb. Front-wheel drive mechanism for motor-vehicles. No. 1,308,286; May 13; v. 262; p. 151.
 Freeman, William A., assignor to W. A. Freeman Company Limited, Hamilton, Ontario, Canada. Refrigerated-display-counter top. No. 1,304,946; May 27; v. 262; p. 554.
 Freitag, Louis R., Baker, Oreg. Spoon-handle. No. 1,302,784; May 6; v. 262; p. 57.
 French Battery & Carbon Co. (See Graves, John, assignor.)
 French, Harry F. (See Hesser and French.)
 French, Harry F., Fremont, Ohio, assignor, by means assignments, to National Carbon Company, Inc. Electric battery. No. 1,303,296; May 13; v. 262; p. 181.
 Frey, Charles. (See Wright, Judson E., assignor.)
 Frick Company. (See Hanna, William H., assignor.)
 Frick Company. (See Odeman, Erick H., assignor.)
 Frick, D. Roy, Alma, Mich. Transmission-gearing. No. 1,306,208; May 27; v. 262; p. 610.
 Fried, Krupp Aktiengesellschaft Germanlawert. (See Reagenbuss and Techel, assignors.)
 Friedberger-Aaron Manufacturing Company. (See Goldsmith, Edwin M., assignor.)
 Fritz, George E., and J. D. Wiltshire, Indianapolis, Ind. Stop-arm for steering mechanism. No. 1,304,200; May 20; v. 262; p. 408.
 Fritz, Edward, Poughkeepsie, N. Y. Toy. No. 1,308,787; May 13; v. 262; p. 272.
 Frohn, Leonard J., New York, N. Y. Backing-machine for books, tablets, and the like. No. 1,304,760; May 27; v. 262; p. 552.
 Frost, Nathaniel, Bloomington, Ill. Ventilated urinal-closet combination-range. No. 1,303,648; May 13; v. 262; p. 246.
 Fryer, Alva A., Kansas City, Mo. Sanding device. No. 1,306,080; May 27; v. 262; p. 592.
 Fuchs, John E., Stamford, Conn. Fuel-shut-off mechanism for automobiles. No. 1,308,878; May 20; v. 262; p. 327.
 Fuegel, Gottlieb. (See Schmid and Fuegel.)
 Fulcher, William H., assignor to Fulcher Pump Bottle Company, Oakland, Calif. Apparatus for making paper hollow ware. No. 1,303,191; May 6; v. 262; p. 126.
 Fuller, Archibald S. (See Higinson, James, assignor.)
 Fuller, Chas. L., et al. (See Cole, Melville E., assignor.)
 Fuller, Eugene, Providence, assignor to B. F. Teft, Jr., Arctic, E. I. Shock-absorber. No. 1,303,816; May 13; v. 262; p. 278.
 Fuller, Frank A., Newark, N. J., assignor to American Safety Razor Company, Brooklyn, N. Y. Razor-shaving device. No. 1,304,675; May 27; v. 262; p. 518.
 Funck, Jacob F., Rochester, N. Y. Leather-splitting machine. No. 1,308,051; May 6; v. 262; p. 32.
 Funder, James L., Wellburg, W. Va., assignor to Johnson Manufacturing Company, Urbana, Ohio. Oil. No. 1,304,261; May 20; v. 262; p. 466.
 Fynn, Valere A., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo. Polyphase motor. No. 1,304,907; May 27; v. 262; p. 568.

Fynn, Valere A., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo. Dynamo-electric machine. No. 1,304,908; May 27; v. 262; p. 568.
 G. W. J. Murphy Co. (See Bourque, David, assignor.)
 Gabrielsen, Carl, assignor to L. C. Smith & Bros. Typewriter Company, Syracuse, N. Y. Card-holder for typewriter. No. 1,304,879; May 20; v. 262; p. 527.
 Gabes, Adrian, Springfield, Ill. Jewel-blank-chasing machine. No. 1,302,507; May 6; v. 262; p. 32.
 Gabes, Adrian, Springfield, Ill. Jewel-making machine. No. 1,304,924; May 27; v. 262; p. 552.
 Gadd, Anna B., executrix. (See Gadd, Charles J.)
 Gadd, Charles J., deceased, Lebanon, Pa.; A. R. Gadd, executrix. Toilet and means for controlling the feed of material to hoppers or bins. No. 1,304,588; May 27; v. 262; p. 488.
 Gadd, Charles J., deceased, Lebanon, Pa.; A. R. Gadd, executrix. Clip. No. 1,304,584; May 27; v. 262; p. 488.
 Gaddis, Benjamin W., Parsons, Kans. Voting-machine. No. 1,304,454; May 27; v. 262; p. 552.
 Gage, Lorenzo E., Jr., Niagara, Wash. Fishing device. No. 1,304,909; May 27; v. 262; p. 568.
 Gage, Wm. J., Boston, N. H. Multiple-plate machine. No. 1,304,175; May 20; v. 262; p. 180.
 Gagnon, William J., assignor to the Road Chain Manufacturing Company, Bridgeport, Conn. Chain. No. 1,304,648; May 13; v. 262; p. 246.
 Galatin, Ignatius P., Chicago, Ill. Assignor to Spilldorf Electrical Company, Newark, N. J. Ignition-generator. No. 1,308,469; May 13; v. 262; p. 272.
 Gale, Ernest L., Jr., Yonkers, N. Y. Electromechanical rate apparatus. No. 1,304,870; May 27; v. 262; p. 527.
 Gale, Fred R., Minneapolis, Minn. Antislipping attachment for automobile-wheels. No. 1,304,681; May 13; v. 262; p. 247.
 Galland Aircraft Corporation. (See Galland, Edouard F., assignor.)
 Galland, Edouard F., Providence, assignor to Galland Aircraft Corporation, East county, E. I. State. No. 1,304,682; May 6; v. 262; p. 169.
 Galloway, Charles D., Philadelphia, Pa. Machine for dumping barrels and like containers. No. 1,304,667; May 27; v. 262; p. 552.
 Gamewell Fire Alarm Telegraph Company. (See Soren, Nathan H., assignor.)
 Gannon, Thomas J., Brooklyn, N. Y. Valve for sub-tanks. No. 1,304,308; May 20; v. 262; p. 466.
 Gannon, William F., Parkman, Wyo. Tool. No. 1,304,798; May 13; v. 262; p. 272.
 Gardella, Cirio, Mexico, Mexico. Advertising device. No. 1,304,680; May 13; v. 262; p. 246.
 Gardner, John T., Hamilton, assignor to The Dedanne Machine Works, Dedanne, Ohio. Wheel-assembly machine. No. 1,304,676; May 27; v. 262; p. 518.
 Garhart, Nathan K., Watertown, Mass. Bottle or jar for dispensing dental fluids and the like. No. 1,304,904; May 20; v. 262; p. 466.
 Garst, Joseph H., Moline, Ill. Bell-surface pulverizer. No. 1,304,871; May 27; v. 262; p. 527.
 Gartin, Bert G., Joliet, Ill. Apparatus for controlling the flow of lubricating-oil in motors of motor-vehicles. No. 1,302,436; May 6; v. 262; p. 11.
 Garvin Machine Co., The. (See McClellan, Edward J., assignor.)
 Gas and Oil Combustion Company. (See Loda, Charles E., assignor.)
 Gato, Charles E., Winnipeg, Manitoba, Canada. Clean-out plug. No. 1,304,174; May 20; v. 262; p. 180.
 Gauthier, Joseph A. (See Gannon, Gauthier, and Hanner.)
 Gay, Mary, Butte, Mont. Havelop. No. 1,303,561; May 13; v. 262; p. 229.
 Gear, William I. (See Robeson, William B., assignor.)
 Gebrüder Siemens & Co. (See Beckwald, Gustav, and Viertel, assignors.)
 Gee, William J., London, England. Variable-speed gear and clutch. No. 1,308,257; May 13; v. 262; p. 181.
 Geer, Paul L., Bellevue, assignor to E. M. Moore, Pittsburgh, Pa. Chaplet. No. 1,304,900; May 27; v. 262; p. 568.
 Geisler, Samuel P., York, Pa. Deer-lock. No. 1,304,179; May 20; v. 262; p. 181.
 Gehlke, Otto J., Tacoma, N. Y. Circular-saw table. No. 1,304,873; May 27; v. 262; p. 527.
 Geler, John L., Chicago, Ill. Measuring-tank. No. 1,304,905; May 20; v. 262; p. 466.
 Geller, William A., Chicago, Ill. Assignor to W. H. Miner, Chazy, N. Y. Shock-absorbing mechanism. No. 1,304,906; May 13; v. 262; p. 181.
 Geller, William A., Chicago, Ill. Assignor to W. H. Miner, Chazy, N. Y. Decelerating mechanism for refrigerator-car doors. No. 1,304,909; May 20; v. 262; p. 466.
 Gelman, Hyman. (See Storch and Gelman.)
 General Electric Company. (See Alexander, Ernest F., assignor.)
 General Electric Company. (See Brand, Frederick F., assignor.)
 General Electric Company. (See Bullock, Charles F., assignor.)

General Electric Company. (See Burnham, Leche H., assignor.)
 General Electric Company. (See May, Eugene D., assignor.)
 General Electric Company. (See Egan, Paul, assignor.)
 General Electric Company. (See Emmet, William L. R., assignor.)
 General Electric Company. (See Frank, John J., assignor.)
 General Electric Company. (See Gray, Emilio J., assignor.)
 General Electric Company. (See Hamilton, William S. H., assignor.)
 General Electric Company. (See Hobart, Henry M., assignor.)
 General Electric Company. (See Johnsson, Svend R., assignor.)
 General Electric Company. (See Keith, Reginald F., assignor.)
 General Electric Company. (See Shuttleworth and Brown, assignors.)
 General Electric Company. (See Wagner, Robert H., assignor.)
 General Electric Company. (See Wood, James M., assignor.)
 General Electric Company. (See Ward, John B., assignor.)
 General Electric Company. (See Wilkins, James, assignor.)
 General Electric Company. (See Wood, James J., assignor.)
 General Fire Extinguisher Company. (See Park, Nicholas W., assignor.)
 General Fireproofing Company, The. (See Herbert, Arthur W., assignor.)
 General Industries Company. (See Brinkman, Louis H., assignor.)
 Getty, Darius C., Vincennes, Ind. Portable shot-drilling device. No. 1,304,998; May 20; v. 262; p. 466.
 George W. Dyer, Inc. (See Dyer and Hughes, assignors.)
 Gordon, Hans, Schwarzenberg, near Berlin, assignor to Siemens & Halske, A. G., Berlin, Germany. Apparatus for quantitatively analyzing gaseous mixtures. No. 1,304,697; May 20; v. 262; p. 466.
 Gerlach, George W., Cambridge, Iowa. Locomotive equipment for block-signal systems. No. 1,304,193; May 6; v. 262; p. 126.
 Germain, Louis C., Conway, Mass. Transmission. No. 1,303,789; May 13; v. 262; p. 272.
 Gerson, Hilda. (See Kellie and Gerson.)
 Gerson, Paul W. (See Meyer and Gerson.)
 Gieseler, Edwin, Hancock, Mich. Steering device. No. 1,304,329; May 13; v. 262; p. 182.
 Gihbs, Henry, executrix. (See Gihbs, William G.)
 Gihbs, William G., deceased, St. Louis, Mo.; H. Gihbs, executrix. Washing-machine. No. 1,304,470; May 20; v. 262; p. 489.
 Gibbs, Frederick H., Brooklyn, N. Y. Fuel-feed system for internal-combustion engine. No. 1,303,290; May 13; v. 262; p. 182.
 Gibbs, Harry D. (See Conover and Gibbs.)
 Gibbs, Katherine E. (See Hardy and Gibbs.)
 Giddins, George H., Ilion, N. Y. Double-barrel gun. No. 1,302,909; May 6; v. 262; p. 82.
 Giddins, George H., Ilion, N. Y. Single-trigger device. No. 1,302,910; May 6; v. 262; p. 82.
 Gifford, Edward L., Alameda, Calif. Closing device. No. 1,304,471; May 20; v. 262; p. 489.
 Gilbert, Alfred C., assignor to The A. C. Gilbert Company, New Haven, Conn. Toy building construction. No. 1,302,652; May 6; v. 262; p. 22.
 Gilbert & Barker Manufacturing Company. (See Davis, John B., assignor.)
 Gilbert, Battle R., Huntington, W. Va., assignor of one-half to W. J. Fields, Olive Hill, Ky. Box cooking kit. No. 1,302,911; May 6; v. 262; p. 82.
 Gilbert, Samuel S., South Weymouth, Mass. Toy house. No. 1,302,785; May 6; v. 262; p. 57.
 Gile, Robert, et al. (See Muir, David E., assignor.)
 Gilman, James R., Baltimore, Md. Roof-trimming machine. No. 1,304,761; May 27; v. 262; p. 552.
 Gilman, Charles M., Denver, Colo. Power unit for farming implements. No. 1,308,888; May 27; v. 262; p. 328.
 Gilman, John C., Lakewood, Ohio, assignor, by means assignments, to National Carbon Company, Inc. I. Cooked conveyor apparatus. No. 1,304,470; May 20; v. 262; p. 489.
 Gilman, Orrin L., Minneapolis, Minn. Leader. No. 1,304,267; May 20; v. 262; p. 466.
 Gilman, George H., assignor to Claremont Machinery Company, Claremont, N. H. Drilling apparatus. No. 1,304,799; May 13; v. 262; p. 272.
 Gilman, John H., assignor to King & Hamilton Company, Ottawa, Ill. Irrator for corn, etc. No. 1,303,582; May 13; v. 262; p. 229.
 Gilman, Allen E., St. Louis, Mo. Mechanism for operating sub-valve. No. 1,302,912; May 6; v. 262; p. 82.
 Gilmore, Earl L., assignor to Vitacide Company, San Francisco, Calif. Protector. No. 1,304,194; May 6; v. 262; p. 126.
 Gilson, Charles H. (See Malach and Gilson.)

Gindler, Samuel B., East Orange, N. J. Catch for belt. No. 1,302,632; May 13; v. 262; p. 247.
 Gitz, Alphonse H., Chicago, Ill. Oil-cup. No. 1,304,886; May 27; v. 262; p. 552.
 Gladling, McLean & Company. (See Pemberton, George F., assignor.)
 Glasser, Walter, Brooklyn, N. Y. Flexible transparent material and making same. No. 1,303,063; May 6; v. 262; p. 109.
 Glasser, Adolph J., Comfort, Tex. Dental plate. No. 1,304,638; May 20; v. 262; p. 464.
 Glass, Percy R., Brookline, Mass. Assignor, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J. Eyeletting-machine. No. 1,308,194; May 6; v. 262; p. 126.
 Glass, Percy R., Brookline, assignor to P. R. Glass Company, Boston, Mass. Folding-machine. No. 1,304,472; May 20; v. 262; p. 489.
 Glauber Brain Manufacturing Company. (See Teiser, Leon R., assignor.)
 Glenn, Thomas F., Ardmore, Pa., assignor to The R. R. White Dental Manufacturing Company. Artificial teeth. No. 1,308,931; May 20; v. 262; p. 328.
 Glenner, John C., Highland Park, Mich. Drill and tap driver. No. 1,304,473; May 20; v. 262; p. 489.
 Glick, Albert, Hilsboer, Warmland, Sweden, assignor to Drying Products Co. Ltd. A/S, Christiania, Norway. Machine for drying liquids. No. 1,302,706; May 6; v. 262; p. 57.
 Globe Automatic Sprinkler Company. (See Rowley, Arthur C., assignor.)
 Globe Machinery and Supply Company. (See Bristol, Cyrus J., assignor.)
 Goddard, George H., assignor to Packard Motor Car Company, Detroit, Mich. Vehicle-body. No. 1,305,089; May 27; v. 262; p. 568.
 Goddard, George H., assignor to Packard Motor Car Company, Detroit, Mich. Motor-vehicle fender and bracket construction. No. 1,305,090; May 27; v. 262; p. 568.
 Goddard, Hadel, Amistad, N. Mex. Gas and spark lever for the control of motor-vehicle engines. No. 1,303,683; May 13; v. 262; p. 247.
 Goerner, George, Los Angeles, Calif. Apparatus for treating fluids. No. 1,302,913; May 6; v. 262; p. 82.
 Goff, Howard E., Auburn, N. Y. Attachment for pen and bean vipers. No. 1,303,195; May 6; v. 262; p. 187.
 Goger, Mabel, San Francisco, Calif. Sanitary and protective cap. No. 1,304,900; May 27; v. 262; p. 568.
 Going, George G., assignor to The Notolan Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,308,931; May 27; v. 262; p. 328.
 Gold, Egbert H., Chicago, Ill. Railway-car and heating and ventilating system therefor. No. 1,303,962; May 20; v. 262; p. 328.
 Goldbeck, Martin, Kansas City, Mo. Internal-combustion engine. No. 1,304,039; May 20; v. 262; p. 464.
 Goldberg, Maximilian M., Dayton, Ohio. Speed-transmission. No. 1,306,291; May 13; v. 262; p. 182.
 Goldner, Isidore H., New York, N. Y. Piston-rod packing. No. 1,305,088; May 20; v. 262; p. 328.
 Goldschmidt, Victor M. (See Harner and Goldschmidt.)
 Goldsmith, Charles E., New York, N. Y. Mat. No. 1,304,474; May 20; v. 262; p. 489.
 Goldsmith, Edwin M., assignor to Friedberger-Aaron Manufacturing Company, Philadelphia, Pa. Contrivance for cleaning cooking utensils and other articles. No. 1,304,176; May 20; v. 262; p. 181.
 Goldstein, Joseph, Brooklyn, N. Y. Chair-seat. No. 1,302,884; May 6; v. 262; p. 11.
 Gomer, Joseph, Jacksonville, Ill. Chair-truck. No. 1,304,677; May 27; v. 262; p. 518.
 Good, John, Brooklyn, N. Y. Boat-balling means. No. 1,304,961; May 27; v. 262; p. 568.
 Goodnow, Charles F., Jr., South Sudbury, Mass. Sanitary tooth-brush holder. No. 1,303,884; May 20; v. 262; p. 328.
 Goodrow, William, Chicago, Ill. Adjustable cornice. No. 1,304,678; May 27; v. 262; p. 518.
 Goodrum, Charles L. (See Clausen and Goodrum.)
 Goodspeed, Arthur R., Hadlyme, Conn., assignor to Industrial Development Company, New York, N. Y. Internal-combustion engine. No. 1,302,653; May 6; v. 262; p. 22.
 Goodyear Tire & Rubber Company, The. (See Kuentzel, Curt, assignor.)
 Goodyear's India Rubber Glove Manufacturing Co., The. (See Eggers, Anton C., assignor.)
 Goodyear's Metallic Rubber Shoe Company, The. (See Rieder and Wiegand, assignors.)
 Gordon, David, et al. (See Pascal, Israel, assignor.)
 Gordon, David D., assignor to Central West Electric Co., Chicago, Ill. Mechanical movement. No. 1,303,196; May 6; v. 262; p. 127.
 Goran, Nelson G., New Orleans, La. Pilot-light. No. 1,302,914; May 6; v. 262; p. 82.
 Goran, Nelson G., New Orleans, La. Water-heater. No. 1,303,084; May 6; v. 262; p. 109.
 Gorenkowsky, Wilhelm F. K., La Salle, Ill. Switching means. No. 1,302,537; May 6; v. 262; p. 11.
 Goss, Galen A., Durand, Wis. Highway-maintenance attachment for motor-trucks. No. 1,304,557; May 27; v. 262; p. 568.
 Goss Printing Press Company, The. (See Brueshaber, Martin W., assignor.)

Grove, Edwin W. (See Carter, Albert H., assigner.)
Grun, Frederick G., assigner to The D. Grun Wash Company, Cincinnati, Ohio. Wrist-wash. No. 1,300,988; May 20; v. 262; p. 329.
Grunfeld, Julius J., Jr., assigner to Mason Concrete Products Corporation, Chicago, Ill. Hollow-concrete-pole-making apparatus. No. 1,300,989; May 20; v. 262; p. 329.
Gryczak, Jan. Hayasaka, N. J. Turn-table device for cranes. No. 1,300,994; May 13; v. 262; p. 280.
Grulla, Horace B. (See Haase and Grulla.)
Guay, Emil J., Lynn, Mass., assigner to General Electric Company. Lubricant for non-metallic gear-wheels. No. 1,300,477; May 20; v. 262; p. 440.
Gubbins, John F., Chicago, Ill. Washing-machine. No. 1,300,994; May 13; v. 262; p. 182.
Gudum, Tryve, Christiania, Norway. Electromagnetic device. No. 1,300,916; May 6; v. 262; p. 58.
Guerrin, J. T., et al. (See Shoemaker, John F., assigner.)
Guenther, Ernest J., and T. B. Jenkins, assigner to Jenkins Vulcan Spring Company, Richmond, Ind. Bending-machine. No. 1,300,957; May 13; v. 262; p. 345.
Gullid, George K., U. S. Army, assigner of one-half to C. T. Payton, St. Louis, Mo. Relay. No. 1,300,993; May 27; v. 262; p. 504.
Guth, Celestia, Goshen, Conn. Shovel. No. 1,300,995; May 13; v. 262; p. 182.
Guletsian, Helen J., Boston, Mass. Adjustable rail-cutting. No. 1,300,561; May 27; v. 262; p. 469.
Gulick, David E., San Francisco, Calif. Ball-cock, otherwise known as Seat-valve. No. 1,302,338; May 6; v. 262; p. 11.
Gullborg, Arthur V., Chicago, Ill. Indicator mechanism for spring-motors. No. 1,300,559; May 6; v. 262; p. 11.
Gunter, Albert J., Canton, Ohio. Switch-controlling device for railway-tracks. No. 1,300,296; May 13; v. 262; p. 182.
Gustafson, Floyd H., Mead, Neb. Funnel. No. 1,300,990; May 20; v. 262; p. 329.
Guth, Albert, Perth Amboy, N. J. Outlet-box. No. 1,300,440; May 20; v. 262; p. 354.
Guth, Edwin F., assigner to Luminous Unit Company, St. Louis, Mo. Lighting-fixture. No. 1,300,968; May 27; v. 262; p. 549.
Gyan, Battle H. (See Reed, Louis M., assigner.)
H. Koppers Company. (See Spurr, Frederick W., Jr., assigner.)
H. Malmin Co. (See Malmin and Marshall, assigners.)
H. Ward Leonard, Incorporated. (See Leonard, Harry W., assigner.)
Haas, Paul C., assigner of one-half to J. C. Martin, Amherst, Mich. Distributor. No. 1,300,969; May 27; v. 262; p. 504.
Haas, Philip, Dayton, Ohio. Front-press valve mechanism. No. 1,300,473; May 13; v. 262; p. 214.
Haas, Walter G., Dayton, assigner to The Midglathwa Machine Company, Middletown, Ohio. Apparatus for pneumatic control. No. 1,300,297; May 13; v. 262; p. 182.
Hagdon, Clinton A., Western Springs, Ill., assigner, by mesne assignments, to International Harvester Company. Corn-harvester. No. 1,300,599; May 13; v. 262; p. 182.
Hagerstrom, John A., assigner to Victor Typewriter Company, Scranton, Pa. Case-shift mechanism. No. 1,300,041; May 20; v. 262; p. 357.
Hague, Alfred H., assigner to Western Electric Company, Incorporated, New York, N. Y. Machine-switching telephone system. No. 1,300,096; May 6; v. 262; p. 110.
Hahl, Edgar J., New York, N. Y. Record-holder. No. 1,300,266; May 13; v. 262; p. 182.
Halnes, Le Roy, Cedarburg, Ill. Hammer for disk harrow. No. 1,300,087; May 6; v. 262; p. 110.
Halgrove, Francis M., assigner of one-half to I. J. Halgrove, Brownville, Neb. Ice-cutting device. No. 1,300,917; May 6; v. 262; p. 84.
Halgrove, Ira J. (See Halgrove, Francis M., assigner.)
Hale, Frederick M., Bromley, England. Explosive shell or similar body. No. 1,300,197; May 6; v. 262; p. 157.
Hall, Arthur J., Wilkesburg, Pa., assigner to Westinghouse Electric and Manufacturing Company. Rail-carrier. No. 1,300,480; May 6; v. 262; p. 164.
Hall, Charles B., Oakdale, Calif. Dewater-bed. No. 1,300,473; May 13; v. 262; p. 214.
Hall, John H., Wellington, Colo. Safety parachute attachment for aeroplanes. No. 1,300,674; May 13; v. 262; p. 215.
Hall, William H., Cicero, assigner to The American Hotel Register Co., Chicago, Ill. Loose-leaf hotel-register device. No. 1,300,480; May 6; v. 262; p. 164.
Hall, William R. D., Narberth, Pa. Treating artificial-silk waste for spinning into yarn. No. 1,300,501; May 13; v. 262; p. 164.
Hall, William R. D., Narberth, Pa., assigner to S. Feather Company. Spinning imitation-silk yarn. No. 1,300,502; May 13; v. 262; p. 164.
Halldon, Karl W., Watertown, Conn. Cutting-off machine. No. 1,300,701; May; v. 262; p. 58.
Halliday, George, Cape Town, South Africa. Flooring in armored concrete without the use of false work or mold. No. 1,300,994; May 27; v. 262; p. 504.

Hargrave, William C. (See Lee and Hargrave.)
 Harlow, John H. Haverhill, Wis. Fan-coupler. No. 1,504,705; May 27; v. 262; p. 552.
 Harman, John. Gas-ventilator. No. 1,504,704; May 27; v. 262; p. 552.
 Harman, John H. Yonkers, N. Y., assignor to Synchro Chemical Separator Corporation, Croton-on-Hudson, N. Y. Chemical separating-apparatus. No. 1,504,698; May 6; v. 262; p. 114.
 Harman, John H., Carroll, Ala. Hammer. No. 1,504,702; May 27; v. 262; p. 552.
 Harman, William C. Assignor to The Andrew Manufacturing Company, Columbus, Ohio. Mining separator. No. 1,504,697; May 13; v. 262; p. 184.
 Harman, William H. H. Salem, N. Y., assignor to General Electric Company. Electrical system of power transmission. No. 1,504,716; May 20; v. 262; p. 14.
 Harman, William H. Erie, Pa. No. 1,504,715; May 20; v. 262; p. 14.
 Harman, John O. Chicago, Ill. Screen-trap. No. 1,504,693; May 27; v. 262; p. 495.
 Harman, John O. Chicago, Ill. Steam-trap. No. 1,504,692; May 27; v. 262; p. 495.
 Hammond, Alvin R. (See Cunningham and Hammond.)
 Hammond, William F. Pacific, M. J., assignor to A. Schneider's Sons, Inc., New York, N. Y. Dust-cap for valves of pneumatic train. No. 1,502,792; May 6; v. 262; p. 114.
 Handcock, Max. (See Wyckoff and Handcock.)
 Haney, Barton B. Medford, Oreg. Auto-bid. No. 1,504,696; May 27; v. 262; p. 500.
 Hanley, Herman, Omaha, Ark. Combined garment and hat rack. No. 1,504,710; May 27; v. 262; p. 616.
 Hanzell, John B. Sutton, Thurst, England, assignor to Birmingham Electric and Manufacturing Company. Combined starting-switch. No. 1,505,696; May 27; v. 263; p. 504.
 Harnes, Augie L. assignor to Justite Manufacturing Company, Chicago, Ill. Acetylene-lamp. No. 1,505,693; May 12; v. 263; p. 242.
 Hansen, Jens P. Copenhagen, Denmark. Apparatus for developing films and washing photographic films and plates. No. 1,505,695; May 27; v. 263; p. 504.
 Hansen, Jens P. Copenhagen, Denmark. Fading photographic raw films. No. 1,505,690; May 27; v. 263; p. 504.
 Hansen, Jens P. Copenhagen, Denmark. Photographic film. No. 1,505,691; May 27; v. 263; p. 503.
 Hapson, James M. W. Hartford, Conn. assignor to Pratt & Whitney Company, New York, N. Y. Method of and apparatus for cutting and grinding. No. 1,505,540; May 4; v. 262; p. 12.
 Hapson, James M. W. Hartford, Conn. assignor to Pratt & Whitney Company, New York, N. Y. Contour-cutter milling-machine. No. 1,502,541; May 6; v. 262; p. 12.
 Harp, Charles G. Wichita, Kans. Hanger. No. 1,502,793; May 6; v. 263; p. 50.
 Harp, Charles G. Wichita, Kans. Apparatus for treating standing grain. No. 1,504,690; May 12; v. 262; p. 348.
 Hart, Alfred, assignor to L. Hart, New York, N. Y. Fly-ing-machine. No. 1,504,697; May 27; v. 262; p. 576.
 Hart, Louis. (See Hart, Alfred, assignor.)
 Harsh, May P. Harrodsburg, Ky. Sleeve-patters and method of producing the same. No. 1,505,677; May 12; v. 263; p. 515.
 Harting, Charles K. Chicago, Ill. Apparatus for burning gas. No. 1,504,694; May 20; v. 262; p. 287.
 Hartman, John R. Columbus, Ohio. Combined table and job-roll for automobile. No. 1,502,542; May 6; v. 262; p. 12.
 Hasty, Clara B., and K. E. Gibson, Los Angeles, Calif. Mechanical manipulating mechanism. No. 1,504,675; May 12; v. 262; p. 515.
 Hays, John A. New York, N. Y. Continuous-roll railway-cranes. No. 1,504,511; May 27; v. 262; p. 606.
 Hays, John A. New York, N. Y. Transmission-gearing. No. 1,504,509; May 12; v. 262; p. 349.
 Harvey, Charles R. New York, N. Y. Electric Manufacturing Company, Chicago, Ill. Signaling device. No. 1,504,699; May 27; v. 262; p. 570.
 Harvey, Frank L. Beverly, Mass. assignor to Singer Manufacturing Company, Elizabeth, N. J. Duplex feeding mechanism for cycloids. No. 1,502,794; May 6; v. 262; p. 50.
 Harper, Martin A. J. (See Myers and Harper.)
 Harper, Martin A. J. Jr. Haverhill, Mass. safety means. No. 1,505,694; May 6; v. 262; p. 114.
 Harris, Harry E. Chicago, Ill. Cars, angle and lead feeding machine. No. 1,505,196; May 6; v. 262; p. 157.
 Harris, John, Lawrence, Ohio. Gas for cutting and welding purposes. No. 1,505,591; May 20; v. 262; p. 229.
 Harris, John, Lawrence, Ohio. Welding. No. 1,505,592; May 20; v. 262; p. 229.
 Harris, Robert R. assignor to sea-fourth to J. Wade and Joseph H. W. Wilson, Oakland, Calif. Electric. No. 1,505,593; May 27; v. 262; p. 584.
 Harris, John H. New York, N. Y. Feeding device. No. 1,505,594; May 27; v. 262; p. 54.
 Harris, Thomas G. Waverly, Ill. Combined heater and gas-flow. No. 1,505,690; May 27; v. 262; p. 500.

Harry Vining & Company. (See Russell, Thomas H.)
 Harshman, Jonathan R., Danport, Iowa. Direction-in-
 dicator. No. 1,263,476; May 13; v. 262; p. 218.
 Hart, Frank M., Poplar Bluff, Mo. Portable lifting de-
 vice and carrier for automobiles. No. 1,264,280; May
 27; v. 262; p. 217.
 Hart, Harry M., Chicago, Ill. Dump-car. No. 1,264,938;
 May 27; v. 262; p. 270.
 Hart, Miller H., Pittsburgh, Pa. Soil cultivation. No.
 1,264,646; May 27; v. 262; p. 12.
 Hartburg, Herman L., Denver, Colo. Adjustable inter-
 locking clamp. No. 1,262,244; May 6; v. 262; p. 12.
 Hartford, Edward V., Deal, N. J. Shock-absorber for ve-
 hicle suspension-springs. No. 1,264,970; May 27; v.
 262; p. 270.
 Harton, Mary J., executrix. (See Harton, Pembroke D.)
 Harton, Pembroke D., deceased, Philadelphia, Pa.; M. J.
 Harton, executrix. Case-casting machine. No.
 1,264,243; May 27; v. 262; p. 257.
 Hartung, Fritz C. (See Falkner and Hartung.)
 Harvey, George L., Port Huron, Mich. Wheel attach-
 ment. No. 1,264,473; May 20; v. 262; p. 446.
 Hasbrouck, Charles H., Binghamton, N. Y. Machine for
 protecting checks and the like. No. 1,262,855; May 6;
 v. 262; p. 22.
 Hasbrouck, Kobor, New York, N. Y. Game of fortunes.
 No. 1,263,100; May 27; v. 262; p. 260.
 Hasel, Fred, Detroit, Mich. Universal card-holder. No.
 1,262,651; May 13; v. 262; p. 240.
 Hasel, William M., assignor to Ray Organ Company,
 Brattleboro, Vt. Starting and stopping mechanism for
 automatically played musical instruments. No.
 1,264,971; May 27; v. 262; p. 270.
 Haslett, Joe D. (See Scott and Haslett.)
 Haslins, George W., and E. H. Kellogg, Lovell, Okla.
 Hand-operated register for pneumatic tires. No.
 1,262,503; May 20; v. 262; p. 230.
 Hastings, Herbert, assignor to Art in Buttons, Incorporated,
 Rochester, N. Y. Turning machine. No.
 1,263,130; May 6; v. 262; p. 127.
 Hastings, Horace H., New York, N. Y. Hydrocarbon-
 burner. No. 1,263,063; May 13; v. 262; p. 246.
 Hatch, Nathan, Albany, N. Y. Garment. No. 1,263,063;
 May 13; v. 262; p. 246.
 Hathaway, W. C., and C. Lea, Boston, Mass., assignors to
 American Wire Drawing Machine Company. Wire-
 reeling machine. No. 1,264,578; May 27; v. 262;
 p. 252.
 Hatt, Joseph A. H., Brooklyn, N. Y. Producing printing
 plates. No. 1,262,910; May 6; v. 262; p. 24.
 Hatt, Joseph A. H., Brooklyn, N. Y. Machine for making
 printing-plates. No. 1,262,920; May 6; v. 262; p. 24.
 Hatten, E. D., et al, trustees. (See Hoeber, Charles O.,
 assignor.)
 Hauserwa, John J. (See Schvaline and Hauserwa.)
 Haskins, E. G. (See Lacerda, Harry A., assignor.)
 Haskins, Nathan, and W. H. Haskins, New York. Motor-vehicle. No.
 1,262,545; May 6; v. 262; p. 13.
 Hasselmann, Christian, Samswald, Switzerland. Device
 for securing the correct holding of the hand when
 writing and for facilitating such writing. No.
 1,263,234; May 13; v. 262; p. 124.
 Hauser, Benzer R., San Francisco, Calif. Fence-post.
 No. 1,263,234; May 20; v. 262; p. 220.
 Hauser, Frank, et al. (See Haskins, Nathan, and Hauser.)
 Hauserman, Herman, and C. C. Kessler, Chicago, Ill.
 Electric-lamp holder. No. 1,262,855; May 13; v. 262;
 p. 220.
 Haussmann, John F., assignor of one-half to Badger Pack-
 ard Machinery Co., Milwaukee, Wis. Motor-cycle. No.
 1,262,056; May 6; v. 262; p. 32.
 Havlina, Joseph, Medicine, Wis. Water-motor. No.
 1,264,972; May 27; v. 262; p. 271.
 Hawley, Bertha, London, England. Garment. No.
 1,264,379; May 20; v. 262; p. 251.
 Hawkins, Arthur C., assignor to Chicago Railway Equip-
 ment Company, Chicago, Ill. Wheel-shoe-tye lock. No.
 1,264,244; May 20; v. 262; p. 257.
 Hawline, Charles H. (See Macy, Charles B., assignor.)
 Hawkins, Edgar M., assignor to M. D. Knowlton Com-
 pany, Rochester, N. Y. Box-covering machine. No.
 1,262,546; May 6; v. 262; p. 12.
 Haws, Frank R., Mountmorris, Ill. Window attachment.
 No. 1,264,679; May 20; v. 262; p. 446.
 Hawthorne, Geo. W., Hamilton, Ontario, Canada, as-
 signor to Morgan, Crompton, & Company, Worcester,
 Mass. Rolling-mill. No. 1,262,921; May 6; v. 262;
 p. 24.
 Hawthorne, Margaret A., Bridgeport, Conn. Electric
 switch. No. 1,264,244; May 27; v. 262; p. 495.
 Hayes, Robert D., assignor to Index Visible, Incorporated,
 New Haven, Conn. Index or file. No. 1,264,180; May
 20; v. 262; p. 232.
 Hayward, Wirt L., Webster Groves, assignor of one-
 half to H. A. Moorman, St. Louis, Mo. Attachment for
 automobiles. No. 1,264,306; May 13; v. 262;
 p. 154.
 Hayward, Albert W., assignor to D. S. Hayward, Cincin-
 nati, O. Tire protector device. No. 1,262,161; May
 27; v. 262; p. 266.
 Hayward, Dora B. (See Hayward, Albert W., assignor.)

Haselett, Clarence W., Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc. Storage-battery connector. No. 1,303,311; May 13; v. 262; p. 188.

Headland, Nestor, Chicago, Ill. Machine for pasting, trimming, and folding wall-paper. No. 1,303,365; May 20; v. 262; p. 280.

Heape, Walter, London, and H. B. Grylls, Weybridge, England. Manufacture of carbons for electric-arc lamps. No. 1,302,795; May 6; v. 262; p. 50.

Heard, Thomas J., Wilcox, Kans. Insulator. No. 1,302,790; May 6; v. 262; p. 50.

Heeringa, John, Allentown, assignor of one-half to E. F. Worman, Copely, Pa. Occupant-propelled vehicle. No. 1,304,310; May 20; v. 262; p. 407.

Hecht, John B., and A. T. Dowdell, St. Albans, England. Manufacture of obturator-rings. No. 1,303,303; May 20; v. 262; p. 280.

Heckerman, Gerhart, San Diego, Calif. Wave-motor. No. 1,303,997; May 20; v. 262; p. 281.

Hedberg, Peter L., Chicago, Ill. Window ventilator and screen. No. 1,304,767; May 27; v. 262; p. 323.

Hedstrom, Bernard. (See Wilkinson and Hedstrom.)

Hedstrom, Peter, Minneapolis, Minn. Autostock-dump. No. 1,302,797; May 6; v. 262; p. 50.

Heddlinger, Charles S., Lebanon, Pa. Fuel-feeding device. No. 1,304,973; May 27; v. 262; p. 371.

Hedraan, Jeremiah W. (See Ormiston, John A., assignor.)

Heidenreich, Evelyn L., Kansas City, Mo. Piping system for concrete ships and tanks. No. 1,302,547; May 6; v. 262; p. 14.

Heidmann, Ernst A., Richmond Hill, N. Y. Fishing-line support. No. 1,304,876; May 27; v. 262; p. 353.

Heine Safety Boiler Company. (See Hsman, John H., assignor.)

Heine Safety Boiler Company. (See Heiler, Edward C., assignor.)

Heinen, Christian F., Point Pleasant, W. Va. Motor-plow. No. 1,302,657; May 6; v. 262; p. 33.

Hellhaus, Joseph A., Norwood, Ohio. Display-card support. No. 1,303,306; May 13; v. 262; p. 184.

Heldrich, Andrew, Philadelphia, Pa. Shock-absorber. No. 1,304,311; May 20; v. 262; p. 407.

Hellmund, Rudolf E., Pittsburgh, Pa. assignor to Westinghouse Electric and Manufacturing Company. Control system. No. 1,303,307; May 13; v. 262; p. 183.

Hellmund, Rudolf E., Pittsburgh, Pa. assignor to Westinghouse Electric and Manufacturing Company. Control system. No. 1,303,308; May 13; v. 262; p. 183.

Hellmund, Rudolf E., Pittsburgh, Pa. assignor to Westinghouse Electric and Manufacturing Company. System of control. No. 1,303,309; May 13; v. 262; p. 184.

Hellmund, Rudolf E., Pittsburgh, Pa. assignor to Westinghouse Electric and Manufacturing Company. System of control. No. 1,303,310; May 13; v. 262; p. 184.

Hellmund, Rudolf E., Swisvale, and C. W. Starter, Pittsburgh, Pa. assignors to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,306,102; May 27; v. 262; p. 388.

Heimer, Nicolas A., Cincinnati, Ohio. Separating device. No. 1,304,631; May 27; v. 262; p. 371.

Helmich, Frank C., Philadelphia, Pa. Section cleaning device. No. 1,303,050; May 6; v. 262; p. 110.

Hemel, Reuben H., Long Island City, assignor, by mesne assignments, to The Automatic Ticket Selling and Cash Register Company, New York, N. Y. Coin-controlled ticket-machine. No. 1,304,974; May 27; v. 262; p. 371.

Hemel, Reuben H., Long Island City, assignor, by mesne assignments, to The Automatic Ticket Selling and Cash Register Company, New York, N. Y. Ticket-dispensing machine. No. 1,304,975; May 27; v. 262; p. 371.

Hemel, Reuben H., Long Island City, assignor, by mesne assignments, to The Automatic Ticket Selling and Cash Register Company, New York, N. Y. Ticket-issuing mechanism. No. 1,304,976; May 27; v. 262; p. 372.

Hemel, Reuben H., Long Island City, assignor, by mesne assignments, to The Automatic Ticket Selling and Cash Register Company, New York, N. Y. Ticket-issuing machine. No. 1,304,977; May 27; v. 262; p. 372.

Hemle, Martin. (See Deoch and Hemle.)

Hemming, Otto L., New Haven, Conn. Knife-blade-hardening device. No. 1,303,300; May 6; v. 262; p. 137.

Henderson, Carl, Oak Park, and R. D. Stevens, Evanston, assignors to Miehle Printing Press & Manufacturing Company, Chicago, Ill. Gripper-pad adjustment. No. 1,303,798; May 13; v. 262; p. 274.

Henderson, Charles F., San Francisco, Calif. Automatic spark-advancing coupling. No. 1,304,769; May 27; v. 262; p. 323.

Henderson, Clark T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Winding mechanism. No. 1,304,645; May 27; v. 262; p. 353.

Henderson, Isaac, Vancouver, British Columbia, Canada. Sailing-craft. No. 1,303,330; May 13; v. 262; p. 282.

Henderson, Rufus C., Kansas, Ill. Seed-boot for corn-planters. No. 1,304,312; May 20; v. 262; p. 407.

Hendricks, Adolph H., Orange, Calif. Folding tooth-brush. No. 1,304,760; May 27; v. 262; p. 323.

Hendry, Samuel D., Columbus, Ohio. Jewelry-case having interchangeable cover. No. 1,303,241; May 27; v. 262; p. 322.

Henle, John. (See Jensen and Henle.)

Hensing, Benie, Chicago, Ill. Splash-guard for kitchen-sinks and the like. No. 1,302,305; May 6; v. 262; p. 33.

Henry, Stanley, and R. O. Bakston, Seaside, Oreg. Riving splitter and jack. No. 1,303,040; May 6; v. 262; p. 110.

Henry, William J., Akron, Ohio. Automobile-suspension. No. 1,303,513; May 13; v. 262; p. 193.

Herbert, Arthur W., Youngstown, Ohio, assignor to The General Wire-rope Company. Lathing material. No. 1,303,518; May 13; v. 262; p. 193.

Herbert, Pitt H., assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,302,548; May 6; v. 262; p. 13.

Herr, Adolph P., San Antonio, Tex. Oil-retaining internal-gear drive. No. 1,303,104; May 27; v. 262; p. 300.

Herrero, Harry L., Cleveland, Ohio. Crutch. No. 1,304,979; May 27; v. 262; p. 372.

Herskovits, Max, Chicago, Ill. Shade-holder. No. 1,303,500; May 20; v. 262; p. 331.

Hervig, Jr., William D., Chicago, Ill. Portable lamp-stand. No. 1,303,061; May 6; v. 262; p. 111.

Herr, Alfred, Chicago, Ill. Illuminated sign. No. 1,303,554; May 13; v. 262; p. 220.

Hess, Edward B., New York, and L. C. Myers, Brooklyn, assignors to Royal Typewriter Company, Inc., New York, N. Y. Type-writing machine. No. 1,304,032; May 27; v. 262; p. 317.

Hess, Thomas, et al. (See McLaughlin, William D., assignor.)

Heestand, E. A., Howe, Tex. Ratchet pipe-cutter. No. 1,304,170; May 27; v. 262; p. 323.

Heister, George C., Portland, Oreg., assignor to Heister Manufacturing Company, Chicago, Ill. Ventilated glass-setting for windows. No. 1,303,032; May 6; v. 262; p. 111.

Heister Manufacturing Company. (See Heister, George C., assignor.)

Hewner, Herman, Chicago, Ill. Brewing beer. No. 1,302,649; May 6; v. 262; p. 12.

Hewner, Herman, Chicago, Ill. Manufacture of non-infecting hopped beverages. No. 1,302,590; May 6; v. 262; p. 12.

Hewner, Herman, Chicago, Ill. Manufacture of alcohol-reduced beer. No. 1,302,591; May 6; v. 262; p. 12.

Hewner, Herman, Chicago, Ill. Manufacture of alcohol-reduced beverages. No. 1,302,592; May 6; v. 262; p. 12.

Hewitt, Frank M., Butte, Mont. Shovel-machine. No. 1,304,033; May 27; v. 262; p. 317.

Hewitt, Peter C., Ringwood Manor, N. J. Antenna for wireless distribution system. No. 1,304,104; May 27; v. 262; p. 300.

Hoyerman, Charles L., West Kensington, London, England. Self-propelled vehicle. No. 1,303,105; May 27; v. 262; p. 300.

Heytman, Daniel W., assignor of one-half to O. C. Schoenfeld, Oakbrook, Wis. Bath-adjuster. No. 1,303,794; May 13; v. 262; p. 274.

Heytman, Edward M., assignor to Oliver Chilled Flow Machine, South Bend, Ind. Planter. No. 1,303,032; May 6; v. 262; p. 11.

Heywood, Vincent E., Worcester, Mass. Window-curtain. No. 1,304,977; May 27; v. 262; p. 372.

Hickman, Francis, assignor of one-half to Bond Brook Oil-Less Bearing Company, Round Brook, N. J. Wheel-rim attachment. No. 1,304,978; May 27; v. 262; p. 372.

Hicks, George C., Jr., Connersville, Ind. Pump. No. 1,303,795; May 13; v. 262; p. 274.

Hickson, Joseph, Mount Gilead, Ohio. Concrete pipe. No. 1,302,543; May 6; v. 262; p. 14.

Higginson, James, New Bedford, assignor of one-half to A. R. Fuller, Newton, Mass. Stop-motion for lath-machine. No. 1,303,034; May 13; v. 262; p. 240.

Higginson, Joseph, and H. Arundel, Stockport, England. Apparatus for raising liquids. No. 1,304,313; May 20; v. 262; p. 407.

Highway Trailer Company. (See Menhall and Clement, assignors.)

Hilli, Claude H., Quincy, Ill. Wireless-controlled flying-torpedo. No. 1,304,314; May 20; v. 262; p. 408.

Hilli, Joseph, Windsor, Minn. Aeroplane-bomb. No. 1,302,534; May 6; v. 262; p. 14.

Hilli, William F., St. Louis, Mo. Burner-tip. No. 1,304,045; May 20; v. 262; p. 307.

Hillia, Harry C., El Paso, Tex. Adjustable spring-damp. No. 1,303,557; May 13; v. 262; p. 220.

Hilla, Leon B., Lakewood, Ohio, assignor, by mesne assignments, to National Carbon Company, Inc. Storage-battery grid. No. 1,303,078; May 13; v. 262; p. 211.

Hilla, Sidney C., assignor to The Turner & Seymour Manufacturing Co., Torrington, Conn. Agitating-machine. No. 1,302,653; May 6; v. 262; p. 35.

Himmel, Solomon. (See Himmel, William T., assignor.)

Hilman, John H., assignor, by mesne assignments, to Heine Safety Boiler Company, Philadelphia, Pa. Steam-heater construction for boilers. No. 1,304,600; May 20; v. 262; p. 441.

Hirsch, Johannes, Spanden, near Berlin, assignor to Siemens Schuckert-Werke G. m. b. H., Berlin, Germany. Rotary pump or blower. No. 1,304,040; May 20; v. 262; p. 300.

Hinton, Vachel O., Bartlesville, Okla. Hat. No. 1,303,700; May 13; v. 262; p. 274.

Hinton, Albert G., Toronto, Ontario, Canada, assignor, by mesne assignments, to A. G. McIntyre, New York, N. Y. Manufacture of laminated papers. No. 1,303,314; May 13; v. 262; p. 184.

Hinton, Albert G., Toronto, Ontario, Canada, assignor, by mesne assignments, to A. G. McIntyre, New York, N. Y. Blowing apparatus. No. 1,303,315; May 13; v. 262; p. 184.

Hirsch, Harry T., Pittsburgh, Pa. Battery-cell. No. 1,303,554; May 13; v. 262; p. 220.

Hirsch, Nicholas R., San Francisco, Calif. Uncoupling-lever. No. 1,303,316; May 13; v. 262; p. 184.

Hirschman, Joseph, St. Louis, Mo. Coupling. No. 1,304,970; May 27; v. 262; p. 372.

Hirschman, Joseph, St. Louis, Mo. Coupling. No. 1,304,969; May 27; v. 262; p. 372.

Hitchcock, Halbert K., assignor of one-half to J. F. Johnson, Pittsburgh, Pa. Door-holding device. No. 1,304,312; May 27; v. 262; p. 417.

Hogg, Frank J., Cortland, N. Y., and R. M. Smith, Washington, D. C.; said Smith assignor to said Hogg, Washington, D. C. Interior-connection engine. No. 1,303,555; May 13; v. 262; p. 220.

Hogland, Frank O., Hartford, Conn. assignor to Pratt & Whitney Company, New York, N. Y. Drill. No. 1,304,931; May 27; v. 262; p. 372.

Hobbs, Edward F., Madison, N. J. Heating device for vehicle starting-wheel. No. 1,304,047; May 20; v. 262; p. 300.

Hobbs, Henry M., Schenectady, N. Y., assignor to General Electric Company. Electric ship propulsion. No. 1,304,131; May 20; v. 262; p. 322.

Hobbs, Albert H., Chicago, Ill. Cleaning device. No. 1,303,501; May 6; v. 262; p. 123.

Hobbs, Samuel T. (See Lee and Hobbs.)

Hodges, Arthur Y., Cash, Oreg. Return-spring for door-closes. No. 1,303,000; May 20; v. 262; p. 10.

Hoe, Samuel C., Wilkesboro, Pa. assignor to Westinghouse Electric and Manufacturing Company. Control apparatus. No. 1,303,317; May 13; v. 262; p. 183.

Hoe, Frank J., Wilkesboro, Pa. Convertible cart. No. 1,304,100; May 27; v. 262; p. 300.

Hodges, Edward B., Pittsburgh, Pa. Fishing device articles and electrically connecting the picking-bath. No. 1,304,315; May 27; v. 262; p. 417.

Hoffmann, Henry. (See Baucher, John, assignor.)

Hoffman, Jean, Basle, Switzerland. Cushioning mechanism for vehicle-bodies. No. 1,304,038; May 27; v. 262; p. 307.

Hogan, Harvey, assignor to M. J. Morley, Rockford, Ill. Ladder. No. 1,303,107; May 27; v. 262; p. 300.

Hogan, William T., assignor of one-half to H. L. Reynolds, Seattle, Wash. Balancing device. No. 1,303,035; May 13; v. 262; p. 250.

Holland, Albert, Fargo, N. D. Automatic reversible fan for explosive-engines. No. 1,304,040; May 20; v. 262; p. 300.

Holcomb & Hobe Manufacturing Company. (See Tripp, Charles A., assignor.)

Holmes, Charles F., assignor to Packard Motor Car Company, Detroit, Mich. Cutting-off machine. No. 1,304,100; May 27; v. 262; p. 307.

Holmes, August, Greenwald, Minn. Flower-frame. No. 1,302,556; May 6; v. 262; p. 14.

Holla, George F., Pittsburgh, Pa. Brake-lining. No. 1,304,031; May 20; v. 262; p. 441.

Hollister, Harry B., Irvington, assignor to Kalsper Corporation, New York, N. Y. Apparatus for drying materials. No. 1,304,102; May 20; v. 262; p. 307.

Hollings, Herbert P., West Newton, and O. R. Conklin, Boston, Mass. Light projection. No. 1,303,034; May 6; v. 262; p. 11.

Holmes, Morris P., Claremont, N. H., assignor to Sullivan Machinery Company, Truck. No. 1,302,926; May 6; v. 262; p. 85.

Holmes, Morris P., Claremont, N. H., assignor to Sullivan Machinery Company. Baking mechanism. No. 1,303,319; May 6; v. 262; p. 184.

Holmes, Morris P., assignor to Sullivan Machinery Company, Claremont, N. H. Mining-machine. No. 1,303,797; May 13; v. 262; p. 274.

Holmes, William, Williamson, W. Va. Wrench. No. 1,303,036; May 13; v. 262; p. 240.

Holmgren, Julius H., San Antonio, Tex. Construction of the hulls of concrete ships. No. 1,303,007; May 13; v. 262; p. 200.

Holt, Levey, J. R. (See Brock and Holt.)

Holt Manufacturing Company, The. (See Holt, Earl F., assignor.)

Holt Manufacturing Company, The. (See Turnbull, William, assignor.)

Holt Manufacturing Company, The. (See White, Harold C., assignor.)

Holt Manufacturing Company, The. (See Wickersham, Robert E., assignor.)

Holt, Robert E., St. Louis, Mo. Blower. No. 1,303,008; May 6; v. 262; p. 111.

Hood, Matt E. (See Franklin, Henry T., assignor.)

Hoodless Fastener Company. (See Sandbeck, Oliver, assignor.)

Hoover Radiator Co. (See Sperry, Charles F., assignor.)

Hoover, Charles O., Denver, Colo., assignor, by mesne assignments, to J. D. and L. F. Lumsden and R. D. Hatten, trustees. Apparatus for treating material containing condensable volatile matter. No. 1,303,100; May 27; v. 262; p. 307.

Hoppe, Herbert J., Sanford, Me. Filo-fabric loom. No. 1,304,070; May 27; v. 262; p. 353.

Hopkins, Arthur C., Minneapolis, Minn., assignor to M. L. West Manufacturing Company, Sioux Falls, S. D. Combined automobile jack and ambulance. No. 1,303,318; May 13; v. 262; p. 187.

Hornes, William T., Govana, Md., assignor to R. Himmel, Baltimore, Md. Display-rack. No. 1,304,771; May 27; v. 262; p. 354.

Horn, Harry, Brooklyn, N. Y. Stylus-guiding device. No. 1,303,000; May 20; v. 262; p. 321.

Horn, Hugh, San Francisco, Calif. Rotary gas-engine. No. 1,303,030; May 6; v. 262; p. 34.

Hornbrook, Philip R., Chicago, Ill. Hydraulic transmission. No. 1,304,030; May 27; v. 262; p. 307.

Hornby, Albert E., Rhyl, Wales. Flushing apparatus for water closets and the like. No. 1,304,032; May 20; v. 262; p. 300.

Horne, James. (See Dawson and Horne.)

Horton, Charles M. (See Pierce, Robert F., assignor.)

Horton, Albert J., White Plains, N. Y., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Motor-controller. No. 1,303,319; May 13; v. 262; p. 187.

Horton, William M., assignor to The Adams-Bagwell Electric Co., Cleveland, Ohio. Electric signalling device. No. 1,303,301; May 20; v. 262; p. 321.

Hotherhall, John M., Brooklyn, assignor to American Can Company, New York, N. Y. Container. No. 1,304,773; May 27; v. 262; p. 354.

Houghton, Lewis T., Worcester, Mass. Yarn-tension device. No. 1,303,302; May 6; v. 262; p. 183.

Houghton, Lewis T., Worcester, Mass. Yarn-tension device. No. 1,303,303; May 6; v. 262; p. 187.

Houma, Bryan H., assignor to Fan Motor Company, St. Charles, Minn. Brake-actuating mechanism. No. 1,304,316; May 20; v. 262; p. 408.

Howell, Charles E., Yonkers, N. Y. Novelty card. No. 1,304,772; May 27; v. 262; p. 354.

Howerton, Mary N., Tacoma, Wash. Trolling device. No. 1,304,033; May 27; v. 262; p. 307.

Howt, Wertheim. (See Seigrist, Charles E., assignor.)

Hubbard, Cecil R. (See Knicker and Hubbard.)

Huber, Earl, Cleveland, Ohio, assignor to Chicago Railway Equipment Company, Chicago, Ill. Locking-key for brake-chains. No. 1,304,040; May 20; v. 262; p. 300.

Huber, George T., assignor of one-half to A. S. Coffin, Gloucester, Mass. Spring for exhaust-valves and the like. No. 1,302,550; May 6; v. 262; p. 14.

Hubert, Albert W., assignor to H. F. Hubert, New York, N. Y. Controlling mechanism for elevator-cars. No. 1,303,037; May 6; v. 262; p. 11.

Hubert, Henry P. (See Hubert, Albert W., assignor.)

Hubert, Conrad. (See Sokolow and Pallinsky, assignors.)

Hudack, Stephen, Danvers, N. Y. Blotter. No. 1,303,032; May 20; v. 262; p. 322.

Hudson, Edward J., and H. C. Merriam, Marguette, Mich., assignors of one-half to The Cleveland-Cliffs Iron Company, Cleveland, Ohio. Process of distillation and apparatus therefor. No. 1,303,521; May 13; v. 262; p. 257.

Hudson Scott & Sons. (See Knight and Thackray, assignors.)

Hue, Thomas W. (See Phillips and Hue.)

Hughes, David D. (See Hughes and Davis.)

Hughes, Henry J., Ottawa, Ill. Water-heater. No. 1,303,110; May 27; v. 262; p. 307.

Hughes, John, London, W. O. Travis, Hampton, England, and R. A. Sturgeon, Rochester, Wales. Method of and means for the centrifugal separation of solid substances from liquids. No. 1,303,208; May 6; v. 262; p. 130.

Hughes, Thomas R. W. J., Davis, and D. D. Hughes, Granite City, Ill. Cold-roll-feeder mechanism. No. 1,304,030; May 20; v. 262; p. 300.

Hughes, William D., Condon, Oreg. Oil-cap. No. 1,302,799; May 6; v. 262; p. 60.

Hughes, William H. (See Dover and Hughes.)

Hugin, Ashton C., Fordham, N. Y., assignor, by mesne assignments, to Alliance Co. Inc., Boston, Mass. Automatic air-valve for gas-engine manifolds. No. 1,303,817; May 13; v. 262; p. 278.

Hulla, Paul L., Gravelle, France. Preparation of anhydrous metallic chlorides. No. 1,304,037; May 27; v. 262; p. 400.

Hulse, Edna C., Akron, Ohio, assignor to Kelly-Spring-Field Tire Company, Jersey City, N. J. Machine for making pneumatic-tire caps. No. 1,302,040; May 6; v. 262; p. 34.

Hultgren, Axel G. E. and P. S. Rydbeck, assignors to Aktiebolaget Svenska Kullagerfabriken, Gottenberg, Sweden. Ball-retainer for double-row radial ball-bearings. No. 1,303,470; May 13; v. 262; p. 216.

Hutting, Charles E. (See Perry and Hutting.)

Hutzel, Frank J., Pittsburgh, Pa. Toy railway. No. 1,303,005; May 13; v. 262; p. 200.

Humphries, Joseph P., Milwaukee, Wis., assignor to Stamp Loading Machine Company, Leader. No. 1,304,774; May 27; v. 262; p. 534.

Hunter, Andrew J., See Cromright, Wesley G., assignor.

Hunt, Edgar L., Edwards, Wash. Tool-holder for lathes. No. 1,304,061; May 30; v. 262; p. 289.

Hunter, Thomas F., assignor to E. W. Special Company, Chicago, Ill. Holding means. No. 1,308,322; May 13; v. 263; p. 187.

Hartig, Carl A., and G. R. Taylor, St. Paul, Minn. Change-speed device. No. 1,304,022; May 30; v. 262; p. 289.

Huyghe, Frederic M., and C. J. Irvine, Windsor, Manitoba, Canada. Bomb-dropping machine. No. 1,306,314; May 27; v. 262; p. 617.

Hutchings, Olin E. (See Chase and Hutchings.)

Hutchins, Thomas W. S., Middlewich, England. Manufacture of carbon blocks. No. 1,304,063; May 30; v. 262; p. 289.

Hutchinson, Horton C., Woodbury, assignor of one-half to L. G. Beckwith, Merchantville, N. J. Portable driving and speed-reducing device for sawmills, drills, and the like. No. 1,304,111; May 27; v. 262; p. 507.

Hyatt, John W., East Orange, N. J. Apparatus for cold-rolling shaft-hubs. No. 1,302,858; May 6; v. 262; p. 18.

Hyatt, John W., Newark, N. J. Shaft-feeding device. No. 1,305,112; May 27; v. 262; p. 507.

Hyatt Roller Bearing Division, United Motors Corporation, Detroit, Mich. Chases & assignors.

Hydraulic Pressed Steel Company, The. (See Davidson, Harry O., assignor.)

Hyland, John L., St. Paul, Minn. Boat-launching apparatus. No. 1,304,310; May 30; v. 262; p. 406.

Hynek, Frederic I. E., Chicago, Ill. Portable shower-bath. No. 1,302,559; May 6; v. 262; p. 18.

Hynes, Lee P., assignor to Consolidated Car-Heating Company, Albany, N. Y. Heater system. No. 1,303,323; May 13; v. 262; p. 251.

Hynes, Lee P., assignor to Consolidated Car-Heating Company, Albany, N. Y. Heater system. No. 1,303,606; May 13; v. 262; p. 251.

Hynes, Lee P., assignor to Consolidated Car-Heating Company, Albany, N. Y. Heater system. No. 1,303,670; May 13; v. 262; p. 251.

Illes, José, Habana, Cuba. Amplification of linseed-oil. No. 1,303,671; May 13; v. 262; p. 251.

Imholz Tool Works, (See Hansen, Carl G., assignor.)

Imhoff, Carl, Tullaro, Seattle, Wash. Utensils. No. 1,304,054; May 30; v. 262; p. 289.

Independent Pneumatic Tool Company. (See Nelson, John T., assignor.)

Index Visible. (See Hayes, Robert D., assignor.)

Industrial Development Company. (See Goodspeed, Arthur B., assignor.)

Industrial Manufacturing Company, The. (See Du Bois and Co., Inc., assignors.)

Ingersoll-Rand Company. (See Bayles and Slater, assignors.)

Inoue, Heisaburo, Kyoto, assignor to G. Nakamura, Kobe, Japan. Manufacturing asphaltic plates and asphaltic articles of a similar nature. No. 1,304,463; May 30; v. 262; p. 441.

International Cap and Sealing Machine Company. (See Levey, Thomas J., assignor.)

International Harvester Company. (See Hagadone, Clinton A., assignor.)

International Harvester Company. (See Merwin, George M., assignor.)

Iodice, Domenick, Watertown, Mass. Roll-pulverizer. No. 1,305,215; May 27; v. 262; p. 617.

Irimeler, Joseph, Jr., Templeton, Iowa. Tractor-coupling. No. 1,304,055; May 30; v. 262; p. 289.

Irvine, Catherine E. (See Humay and Irvine.)

Irving, Ernest C., Westminster, London, England. Apparatus for controlling railway trains in motion. No. 1,304,776; May 27; v. 262; p. 534.

Iring, Walter E., Glenbrook, Conn. Bracket for stair-treads. No. 1,304,056; May 30; v. 262; p. 289.

Irwin, James R., San Francisco, Calif. Boat-davit. No. 1,304,984; May 27; v. 262; p. 573.

Isachson, Emil, Abacoada, Mont. Game. No. 1,303,304; May 13; v. 262; p. 128.

Isbell, John A. (See Wood and Isbell.)

Iwamoto, George H., Los Angeles, Calif. Polishing and finishing composition. No. 1,304,672; May 13; v. 262; p. 251.

Iwanowski, Anton. (See Pianeski, Michal, assignor.)

Iwersen, Gustav J. T., Pelet Roberts, Wash. Sub-holder. No. 1,304,880; May 27; v. 262; p. 554.

J. Geo. Leyner Engineering Works Company, The. (See Dittus, Jesse, assignor.)

J. Stone and Company. (See Drewry, Thomas, assignor.)

J. & Egan Company. (See Meyers, John J., assignor.)

J. B. McCoy & Son. (See Weiss, Arthur J., assignor.)

J. O. Jensen Company. (See Jensen and Heisk, assignors.)

J. P. Gordon Company, The. (See Brock, Frederick C., assignor.)

Jacobson, Leate C., Bergenfield, N. J. Scabbard-hanger. No. 1,302,799; May 6; v. 262; p. 60.

Jack, Arthur D., Windsor, Kans. Smoke-lower ext. No. 1,304,317; May 20; v. 232; p. 603.
 Jackson, John W., Chicago, Ill. Ind. Self-propelling boat. No. 1,304,318; May 20; v. 232; p. 603.
 Jackson, Charles C., et al. (See Ryan, Bern M., assigner.)
 Jackson, George, assigner of one-half to C. & M. McFay, Chicago, Ill. Fuel-injector for sewing-machines. No. 1,304,344; May 20; v. 232; p. 282.
 Jackson, George B., Quebec, Ontario, Canada. Fresh-ter-pods. No. 1,304,375; May 12; v. 232; p. 282.
 Jackson, John W., Toronto, Ont. Sign to call for Supply Company. Fireproof. No. 1,304,380; May 6; v. 232; p. 28.
 Jackson, Joseph O., assigner to Edward Ketchum Company, Chicago, Ill. Baking-pan. No. 1,304,431; May 6; v. 232; p. 24.
 Jackson, Joseph O., assigner to Edward Ketchum Company, Chicago, Ill. Baking-pan. No. 1,304,432; May 6; v. 232; p. 24.
 Jackson, Joseph O., assigner to Edward Ketchum Company, Chicago, Ill. Baking-pan. No. 1,304,433; May 6; v. 232; p. 24.
 Jackson, Joseph O., assigner to Edward Ketchum Company, Chicago, Ill. Baking-pan. No. 1,304,434; May 6; v. 232; p. 24.
 Jackson, Ray P., Edgewood Park, Pa., assigner to West-land Electric and Manufacturing Company. Electric insulator. No. 1,304,534; May 12; v. 232; p. 182.
 Jacobson, Hugo W., Arlington, assigner to Gould & Har- hardt, Newark, N. J. Arbor-support. No. 1,304,604; May 27; v. 232; p. 516.
 Jacquet, Andrew, Callow, Oreg. Shed attachment for automobiles. No. 1,304,193; May 20; v. 232; p. 282.
 James, Edward Lakewood, Ohio. Manufacture of semi-metal tubing. No. 1,304,674; May 12; v. 232; p. 281.
 James H. Herron Company, The. (See Wolfenthal, Harold G., assigner.)
 James, Hugh, Montreal, Ill. Spark-interruiter. No. 1,303,232; May 12; v. 232; p. 124.
 Jameson, Winthrop H. (See Jones, Julius, assigner.)
 Janney, John, et al., et al., assigners. J. T. Janney & Co. Mfg. Co. Foldable carrying-chair. No. 1,303,544; May 6; v. 232; p. 25.
 James, Clarence, Quebec, N. Y. Prefecture. No. 1,304,210; May 27; v. 232; p. 617.
 James, Henry T., Abbott, Tex. Cotton-chopper. No. 1,304,736; May 12; v. 232; p. 274.
 Janville Products Company. (See Benson, Andrew, assigner.)
 Jan, John H., Chicago, Ill., assigner to Chicago Ar- chitectural Machine Company. Pump. No. 1,303,623; May 6; v. 232; p. 22.
 Janzen, Bernard H. W., College Point, assigner to Tyron Rubber Company, New York, N. Y. Surgical bandage. No. 1,303,936; May 20; v. 232; p. 282.
 Jansen, Willem, J. Haa, The Hague, Netherlands. Mak- ing-machine, valves, and the like. No. 1,304,945; May 6; v. 232; p. 111.
 Jarvis, George A., Wallington, England. Manufacture of iron and steel. No. 1,304,730; May 12; v. 232; p. 274.
 Jay, Edward G., Jr., Philadelphia, Pa., assigner to War- ren Webster & Company, Camden, N. J. System of au- tomatic water control. No. 1,303,926; May 6; v. 232; p. 22.
 Jay, Manufacturing Company, The. (See Hamilton, William B., assigner.)
 Jeffrey Manufacturing Company, The. (See Wedderburn, Frank L. O., assigner.)
 Jeffries, Roy D., Granada, Minn. Dust-cap for hubs. No. 1,303,636; May 6; v. 232; p. 111.
 Jones, Lee A., and J. W. Clement, Winnipeg, Manitoba, Canada. Sliding attachment to trains. No. 1,303,594; May 6; v. 232; p. 61.
 Jones, Albert, et al., Baltimore, Md. Carbid-holder. No. 1,304,636; May 27; v. 232; p. 613.
 Jenkins, Alexander F., Baltimore, Md. Aortic-pump- erator. No. 1,304,686; May 27; v. 232; p. 613.
 Jenkins, Charles F., assigner to The Graphoscope Com- pany, Washington, D. C. Picture-projecting machine. No. 1,302,600; May 6; v. 232; p. 62.
 Jenkins, Charles F., assigner to The Graphoscope Com- pany, Washington, D. C. Motion-picture apparatus. No. 1,302,591; May 6; v. 232; p. 62.
 Jenkins, Charles F., Washington, D. C. Selective suppres- sion of radiant rays. No. 1,302,920; May 6; v. 232; p. 61.
 Jenkins, Charles F., Washington, D. C. Picture-film reel. No. 1,302,508; May 6; v. 232; p. 61.
 Jenkins, R. (See Benson, Andrew, and Jenkins.)
 Jenkins Vulcan Spring Co. (See Coats and Jenkins, assigners.)
 Jennings, Aaron H., Owensboro, Ky. Tire-arm. No. 1,304,667; May 20; v. 232; p. 282.
 Jennings, Emerson F., et al., Philadelphia, Pa. Shock-dif- fer device. No. 1,302,535; May 12; v. 232; p. 282.
 Jennings, Martin A., Quincy, Mass. Landing device for automobiles. No. 1,302,532; May 12; v. 232; p. 282.
 Jennings, G. T., et al., et al., assigners. Wood pavement. No. 1,302,540; May 6; v. 232; p. 22.
 Jensen, Henry B., Chicago, Ill. Grooved-rod. No. 1,303,337; May 12; v. 232; p. 126.

Olson, John O. and J. H. Maly, assignors to J. O. Jensen
 Company, Inc., Chicago, Ill. Patent for machine and
 tool for cutting and grinding. No. 1,304,343; May 27; v. 262; p. 484.
 Johnson, Vernon T., Cambridge, Mass. Assignor to
 and Carl, No. 1,304,345; May 20; v. 262; p. 284.
 Jorda, Carl, Terre Haute, Ind. Assignor to Carl and
 Jorda, No. 1,304,346; May 6; v. 262; p. 41.
 Johnson, Joseph. (See Hirsch, George H., assignor.)
 Johnson, Arthur H. and F. A. Kunk, Chicago, Ill. Assignors
 by means assignments, to United States
 Machine Company, Chicago, Ill. Patent for
 No. 1,304,347; May 27; v. 262; p. 417.
 Jester, Samuel A. and Charles C. Carter, Chicago, Ill. Assignors
 to Jester, No. 1,304,348; May 27; v. 262; p. 444.
 Jewett, Arthur C., assignor to Winchester Repeating
 Arms Co., New Haven, Conn. Shot-shell. No.
 1,304,349; May 27; v. 262; p. 530.
 Jewett, Arthur C., assignor to Winchester Repeating
 Arms Co., New Haven, Conn. Shot-shell. No.
 1,304,350; May 27; v. 262; p. 530.
 Jewett, Arthur C., assignor to Winchester Repeating
 Arms Co., New Haven, Conn. Shot-shell. No.
 1,304,351; May 27; v. 262; p. 530.
 Jekeli, Otto H., administrator. (See Bryant, Richard S.)
 Jekeli, Otto H., assignor, by means assignments, to The
 Standard Parts Company, Cleveland, Ohio. Multiple
 spot-welding machine. No. 1,304,352; May 20; v. 262;
 p. 342.
 Jett, Conrad, assignor to The Amos-Benson Company
 Toledo, Ohio. Break-making machine. No. 1,304,353;
 May 20; v. 262; p. 352.
 Johannsson, Oswald E., Pittsfield, Mass. Assignor to General
 Electric Company, Transformer. No. 1,304,354;
 May 20; v. 262; p. 352.
 Johannsmeyer, Charles G., Glendale, Ohio. Planer feed
 device. No. 1,304,355; May 13; v. 262; p. 351.
 John Church Company, The. (See Lee and Ross, as
 assignors.)
 John, Frank J., Cedar Rapids, Iowa. Hand-harrow. No.
 1,304,356; May 20; v. 262; p. 353.
 Johnson, Alfred, Shelby, Minn. Wire-strutcher. No.
 1,304,357; May 6; v. 262; p. 411.
 Johnson, Alfred H., Denver, Colo. Transmission mecha-
 nism. No. 1,304,358; May 20; v. 262; p. 441.
 Johnson, Arthur A., assignor to Underwood and Compoting
 Machine Company, New York, N. Y. Combined type-
 writing and counting machine. No. 1,304,359; May
 27; v. 262; p. 445.
 Johnson, Arthur A., assignor to Underwood Computing
 Machine Company, New York, N. Y. Combined type-
 writing and counting machine. No. 1,304,360; May
 27; v. 262; p. 445.
 Johnson, Charles, Akron, N. Y. Clothes-line stretcher.
 No. 1,304,361; May 27; v. 262; p. 454.
 Johnson, Charles L., San Diego, assignor of one-half to
 E. A. Wilson, Venice, Calif. Toy horse. No. 1,304,362;
 May 27; v. 262; p. 573.
 Johnson, Edward H., St. Paul, Minn. Railway water-
 container. No. 1,304,363; May 27; v. 262; p. 585.
 Johnson, Edward P., Chicago, Ill. Strainer. No.
 1,304,364; May 20; v. 262; p. 589.
 Johnson, Fred L. (See Tiedel, Richard T., assignor.)
 Johnson, Frederick O., Detroit, Mich. Bottom's saw.
 No. 1,304,365; May 20; v. 262; p. 592.
 Johnson, George A., Chicago, Ill. Assignor to W. H. Miner,
 Chary, N. Y. Draft-yoke for railway-car draft-rioting.
 No. 1,304,366; May 20; v. 262; p. 592.
 Johnson, George C., Los Angeles, Calif., assignor to O. L.
 Myers, Chicago, Ill. Printing-press mechanism. No.
 1,304,367; May 6; v. 262; p. 600.
 Johnson, Harry J. (See Metcalfe, Harico, assignor.)
 Johnson, Jacob T., Atlanta, Ga. Shade-holder. No.
 1,304,368; May 20; v. 262; p. 609.
 Johnson, James, O'Brien, Wash. Drag-saw. No.
 1,304,369; May 13; v. 262; p. 620.
 Johnson, Jeremiah, Port Colborne, Ontario, Canada. Au-
 tomatic train control. No. 1,304,370; May 27; v. 262;
 p. 622.
 John, John F. (See Hitchcock, Hubert H., assignor.)
 Johnson, Joseph E., Louisville, Ky. Tooth-band. No.
 1,304,371; May 27; v. 262; p. 544.
 Johnson, Lawrence H., assignor to M. S. Johnson, Melrose,
 Mass. Lifting-jack. No. 1,304,372; May 27; v. 262; p.
 554.
 Johnson Manufacturing Company. (See Framer, Jesse L.,
 assignor.)
 Johnson, Mattie E. (See Johnson, Lawrence E., as-
 signor.)
 Johnson, Orlaf, West New York, N. J., assignor of one-half to
 B. H. Kramers, Brooklyn, N. Y. Method of and means
 for making shape sheet. No. 1,304,373; May 20; v.
 262; p. 554.
 Johnson, Orlaf L., et al. (See Withersell, Earl M., as-
 signor.)
 Johnson, Paul H., assignor to F. J. Myers, Los Ange-
 les, Calif. Test-bender. No. 1,304,374; May 6; v. 262;
 p. 555.
 Johnson, Randolph F., Corpus, Mex. Adjustable hame-
 ling. No. 1,304,375; May 27; v. 262; p. 555.
 Johnson, Randolph V., Jr., Atlanta, Ga. Twisting and
 bending adhesive multiple-part slip-type insulation.
 No. 1,304,376; May 6; v. 262; p. 555.

Johnson, Vler J., and R. G. Theron, Worcester, Mass., assignors, by same assignments, to The Torrington Company, Torrington, Conn. Pneumatic carpet-remover. No. 1,304,314; May 13; v. 202; p. 378.

Johnson, Victor L., and R. G. Theron, Worcester, Mass., assignors, by same assignments, to The Torrington Company, Torrington, Conn. Pneumatic carpet-remover. No. 1,304,315; May 13; v. 202; p. 378.

Johnson, Brooks, Vallejo, Calif. Mowplane. No. 1,304,335; May 17; v. 202; p. 554.

Jones, Harry C., Larchmont, N. Y. Focusing apparatus. No. 1,304,376; May 13; v. 202; p. 351.

Jones, James, Birmingham, Ala., assignor to United States Cold Iron Pipe and Foundry Company, Burlington, N. J. Gate-cutter, and head-former for pipe-molds. No. 1,304,400; May 20; v. 202; p. 380.

Jones, J. M. (See Driver, Charles H., assignor.)

Jones, John A., Mansfield, Ohio. Back-lock. No. 1,304,477; May 13; v. 202; p. 353.

Jones, John D., Highland Park, Ill. Ventilated structure and block therefor. No. 1,304,507; May 6; v. 202; p. 383.

Jones, Josiah A., Elmwood, Conn. Caster. No. 1,304,561; May 20; v. 202; p. 383.

Jones, Owen M., New York, N. Y. Valve. No. 1,304,561; May 13; v. 202; p. 378.

Jones, William H. (See Davison and Jones.)

Jones, William M., Cherotah, Ohio. Hair-spring-collet remover. No. 1,304,590; May 13; v. 202; p. 230.

Jordan, Fred A., assignor to Moose Mountain, Limited, Salford, Ontario, Canada. Briquetting apparatus. No. 1,304,135; May 20; v. 202; p. 383.

Jordan, Fred A., assignor to Moose Mountain, Limited, Salford, Ontario, Canada. Briquetting. No. 1,304,136; May 20; v. 202; p. 383.

Jorgensen, Carl U., Copenhagen, Denmark. Treating pyruvalate. No. 1,303,511; May 20; v. 202; p. 333.

Joseph, Carl, Bayonne, assignor of one-half to F. J. Kloss, Jersey City, N. J. Hollow slat for window-shutter. No. 1,303,678; May 13; v. 202; p. 362.

Jovett, John W. (See Cincinnati, and Jovett.)

Judy, Andrew W., assignor of one-third to G. M. Barnett, Centerville, Iowa. Coupling. No. 1,302,908; May 6; v. 202; p. 61.

Judson, Edwin, Chicago, Ill. Tent-stake. No. 1,304,779; May 27; v. 202; p. 538.

Jules, Cyprien E. P., Paris, France. Rotary drilling or boring machine. No. 1,304,821; May 20; v. 202; p. 430.

Julius Kaper & Co. (See Bloem, Benjamin, L., assignor.)

Jungblut, Ernest, assignor of one-fourth to W. N. Tanner and one-fourth to W. C. Crover, Ansonia, Conn. Dump-car. No. 1,305,118; May 27; v. 202; p. 584.

Jungblut, Oskar, Schramberg, Germany. Pocket-lamp generator. No. 1,303,088; May 6; v. 202; p. 112.

Justrite Manufacturing Company. (See Hansen, Augle L., assignor.)

Kaeppeler, Francis O., Los Angeles, Calif. Curtains-window. No. 1,304,322; May 20; v. 202; p. 409.

Kayuma, Hensaku, Los Angeles, Calif. Electrical direct-current motor. No. 1,304,373; May 27; v. 202; p. 497.

Kahn, Bertram, Jr., Cincinnati, assignor to The Estate Store Company, Hamilton, Ohio. Electric heater. No. 1,304,067; May 27; v. 202; p. 512.

Kaiser, Robert H., Chicago, Ill. Headlight. No. 1,303,230; May 13; v. 202; p. 384.

Kahling, William, assignor to Kahling Switchboard and Supply Company, Chicago, Ill. Calling device. No. 1,304,363; May 20; v. 202; p. 361.

Kahn, Abraham, Virginia, Minn. Spring-wheel. No. 1,304,320; May 13; v. 202; p. 380.

Kalata, Frank, Springfield, Ill. Mine-drill. No. 1,305,319; May 27; v. 202; p. 618.

Kalberry Corporation. (See Hollister, Harry E., assignor.)

Kalmsa, Comstock & Wescott. (See Wall, Edward J., assignor.)

Kam, W. C. (See Kong and Kam.)

Kane, Ida L., Chicago, Ill. Bolt or girde. No. 1,303,563; Kane, 13; v. 202; p. 351.

Kansky, Henry, Vrs. Nev. Necktie-presser. No. 1,302,397; May 6; v. 202; p. 62.

Kansky, Joseph W., Morris, Saskatchewan, Canada. Ventilator. No. 1,303,508; May 13; v. 202; p. 376.

Kaplan, Henry, assignor to Long Manufacturing Company, San Francisco, Calif. Tire or rim carrier. No. 1,305,720; May 27; v. 202; p. 618.

Karavassio, Joanna, South Amboy, N. J. Combination gun and vice-cutter. No. 1,304,900; May 6; v. 202; p. 383.

Karlin, Ester, New York, N. Y. Combined shoulder-brace and abdominal support. No. 1,303,880; May 13; v. 202; p. 380.

Karachitz, Frank, Bridgeport, Conn. Combination-chair. No. 1,305,231; May 27; v. 202; p. 613.

Karna, Louis, New York, N. Y. Awning. No. 1,304,063; May 20; v. 202; p. 381.

Kasler, Adolf, New York, N. Y. H-raring. No. 1,304,906; May 6; v. 202; p. 378.

Kasahara, Hiroo, Otsuwa, Michi, Japan. Means for eliminating condensed towels by means of eviating-machines. No. 1,303,912; May 20; v. 202; p. 331.

Lambert, David, Brooklyn, N. Y. Gas measuring and testing instrument. No. 1,303,073; May 6; v. 262; p. 111.

Lambert, George A. Anderson, Ind. Stirling-cooker. No. 1,303,333; May 13; v. 262; p. 109.

Lambert, William H., Chicago, Ill. Footwear. No. 1,303,565; May 13; v. 262; p. 231.

Lamme, Benjamin G., Pittsburgh, Pa. assignor to Westinghouse Electric and Manufacturing Company. Switchboard apparatus. No. 1,303,130; May 27; v. 262; p. 600.

Lamson Company, The. (See Amoson, George A., assignor.)

Lanau, Alfred A., New Orleans, La. Liquid-measuring device. No. 1,303,320; May 13; v. 262; p. 278.

Lancaster, Green C., Parma, Mo. Chair attachment for tables. No. 1,303,921; May 20; v. 262; p. 330.

Lance, Oliver, San Diego, Calif. Concrete-road-laying machine. No. 1,303,993; May 13; v. 262; p. 281.

Lanchester, Frederick W., London, England, assignor to Piston Ring Company, Michigan Heights, Mich. Manufacture of piston-packing. (Reissue.) No. 14,644; May 6; v. 262; p. 143.

Land, Charles H., Jr., assignor of six-tenths to B. N. Cutting, Detroit, Mich. Automatic supporting-jack. No. 1,303,922; May 20; v. 262; p. 330.

Landis, Abbe L., Nashville, and W. D. Roy, Bellevue, Tenn., said Roy assignor to said Landis. Game of skill. No. 1,303,900; May 13; v. 262; p. 276.

Lane Bryant, Inc. (See Main, Albert, assignor.)

Langdon-Davies, Walter, Weybridge, assignor of two-thirds to A. Seaman, London, England. Electrically-controlled clutch. No. 1,303,494; May 13; v. 262; p. 216.

Lang, Henry, Los Angeles, Calif., assignor, by means assignments, to O. L. Moore, Chicago, Ill. Maltwhetting press. No. 1,303,138; May 27; v. 262; p. 600.

Lang, Henry, Los Angeles, Calif., assignor, by means assignments, to O. L. Moore, Chicago, Ill. Folding mechanism for printing-presses. No. 1,303,139; May 27; v. 262; p. 600.

Langhardt, Victor E., Helm, Calif. Over-the-rotator. No. 1,302,677; May 6; v. 262; p. 37.

Langston, Burnay. (See Williams, William M., assignor.)

Langton, Morgan J., Ovego, N. Y. Valve-lock. No. 1,302,938; May 6; v. 262; p. 84.

Lanham, Colonel W., Chicago, Ill. Corn-planter. No. 1,304,993; May 27; v. 262; p. 774.

Lanier, Edward H., Cincinnati, Ohio. Pastry-making apparatus. (Reissue.) No. 14,651; May 20; v. 262; p. 451.

Laridon, Constant, Detroit, Mich. Railway automatic switch. No. 1,304,320; May 20; v. 262; p. 330.

Larkins, William, Tacoma, assignor of one-half to J. A. Miller, Okanogan county, Wash. Automatic signal. No. 1,304,920; May 20; v. 262; p. 330.

Larson, John M., assignor to National Regulator Company, Chicago, Ill. Pressure-regulator. No. 1,303,907; May 13; v. 262; p. 278.

Latham, William D., Atlanta, Ga. Furnace. No. 1,303,924; May 20; v. 262; p. 330.

Lathaw, Joseph W., assignor to National Tube Company, Pittsburgh, Pa. Dressing skip. No. 1,303,925; May 20; v. 262; p. 330.

Lauren Automatic Pump Co. (See Tobin, Stephen J., assignor.)

Lauren, Laurits A., Eau Claire, Wis. Pumping mechanism. No. 1,304,330; May 20; v. 262; p. 411.

Lauterbach, William F., assignor, by means assignments, of one-half to The Ralke Products Company, Dayton, Ohio. Fire-extinguisher. No. 1,302,678; May 6; v. 262; p. 37.

Lauterbach, William F., U. J. Rappel, and M. G. Kopf, said Rappel and Kopf assignors to The Ralke Products Company, Dayton, Ohio. Fire-extinguisher. No. 1,302,679; May 6; v. 262; p. 37.

Lawson, Clarence J., Yonkers, N. Y. Bottle-capping machine. No. 1,304,578; May 27; v. 262; p. 495.

Lawson, Reuben F., Kansas City, Mo. Offing device for dough-molding machines. No. 1,306,127; May 27; v. 262; p. 600.

Lawson, Robert H., Beverly, Mass., assignor to United Shoe Machinery Corporation of Paterson, N. J. Shoe-nail-reclaiming machine. No. 1,303,334; May 13; v. 262; p. 109.

Layne, Olyn A., Los Angeles, Calif. Separator for wells. No. 1,302,518; May 6; v. 262; p. 83.

Layne, Olyn A., Los Angeles, Calif. Forming separator for wells. No. 1,304,438; May 20; v. 262; p. 443.

Lo Boer, Frank, Bellevue, N. J. Fountain-pen. No. 1,302,935; May 6; v. 262; p. 84.

Lo Tump, Charles, and H. W. Green, Harrisburg, Ill. Carriage for radiators. No. 1,303,091; May 13; v. 262; p. 264.

Lo, Charles. (See Hathaway and Lo.)

Lo, George W. (See Lo, Nathaniel and G. W.)

Lo, Nathaniel and G. W. Calgary, Alberta, Canada. Adjustable automobile-bearing. No. 1,303,213; May 6; v. 262; p. 140.

Leader Iron Works. (See Shook, William A., assignor.)

Leah, George, Macon City, Iowa. Phonograph-record. No. 1,303,074; May 6; v. 262; p. 111.

Leaman, Thomas P., Boston, N. Y. Aliphane. No. 1,304,000; May 20; v. 262; p. 330.

Leave, Harry E. (See Leaven and Leave.)

Lebel, Arthur G., Richmond, Va. Rubber attachment. No. 1,303,995; May 13; v. 262; p. 281.

Lebenhart, Salomon, Chemnitz, Germany. Apparatus for rolling up paper on the fly. No. 1,303,334; May 6; v. 262; p. 84.

Leccato, Alfred. (See George, Alexander, assignor.)

Leccato, George. (See Leccato and Leccato.)

Leccato, August J., assignor to Rapid Worcester Carpet Co., Worcester, Mass. Carpet. No. 1,304,301; May 27; v. 262; p. 604.

Lecker, Clarence C., Foster, Ind. Hand-lever mechanism for cultivators. No. 1,304,703; May 27; v. 262; p. 604.

Leidy, Richard G. and N. Corvan, assignors to A. Hasky Company, Philadelphia, Pa. Guard for electric lantern. No. 1,304,130; May 27; v. 262; p. 604.

Lee, Himer J., and H. H. Steinhilber, Bangor, Pa. Brush-band. No. 1,302,080; May 6; v. 262; p. 10.

Lee, Frank A., Cincinnati, Ohio, and F. G. Ross, Dayton, Ky., assignors to The John Church Company, Cincinnati, Ohio. Photograph. No. 1,303,000; May 13; v. 262; p. 264.

Lee, Jacob M., and H. G. Halverton, Shreveport, La. Track-support for implement-tongues. No. 1,303,075; May 6; v. 262; p. 112.

Lee, James T., Gale City, and S. T. Hobbs, Canfield, Ga. Farm-digger. No. 1,303,848; May 6; v. 262; p. 17.

Lee, Lail, Youngstown, Ohio. Rod. No. 1,303,136; May 13; v. 262; p. 100.

Leedy Manufacturing Company. (See Winterhoff, Herman E., assignor.)

Leeford, Rufus F., assignor to Exchange By-Products Company, Corvallis, Calif. Fruit-pulp extractor. No. 1,304,000; May 27; v. 262; p. 604.

Leifer, Charles F., assignor to Duley Manufacturing Company, Plymouth, Mich. Gun. No. 1,303,335; May 13; v. 262; p. 100.

Leifer, Charles, Brooklyn, N. Y. Canteen. No. 1,303,087; May 13; v. 262; p. 281.

Leifovitz, Lewis, Danville, Va. Bobbin control. No. 1,302,936; May 6; v. 262; p. 84.

Leigh, Zenas P., Montreal, New Brunswick, Canada. Wheel-locking device. No. 1,303,031; May 6; v. 262; p. 84.

Leigh, Andrew C., Birmingham, Ala., assignor to Legg Meat Curing Company. Smoke-generator. No. 1,302,085; May 6; v. 262; p. 10.

Legg Meat Curing Company. (See Leigh, Andrew C., assignor.)

Lehman, Joseph H., Washburn Heights, N. J. Combination timer, distributor, and induction-coil apparatus. (Reissue.) No. 14,646; May 13; v. 262; p. 281.

Lehr, Edwin, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control apparatus for induction-motors. No. 1,303,337; May 13; v. 262; p. 100.

Leicht, Louis, assignor of one-half to J. Walter, Yonkers, N. Y. Attachment for sleds. No. 1,304,331; May 20; v. 262; p. 411.

Leigh, Thomas H. (See Cook, Leigh, and Jewett.)

Leiberman, John, Springfield, Ill., assignor to Westinghouse Electric and Manufacturing Company. Trolley-hanger. No. 1,303,080; May 13; v. 262; p. 281.

Leitch, John H., Detroit, Mich. Food-gate. No. 1,304,000; May 20; v. 262; p. 330.

Leland Lock Company. (See Stanley, Theodore D., assignor.)

Leuke, Charles M., assignor to E. A. Kitchner, Milwaukee, Wis. Spring-locks. No. 1,302,500; May 6; v. 262; p. 17.

Lemoine, Louis R., Philadelphia, Pa., assignor to United States Cast Iron Pipe & Foundry Company, Burlington, N. J. Molding appliances. No. 1,304,310; May 6; v. 262; p. 84.

Leuz, August H., Fried de Lee, Wis. Attachment for grinding thread-tool bits. No. 1,304,070; May 20; v. 262; p. 330.

Leah, Karl O., Stockholm, Sweden. Ball-bearing. No. 1,303,151; May 27; v. 262; p. 601.

Leonard, Carolyn G., administratrix. (See Leonard, Harry W.)

Leonard, George I., Chicago, Ill., assignor to Leonard Valveless Engine Company. Structure formed of materials having different coefficients of expansion. No. 1,304,993; May 27; v. 262; p. 774.

Leonard, Harry A., assignor to Draper Corporation, Hopedale, Mass. Machine for winding machines. No. 1,304,993; May 27; v. 262; p. 774.

Leonard, Harry W., deceased; C. G. Leonard, administratrix, Brooklyn, N. Y., assignor to H. Ward Leonard, Incorporated. Electric controlling means. No. 1,302,517; May 6; v. 262; p. 83.

Leonard Valveless Engine Company. (See Leonard, George I., assignor.)

Leone, Christopher G., Rocky Ford, Colo. Separating oil and petroleum salts. No. 1,303,007; May 6; v. 262; p. 84.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,080; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Compound range. No. 1,303,081; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,082; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,083; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,084; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,085; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,086; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,087; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,088; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,089; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,090; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,091; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,092; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,093; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,094; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,095; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,096; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,097; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,098; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,099; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,100; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,101; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,102; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,103; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,104; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,105; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,106; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,107; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,108; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,109; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,110; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,111; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,112; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,113; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,114; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,115; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,116; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,117; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,118; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,119; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,120; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,121; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,122; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,123; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,124; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,125; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,126; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,127; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,128; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,129; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,130; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,131; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,132; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,133; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,134; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,135; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,136; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,137; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,138; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,139; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,140; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,141; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,142; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,143; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,144; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,145; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,146; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,147; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,148; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,149; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,150; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,151; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,152; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,153; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,154; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,155; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,156; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,157; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,158; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,159; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,160; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,161; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,162; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,163; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,164; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,165; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,166; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,167; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,168; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,169; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,170; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,171; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,172; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,173; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,174; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,175; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,176; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,177; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,178; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,179; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,180; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,181; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,182; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,183; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,184; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,185; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,186; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,187; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,188; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,189; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,190; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,191; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,192; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,193; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,194; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,195; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,196; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,197; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,198; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,199; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,200; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,201; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,202; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,203; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,204; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,205; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,206; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,207; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,208; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,209; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,210; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,211; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,212; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,213; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,214; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,215; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,216; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,217; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,218; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,219; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,220; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,221; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,222; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,223; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,224; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,225; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,226; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,227; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,228; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,229; May 13; v. 262; p. 281.

Leopold, Edward R. P., Davenport, Iowa. Range. No. 1,303,230; May 13; v. 262; p. 281.

Leop

Marquette, Marvin A., Springfield, assignor to The First Bank Company, Chicago, Ills. Bank, making grand fabric. No. 1,304,242; May 27; v. 232; p. 184.

Marsden, John R. (See Todd, Frederick J., assignor.)

Marsh, Clarence W., Greenwich, Conn. Electrolytic cell. No. 1,302,234; May 6; v. 232; p. 98.

Marshall, William J. (See Mainland and Marshall.)

Martens, Charles F., Bar Harbor, Me. Selective controlling mechanism. No. 1,304,686; May 6; v. 232; p. 117.

Martens, Charles F., Brooklyn, N. Y. Selective controlling mechanism. No. 1,304,148; May 27; v. 232; p. 120.

Martens, Thomas H., Toronto, Ontario, Canada. Davit. No. 1,304,597; May 27; v. 232; p. 237.

Martin, Francis, R., et al. (See Wilson, George A., assignor.)

Martin, James C. (See Haas, Paul C., assignor.)

Martin, James L., Yates Center, Kans. Insulating coupling for fence-wires. No. 1,304,243; May 26; v. 232; p. 412.

Martin, James V., Detroit, Mich. Stabilizing and neutralizing device for aircraft. No. 1,302,947; May 6; v. 232; p. 88.

Martin-LaMotte Manufacturing Company. (See Cochran, John J., assignor.)

Martin, Talbot G., assignor to Automatic Electric Company, Chicago, Ill. Telephone system. No. 1,304,267; May 27; v. 232; p. 234.

Martin, Treville O., Jackson, Tenn. Tool-holder. No. 1,304,232; May 27; v. 232; p. 237.

Martin William D., and H. Hecht, Chicago, Ill. Combined metal panel and door construction. No. 1,304,243; May 26; v. 232; p. 412.

Marx, Charles H., Chicago, Ill. assignor to The Phonograph Company, East Orange, N. J. Keyed ether. No. 1,304,597; May 27; v. 232; p. 578.

Mason, Alvin M., Kansas, Mo. Thrashing-machine cylinder. No. 1,302,578; May 6; v. 232; p. 17.

Mason, Alvin M., Kansas, Mo. Thrashing-machine cylinder. No. 1,302,574; May 6; v. 232; p. 18.

Mason Concrete Products Corporation. (See Greenfield, Julius J., Jr., assignor.)

Mastella, Marice, (also known as Harry Mastella) assignor to H. J. Jackson, Inc., New York, N. Y. Advertising board or frame. No. 1,304,680; May 26; v. 232; p. 234.

Masterson, Sarah R., New York, N. Y. Concrete-clip. No. 1,304,546; May 27; v. 232; p. 430.

Masterpiece, James H., College Point, N. Y., assignor to Frederick O'Connell Company. Sewing-machine. No. 1,302,680; May 6; v. 232; p. 29.

Mastle, Harry. (See Mastella, Marice.)

Mather, Marion G., Frankfort, N. Y. Displaying device. No. 1,304,244; May 27; v. 232; p. 237.

Mathews Gravity Carrier Company. (See Best, Norman J., assignor.)

Mauldin, Arthur O. (See Mauldin, Gilbert H. and A. O.)

Mauldin, Gilbert H. and A. O., Kansasville, N. C. Wheel-chair. No. 1,304,700; May 27; v. 232; p. 237.

Maurer, Tony, Eden, Mont. Power transmission. No. 1,304,051; May 26; v. 232; p. 234.

Mason, William J., et al. (See Norman, Frank, assignor.)

Mason, William J., et al. (See Norman, Frank, assignor.)

Mazam, Joel A., Denver, Colo. Rotary engine. No. 1,304,497; May 26; v. 232; p. 444.

Maxwell, Glen A., assignor of one-half to F. B. Chamberlin, Denver, Colo. Means for applying power to tandem-coupled vehicles and brake mechanism therefor. No. 1,304,238; May 27; v. 232; p. 237.

Maxwell, William A., et al. (See Angelo and H. Schwab, Patrons, Calif., said Schwab assignor to said Maxwell.)

Reinforcing drill-pipes. No. 1,302,690; May 6; v. 232; p. 40.

Mayes, John H., Charlotte, N. C. Ball-bearing for spin-disk. No. 1,303,144; May 27; v. 232; p. 232.

Mayo, Thomas W., Springfield, Ma. Guard for railway-frog. No. 1,303,938; May 26; v. 232; p. 234.

McAdams, George F., Brooklyn, N. Y. Paper-rolling machine. No. 1,302,871; May 6; v. 232; p. 17.

McArthur, Cyrus W., Denver, Colo. Dewatering, classifying and rubbing apparatus for ore-pulp. No. 1,302,977; May 26; v. 232; p. 502.

McAtee, Otto B., et al. (See Norman, Frank, assignor.)

McAtee, William A., et al. (See Norman, Frank, assignor.)

McBride, James P., Seattle, Wash. Photo-thinning device. No. 1,304,238; May 27; v. 232; p. 237.

McCas, David G., Lancaster, Pa. Controlling apparatus for wireless telephone systems. No. 1,304,134; May 26; v. 232; p. 232.

McCladden, George M., St. Cloud, Minn. Section adjusting device. No. 1,302,272; May 6; v. 232; p. 17.

McClaffey, Peter F., Spokane, Wash. Splice fastener. No. 1,302,230; May 6; v. 232; p. 64.

McClint, Harry, and W. C. Stevenson, Comant, Calif. Apparatus for preheating uncombined material prior to its entry into the kiln. No. 1,303,666; May 6; v. 232; p. 116.

McCarthy, Thomas A., Barrie, Ontario, Canada. Merchant calculator. No. 1,302,241; May 6; v. 232; p. 57.

McCurry, William F., assignor to DeLancey Machine Works, Delaware, Ohio. Drill-press. No. 1,302,690; May 6; v. 232; p. 116.

McMurray, Harry G., Manchester, N. H., assignor, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J. Art of setting fastening means in shoes. No. 1,303,943; May 6: v. 262; p. 50.
McNeil, William J., San Antonio, Tex. Speed-regulator. No. 1,303,921; May 6: v. 262; p. 64.
McNeil, George, Glasgow, Mo. Collapsible boat. No. 1,304,790; May 18: v. 262; p. 268.
McNeil, John, Glasgow, Scotland. Heliograph. No. 1,304,464; May 20: v. 262; p. 448.
McVay, Cecelia D., Philadelphia, Pa. Photographic disk-record cabinet. No. 1,302,943; May 6: v. 262; p. 88.
Mead, Edward B. (See Goulding, Albanus W., assignor.)
Mead, Thomas C., New York, N. Y. Fertilizer. No. 1,304,092; May 20: v. 262; p. 364.
Magerov, Charles J., and I. Fricke, Geneva, Switzerland. Lubricating device for internal-combustion engines. No. 1,304,495; May 20: v. 262; p. 444.
Meier, Charlotte L., administratrix. (See Meier, Edward C.)
Meier, Edward C., deceased. C. I. Meier, administratrix, assignor to Helme Safety Boiler Company, Phoenixville, Pa. Convertible boiler. No. 1,304,490; May 20: v. 262; p. 444.
Meier, Edward C., deceased. C. I. Meier, administratrix, assignor to Helme Safety Boiler Company, Phoenixville, Pa. Header construction for boilers. No. 1,304,500; May 20: v. 262; p. 448.
Meier, Erling, Christiansia, Norway. Roller-bearing. No. 1,303,935; May 6: v. 262; p. 45.
Meisner, Hermann, Indianapolis, Ind. Electric-light socket. No. 1,303,098; May 6: v. 262; p. 118.
Melcher, Lee W., assignor to L. C. Cress, Tractor Co., La Crosse, Wis. Traction-wheel. No. 1,305,220; May 27: v. 263; p. 630.
Menard, Henry J. (See Haxton and Menard.)
Menefee, Charles M., assignor to The Menefee Foundry Co., Inc., Fort Wayne, Ind. Foundry pattern composition and process, and apparatus for using the same. No. 1,303,097; May 6: v. 262; p. 118.
Menefee Foundry Co., The. (See Menefee, Charles M., assignor.)
Menefee, Albert, Alcoa, Wya. Refrigerator-box. No. 1,308,935; May 20: v. 262; p. 237.
Menges, Theodore C., assignor to Associated Manufacturers Company, Waterloo, Iowa. Bolster-support for cylinders of internal-combustion engines. No. 1,302,901; May 6: v. 262; p. 40.
Meshall, James W., and C. G. Clement, assignors to Highway Trailer Company, Edgerton, Wis. Vehicle-coupling. No. 1,304,086; May 27: v. 263; p. 630.
Menia, Joseph I., and A. E. Planschnat, Philadelphia, Pa. Combined ruler and compass. No. 1,304,501; May 20: v. 262; p. 448.
Mercer, Charles E. (See Moore and Mercer.)
Mercer, Henry H., Claremont, N. H., assignor to Sullivan Machinery Company. Channelling-machine. No. 1,304,324; May 20: v. 262; p. 450.
Mergenthaler Linotype Company. (See Coe, Walter S., assignor.)
Mergenthaler Linotype Company. (See Kennedy, David S., assignor.)
Mergenthaler Linotype Company. (See Rogers, John R., assignor.)
Merk, Gustav A., Worcester, Mass., assignor to The American Steel and Wire Company of New Jersey, Hoboken, N. J. Nail-bonding. (Release.) No. 14,647; May 15: v. 262; p. 282.
Merriam, Edmund K., Marietta, Ohio. Recovery of gases from natural gas, &c. No. 1,304,587; May 27: v. 263; p. 634.
Merriam, Harry C. (See Hudson and Merriam.)
Merrill Metallurgical Company. (See Kurjia, Michael H., assignor.)
Merritt, Thomas Z., assignor to United States Spot Ground Corporation, Omaha, Nebr. Floor or wall screed. (Release.) No. 14,652; May 20: v. 262; p. 448.
Merwin, George M., Berwyn, Ill., assignor, by means assignments, to International Harvester Company. Padder-disintegrator. No. 1,303,552; May 18: v. 262; p. 198.
Mess, Jacob, Chicago, Ill. Hose-mender. No. 1,303,098; May 6: v. 262; p. 118.
Mermelick, William T., assignor to G. M. Watters, Minneapolis, Minn. Primer for internal-combustion engines. No. 1,305,263; May 18: v. 263; p. 193.
Messers, Peter J., Olean, N. Y. Engine-cylinder. No. 1,302,602; May 6: v. 262; p. 40.
Merton, Charles E., St. Louis, Mo. Valve for refrigerating systems. No. 1,302,924; May 6: v. 262; p. 80.
Metalite Company, The. (See Clapp, Albert I., assignor.)
Metals Recovery Company. (See Perkins, Clement L., assignor.)
Meyer, August W., Seattle, Wash. Reed attachment for piano-player devices. No. 1,304,344; May 20: v. 262; p. 414.
Meyer, Benjamin. (See Smith, Winfield D., assignor.)
Meyer, Louis, San Francisco, Calif. Fishing apparatus. No. 1,304,143; May 27: v. 263; p. 603.
Meyer, Max, and F. W. Meyer, Los Angeles, Calif. Luggage-carrier for automobiles. No. 1,304,502; May 20: v. 262; p. 448.

New Jersey Patent Company. (See Constable, John P., assignor.)
 New Jersey Zinc Company, The. (See Rowand, Lewis G., assignor.)
 "New Way" Motor Company, The. (See Manthey, Henry, assignor.)
 Newell, Stanley, Wapello, Iowa. Combined tire and cracker for fountain-pens. No. 1,302,564; May 6; v. 262; p. 80.
 Newhall, Henry B. (See Fleister, Henry W., assignor.)
 Newmann, John, Brooklyn, N. Y. Ball-bearing. No. 1,302,712; May 13; v. 262; p. 256.
 Newton, George C. and R. M. Milwaukee, Wis. Reinforced-concrete ship. No. 1,302,300; May 13; v. 262; p. 196.
 Newton, John D., New York, N. Y. Portable light. No. 1,302,181; May 27; v. 262; p. 308.
 Newton, Ralph E. (See Newton, George C. and R. M.)
 Nicholls, William G., Winnipeg, Manitoba, Canada. Bottle-cap. No. 1,304,193; May 20; v. 262; p. 264.
 Nichols, Clarence H., et al. (See Norman, Frank, assignor.)
 Nichols, Hattie M., Washington, D. C., assignor to Egg Preserving and Storage Co. Method and apparatus for preserving eggs. No. 1,302,965; May 6; v. 262; p. 81.
 Nichols, Howard M., Swarthmore, assignor to The Atlantic Bedding Company, Philadelphia, Pa. Filter apparatus. No. 1,302,832; May 6; v. 262; p. 67.
 Nichols, Lewis P., Unklesville, Pa. Game-board. No. 1,302,404; May 13; v. 262; p. 218.
 Nichols, Perry J., Rockford, Ill. Apparatus for curing hay, grain, and the like. No. 1,302,545; May 20; v. 262; p. 239.
 Nicholson, Harry S., and W. C. Reinwinger, assignors to W. H. Nicholson and Company, Wilkes-Barre, Pa. Steam-trap. No. 1,302,883; May 6; v. 262; p. 67.
 Nicholson, Timothy, Scotland, Ind. Disk-grinder. No. 1,304,096; May 27; v. 262; p. 320.
 Nicoll, William B., Fort William, Ontario, Canada. Match-scraper. No. 1,304,194; May 20; v. 262; p. 264.
 Nicolson, Alexander M., New York, N. Y., assignor, by mesne assignments, to Western Electric Company, Incorporated. System for successive amplification of energies. No. 1,303,579; May 13; v. 262; p. 223.
 Nieberg, Richard, Denver, Colo. Cannon and moving-target toy. No. 1,305,232; May 27; v. 262; p. 636.
 Nielsen, Emil J., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Rivet-sorting device. No. 1,305,182; May 27; v. 262; p. 306.
 Nilsson, John F., Baltimore, Md. Wrench. No. 1,302,364; May 6; v. 262; p. 67.
 Nims, Edward M., Philadelphia, Pa. Hair-cutter. No. 1,302,535; May 6; v. 262; p. 67.
 Nisbet, Robert B., Jr., Laurens, assignor to Bankers Service Corporation, New York, N. Y. Duplex recording-card. No. 1,302,166; May 6; v. 262; p. 119.
 Nitrogen Products Company. (See Mount, William D., assignor.)
 Noble, Irvine M., and W. H. Gosling, assignors to The Frost-O-Lite Company, Inc., Indianapolis, Ind. Method of and tool for securing connecting parts of battery-plates. No. 1,302,000; May 6; v. 262; p. 41.
 Noble's Explosives Company. (See Rintoul and Cross, assignors.)
 North, John J., Chicago, Ill. Automatic gas-burner. No. 1,304,195; May 20; v. 262; p. 264.
 Noiseless Typewriter Company, The. (See Goring, George G., assignor.)
 Nomoto, Tsunejiro, Seattle, Wash. Projectile. No. 1,303,713; May 13; v. 262; p. 256.
 Noonan, Frank M., Boston, Mass. Hair-clipper. No. 1,302,836; May 6; v. 262; p. 68.
 Noppel, Emil, Philadelphia, Pa., assignor of one-half to J. E. Kennedy, New York, N. Y. Force and suction device. No. 1,304,196; May 20; v. 262; p. 264.
 Nordiska Kullager Aktiebolaget. (See Weibull, Ernst H. W., assignor.)
 Nordstrom, Eliot, Newark, N. J., assignor to American Inn Stopper Company, Bridgeport, Conn. Bottle-capping machine. No. 1,302,580; May 13; v. 262; p. 223.
 Nordstrom, Eliot, Newark, N. J., assignor to American Inn Stopper Company, Bridgeport, Conn. Bottle-capping machine. No. 1,302,581; May 13; v. 262; p. 224.
 Norrell, Emil F., Peoria, Ill., assignor to The Holt Manufacturing Company, Stockton, Calif. Grouser for endless-chain tracks. No. 1,304,337; May 20; v. 262; p. 416.
 Norton, Anna V., Youngstown, Alberta, Canada. Saw-set. No. 1,302,551; May 6; v. 262; p. 19.
 Norlund, Olaf A., Williamsport, Pa. Lifting-jack. No. 1,304,338; May 20; v. 262; p. 417.
 Norman, Carl A., Columbus, Ohio. Continuous-combustion engine. No. 1,302,563; May 6; v. 262; p. 19.
 Norman, Frank, Des Moines, Iowa, assignor of seven thirty-seconds to W. A. McAtee, four thirty-seconds to A. R. Loran, two thirty-seconds to G. W. Young, one thirty-second to W. R. Shoren, Springfield, Ohio, two thirty-seconds to C. H. Nichols, New York, N. Y., and eight thirty-seconds to O. B. McAtee, Springfield, Mo. Acetylene generating and supply system for automobiles. No. 1,303,944; May 20; v. 262; p. 339.
 Norris, Almon B., Brooklyn, Mass. Heating apparatus. No. 1,304,339; May 20; v. 262; p. 417.

Norris, Howard T., Baltimore, Md. Offset for pedals of automobiles. No. 1,302,557; May 6; v. 262; p. 68.
 North, Thomas K., assignor to Victoria Limited, Westminster, London, England. Mounting for automatic guns. No. 1,304,331; May 27; v. 262; p. 509.
 Norton, Charles H., assignor to Norton Grinding Company, Worcester, Mass. Double-head grinding-machine. No. 1,304,790; May 27; v. 262; p. 533.
 Norton Grinding Company. (See Norton, Charles H., assignor.)
 Norwood, John E., Baltimore, Md. Plectrum. No. 1,304,330; May 20; v. 262; p. 417.
 Novick, Abraham, New York, N. Y., assignor to United States Envelope Company, Springfield, Mass. Folding mechanism. No. 1,304,570; May 13; v. 262; p. 194.
 Novick, Abraham, New York, N. Y., assignor to United States Envelope Company, Springfield, Mass. Blank-forming mechanism. No. 1,304,571; May 13; v. 262; p. 194.
 Nowack, Charles H., Oak Park, Ill., assignor to American Can Company, New York, N. Y. Non-radiable container. No. 1,304,800; May 27; v. 262; p. 536.
 Nowotzki, Edward B., Bloomfield, assignor to Spittard Electrical Company, Newark, N. J. Standing-post for electric cables. No. 1,304,165; May 27; v. 262; p. 62.
 Noren, Benjamin, Denver, Colo. Garment. No. 1,304,947; May 20; v. 262; p. 240.
 Nyquist, Carl J., Chicago, Ill. Conduct-equipped structure. No. 1,304,197; May 20; v. 262; p. 264.
 Nyquist, Carl J., Chicago, Ill. Torch. No. 1,304,198; May 20; v. 262; p. 264.
 Nystrom, Karl P., Montreal, Quebec, Canada, assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,572; May 13; v. 262; p. 197.
 O'Brien, Cornelius F., Omaha, Neb. Roadless wheel. No. 1,304,901; May 27; v. 262; p. 539.
 O'Brien, Daniel, Palestine, Tex. Swivel-joint. No. 1,304,714; May 13; v. 262; p. 264.
 O'Brien, Matthew M., Brooklyn, N. Y. Shear-resistant overcoat for animals. No. 1,303,573; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,574; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,575; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,576; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,577; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,578; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,579; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,580; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,581; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,582; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,583; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,584; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,585; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,586; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,587; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,588; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,589; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,590; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,591; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,592; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,593; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,594; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,595; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,596; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,597; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,598; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,599; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,600; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,601; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,602; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,603; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,604; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,605; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,606; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,607; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,608; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,609; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,610; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,611; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,612; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,613; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,614; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,615; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,616; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,617; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,618; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,619; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,620; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,621; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,622; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,623; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,624; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,625; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,626; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,627; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,628; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,629; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,630; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,631; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,632; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,633; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,634; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,635; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,636; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,637; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,638; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,639; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,640; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,641; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,642; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,643; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,644; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,645; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,646; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,647; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,648; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,649; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,650; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,651; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,652; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,653; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,654; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,655; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,656; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,657; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,658; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,659; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,660; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,661; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,662; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,663; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,664; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,665; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,666; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,667; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,668; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,669; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,670; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,671; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,672; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,673; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,674; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,675; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,676; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,677; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,678; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,679; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,680; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,681; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,682; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,683; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,684; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,685; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,686; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,687; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,688; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,689; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,690; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,691; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,692; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,693; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,694; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,695; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,696; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,697; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,698; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,699; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,700; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,701; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,702; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,703; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,704; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,705; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,706; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,707; May 13; v. 262; p. 197.
 O'Connor, John F., Chicago, Ill., assignor to W. H. Miner, Chazy, N. Y. Friction draft-rigging. No. 1,302,708; May

Payne, William. (See De Bois and Payne.)
 Payton, C. T. (See Guild, George E., assignor.)
 Peabody, Chester E., assignor to M. D. Knowlton Company, Rochester, N. Y. Box-covering machine and the like. No. 1,302,547; May 6; v. 262; p. 20.
 Pearson, Fred L., Sioux City, Iowa. Locking-valve. No. 1,304,506; May 20; v. 262; p. 444.
 Peart, Florence M., Lincoln, England. Fountain and styligraphic pen. No. 1,302,543; May 6; v. 262; p. 60.
 Peck, Arthur E., assignor to A. E. Peck Manufacturing Co., Minneapolis, Minn. Tooth-brush. No. 1,305,500; May 13; v. 262; p. 255.
 Peck, Arthur K., et al. (See Peck, Harry H., assignor.)
 Peck, Harry H., Cambridge, assignor of one-half to Fore River Shipbuilding Corporation, Quincy, three-eighths to A. K. Peck, Boston, Mass., and one-eighth to N. A. Thompson, Jr., Shanghai, China. Optical instrument. No. 1,304,507; May 20; v. 262; p. 444.
 Peckham, Reginald F., Rugby, England, assignor to General Electric Company. Indirect and semi-direct statures. No. 1,304,563; May 20; v. 262; p. 418.
 Peckless Motor Car Company, The. (See Wackwitz, Ernest F., assignor.)
 Peckless Vulcanite Company, The. (See Burns, William J., assignor.)
 Pelce, William E., North Tonawanda, assignor to Buffalo Bolt Company, Buffalo, N. Y. Metal-heating apparatus. No. 1,302,543; May 6; v. 262; p. 60.
 Pelletier, Charles G., Ontonagon, Mich. Combined hair brush and comb. No. 1,303,720; May 13; v. 262; p. 260.
 Penberth, George F., Lincoln, assignor to Gladding, McBean & Company, San Francisco, Calif. Brick-cutting machine. No. 1,302,544; May 6; v. 262; p. 52.
 Penfield, Raymond C. (See Moore, Benjamin A., assignor.)
 Penney, Harold D. (See Dole, Frederick J., assignor.)
 Penney, Arthur, East Orange, N. J., assignor to The Adder Machine Company, Wilkes-Barre, Pa. Adding-machine. No. 1,302,545; May 6; v. 262; p. 93.
 Penner, assignor to P. F. Campbell, Iowa City, Iowa. Vaporizing attachment for internal-combustion engines. No. 1,302,544; May 6; v. 262; p. 93.
 Pernich, Steve M., et al. (See Arch, Charles J., assignor.)
 Perkins, Clement L., Pittsburgh, Pa. Assignor to Metals Recovery Company, New York, N. Y. Vibration of minerals. No. 1,302,546; May 6; v. 262; p. 93.
 Perlman, Louis H., New York, N. Y. Wheel. No. 1,303,589; May 13; v. 262; p. 233.
 Perlman, Louis H., New York, N. Y. Wheel. No. 1,303,590; May 13; v. 262; p. 233.
 Permutit Company, The. (See Knecht, Cass L., assignor.)
 Permutit Company, The. (See Knecht, Heinrich, assignor.)
 Permutit Company, The. (See Rodorf, George, assignor.)
 Perry, Frank B., Chicago, Ill. Cover for ironing-boards. No. 1,304,508; May 27; v. 262; p. 540.
 Perry, Nathan G., and C. E. Hurling, assignors of one-half to C. X. Thompson, Douglas, Ariz. Clamp. No. 1,305,156; May 27; v. 262; p. 604.
 Peters, Frederick W., West Park, assignor to The Peters Machine and Manufacturing Company, Cleveland, Ohio. Universal joint. No. 1,304,501; May 27; v. 262; p. 543.
 Peters Machine and Manufacturing Company, The. (See Peters, Frederick W., assignor.)
 Petersen, Peter, Oakland, Calif. Broom-protector. No. 1,305,157; May 27; v. 262; p. 603.
 Peterson, August R., New York, N. Y. Towel holder and dispenser. No. 1,304,500; May 27; v. 262; p. 501.
 Peterson, Victor E., Omaha, Neb. Reversible trailer and steering mechanism. No. 1,303,591; May 13; v. 262; p. 234.
 Petro, Samuel H., Los Angeles, Calif. Cooking utensil. No. 1,304,508; May 20; v. 262; p. 444.
 Petry, William, assignor to The Acme Car Seal Co., Chicago, Ill. Seal. No. 1,303,595; May 20; v. 262; p. 341.
 Petty, John P., Crowthorne, England. Short-feeding mechanism. No. 1,303,592; May 13; v. 262; p. 233.
 Percke, Armand H., assignor to The American Steel Foundries, Chicago, Ill. Forming brake-beam fulcrums. No. 1,302,702; May 6; v. 262; p. 42.
 Pfannstiel, Carl A., Waukegan, assignor, by mesne assignments, to Pfannstiel Company, Inc., North Chicago, Ill. Cleaning contact-points. No. 1,304,503; May 27; v. 262; p. 540.
 Pfannstiel Company. (See Pfannstiel, Carl A., assignor.)
 Pfeiffer, Frank, assignor to Straw Gas and Cressets Distilling Co., Minneapolis, Minn. Apparatus for generating gas from vegetation. No. 1,303,588; May 13; v. 262; p. 194.
 Pfister, Harry M., Binghamton, N. Y. Release-wrench for coat-horns. No. 1,304,500; May 20; v. 262; p. 340.
 Pfeiffer, William, Norwalk, Conn. Supplemental holding device for motor-vehicles. No. 1,304,110; May 6; v. 262; p. 156.
 Phil-Har-Choo Piano Player Corporation. (See Chock, Tolbert F., assignor.)
 Philadelphia Drying Machinery Company, The. (See Allcock and Shoen, assignors.)
 Phillipsburg, Ignatz. (See Phillipsburg, Paul and I.)
 Phillipsburg, Paul and I., Brooklyn, N. Y. Seal-tag. No. 1,303,586; May 13; v. 262; p. 186.

Phillips, James B., assignor of one-third to C. J. Klad, trustee, Grand Rapids, Mich. Chain-dock. No. 1,302,545; May 6; v. 262; p. 10.
 Phillips, Neah C., and T. V. Hart, Houston, La. Oil-drill. No. 1,304,504; May 20; v. 262; p. 414.
 Phonograph Company, The. (See Marx, Charles H., assignor.)
 Photo Motion Company. (See Clark, Edwin W., assignor.)
 Piacenti, Michael, assignor of one-half to A. Tansvold, Baltimore, Md. Folding table or stand. No. 1,302,500; May 6; v. 262; p. 23.
 Picher, Leona. (See Picher and Picher.)
 Pichler, Ewald G., Chicago, Ill. Roller-drill. No. 1,302,547; May 6; v. 262; p. 12.
 Pieper, Alphonse F. (See Pieper, Oscar H., and A. F.)
 Pieper, Oscar H., and A. F. Pieper, N. Y. Pressure-regulator. No. 1,304,704; May 27; v. 262; p. 521.
 Pierce, Robert F., Collingswood, N. J., assignor, by mesne assignments, to C. M. Porter, Philadelphia, Pa. Light-lamp. No. 1,303,584; May 27; v. 262; p. 411.
 Philfield, Thomas G., and J. G. Hartman, Chicago, Ill. Oil-cup. No. 1,305,000; May 27; v. 262; p. 117.
 Pilsner, Benjamin E. (See Pilsner, Fred D., assignor.)
 Pirtle, Claiborne C., Dallas, Tex. Heater. No. 1,304,506; May 27; v. 262; p. 341.
 Pison King Company. (See Lauterbach, Frederick W., assignor.)
 Planchin, Pierre, Cleveland, Ohio. Cake-oven. No. 1,304,507; May 27; v. 262; p. 501.
 Plann, Robert H., Upper Merstich, N. J. Web-printing device. No. 1,302,545; May 27; v. 262; p. 61.
 Platt, Clarence D., Bridgeport, Conn. Switch-handle. No. 1,305,158; May 27; v. 262; p. 604.
 Planchin, Alfred E. (See Planchin and Planchin.)
 Plaster, Henry W., Westfield, N. J., assignor to R. P. Newhall, Wallingford, Mass. No. 1,302,548; May 6; v. 262; p. 20.
 Plonka, Adolph, Woonsocket, R. I. Crutch-handle. No. 1,303,721; May 13; v. 262; p. 260.
 Plunkett, Thomas, Westbury, N. Y. Saw-frame. No. 1,305,159; May 27; v. 262; p. 604.
 Pogo, George D., et al. Lock. No. 1,302,549; May 6; v. 262; p. 159.
 Polman, Francis M., Easton, N. J., assignor to Local-motive Superheater Company, New York, N. Y. Superheater unit. No. 1,304,501; May 20; v. 262; p. 341.
 Polman, Albert E., Fort Wayne, Ind. Folding stand. No. 1,303,708; May 6; v. 262; p. 42.
 Poll, Alphonse, Waukegan, Wis. Cheese-making device. No. 1,304,500; May 27; v. 262; p. 540.
 Polinsky, Samuel. (See Polinsky and Polinsky.)
 Poljak, Joseph, Boston, Mass. Foot-rest for locomotives. No. 1,303,590; May 20; v. 262; p. 341.
 Pollock, Henry, Brooklyn, N. Y. Hanging bracket. No. 1,304,500; May 27; v. 262; p. 540.
 Pond, Charles P., Philadelphia, Pa. Floating trough. No. 1,304,500; May 27; v. 262; p. 540.
 Pond, Edmund M., assignor, by mesne assignments, to K. R. Pond, Rutland, Vt. Composition of motor for pistons, pistons, etc. No. 1,304,500; May 27; v. 262; p. 540.
 Pond, Katherine M. (See Pond, Edmund M., assignor.)
 Poole, John H., assignor to Brodwin Manufacturing Company, Brooklyn, Mass. Nipple-clamp. No. 1,304,500; May 20; v. 262; p. 341.
 Pope, Alfred T., assignor of one-half to C. Pope, Louisville, Ky. Heating, ventilating and humidifying system for incubators. No. 1,303,723; May 13; v. 262; p. 260.
 Pope, Charles H., Springfield, Mass. Assignor to Great Northern Paper Company, Millinocket, Me. Paper-making machine. No. 1,304,500; May 27; v. 262; p. 540.
 Pope, Corran. (See Pope, Alfred T., assignor.)
 Pope, Joseph H., Hamilton, Mass. Assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Blank-feeding mechanism for stitching-machines. No. 1,303,593; May 27; v. 262; p. 621.
 Porter, Alvin O., Auburn, Wash. Paper receptacle. No. 1,303,723; May 13; v. 262; p. 260.
 Porter, Johnston P., Portland, Oreg. Means for removing sand-bars and other water accumulations. No. 1,304,508; May 20; v. 262; p. 444.
 Porter, Sarah J. (See Sawtelle, Charles A., assignor.)
 Portman, Julius, Los Angeles, Calif. Refrigerator-door latch. No. 1,302,546; May 6; v. 262; p. 10.
 Pouchard, Leonard R., New York, N. Y. Crane-mat oil-trap. No. 1,303,111; May 6; v. 262; p. 131.
 Posa, George W., Cairo, Egypt. Assignor of one-half to H. F. Bridges, Los Angeles, Calif. Oil-burner. No. 1,304,502; May 20; v. 262; p. 341.
 Potts, John E., Dayton, Ohio. Camera. No. 1,304,500; May 20; v. 262; p. 341.
 Powell, Luther A., Warren, Ala. Shade and curtain bracket. No. 1,304,705; May 27; v. 262; p. 522.
 Powell Manufacturing Company. (See Lohmeyer, Albert T., assignor.)
 Powell, Walter R., Quebec, Canada. Motor-brake and like device. No. 1,304,500; May 20; v. 262; p. 341.
 Powell, Winifred T., assignor to Automatic Electric Company, Chicago, Ill. Automatic telephone system. No. 1,304,500; May 20; v. 262; p. 341.

Powers Accounting Machine Company. (See Williams, Robert N., assignor.)
 Powers, John N., assignor to United States Ordnance Company, Washington, D. C. Switch for electric firing devices. No. 1,302,546; May 6; v. 262; p. 93.
 Powells, Theodore, Louisville, N. Y. Ship-leader. No. 1,303,589; May 20; v. 262; p. 444.
 Pratt, Alphonse C., Deep River, Conn. Assignor to Whitling & Davis Company. Wind-shield. No. 1,302,500; May 6; v. 262; p. 23.
 Pratt & Whitney Company. (See Hansen, Bengt M. W., assignor.)
 Pratt & Whitney Company. (See Hoagland, Frank O., assignor.)
 Pratt & Whitney Company. (See Wegman, Howard C., assignor.)
 Prescott, Charles F., Brooklyn, N. Y. Process of and means for removing sand cores from hollow rolled metals. No. 1,304,500; May 20; v. 262; p. 335.
 Pressed Bearing Company. (See Klocke, William, assignor.)
 Frost-O-Lite Company, The. (See Clements, Everett G., assignor.)
 Frost-O-Lite Company, The. (See Noble and Gosling, assignors.)
 Frost-O-Lite Company. (See Smith and Westlund, assignors.)
 Price, George B., Topix, Utah. Spring boot and roller. No. 1,304,506; May 20; v. 262; p. 418.
 Prickett, William H., and J. F. Morton, Trenton, N. J. Shade-holder for electric lamps. No. 1,303,112; May 6; v. 262; p. 121.
 Prideaux, William de C., Weymouth, England. Construction of links for ammunition-belts of machine-guns. No. 1,303,160; May 27; v. 262; p. 604.
 Prideaux, William de C., Weymouth, England. Ammunition-belt for machine-guns. No. 1,303,161; May 27; v. 262; p. 604.
 Priebe, Herman C., Blue Island, Ill. Draft-gear. No. 1,302,704; May 6; v. 262; p. 42.
 Priebe, Herman C., Blue Island, Ill. Draft-gear. No. 1,302,705; May 6; v. 262; p. 42.
 Priebe, Herman C., Blue Island, Ill. Car structure. No. 1,302,706; May 6; v. 262; p. 42.
 Priebe, Herman C., Blue Island, Ill. Car structure. No. 1,302,707; May 6; v. 262; p. 42.
 Priebe, Herman C., Blue Island, Ill. Car structure. No. 1,302,708; May 6; v. 262; p. 42.
 Priest, Bertie M. (See Nelson, Wesley H., assignor.)
 Priest, Charles E., Malvern, Pa. Can-stamping machine. No. 1,304,504; May 27; v. 262; p. 540.
 Pritchett, William H., U. S. Marine Corps. Puncture-proof lining for pneumatic tires. No. 1,302,979; May 6; v. 262; p. 83.
 Progress Machine Company. (See Lieber, Peter C., assignor.)
 Projectile Protector Company. (See Schirra, Julius, assignor.)
 Pruefer, Walter H., assignor to Fletcher and Pruefer, Providence, R. I. Bracelet. No. 1,304,706; May 27; v. 262; p. 522.
 Pugh, Henry, St. Cloud, Minn. Vehicle-body. No. 1,303,162; May 27; v. 262; p. 607.
 Pugh, John V., Coventry, England. Assignor, by mesne assignments, to Wire Wheel Corporation of America. Detachable wheel. No. 1,304,510; May 20; v. 262; p. 447.
 Pullen, Rhodes H., Winston-Salem, N. C. Ribbon-reeling attachment for type-writers. No. 1,304,507; May 20; v. 262; p. 410.
 Pullman Coach Company. (See Breblius, Henry M., assignor.)
 Purcell, Edward L., Toledo, Ohio. Folding table-chair. No. 1,304,503; May 20; v. 262; p. 410.
 Purnell, Richard H., and R. F. Bridges, Memphis, Tenn. Roll-cotton separator and cleaner. No. 1,304,504; May 27; v. 262; p. 540.
 Putt, Harle O., Elkhart, Ind. Electromagnetic circuit-interrupter. No. 1,302,547; May 6; v. 262; p. 10.
 Pyle-National Electric Headlight Company. (See Young, Otis W., assignor.)
 Quackenbush, Parries R., Goheen, N. Y. Sanitary toilet-seat cover. No. 1,304,511; May 20; v. 262; p. 447.
 Quass, Ralph L., Hawthorne, N. Y. Assignor to Western Electric Company, Incorporated, New York, N. Y. Connecting-circuit for telephone systems. No. 1,303,590; May 20; v. 262; p. 341.
 Quinzer, Paul. (See Buchwald, Quinzer, and Viertel.)
 Quigley, Clark H. (See Bunge, Reginald M., assignor.)
 Quinby, Charles O., Wakefield, Mass. Mop. No. 1,304,504; May 20; v. 262; p. 341.
 Quinby, Clarence E., assignor, by mesne assignments, to The Continental Lens Co., Toledo, Ohio. Lens. No. 1,303,595; May 13; v. 262; p. 216.
 Quinn, John E., Philadelphia, Pa. Manufacturing stock-lift. No. 1,303,593; May 13; v. 262; p. 224.
 Quintin, Clarence R., assignor to L. W. Riddle, Glen Riddle, Pa. Coupling device for grooves-cups and the like. No. 1,304,501; May 27; v. 262; p. 502.
 R. Roe and Co. (See Torberg, Indur, assignor.)
 Rabinowitz, Louis, Montclair, N. J., assignor to Mills-Potter Company. Regulating the oxidation of ammonia. No. 1,304,707; May 27; v. 262; p. 522.

Marine Engine & Machinery Co., The. (See Fitch, John W., assignor.)
 Radiguer, Charles, assignor to The Société Anonyme Des Etablissements Delaunay-Belleville, St-Denis, France. Header for boiler elements. No. 1,305,163; May 27; v. 262; p. 607.
 Ragot, Charles L., Keyport, N. J., and L. F. Ragot, Milford, Pa. Rotary engine. No. 1,302,709; May 6; v. 262; p. 43.
 Ragot, Louis F. (See Ragot, Charles L. and L. F.)
 Rainey, Paul M., West Hoboken, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Rectifying system. No. 1,303,496; May 13; v. 262; p. 216.
 Ralco Manufacturing Company. (See Loftgren, John, assignor.)
 Ralco Products Company, The. (See Kopf, Melrose G., assignor.)
 Ralco Products Company, The. (See Lauterbach, William F., assignor.)
 Ralco Products Company, The. (See Lauterbach, Rappell, and Kopf, assignors.)
 Ralston, Gavin, and E. Blankenship, Commerce, Okla. Artificial hand. No. 1,304,501; May 20; v. 262; p. 341.
 Ralston, Robert O. (See Henry and Ralston.)
 Ramsay, Hugh V. (See Tripp and Ramsay.)
 Rand, James H., North Tonawanda, N. Y. Index. No. 1,302,548; May 6; v. 262; p. 70.
 Rand, James H., North Tonawanda, N. Y. Index. No. 1,302,549; May 6; v. 262; p. 70.
 Rand, James H., North Tonawanda, N. Y. Index device. No. 1,302,550; May 6; v. 262; p. 71.
 Rane, Estelle C., assignor to The Automatic Rectifying Circuit Breaker Company, Columbus, Ohio. Automatically-reclosing circuit-breaker mechanism. No. 1,302,551; May 6; v. 262; p. 71.
 Rappell, Ulrich J. (See Lauterbach, Rappell, and Kopf.)
 Rasch, Ludvik, Christiania, Norway. Centrifugal machine. No. 1,304,505; May 27; v. 262; p. 559.
 Ratcliff, William H., assignor to Splitdorf Electrical Company, Newark, N. J. Circuit-breaker. No. 1,305,165; May 27; v. 262; p. 607.
 Raus, George, Hahn, Tex. Farming implement. No. 1,304,501; May 20; v. 262; p. 342.
 Ravell, Susan M., Washington, D. C. Health food. No. 1,303,724; May 13; v. 262; p. 260.
 Ravner, Orystein, and V. M. Goldschmidt, assignors to Det Norske Aktieselskab for elektroteknisk Industri, Norsk Industri-Hypotekbank, Christiania, Norway. Producing aluminium compounds. No. 1,302,552; May 6; v. 262; p. 71.
 Ray, Arthur J., Liverpool, England, assignor to Automatic Electric Company, Chicago, Ill. Telephone system. No. 1,304,500; May 20; v. 262; p. 341.
 Ray, Charles L., Los Angeles, Calif. Direction-indicator and mirror. No. 1,304,570; May 20; v. 262; p. 419.
 Ray, Charles T., assignor to B. F. Avery & Sons, Louisville, Ky. Cultivator. No. 1,304,512; May 20; v. 262; p. 447.
 Ray, Eugene J., Beverly, Mass. Assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Button-hole-making machine. No. 1,303,400; May 13; v. 262; p. 201.
 Ray, Frederick, Short Hills, N. J. Machine for producing piston-rings. No. 1,304,571; May 20; v. 262; p. 419.
 Rayder, Joseph A., Philadelphia, Pa. Sound-locator. No. 1,305,237; May 27; v. 262; p. 621.
 Raymond, Alexander G., Riverside, Conn. Container. No. 1,302,710; May 6; v. 262; p. 43.
 Raynor, Ben. A., Muskogee, Okla. Rail-joint. No. 1,302,971; May 6; v. 262; p. 94.
 Rea, Frank, San Francisco, Calif. Insect-destroyer. No. 1,302,972; May 6; v. 262; p. 94.
 Reach, William F., Chicopee, Mass. Skoe attachment for vehicles. No. 1,303,388; May 13; v. 262; p. 199.
 Read, George B., Bloomington, Ill. Hoisting-jack and control therefor. No. 1,305,006; May 27; v. 262; p. 577.
 Ream, Myrton E., Chicago, Ill. Child's toilet-seat. No. 1,304,505; May 20; v. 262; p. 340.
 Reardon, William J., Pittsburgh, Pa. Assignor to Westinghouse Electric and Manufacturing Company, Alloy. No. 1,305,166; May 27; v. 262; p. 607.
 Reazor, William N., Jr., Elmira, N. Y. Angle-calculator. No. 1,302,580; May 6; v. 262; p. 20.
 Reel, John, Cleveland, Ohio. Indistinct bathing-garment. No. 1,303,389; May 13; v. 262; p. 199.
 Redeker, John J., and H. L. Thompson, assignors to Elgin Gas Motor Company, Elgin, Ill. Muffler. No. 1,304,509; May 20; v. 262; p. 346.
 Redfern, John E., Cambridge, Mass. Pedal-pad. No. 1,302,853; May 6; v. 262; p. 71.
 Redner, Martin H., Jr., Philadelphia, Pa. Nut. No. 1,302,854; May 6; v. 262; p. 71.
 Reed, Charles E., Chicago, Ill. Machine for turning heels. No. 1,305,007; May 27; v. 262; p. 577.
 Reed, Harry E., Smith Center, Kan. Wagon end-gate. No. 1,304,500; May 13; v. 262; p. 199.
 Reed, Lemmon M., assignor to H. E. Gynn, Cleveland, Ohio. Spring-vent. No. 1,303,562; May 20; v. 262; p. 342.
 Reed, Matthew H., Chicago, Ill. Lawn-mower. No. 1,304,572; May 20; v. 262; p. 419.

Reader, Charles, Ephrata, Wash. Tire-expander. No. 1,303,497; May 13; v. 262; p. 219.
 Reeve, Howard T., assignor to American Optical Company, Southbridge, Mass. Eye-protector. No. 1,304,906; May 27; v. 262; p. 540.
 Reeve, James H., Salt Lake City, Utah. Recovering potassium salts from saline mixtures containing the same. No. 1,304,067; May 20; v. 262; p. 367.
 Regenbogen, Conrad, and H. Techel, assignors to Fried. Krupp Aktiengesellschaft Germaniawerft, Kiel-Opaarden, Germany. Submarine boat. No. 1,305,235; May 27; v. 262; p. 621.
 Reich, Henry C., New York, N. Y. Reinforcing and repair bracket. No. 1,305,301; May 13; v. 262; p. 199.
 Reid, Charles, Dublin, Ireland. Rifle-target. No. 1,304,002; May 27; v. 262; p. 502.
 Reiland, Ernest S., St. Paul, Minn. Tire and rim tool. No. 1,302,591; May 6; v. 262; p. 20.
 Reiners, George E., assignor to Mafreto Machine and Tool Company, Worcester, Mass. Bottle-labeling machine. No. 1,304,373; May 20; v. 262; p. 419.
 Remblit, Arthur G., Philadelphia, Pa. Phonograph attachment. No. 1,304,513; May 20; v. 262; p. 447.
 Remington Typewriter Company. (See Yaw, Clio B., assignor.)
 Rendle, Arthur E., assignor to Keystone Type Foundry, Philadelphia, Pa. Metal window-sash. No. 1,303,113; May 6; v. 262; p. 121.
 Renner, Claude A. and E. A. Perkasie, Pa. Spark-arrester. No. 1,303,393; May 13; v. 262; p. 200.
 Renner, Edward J., Swinvale, Pa. Plaything for children. No. 1,303,392; May 13; v. 262; p. 200.
 Renner, Edwin A. (See Renner, Claude A. and E. A.)
 Rennerfelt, Ivar, Djursholm, Sweden. Electric furnace. No. 1,305,167; May 27; v. 262; p. 607.
 Reustle, Harry G., and W. W. Cannon, Camden, N. J.; said Cannon assignor to said Reustle. Machine for use in assorting buttons. No. 1,303,594; May 13; v. 262; p. 236.
 Revere Rubber Company. (See Kent, William J., assignor.)
 Rex, Alfred C., administrator. (See Robertson, Archibald J.)
 Reynolds, Henry L. (See Hogan, William T., assignor.)
 Reynolds, William M., Purcell, Colo. Beet-harvester. No. 1,302,973; May 6; v. 262; p. 94.
 Rhine, John J., Pittsburgh, Pa. Shock-absorber. No. 1,303,725; May 13; v. 262; p. 260.
 Rhines, Frank W., Lamont, Iowa. Adjustable alligator-wrench. No. 1,303,963; May 20; v. 262; p. 343.
 Ricardo, Harry K., London, England. Connecting-rod for internal-combustion engines. No. 1,303,496; May 13; v. 262; p. 219.
 Rice, Earnest H., Grand Saline, Tex. Slot angle-bar. No. 1,303,726; May 13; v. 262; p. 261.
 Rice, William D., Conneaut, Ohio. Making shrapnel-shells. No. 1,303,727; May 13; v. 262; p. 261.
 Richards, George, Westminster, London, England. Means applicable for use in milling screw-threads. No. 1,304,006; May 27; v. 262; p. 550.
 Richardson, Charles G., Springfield, Vt. Measuring-machine. No. 1,304,003; May 27; v. 262; p. 502.
 Richardson, William D., assignor to Swift & Company, Chicago, Ill. Continuous reduction-furnace. No. 1,303,114; May 6; v. 262; p. 121.
 Richel, Steve, Dunlop, Pa. Slicing apparatus. No. 1,302,592; May 6; v. 262; p. 20.
 Richner, William V., Champaign, Ill. Convertible vehicle-body. No. 1,304,202; May 20; v. 262; p. 366.
 Riddle, Leander W. (See Boyer, Harrison D., assignor.)
 Riddle, Leander W. (See Quintin, Clarence E., assignor.)
 Rider, Ernest G. (See Stokes and Rider.)
 Rieder, Talmon H., and W. B. Wiegand, Montreal, Quebec, Canada, assignors to The Goodyear's Metallic Rubber Shoe Company. Resilient rubber compound material. No. 1,305,008; May 27; v. 262; p. 578.
 Rietzel, Adolph F., Charlestown, R. I. assignor to Thomson Electric Welding Company, Lynn, Mass. Electric-welding transformer. No. 1,303,904; May 20; v. 262; p. 343.
 Riffard, Georges, New York, N. Y. Wrench. No. 1,303,595; May 13; v. 262; p. 237.
 Riffard, Georges, New York, N. Y. Jig system for aeroplane manufacture. No. 1,303,596; May 13; v. 262; p. 237.
 Rintoul, William, and D. Croes, assignors to Nobel's Explosives Company Limited, Stevenson, Scotland. Explosive. No. 1,303,115; May 6; v. 262; p. 122.
 Rivells, Samuel, Philadelphia, Pa. Attachment device for shoe-buckles. No. 1,303,116; May 6; v. 262; p. 122.
 Rivers, Benjamin W., Portland, assignor to National Metal Seal Corporation, Deering Junction, Portland, Me. Closure for containing vessels. No. 1,304,004; May 20; v. 262; p. 367.
 Robb, Fred D., assignor of one-half to B. E. Pilcher, Dothan, Ala. Automatic pneumatic semaphore and train-stop mechanism. No. 1,302,711; May 6; v. 262; p. 43.
 Robbins, Guy F., Portland, Oreg. Universal iron-working machine. No. 1,303,394; May 13; v. 262; p. 200.
 Robbins, Robert R., Florence, Ky. Wire-fence tightener. No. 1,304,005; May 27; v. 262; p. 540.

Robbins, William, and H. V. Ryan, Chicago, Ill. Engine-governor. No. 1,302,553; May 6; v. 262; p. 72.
 Robertson, Charles G. (See Bolyard and Robertson.)
 Roberts, Arthur, Evanston, Ill. Badax coke-oven. No. 1,304,907; May 27; v. 262; p. 539.
 Roberts, Arthur, Evanston, Ill. Preheating. No. 1,304,908; May 27; v. 262; p. 539.
 Roberts, David E., Madison, Wis. Lighting-structure. No. 1,302,712; May 6; v. 262; p. 44.
 Roberts, Fred T., assignor of one-half to R. H. Rosenfeld, Cleveland, Ohio. Sliding tire. No. 1,304,369; May 27; v. 262; p. 539.
 Roberts, Omar L., Macy, Ind. Insulator. No. 1,305,168; May 27; v. 262; p. 608.
 Robertson, Archibald J., deceased; A. C. Rex, administrator, Philadelphia, Pa. Axle and wheel for vehicles. No. 1,302,554; May 6; v. 262; p. 72.
 Robertson, Harry E., Wilmington, N. C. Lock-out for coupling. No. 1,305,009; May 27; v. 262; p. 578.
 Roberson, William B., Port Huron, Mich., assignor of one-half to W. I. Gear, Montreal, Quebec, Canada. Air-inlet device. No. 1,304,574; May 20; v. 262; p. 430.
 Robin, Jacob L., New York, N. Y. Gas-burner. No. 1,304,507; May 27; v. 262; p. 541.
 Robinet, Clarence O., Toledo, Ohio. Tractor non-skid member and lug. No. 1,304,375; May 20; v. 262; p. 420.
 Robinson, Albert P., Kenil, N. J. Lighting system. No. 1,304,203; May 20; v. 262; p. 364.
 Robinson, Enoch, Southampton, England. Artificial hand. No. 1,304,099; May 20; v. 262; p. 367.
 Robinson, Frank, Chicago, Ill. Spark-plug. No. 1,303,965; May 20; v. 262; p. 343.
 Robinson, John G., Manchester, assignor to The Superheater Corporation Limited, London, England. Steam-superheater for boilers. No. 1,304,910; May 27; v. 262; p. 539.
 Robinson, Ulysses B., assignor of one-third to M. Forde, Lagrange, Ga. Resilient tire. No. 1,302,974; May 6; v. 262; p. 94.
 Robson, Philip W., and F. J. Brotherton, Lincoln, England. Stabilizing and steering gear for vehicles using chain tracks. No. 1,303,822; May 13; v. 262; p. 370.
 Rodrigues, Miguel B., Madrid, Spain. Electric-current interrupter. No. 1,304,376; May 20; v. 262; p. 430.
 Roe, William C., Wheeling, W. Va. Buzzer apparatus for producing whistle-sounding sounds. No. 1,303,117; May 6; v. 262; p. 122.
 Roesch, Alfred, assignor to Charles J. Tagliabue Manufacturing Co., Brooklyn, N. Y. Regulating-valve. No. 1,304,100; May 20; v. 262; p. 367.
 Roesch, Georges, London, assignor of one-half to Clement Talbot Limited, Ladbroke Grove, London, England. Control device for change-speed and reversing mechanism. No. 1,302,593; May 6; v. 262; p. 21.
 Roemer, George, Toledo, Ohio. Multiple reproducing-machine. No. 1,302,594; May 6; v. 262; p. 21.
 Rogall, Bernard, Brooklyn, N. Y. Necktie-package. No. 1,304,911; May 27; v. 262; p. 540.
 Rogatchev, Theodore, Baltimore, Md. Cross-head for engines. No. 1,303,728; May 13; v. 262; p. 261.
 Rogers, James H., Hyattsville, Md. Wireless signaling system. No. 1,303,729; May 13; v. 262; p. 261.
 Rogers, James H., Hyattsville, Md. Radiosignaling system. No. 1,303,730; May 13; v. 262; p. 261.
 Rogers, John H., Brooklyn, N. Y. assignor to Morganthaler Linotype Company. Typographical machine. No. 1,304,708; May 27; v. 262; p. 523.
 Rogers, William W., and F. H. Decker, Frenchtown, N. J. Railway-signal. No. 1,305,236; May 27; v. 262; p. 622.
 Rohne, Ewen J., Minneapolis, Minn. Electric switch. No. 1,304,377; May 20; v. 262; p. 420.
 Rohr, Joseph, Brooklyn, and F. Karasch, Canarsie, N. Y. Burner. No. 1,303,597; May 13; v. 262; p. 237.
 Rohmann, Karl F., St. Gallen, Switzerland. Artificial hand. No. 1,305,169; May 27; v. 262; p. 608.
 Rolla-Royce Limited. (See Royce, Frederick H., assignor.)
 Rolph, Thomas W., and W. F. Minor, Cleveland, Ohio, assignors to General Electric Company. Lighting-structure. No. 1,304,378; May 20; v. 262; p. 420.
 Romala, Augustus D., Brooklyn, N. Y. Explosive device. No. 1,303,499; May 13; v. 262; p. 219.
 Roman, Charles A., Chisholm, Ohio. Safety-chole for pins. No. 1,302,713; May 6; v. 262; p. 44.
 Rose, Frank G. (See Lee and Rose.)
 Rose, Thomas, Milwaukee, Wis. Machine for forming sheets of plastic material. No. 1,303,906; May 20; v. 262; p. 343.
 Rosenberg, Isidore, Port Chester, N. Y. Folding valve-lifter. No. 1,302,975; May 6; v. 262; p. 94.
 Rosenberg, Morris, Brooklyn, N. Y. Brush. No. 1,303,500; May 13; v. 262; p. 219.
 Rosenfeld, Ralph H. (See Roberts, Fred T., assignor.)
 Rosenthal, Max, et al. (See McLaughlin, William D., assignor.)
 Ross, George E., Waterloo, Iowa. Hydrocarbon-preheater for carburetors. No. 1,305,170; May 27; v. 262; p. 608.
 Ross, George H., and A. Anderson, Fort Frances, Ontario, Canada. Extension-table. No. 1,304,394; May 20; v. 262; p. 368.
 Rossum, Carl A. and O. F. Wilmont, Manitoba, Canada. Carburetor. No. 1,304,395; May 20; v. 262; p. 368.

Rossum, Oscar F. (See Rossum, Carl A. and O. F.)
 Roth, John G., Belmont, Mass. Chocolate-heating apparatus. No. 1,304,101; May 20; v. 262; p. 367.
 Roth, Philip A., Milwaukee, Wis. Heat-controlling alarm mechanism. No. 1,303,395; May 13; v. 262; p. 200.
 Roussel, Louis, assignor to Compagnie D'Applications Mecaniques, Ivry-Port, France. Construction of solid wheels. No. 1,303,501; May 13; v. 262; p. 236.
 Routledge, William, London, England. Screw-propeller. No. 1,304,102; May 20; v. 262; p. 367.
 Row, Enoch B., and H. C. Davis, Elmaboth, N. J., assignors to American Marine Equipment Corporation, New York, N. Y. Evaporator, feed-water heater, and the like. No. 1,304,379; May 20; v. 262; p. 421.
 Rowand, Lewis G., Brooklyn, assignor to The New Jersey Zinc Company, New York, N. Y. Magnetic ore-separator. No. 1,303,598; May 13; v. 262; p. 239.
 Rowand, Lewis G., Brooklyn, assignor to The New Jersey Zinc Company, New York, N. Y. Magnetic ore-separator. No. 1,303,599; May 13; v. 262; p. 239.
 Rowand, Lewis G., Brooklyn, assignor to The New Jersey Zinc Company, New York, N. Y. Magnetic ore-separator. No. 1,303,600; May 13; v. 262; p. 239.
 Rowley, Arthur C., assignor to Globe Automatic Sprinkler Company, Philadelphia, Pa. Fusible link. No. 1,303,610; May 27; v. 262; p. 578.
 Roy, William D. (See Landis and Roy.)
 Royal Typewriter Company. (See Ross and Myers, assignors.)
 Royal Worcester Cermet Co. (See Lecoutre, Auguste J., assignor.)
 Rye, Frederick H., assignor to Rollo-Royce Limited, Osmaston, Derby, England. Internal-combustion engine. No. 1,304,380; May 27; v. 262; p. 441.
 Rubin, Adolph, St. Louis, Mo. Cloth-cutting machine. (Rohmann, No. 14,654; May 27; v. 262; p. 622.)
 Ruddle, Sydney H., and E. Davidson, Brisbane, Queensland, Australia. Double-acting internal-combustion engine. No. 1,303,502; May 13; v. 262; p. 237.
 Ruder, George, London, England, assignor to The Permutit Company, New York, N. Y. Making base-exchanging bodies. No. 1,304,396; May 20; v. 262; p. 367.
 Rudenberg, Reinhold, Berlin-Charlottenburg, assignor to Siemens-Schuckertwerke, G. m. b. H., Berlin, Germany. Regulating commutator-machines. No. 1,303,611; May 27; v. 262; p. 578.
 Rude, Hermann, Jettetten, Germany. Motor-truck. No. 1,303,711; May 27; v. 262; p. 366.
 Rudy, Julius M. (See Bagley and Rudy.)
 Russell, Fred E., Richfield, Idaho. Furrow-marker. No. 1,302,714; May 6; v. 262; p. 44.
 Russell, Raymond E., A. E. Ogden, and F. S. Ellett, Elmira, N. Y. Attachment for talking-machines. No. 1,303,503; May 13; v. 262; p. 239.
 Runyan, Arthur L., Omaha, Neb. Compound universal joint. No. 1,304,103; May 20; v. 262; p. 367.
 Russell Manufacturing Co., Inc. (See Achtmeyer, William, assignor.)
 Russell, Stanley D., Winfield, Kans. Nickle-puller. No. 1,302,596; May 6; v. 262; p. 21.
 Russell, Thomas N., assignor to Harry Vlemming & Company, Chicago, Ill. Ladder. No. 1,304,397; May 27; v. 262; p. 541.
 Rust, Mortimer H., Fulton, N. Y. Beating-engine lighter-bar. No. 1,304,604; May 27; v. 262; p. 503.
 Ryan, Bartle, et al. (See Ryan, Neith H., assignor.)
 Ryan, Leonard, St. Louis, Mo. Railway-crossing. No. 1,304,207; May 20; v. 262; p. 367.
 Ryan, Neith H., Northcote, Victoria, assignor of one-third to E. Ryan, Northcote, one-sixth to C. C. Jackson, and one-half to E. S. Falkner, Melbourne, Australia. Machine for forming subterranean passages and lining the same with earthenware, artificial stone, or the like. No. 1,303,599; May 13; v. 262; p. 201.
 Rydbeck, Patrik B. (See Hultgren and Rydbeck.)
 S. Feather Company. (See Hall, William B. D., assignor.)
 S. L. Allen & Co. (See Allen, Samuel L., assignor.)
 S. E. Smythe Company, Tha. (See Smythe, Horace E., assignor.)
 S. E. White Dental Manufacturing Company. (See Glens, Thomas F., assignor.)
 Sabina, Emeric, assignor to E. Sabina Company, Inc., Pittsburgh, Pa. Mechanical toy. No. 1,302,907; May 6; v. 262; p. 72.
 Sack, Abel, Glendive, Mont. Nut-lock. No. 1,302,858; May 6; v. 262; p. 72.
 Safe-Guard Check Writer Company. (See Whitaker, John, assignor.)
 Sager, John P. (See Angle and Sager.)
 Salerno, Ferdinando G., Chicago, Ill. Machine for depositing confections on wafers, cakes, and the like. No. 1,303,500; May 13; v. 262; p. 237.
 Salomon, Joseph, Chicago, Ill. Industrial chair. No. 1,302,599; May 6; v. 262; p. 72.
 Salts, Rod R., Bethlehem, Pa. Switch-stand. No. 1,304,398; May 20; v. 262; p. 368.
 Salt, Edgar B., Durham, Mass. Signaling instrument. No. 1,302,715; May 6; v. 262; p. 44.
 Samson, Charles H., assignor, by name assignments, to Todd Protective Company, Rochester, N. Y. Printing-machine. No. 1,303,612; May 27; v. 262; p. 578.

Sandell, Henry K., assignor to H. S. Mills, Chicago, Ill. Automatic reversing-switch. No. 1,305,013; May 27; v. 262; p. 579.
 Sanford, John A., and M. R. Little, Genesee, N. Y. Record-cabinet. No. 1,303,731; May 13; v. 262; p. 261.
 Sanford, Mark E. (See Sanford, John A. and M. R.)
 Sanger, Isaac L., Dallas, Tex. Clamp or fastener for garments. No. 1,303,401; May 13; v. 262; p. 201.
 Sanitary Refrigerating Machinery Company. (See Schweins and Hauerwas, assignors.)
 Santmyer, Walter J., Seattle, Wash. Waste-fuel burner. No. 1,304,380; May 20; v. 262; p. 421.
 Sargent, Frederick S., Naugatuck, Conn. Fastening device. No. 1,303,118; May 6; v. 262; p. 122.
 Sargent, Allison, East Orange, N. J. Golf-club attachment. No. 1,302,590; May 6; v. 262; p. 73.
 Sargent & Company. (See Shaw, John H., assignor.)
 Sargent, Charles E., assignor to Midwest Engine Company, Indianapolis, Ind. Dust-separator. No. 1,302,716; May 6; v. 262; p. 44.
 Saurer, Firm of Adolph. (See Schlatter, Gustav, assignor.)
 Saut, Juan, Barcelona, Spain. Carding. No. 1,303,833; May 13; v. 262; p. 261.
 Sawden, Joseph, Quincy, Ill. Duplex envelop. No. 1,303,396; May 20; v. 262; p. 344.
 Sawtelle, Charles A., assignor of one-half to S. J. Porter, Detroit, Mich. Internal-combustion engine. No. 1,303,172; May 27; v. 262; p. 608.
 Sawyer, Barnard E., Fitchburg, Mass. Pointing rods. No. 1,304,310; May 27; v. 262; p. 541.
 Sawyer, Willard N., assignor to W. M. Whitney, Winchester, Mass. Wood-planing machine. No. 1,302,717; May 6; v. 262; p. 45.
 Sawyer, Willard N., assignor to W. M. Whitney, Winchester, Mass. Wood-scraping machine and the like. No. 1,302,718; May 6; v. 262; p. 45.
 Saxton, Augustus C., and H. J. Menard, assignors to W. E. Dawes, trustee, Chicago, Ill. Lock for controlling levers. No. 1,302,976; May 6; v. 262; p. 95.
 Scarborough, John C. (See Woolverton, William H., assignor.)
 Scazzarini, James P., Waterbury, Conn. Track construction. No. 1,302,977; May 6; v. 262; p. 95.
 Schack, William, New York, N. Y. Automatically-operated foot-pedal for player-pianos. No. 1,304,006; May 27; v. 262; p. 503.
 Schaefer, William F. (See Thomas, John F., assignor.)
 Schaff, George M., Cleveland, Ohio. Record-cabinet. No. 1,302,719; May 6; v. 262; p. 45.
 Schaefer, Rudolph H., Cincinnati, Ohio. Crane safety device. No. 1,304,381; May 20; v. 262; p. 421.
 Schack, William A., Philadelphia, Pa. Drawing-pen. No. 1,304,709; May 27; v. 262; p. 522.
 Schaeffer, Adam. (See Spurling, Jacob T., assignor.)
 Scherman, Peter, Fort Atkinson, Wis. Furnace-grate. No. 1,303,119; May 6; v. 262; p. 122.
 Scherrer, Jakob. (See Knecht and Scherrer.)
 Schick, George A., Jr., Camden, N. J., assignor to F. Keller, Jr., Philadelphia, Pa. Reinforced structure and making same. No. 1,304,311; May 27; v. 262; p. 541.
 Schiller, Eugene, Detroit, Mich. Dough-treating device. No. 1,304,104; May 20; v. 262; p. 368.
 Schiller, Maurice H., Chicago, Ill. Combined vest and belt attachment. No. 1,304,382; May 20; v. 262; p. 421.
 Schimmel, David E., Brooklyn, N. Y. Adjustable shade-roller. No. 1,304,383; May 20; v. 262; p. 421.
 Schipper, Herman J., Roann, Ind. Hog-oiler. No. 1,302,979; May 6; v. 262; p. 95.
 Schirra, Julius, Pittsburgh, Pa. assignor to Projectile Protector Company, Wilkesburg, Del. Thread-protecting device. No. 1,303,402; May 13; v. 262; p. 202.
 Schlatter, Gustav, Steinach, assignor to Firm of A. Saurer, Arbon, Switzerland. Regulating device for road-sprinklers. No. 1,304,384; May 20; v. 262; p. 421.
 Schlenker, Friedrich, Fredonia, N. D. Combination article. No. 1,304,312; May 27; v. 262; p. 542.
 Schlick, Harry A. (See Field and Schlick.)
 Schmatolla, Ernst, New York, N. Y. Shaft-klin. No. 1,304,514; May 20; v. 262; p. 447.
 Schmidt, Herman, and G. Fugel, assignors to Apollo Magneto Company, Inc., Brooklyn, N. Y. Magneto for internal-combustion engines. No. 1,303,600; May 13; v. 262; p. 239.
 Schmidt, Ernest H., assignor to The National Malleable Castings Company, Cleveland, Ohio. Brake-handle. No. 1,304,399; May 27; v. 262; p. 503.
 Schmidt, Jacob, Portland, Oreg. Feed-bag for horses. No. 1,303,406; May 13; v. 262; p. 202.
 Schmaede, Charles H., et al. (See McLaughlin, William D., assignor.)
 Schmaede, Otto E., et al. (See McLaughlin, William D., assignor.)
 Schneider, Charles E., Chicago, Ill. Non-skid chain and tire. No. 1,304,313; May 27; v. 262; p. 542.
 Schneck, Carl F., assignor to Farrel Foundry & Machine Company, Ann Arbor, Conn. Clutch. No. 1,303,506; May 13; v. 262; p. 239.
 Schoenfeld, Otto C. (See Heyman, Daniel W., assignor.)
 Schork, Frank, Chicago, Ill. Liquid-measuring device. No. 1,304,007; May 27; v. 262; p. 503.

Schott, Joseph F., Philadelphia, Pa., assignor to Lish-Hell Company, Chicago, Ill. Means for handling shells. No. 1,302,861; May 6; v. 262; p. 73.

Schreiber, Norbert, Lincoln, Ill., assignor to American Steam Boiler Cleaner Co., San Antonio, Tex. Boiler-skimmer. No. 1,304,385; May 20; v. 262; p. 422.

Schrik, Henry. (See Martin and Schrik.)

Schuck, Walter P., Portland, Oreg. Production of nickel catalyst. No. 1,305,173; May 27; v. 262; p. 606.

Schulte, Henry J., Fullerton, Calif. Draw-bar hitch for tractors. No. 1,303,504; May 13; v. 262; p. 230.

Schultz, John. (See Steinkoenig, Frederick, assignor.)

Schultz, Charles F., assignor, by mesne assignments, to The Standard Parts Company, Cleveland, Ohio. Elevating-truck. No. 1,303,601; May 13; v. 262; p. 238.

Schultz, Karl A., Chicago, Ill. Projectile. No. 1,302,730; May 6; v. 262; p. 45.

Schuyler, William H., Detroit, Mich. Space-band cleaner. No. 1,304,386; May 20; v. 262; p. 422.

Schwab, Henry. (See Maxwell, William O., assignor.)

Schwab, Robert W., Atlanta, Ga. Spring-bed construction. No. 1,303,949; May 20; v. 262; p. 344.

Schwartz, Gerhardt F., St. Louis, Mo. Gas-heater. No. 1,303,970; May 20; v. 262; p. 344.

Schwartz, Joseph, et al. (See Pansel, Israel, assignor.)

Schwarzer, Fritz, St. Gallen, Switzerland. Lifting-jack. No. 1,304,515; May 20; v. 262; p. 448.

Schwehnert, Maximilian C., West Hoboken, and H. P. Kraft, Ridgewood, N. J. Inflating-coupling. No. 1,304,514; May 27; v. 262; p. 542.

Schweine, Charles, and J. J. Hauerwas, assignors to Sanitary Refrigerating Machinery Company, Milwaukee, Wis. Control mechanism for refrigerating apparatus. No. 1,302,600; May 6; v. 262; p. 21.

Scott, Frank V., and J. D. Haskett, Ellsworth City, N. C.; sold Haskett assignor to said Scott. Post-harvester. No. 1,303,120; May 6; v. 262; p. 122.

Scott, John M., Racine, Wis. Steering-knuckle for automobiles. No. 1,304,008; May 27; v. 262; p. 563.

Scott, Lewis L., St. Louis, Mo. Cloth-measuring machine. No. 1,303,971; May 20; v. 262; p. 344.

Scott, Robert W., Boston, Mass., assignor, by mesne assignments, to Scott & Williams, Incorporated. Latch-opener for knitting-machines. No. 1,303,823; May 13; v. 262; p. 270.

Scott & Williams. (See Scott, Robert W., assignor.)

Seale, Frederick E., Toronto, Ontario, Canada. Detachable sole-guard. No. 1,302,721; May 6; v. 262; p. 48.

Sebastian, Alphonse A., and D. E. Capes, assignors to A-C Manufacturing Company, Chicago, Ill. Carburetor air-inlet. No. 1,303,972; May 20; v. 262; p. 344.

Sechrist, Albert, Denver, Colo. Lighting-fixture. No. 1,304,387; May 20; v. 262; p. 422.

Sedbrook, Alvin L., Coltray, Okla. Cow-yoke. No. 1,304,388; May 20; v. 262; p. 422.

Seely, Thomas H., Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Waxed thread sewing-machine. No. 1,302,597; May 6; v. 262; p. 21.

Seely, Thomas H., Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Wax-thread sewing-machine. No. 1,302,598; May 6; v. 262; p. 22.

Seely, Thomas H., Malden, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Upper-pulling mechanism. No. 1,303,516; May 27; v. 262; p. 618.

Segal, Samuel, New York, N. Y. Pin-lock-protecting device. No. 1,304,105; May 20; v. 262; p. 368.

Segur, Calvin A., and W. Burnip, South Wellington, British Columbia, Canada. Cue-tip. No. 1,304,389; May 20; v. 262; p. 422.

Seldner, Alexander E., New York, N. Y., assignor to F. C. Austin, Chicago, Ill. Automatic fire-thruster. No. 1,304,710; May 27; v. 262; p. 523.

Selby, Grant, St. Louis, Mo. Fusee and torpedo holding attachment for railway-lanterns. No. 1,305,014; May 27; v. 262; p. 579.

Sellers, William F., Brandywine Hundred, Del., assignor to Edge Moor Iron Company, Edgemoor, Del. Scoot-blower header. No. 1,304,009; May 27; v. 262; p. 503.

Semenow, Saul D., and H. L. Abramovitz, Pittsburgh, Pa. Tap for barrels, drums, or receptacles containing gasoline. No. 1,304,390; May 20; v. 262; p. 422.

Sengebusch, Hans, Chicago, Ill. Electric safety-razor. No. 1,303,973; May 20; v. 262; p. 344.

Senical, Medrick, Neguensee, Mich. Rail brace and fastener. No. 1,303,824; May 13; v. 262; p. 279.

Sera, Ryumatsu, Benning, Calif. Beet-cultivator. No. 1,303,602; May 13; v. 262; p. 238.

Serrell, John A., North Plainfield, N. J. Steam-heating. No. 1,304,106; May 20; v. 262; p. 368.

Servany, Edward C., Jacksonville, Fla. Seamless-tube drawing bench. No. 1,302,599; May 6; v. 262; p. 22.

Seymour, Dudley A., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Filled-bag-sewing apparatus. No. 1,303,121; May 6; v. 262; p. 122.

Shackleton, William J., Scotch Plains, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Insulation for electrical apparatus. No. 1,303,511; May 13; v. 262; p. 231.

Shackman, Matthew J., Flora, Ill. Combination ironing-board, step-ladder, and drying-rack. No. 1,302,862; May 6; v. 262; p. 73.

Shadall, Charles E., Milwaukee, assignor to Shadall Manufacturing Company, Wauwatosa, Wis. Venting and fushing apparatus. No. 1,303,974; May 20; v. 262; p. 344.

Shadall Manufacturing Company. (See Shadall, Charles E., assignor.)

Shadforth, Ernest G., Kalamazoo, Mich. Bell-ringing apparatus. No. 1,304,913; May 27; v. 262; p. 566.

Shakepear, Gilbert A., Birmingham, England. Apparatus for the detection and measurement of gases. No. 1,304,506; May 20; v. 262; p. 448.

Shannon, Jefferson C., Greenville, Miss. Body-protector. No. 1,302,900; May 6; v. 262; p. 95.

Sharp, Peter, Perth, Scotland. Means for stopping the delivery of roving in spinning-machines. No. 1,304,610; May 27; v. 262; p. 603.

Sharp, Wylie, Montreal, Quebec, Canada. Metal reinforcement for brickwork, concrete, and the like. No. 1,304,518; May 27; v. 262; p. 542.

Shaw, Albert E. (See Washburn and Shaw.)

Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,302,863; May 6; v. 262; p. 73.

Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Automobile switch-lock. No. 1,303,535; May 13; v. 262; p. 279.

Shaw, Richard, assignor to De Borge & Company Limited, Manchester, England. Metal-punching machine. No. 1,304,008; May 13; v. 262; p. 238.

Shen, Thomas J., Portland, Oreg. Magnetic dolly-bar. No. 1,302,978; May 6; v. 262; p. 95.

Sheley, Tillman, Indianapolis, Ind. Light-support. No. 1,302,981; May 6; v. 262; p. 95.

Shell Company of California. (See Trumble, Milton J., assignor.)

Shelton, Lawson E., Los Angeles, Calif. Casement window and door. No. 1,304,611; May 27; v. 262; p. 504.

Shen, Otto E., Hilda, Ohio. Hog-feder. No. 1,304,107; May 20; v. 262; p. 368.

Shepard, Francis H., New Rochelle, N. Y., assignor to Westinghouse Electric and Manufacturing Company, Electric system. No. 1,304,015; May 27; v. 262; p. 579.

Shepherd, Sanford E., Cincinnati, Ohio. Lock. No. 1,305,016; May 27; v. 262; p. 579.

Sherman, Peter C., Ogden, Utah. Aeroplane. No. 1,302,864; May 6; v. 262; p. 73.

Sherry, John C., assignor to Sherry Water Tube Boiler Co., Seattle, Wash. Roller hand-hole plate. No. 1,304,391; May 20; v. 262; p. 422.

Sherry, John C., assignor to Sherry Water Tube Boiler Co., Seattle, Wash. Steam-boiler. No. 1,304,392; May 20; v. 262; p. 422.

Sherry, John C., assignor to Sherry Water Tube Boiler Co., Seattle, Wash. Grate-bar. No. 1,304,393; May 20; v. 262; p. 422.

Sherry Water Tube Boiler Co. (See Sherry, John C., assignor.)

Shields, Willie A., Birmingham, Ala. Appliance for applying and removing garment-bags. No. 1,304,515; May 27; v. 262; p. 542.

Shiffer, Harry E., Brownstown, Pa. Proportional letter-guide. No. 1,303,505; May 13; v. 262; p. 230.

Shiman, Abraham, Tuckahoe, N. Y. Jewelry. No. 1,305,017; May 27; v. 262; p. 579.

Shoemaker, John F., Des Moines, Iowa, assignor, by mesne assignments, to J. T. Guerita and D. E. McDonald, Chicago, Ill. Check-cutter and check-book holder. No. 1,304,209; May 20; v. 262; p. 387.

Shonard, Harold W., Upper Merstoun, N. J., assignor to Crucible Steel Company of America, Pittsburgh, Pa. Automobile torpedo. No. 1,302,962; May 6; v. 262; p. 94.

Short, William A., assignor to Leader Iron Works, Decatur, Ill. Pump. No. 1,303,975; May 20; v. 262; p. 344.

Shores, William T., et al. (See Norman, Frank, assignor.)

Shorrock, Herbert, Charlton-on-Medlock, England. Coloring of photographic and cinematographic pictures. No. 1,303,506; May 13; v. 262; p. 230.

Shriver, Frederick, Georgetown, S. C. Heat-retainer. No. 1,303,122; May 6; v. 262; p. 122.

Shurtled, Wilfred, assignor to Moline Heat, Moline, Ill. Anti-phosphor seal for heating systems. No. 1,304,612; May 27; v. 262; p. 504.

Shuttleworth, Newton, and G. M. Brown, Rugby, England, assignors to General Electric Company. Induction-motor control. No. 1,304,516; May 20; v. 262; p. 542.

Shyer, James D., Detroit, Mich. Door-brace. No. 1,304,204; May 20; v. 262; p. 387.

Sibbald, Charles J., and C. T. A. Troy, N. Y. Film-indicator. No. 1,303,723; May 13; v. 262; p. 261.

Sibbald, Charles T. A. (See Sibbald, Charles J. and C. T. A.)

Sibson, Walter W. (See Alsop and Sibson.)

Siegrist, Clarence H., Akron, assignor of one-half to W. Hoyt, Cleveland Heights, Ohio. Non-cold cushion cushion. No. 1,304,611; May 13; v. 262; p. 238.

Siegested, Edward L., Tuxedo, N. Y. Oil-cooler. No. 1,302,965; May 6; v. 262; p. 95.

Siemens & Halske, A. G. (See Gordon, Hans, assignor.)

Siemens & Halske, A. G. (See Guba, Georg, assignor.)

Siemens-Schuckert-Werke G. m. b. H. (See March, Johannes, assignor.)

Siemens-Schuckertwerke, G. m. b. H. (See Rudenberg, Reinhold, assignor.)

Siemens-Schuckertwerke, G. m. b. H. (See Werner, Albert, assignor.)

Sikorsky, Adam. (See Sikorsky, Joseph, assignor.)

Sigrist, Frederick, Kingston-on-Thames, England. Strut spar or the like for use in aircraft construction. No. 1,304,507; May 13; v. 262; p. 231.

Silberling, Birger. (See Corvin and Silberling.)

Silman, Arthur, assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Resistance unit. No. 1,303,404; May 13; v. 262; p. 302.

Simon, Louis J., and G. Chavanne, Paris, France. Manufacture of monochloroacetic acid. No. 1,304,108; May 20; v. 262; p. 368.

Simon, Ramsay A. (See Parsons, Walker, Cook, and Simon.)

Simon, Richard, J. A. Gauthier, and F. J. Hauer, Norway, Mich. Bushing-remover. No. 1,304,109; May 20; v. 262; p. 368.

Simpson Player Action Company. (See Brown, Theodore F., assignor.)

Simpson, Charles E. (See Eaton and Simpson.)

Simpson, Rufus A., Oakland, Calif. Butter-cutter. No. 1,302,963; May 6; v. 262; p. 95.

Simpson, William, Portland, Oreg. Multiple-propeller boat. No. 1,303,506; May 13; v. 262; p. 231.

Sims Automatic Conveyor Company. (See Sims, Mirabeau, assignor.)

Sims, Mirabeau, Llanerch, Pa., assignor to Sims Automatic Conveyor Company, Incorporated. Translating material. No. 1,304,004; May 13; v. 262; p. 238.

Sinclair, Neil, Oakland, Calif. Closet-bed. No. 1,303,509; May 13; v. 262; p. 231.

Sinclair, Thomas C., Newport, Isle of Wight, England. Sight for ordnance. No. 1,304,510; May 27; v. 262; p. 542.

Singer Manufacturing Company, The. (See Deuch and Womke, assignors.)

Singer Manufacturing Company. (See Harmon, Frank L., assignor.)

Singer Manufacturing Company, The. (See Thomas, Carlisle W., assignor.)

Singer Manufacturing Company, The. (See Webb, Irving F., assignor.)

Singmaster, Jacob E., Sebastopol, Calif. Press. No. 1,303,534; May 13; v. 262; p. 279.

Sir W. G. Armstrong, Whitworth and Company. (See Weddington and Taylor, assignors.)

Sir W. G. Armstrong-Whitworth and Company. (See Wilson and Dalby, assignors.)

Skaffe, Charles, Liverpool, England. Apparatus for displaying announcements, advertisements, or the like. No. 1,304,595; May 20; v. 262; p. 424.

Skell, Francisco, assignor to The National Cash Register Company, Dayton, Ohio. Ticket-issuing accounting-machine. No. 1,302,600; May 6; v. 262; p. 21.

Skibbe, Otto A., and O. Deball, Chicago, Ill. Cater-lacking mechanism for stands, tables, and the like. No. 1,304,711; May 27; v. 262; p. 523.

Slack, Thomas E., assignor to American Mechanical Improvement Company (Incorporated), Washington, D. C. Engine-cooling system. No. 1,303,605; May 13; v. 262; p. 238.

Slater, Fred M. (See Bayles and Slater.)

Slattery, Denis C. (See Kelly and Slattery.)

Slawyer, Wilbur, Brownsville, Minn. Car-door. No. 1,305,018; May 27; v. 262; p. 580.

Slifka, Frank J., Chicago, Ill. Non-puncturable ring for pneumatic tires. No. 1,304,617; May 27; v. 262; p. 543.

Slime, Edward W., Bridgeport, Nebr. Mowing attachment for tractors. No. 1,303,606; May 13; v. 262; p. 238.

Slone, James D., Glasgow, Scotland. Chimney and venting-chimney. No. 1,303,405; May 13; v. 262; p. 238.

Sloman, Frank L., and C. C. Stutz, assignors to Synthetic Hydrocarbon Company, Pittsburgh, Pa. Apparatus for treating hydrocarbons. No. 1,304,211; May 20; v. 262; p. 387.

Sloman, Frank L., and C. C. Stutz, assignors to Synthetic Hydrocarbon Company, Pittsburgh, Pa. Apparatus for treating hydrocarbons. No. 1,304,212; May 20; v. 262; p. 388.

Slower, Thomas, Devizes, England. Shock-absorber. No. 1,304,618; May 27; v. 262; p. 543.

Smalley, Frederick H., Columbia, Pa. Overall. No. 1,304,619; May 27; v. 262; p. 544.

Smart, Edward, et al. (See Altpeter, Walter, assignor.)

Smith, George, Parkersburg, Iowa. Seed-tester. No. 1,304,627; May 13; v. 262; p. 269.

Smith, Claude A., et al. (See Baper, Otto V., assignor.)

Smith, Clayton P., Iowa City, Iowa. Intake-manifold. No. 1,305,174; May 27; v. 262; p. 606.

Smith, Datus C., Kinderhook, N. Y. Revolving door. No. 1,303,406; May 13; v. 262; p. 238.

Smith, David, Douglas, Wyo. Airship attachment. No. 1,303,976; May 20; v. 262; p. 345.

Smith, George F. (See Crerar and Smith.)

Smith, Grant W. (See Swart and Smith.)

Smith, Harry H., Brooklyn, N. Y. Flat-iron stand. No. 1,302,966; May 6; v. 262; p. 94.

Smith, Henry S., and A. F. Westland, assignors to The Frost-O-Life Company, Inc., Indianapolis, Ind. Flash-check for gas-tanks. No. 1,303,123; May 6; v. 262; p. 123.

Smith, Jesse A. B., Stamford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,304,213; May 20; v. 262; p. 388.

Smith, Jesse C. (See Bellamy and Smith.)

Smith, John J., McDonough, Ga. Gin-saw sharpening and gumming device. No. 1,304,614; May 27; v. 262; p. 504.

Smith, John T., Hopkins, Minn. Balling-press. No. 1,302,722; May 6; v. 262; p. 48.

Smith, John T., Hopkins, Minn. Attachment for threshing-machines. No. 1,302,867; May 6; v. 262; p. 74.

Smith, John W., Syracuse, N. Y. Cartridge-feed mechanism for firearms. No. 1,303,407; May 13; v. 262; p. 232.

Smith, Leonard C., New York, N. Y. Heating apparatus. No. 1,303,977; May 20; v. 262; p. 345.

Smith, Lloyd, Yorkville, Ill. Printing-border. No. 1,303,733; May 13; v. 262; p. 262.

Smith, Lotita D., Honolulu, Hawaii. Stringed musical instrument. No. 1,304,514; May 27; v. 262; p. 540.

Smith, Luther N., Minneapolis, N. H. Grapple. No. 1,304,175; May 27; v. 262; p. 509.

Smith, Martin C., assignor of one-half to C. R. Frazier, Portland, Oreg. Vehicle-storage building. No. 1,303,978; May 20; v. 262; p. 346.

Smith, Maxwell H., Philadelphia, Pa. Battery-adapter. No. 1,304,214; May 20; v. 262; p. 388.

Smith, Milton A., assignor to The Taft-Peire Manufacturing Company, Woonsocket, R. I. Grinder head-stock. No. 1,303,607; May 13; v. 262; p. 239.

Smith, Oscar A., Cleveland, Ohio. Priming and testing cup. No. 1,304,110; May 20; v. 262; p. 369.

Smith, Oscar A., Cleveland, Ohio. Priming and testing cup. No. 1,304,111; May 20; v. 262; p. 369.

Smith, Peter P., Jr., Jersey City, N. J., assignor to Monahan Rotary Engine Corporation, New York, N. Y. Piston. No. 1,304,615; May 27; v. 262; p. 505.

Smith, Benford M. (See Hoag and Smith.)

Smith, Randolph C., Yonkers, assignor to Otis Elevator Company, New York, N. Y. Safety-check for elevator safety and other devices. No. 1,302,601; May 6; v. 262; p. 21.

Smith, W. A. (See Bowman, Levi M., assignor.)

Smith, Walter P., Reform, Ala. Globe-map. No. 1,302,602; May 6; v. 262; p. 21.

Smith, William C., assignor to The L. D. Caulk Company, Milford, Del. Former for matrices for use in the restoration of teeth. No. 1,304,396; May 20; v. 262; p. 424.

Smith, Winfield D., assignor of one-half to B. Meyer, Newark, N. J. Pivot-clip. No. 1,304,616; May 27; v. 262; p. 505.

Smith's Falls Malleable Castings Company. (See Stewart, Walter A., assignor.)

Smitt, James F., Chicago, Ill. Laundry-machine. No. 1,302,608; May 6; v. 262; p. 24.

Smythe, Horace E., assignor to The S. R. Smythe Company, Pittsburgh, Pa. Freshing apparatus for fur-brushes. No. 1,304,176; May 27; v. 262; p. 609.

Smythe, Joseph E., Coaticook, Quebec, Canada. Lifting-jack. No. 1,303,734; May 13; v. 262; p. 262.

Sneed, Herndon G., Birmingham, Ala. Insect-trap. No. 1,304,397; May 20; v. 262; p. 424.

Snyder, Charles I., Pleasantville, N. J., assignor to E. I. du Pont de Nemours & Company, Wilmington, Del. Safety-box for explosive powder. No. 1,302,609; May 6; v. 262; p. 24.

Snyder, Charlie E., Columbus, Ohio. Sweat-band protector. No. 1,304,215; May 20; v. 262; p. 388.

Snyder, Jacob E., assignor to P. E. Donner, Pittsburgh, Pa. Triple valve. No. 1,302,984; May 6; v. 262; p. 96.

Snyder, Jacob E., assignor to P. E. Donner, Pittsburgh, Pa. Triple valve. No. 1,302,985; May 6; v. 262; p. 96.

Snyder, Jacob E., assignor to P. E. Donner, Pittsburgh, Pa. Triple valve for air-brake systems and attachment therefor. No. 1,302,986; May 6; v. 262; p. 97.

Snyder, Jacob E., and H. W. Fleming, assignors to P. E. Donner, Pittsburgh, Pa. Power-reverse gear. No. 1,303,979; May 20; v. 262; p. 346.

Sociedad Metalurgica Chilena Cuprum. (See Maich and Gileon, assignors.)

Société Anonyme Des Etablissements Delaunay-Belleville, The. (See Radiger, Charles, assignor.)

Société Chimique Des Usines Du Rhone, anciennement Gillard, P. Monet et Cartier. (See Koetschet and Boudet, assignors.)

Soder, Oscar, Niederlenz, Switzerland. Cylinder-grinding mill. No. 1,304,619; May 27; v. 262; p. 543.

Sofre, Theodore W., Memphis, Tenn. Small submarine. No. 1,304,617; May 27; v. 262; p. 505.

Sohm, Alfred L., assignor to Sohnm Electric Company, Chicago, Ill. Secondary clock. No. 1,302,603; May 6; v. 262; p. 22.

Sohm, Alfred L., assignor to Sohnm Electric Company, Chicago, Ill. Secondary clock system. No. 1,304,604; May 6; v. 262; p. 23.

Sohm, Alfred L., assignor to Sohms Electric Company, Chicago, Ill. Secondary clock. No. 1,302,008; May 6; v. 262; p. 22.
 Sohms, Alfred L., assignor to Sohms Electric Company, Chicago, Ill. Workman's time-recorder. No. 1,304,916; May 27; v. 262; p. 505.
 Sohms Electric Company. (See Sohms, Alfred L., assignor.)
 Sokol, Sem. South Boston, Mass. Breast-plate. No. 1,303,510; May 13; v. 262; p. 221.
 Sokolow, Samuel, and S. Pollinsky, New York, assignors to C. Hubert, White Plains, N. Y. Means for forming battery elements, &c. No. 1,302,722; May 6; v. 262; p. 45.
 Solem, Peter A., Cincinnati, Ohio. Drum for sand-machines. No. 1,302,724; May 6; v. 262; p. 46.
 Solvay Process Company, The. (See Bacon, Nathaniel T., assignor.)
 Somers, Pinckney F., Stony Point, N. C. Check-line coupling. No. 1,303,735; May 13; v. 262; p. 262.
 Sonntag, Emma, Redlands, Calif. Corset. No. 1,303,512; May 13; v. 262; p. 221.
 Sooy, Ephraim C., Kansas City, Mo. Flying-machine. No. 1,304,398; May 20; v. 262; p. 424.
 Southcombe, James E., Birkenhead, England. Means for cooling and lubricating engines. No. 1,304,399; May 20; v. 262; p. 425.
 Sparks, Jonas A., and C. E. and W. M. Clark, Elk City, Kans. Driving mechanism for drying and aerating machines. No. 1,304,400; May 20; v. 262; p. 425.
 Spaulding, John W., Seattle, Wash. Laundry machinery. No. 1,304,712; May 27; v. 262; p. 523.
 Speers, Charles P., San Francisco, Calif. Check-perforator. No. 1,303,124; May 6; v. 262; p. 123.
 Speicher, Paul J., Gaston, assignor to The Cyclone Manufacturing Company, Urbana, Ind. Coop. No. 1,303,734; May 13; v. 262; p. 262.
 Spencer, John A., Long Beach, Calif. Aeroplane. No. 1,303,737; May 13; v. 262; p. 262.
 Spencer, Thomas, Philadelphia, Pa. assignor, by mesne assignments, to National Carbon Company, Inc. Storage battery. No. 1,303,513; May 13; v. 262; p. 222.
 Sperr, Frederick W., Jr., Oakmont, assignor to H. Koppers Company, Pittsburgh, Pa. Distillation-tube. No. 1,303,990; May 20; v. 262; p. 346.
 Sperry, Charles F., assignor to Hoovers Radiator Co., Chicago, Ill. Die for making core-unit members for radiators. No. 1,302,970; May 6; v. 262; p. 75.
 Spice, Alfred, Jersey City, N. J. Disposition of inflammable gases. No. 1,302,971; May 6; v. 262; p. 75.
 Spindler, Charles, San Francisco, Calif. Method of acid and apparatus for determining the purity of carbonic acid gas. No. 1,303,514; May 13; v. 262; p. 222.
 Spinney, Burton A., Des Moines, Iowa. Pneumatic insulator. No. 1,304,915; May 27; v. 262; p. 500.
 Spire, William H., Cleveland, Ohio. Combined oil and gas burner. No. 1,304,402; May 20; v. 262; p. 425.
 Splitdorf Electrical Company. (See Galantini, Ignatius P., assignor.)
 Splitdorf Electrical Company. (See McKeown, Samuel C., assignor.)
 Splitdorf Electrical Company. (See Nowosielski, Edward H., assignor.)
 Splitdorf Electrical Company. (See Ratcliff, William H., assignor.)
 Splitdorf Electrical Company. (See Tomlinson, Edward J., assignor.)
 Splitdorf Electrical Company. (See Tomlinson and McKeown, assignors.)
 Splitdorf Electrical Company. (See Werner, Leo J., assignor.)
 Spranger, Anthony J., Detroit, Mich. Demountable wheel. No. 1,304,112; May 20; v. 262; p. 369.
 Sprowl, William L., Van Alstyne, Tex. Checking attachment for planters. No. 1,304,916; May 27; v. 262; p. 501.
 Squibb, Lloyd Y., Camden, N. J., assignor to Victor Talking Machine Company. Stop mechanism for talking machines. No. 1,303,125; May 6; v. 262; p. 123.
 St. Louis Car Company. (See Kell, Lewis E., assignor.)
 Stafford, Ezra H., Glencoe, assignor to E. H. Stafford Manufacturing Co., Chicago, Ill. Combined seat and desk. No. 1,303,981; May 20; v. 262; p. 346.
 Stamp, Hugo O., Milwaukee, Wis. Conveying concrete aggregate. No. 1,304,619; May 27; v. 262; p. 503.
 Stamp Loading Machine Company. (See Humphries, Joseph P., assignor.)
 Standard Chemical Company. (See Vogt, Louis F., assignor.)
 Standard Parts Company, The. (See Bryant, Richard E., assignor.)
 Standard Parts Company, The. (See Jobaki, Otto H., assignor.)
 Standard Parts Company, The. (See Schultze, Charles F., assignor.)
 Standfield, Jasper H., Muskegon, Mich. assignor to J. B. Altos, Wisnoka, Ill. Mat-weaving machine. No. 1,304,216; May 20; v. 262; p. 380.
 Stanley, Irving, New York, N. Y. Muffler cut-out. No. 1,304,113; May 20; v. 262; p. 369.
 Stanley Motor Carriage Company. (See Broad, Charles E., assignor.)

Stanley, Theodore D., assignor to Leland Lock Company, Detroit, Mich. Steering-wheel lock. No. 1,304,516; May 20; v. 262; p. 448.
 Stansbury, Garrett O. (See Moore and Stansbury.)
 Stanton, Frederick, Camden, N. J. Geometric instrument. No. 1,304,713; May 27; v. 262; p. 523.
 Staples, Sarah A., London, England. Bottle. No. 1,304,114; May 20; v. 262; p. 370.
 Starbuck, Charles W. (See Heilmann and Starbuck.)
 Starbuck, Charles W., Pittsburgh, Pa. assignor to Westinghouse Electric and Manufacturing Company. Shaft-bearing. No. 1,303,408; May 13; v. 262; p. 203.
 Starbuck, Charles W., Pittsburgh, and O. L. R. Krenfeld, Wilkesburg, Pa., assignors to Westinghouse Electric and Manufacturing Company. Gear-case and forming same. No. 1,305,019; May 27; v. 262; p. 530.
 Starrett, Larry E., Athol, Mass. assignor to The L. A. Starrett Company. Tool-driver. No. 1,304,714; May 27; v. 262; p. 523.
 Standen, Joseph D., Cantonville, Pa. Tobacco-clipper. No. 1,304,917; May 27; v. 262; p. 501.
 Stearns, Hugo, Freeport, N. Y. Millinery-display device. No. 1,302,967; May 6; v. 262; p. 97.
 Steele, Thomas J., Norfolk, Va. Hanger. No. 1,303,400; May 13; v. 262; p. 203.
 Steelwhite Company. (See Otto, Otto M., assignor.)
 Stehlik, Frank E. (See Swanson and Stehlik.)
 Steinbock, Henry A., et al. (See Muir, David E., assignor.)
 Steinen, Otto. (See La Fontaine, George A., assignor.)
 Steiner, Jacob, Long Island City, N. Y. Hydrometer apparatus. No. 1,304,115; May 20; v. 262; p. 370.
 Steinkoenig, Frederick, assignor of one-half to J. Schulte, Cincinnati, Ohio. Wire-tie-forming tool. No. 1,304,610; May 27; v. 262; p. 504.
 Steinmetz, Edwin H. (See Lee and Steinmetz.)
 Steinschneider, Leo, Brinn, Austria. Preheater for use in the distillation of petroleum, tar, and the like. No. 1,302,968; May 6; v. 262; p. 97.
 Stepanoff, Julius J., Woodville, Wis. Automobile-knuckle. No. 1,302,969; May 6; v. 262; p. 97.
 Stephens, Harry H., Paterson, N. J. Gyro-rotary shaft hanger. No. 1,302,972; May 6; v. 262; p. 75.
 Stephens, Thomas J., Spokane, Wash. Auxiliary tire valve. No. 1,304,116; May 20; v. 262; p. 370.
 Stephenson, Axel G., Denver, Colo. Truck-brake. No. 1,303,008; May 13; v. 262; p. 230.
 Stevens-Aylworth Company. (See Stevens, William W., assignor.)
 Stevens, Burt D. (See Henderson and Stevens.)
 Stevens, Henry C. (See Bauer, Otto V., assignor.)
 Stevens, John C., Portland, Ore. Recording water-gage. No. 1,303,126; May 6; v. 262; p. 124.
 Stevens, John E., and W. Thackeray, Jr., Kewanee, Ill. Blind-plowing attachment for planters. No. 1,303,223; May 6; v. 262; p. 223.
 Stevens, John W., St. Paul, Minn. Carburetor. No. 1,304,715; May 27; v. 262; p. 523.
 Stevens Partition & Floor Densifier Co. (See Murphy, Everett N., assignor.)
 Stevens, William N., Brooklyn, assignor to Stevens-Aylworth Company, New York, N. Y. Continuously-operating drier. No. 1,303,982; May 20; v. 262; p. 346.
 Stevenson, Charles E., assignor to National Veneer Products Company, Milwaukee, Ind. Truck for trucks. No. 1,303,983; May 20; v. 262; p. 346.
 Stevenson, Wilfred C. (See McCullough and Stevenson.)
 Stewart, Harry J., and R. C. McGrath, Ottawa, Ontario, Canada. Car-ticket holder. No. 1,303,009; May 13; v. 262; p. 230.
 Stewart, John H., New York, N. Y. Hanger for sliding doors. No. 1,303,021; May 27; v. 262; p. 369.
 Stewart, Patrick A., et al., administrators. (See Tripp and Ramsey.)
 Stewart, Walter A., assignor to Smith's Falls Malleable Castings Company, Limited, Smith's Falls, Ontario, Canada. Device for preventing the creeping of railway-rails. No. 1,303,515; May 13; v. 262; p. 222.
 Stewart, William, West Kensington, New South Wales, Australia. Electric plug and socket connection. No. 1,303,000; May 13; v. 262; p. 230.
 Stiff, Gilbert W., Ovid, Mich. Door-latch. No. 1,302,973; May 6; v. 262; p. 75.
 Stoble, Victor, Dunston-upon-Tyne, England. Electric heating and melting furnace. No. 1,304,177; May 27; v. 262; p. 500.
 Stoddard, Charles F., Boston, Mass. Note-sheet for musical instruments. No. 1,304,117; May 20; v. 262; p. 370.
 Stokes, Charles L., Los Angeles, Calif. Filler-cap and intake for vacuum feed systems. No. 1,302,726; May 6; v. 262; p. 46.
 Stokes, Charles L., Los Angeles, Calif. Float feed-chamber and supply system therefor. No. 1,303,610; May 13; v. 262; p. 223.
 Stokes, Francis W., Mansfield, Nottingham, England. Casting-machine. No. 1,304,118; May 20; v. 262; p. 370.
 Stokes, John B., Moorestown, N. J., and R. G. Elder, Philadelphia, assignors to Stokes and Smith Company, Sumnerdale, Pa. Machine for gunning wrapper-blanks for boxes or packages. No. 1,303,574; May 6; v. 262; p. 18.
 Stokes and Smith Company. (See Stokes and Elder, assignors.)

Stollberg, Charles, Toledo, Ohio, assignor to American Can Company, New York, N. Y. Orchard-beater. No. 1,304,820; May 27; v. 262; p. 543.
 Stone, Andrew J., New London, Conn. Projectile for use against submarines and submerged mines. No. 1,303,738; May 13; v. 262; p. 263.
 Stone, Charles H. (See Bruce and Stone.)
 Stone, Edward J., Duluth, Minn. Base for pile-drivers. No. 1,304,119; May 20; v. 262; p. 371.
 Stone, Henry. (See Marmorstein and Stone.)
 Stoneback, John G., Topeka, Kans. Davenport. (Re-issue.) No. 14,655; May 27; v. 262; p. 623.
 Storch, Samuel, and H. Goldman, New York, N. Y. Safety key-holder. No. 1,304,403; May 20; v. 262; p. 425.
 Storch, Shirley E., Mitchell, S. D. Post-card. No. 1,303,942; May 13; v. 262; p. 238.
 Stow, John, and H. R. Cross, Bradford, England. Sliding door for cases, cupboards, and the like. No. 1,303,984; May 20; v. 262; p. 347.
 Stowasser, Anthony, Milwaukee, Wis. Motor-cycle seat. No. 1,304,821; May 27; v. 262; p. 543.
 Stowell, Frank C., Medford, Mass. Ventilating system. No. 1,303,410; May 13; v. 262; p. 203.
 Straight, Halver R., Adel, Iowa. Clay-mixing machine. No. 1,303,611; May 13; v. 262; p. 240.
 Strang, Porter A., assignor of one-fourth to M. E. Wilson, Dallas, Tex. Refrigerating apparatus. No. 1,302,726; May 6; v. 262; p. 46.
 Stranbel, Frederick L. G., Green Bay, Wis. Desk-tray set. No. 1,303,985; May 20; v. 262; p. 347.
 Strauss, Harry H., New York, N. Y. Button-covering. No. 1,302,975; May 6; v. 262; p. 76.
 Straw Gas and Crocoato Distilling Co. (See Pfeiffer, Frank, assignor.)
 Strong, Elmer. (See Elliott, Patrick J., assignor.)
 Strute, George T., Minneapolis, Minn., assignor to Avery Company, Peoria, Ill. Automatic power-operated plow-lift. No. 1,303,516; May 13; v. 262; p. 222.
 Strute, George T., Minneapolis, Minn., assignor to Avery Company, Peoria, Ill. Power-operated plow-lift. No. 1,303,517; May 13; v. 262; p. 222.
 Strute, George T., Minneapolis, Minn., assignor to Avery Company, Peoria, Ill. Plow. No. 1,303,518; May 13; v. 262; p. 223.
 Strom, Gustaf E., assignor to American Holst & Derrick Co., St. Paul, Minn. Bottom-dump tripping device. No. 1,302,976; May 6; v. 262; p. 76.
 Stromberg-Carlson Telephone Manufacturing Company, The. (See Manson, Ray H., assignor.)
 Strong, William G., assignor of one-half to W. R. Watkins, St. Paul, Minn. Pistoning contractor. No. 1,303,612; May 13; v. 262; p. 240.
 Struthers, Thomas, Spokane, Wash. Target. No. 1,303,022; May 27; v. 262; p. 380.
 Strunas, John M., and J. Kulluk, Rockford, Ill. Potatoparing machine. No. 1,304,716; May 27; v. 262; p. 524.
 Stuart, Alexander T., assignor to R. Biel, trustee, New York, N. Y. Electrolytic cell and electrode therefor. No. 1,303,613; May 13; v. 262; p. 223.
 Stuart, Edwards B., Chicago, Ill. Faucet. No. 1,303,023; May 27; v. 262; p. 380.
 Stuckl, Arnold, Pittsburgh, Pa. Roller slide bearing. No. 1,303,986; May 20; v. 262; p. 347.
 Sturcke, Herman M., Brooklyn, N. Y. Spraying or atomizing apparatus. No. 1,303,987; May 20; v. 262; p. 347.
 Sturgeon, Robert A. (See Hughes, Travis, and Sturgeon.)
 Sturgeon, Robert A., Southsea, England. Centrifugal machine. No. 1,304,621; May 27; v. 262; p. 506.
 Stutz, Charles C. (See Slocum and Stutz.)
 Stutz, Theodor, Barberton, Ohio. Rotary engine. No. 1,302,977; May 6; v. 262; p. 76.
 Sullivan, Eugene C., and W. C. Taylor, assignors to Corning Glass Works, Corning, N. Y. Heating vessel. No. 1,304,622; May 27; v. 262; p. 506.
 Sullivan, Eugene C., and W. C. Taylor, assignors to Corning Glass Works, Corning, N. Y. Glass. No. 1,304,623; May 27; v. 262; p. 506.
 Sullivan Machinery Company. (See Ball and Officer, assignors.)
 Sullivan Machinery Company. (See Holmes, Morris P., assignor.)
 Sullivan Machinery Company. (See Mercer, Henry H., assignor.)
 Sulzberger, Nathan, New York, N. Y. Metal compound and producing the same. (Re-issue.) No. 14,656; May 27; v. 262; p. 623.
 Sundbeck, Glendon, Meadville, Pa., assignor to Hookless Fastener Company. Separable fastener-alder. No. 1,302,966; May 6; v. 262; p. 93.
 Sunderland, John P., Natick, Mass. Revolving door. No. 1,303,988; May 20; v. 262; p. 347.
 Sunderland, John P., Albany, N. Y., assignor to G. G. Milne, Rye, N. Y. Electric heating apparatus. No. 1,304,624; May 27; v. 262; p. 506.
 Sunderland, John P., Albany, N. Y., assignor to G. G. Milne, Rye, N. Y. Riveting. No. 1,304,625; May 27; v. 262; p. 506.
 Sunderland, John P., Albany, N. Y., assignor to G. G. Milne, Rye, N. Y. Electrical heating apparatus. No. 1,304,626; May 27; v. 262; p. 506.
 Superheater Corporation, The. (See Robinson, John G., assignor.)

Suren, Nathan H., Needham, Mass. assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y. Temperature-indicator. No. 1,303,989; May 20; v. 262; p. 347.
 Surface Combustion. (See Ellis, Carleton, assignor.)
 Sutherland, Alexander K., New Britain, assignor to The Trumbull Electric Manufacturing Company, Plainville, Conn. Lock for switch-handles. No. 1,306,178; May 27; v. 262; p. 610.
 Sutter, Edwin L., Waseca, Minn. Washboard. No. 1,302,991; May 6; v. 262; p. 98.
 Sweblius, Henry M., assignor to Pullman Couch Company, Chicago, Ill. Sofa-bed. No. 1,303,618; May 13; v. 262; p. 240.
 Swaidmark, Albin F., assignor to Universal Industrial Corporation, Hackensack, N. J. Press mechanism. No. 1,303,520; May 13; v. 262; p. 223.
 Swart, Charles E., and G. W. Smith, Chattanooga, Tenn. Piston-ring compressor. No. 1,303,614; May 13; v. 262; p. 240.
 Swart, Walter G., Duluth, Minn., and B. G. Klugh, Anneton, Ala. Treating concentrates. No. 1,303,411; May 13; v. 262; p. 203.
 Sweetland, Ernest J., Montclair, N. J. Filter medium or other article of manufacture. No. 1,304,918; May 27; v. 262; p. 501.
 Swenson, John S., Cresco, Iowa, and F. E. Stehlik, Oak Park, Ill. Lightning-rod. No. 1,303,739; May 13; v. 262; p. 263.
 Swift & Company. (See Richardson, William D., assignor.)
 Swift, Frank E., et al. (See Swift, William H., assignor.)
 Swift, George W., Jr., Bordenstown, N. J. Dividing board or flat for egg-case fillers. No. 1,302,992; May 6; v. 262; p. 98.
 Swift, William H., deceased, Brooklyn, N. Y.; W. H. Swift, administrator, assignor of one-third to F. E. Swift and two-thirds to W. H. Swift, New York, N. Y. Hammer. No. 1,302,978; May 6; v. 262; p. 76.
 Swift, William H., deceased, New York; W. H. Swift, Brooklyn, administrator, assignor of one-third to F. E. Swift and two-thirds to W. H. Swift, New York, N. Y. Attachment for hammers. No. 1,302,979; May 6; v. 262; p. 76.
 Swing, Alfred J., Cincinnati, Ohio. Talking-machine. No. 1,304,404; May 20; v. 262; p. 426.
 Sylvester, Walter, Tunstall, England. Chain-coupling and chain-adjusting appliance. No. 1,303,521; May 13; v. 262; p. 223.
 Synthetic Hydrocarbon Company. (See Slocum and Stutz, assignors.)
 Sypho-Chemical Sprinkler Corporation. (See Brodton, Edward R., assignor.)
 Sypho-Chemical Sprinkler Corporation. (See Hamilton, John E., assignor.)
 Sypho-Chemical Sprinkler Corporation. (See Thompson, Everett L., Jr., assignor.)
 Szafranski, Frank L., Detroit, Mich. Swimming device. No. 1,304,919; May 27; v. 262; p. 501.
 Taage, Edward F. (See Taage, Otto A. and E. F.)
 Taage, Otto A. and E. F. Seward, Nebr. Automatic auto-lift. No. 1,305,024; May 27; v. 262; p. 581.
 Taubert, Edmund E., Los Angeles, Calif. Pressure-controlled switch. No. 1,304,217; May 20; v. 262; p. 389.
 Taft-Peace Manufacturing Company, The. (See Bryant, Elmer J., assignor.)
 Taft-Peace Manufacturing Company, The. (See Smith, Milton A., assignor.)
 Taggart, Claude L., Jamestown, N. Y. Combined letter-sheet and envelop. No. 1,303,412; May 13; v. 262; p. 203.
 Talcott, Godfrey M. S., U. S. Army. Method of and means for detecting gases. No. 1,305,025; May 27; v. 262; p. 581.
 Takahashi, Dannojo, Portland, Ore. Baking-machine. No. 1,303,128; May 6; v. 262; p. 124.
 Talbot Air Lift Company. (See Edwards, Levi T., assignor.)
 Tanner, Wallace N., et al. (See Junghans, Ernest, assignor.)
 Tate, Clinton J., Benton, Miss. Trivet. No. 1,304,405; May 20; v. 262; p. 426.
 Tate Jones & Company. (See Miller, John M., assignor.)
 Taylor, Arthur. (See Waddingham and Taylor.)
 Taylor, Charles A., Whitman, Mass. Oscillating nail-making machine. No. 1,303,413; May 13; v. 262; p. 203.
 Taylor, Clarence L., assignor to The Morgan Engineering Company, Alliance, Ohio. Apparatus for finishing car-wheels. No. 1,302,990; May 6; v. 262; p. 77.
 Taylor, Clarence L., assignor to The Morgan Engineering Company, Alliance, Ohio. Valve mechanism for steam-intensifiers. No. 1,302,981; May 6; v. 262; p. 77.
 Taylor, Ewing H., Petersburg, assignor to J. A. Ausbrooks, Fayetteville, Tenn. Well-bucket valve. No. 1,304,218; May 20; v. 262; p. 389.
 Taylor, George R. (See Hurtig and Taylor.)
 Taylor, Harold B. (See Applegarth and Taylor.)
 Taylor, Walter E., Avalon, Pa. Metallic joint. No. 1,303,740; May 13; v. 262; p. 263.
 Taylor Wharton Iron and Steel Company. (See Andrews, Charles E., assignor.)
 Taylor, William C. (See Sullivan and Taylor.)

Taylor, William H., Providence, R. I. Pivot-mounting for pins of brooches and the like. No. 1,304,406; May 20; v. 262; p. 420.

Techel, Hans. (See Regenbogen and Techel.)

Teepel, Edward A., Germantown, Pa. Cleaning device. No. 1,303,414; May 13; v. 262; p. 204.

Teepie, Lawrence R., Fort Wayne, Ind. Thermostatic control device. No. 1,304,822; May 27; v. 262; p. 543.

Teff, Benjamin F., Jr. (See Fuller, Eugene, assignor.)

Teichman, Frank L., Wollaston, Mass. Balanced valve. No. 1,305,026; May 27; v. 262; p. 581.

Telling, Charles R., Cleveland, Ohio. Holder for ice-cream molds. No. 1,303,990; May 20; v. 262; p. 348.

Tennant, James, assignor of one-third to C. M. Overley, Seattle, Wash. Copy-holder. No. 1,302,993; May 6; v. 262; p. 98.

Terrell, Albert C., Grand Rapids, Mich. Metal shelving. No. 1,302,882; May 6; v. 262; p. 77.

Thackeray, William Jr. (See Stevens and Thackeray.)

Thackray, Herbert G. (See Knight and Thackray.)

Theodore, Millard E., New York, N. Y. Torpedo guard or shield. No. 1,303,522; May 13; v. 262; p. 224.

Thiesell, Jesse K., Lynn, Mass. Assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Shoe and making shoe. No. 1,304,904; May 6; v. 262; p. 68.

Thomas, Avila O., Detroit, Mich. Wall-bond. No. 1,302,727; May 6; v. 262; p. 47.

Thomas, Avila O., Detroit, Mich. Building-tile. No. 1,302,728; May 6; v. 262; p. 47.

Thomas, Bruno, Seattle, Wash. Apparatus for electrical fixation of gases. No. 1,304,823; May 27; v. 262; p. 544.

Thomas, Carl C., Madison, Wis. Meter. No. 1,304,920; May 27; v. 262; p. 561.

Thomas, Carlyle W., Bridgeport, Conn. Assignor to the Singer Manufacturing Company. Stitch-forming mechanism for sewing-machines. No. 1,304,627; May 27; v. 262; p. 507.

Thomas, Edward, assignor to Underwood Typewriter Company, New York, N. Y. Stencil-sheet. No. 1,304,120; May 20; v. 262; p. 371.

Thomas, Hanson, and J. Dahlstrom, Pittsburgh, Pa. Feed-regulator for powdered coal. No. 1,304,407; May 20; v. 262; p. 426.

Thomas, Harry L., Crum Lynne, Pa. Combination screen and ventilator. No. 1,302,729; May 6; v. 262; p. 47.

Thomas, Hubert A., Llandaff, W. R. Davies, Whitechurch, near Cardiff, Wales, and E. B. Thomas, deceased; Nora C. B. Thomas, Englefield Green, H. R. W. Anderson, London, and C. Bathurst, Lydney, England, executors. Lining-machine. No. 1,304,408; May 20; v. 262; p. 426.

Thomas, James A., assignor to Cluett, Peabody & Co., Inc., Troy, N. Y. Machine starting and stopping mechanism. No. 1,304,624; May 27; v. 262; p. 544.

Thomas, John F., Peoria, assignor of one-half to W. F. Schafer, Elkhart, Ind. Rober-rail. No. 1,305,179; May 27; v. 262; p. 610.

Thomas, Nora C. B., et al., executors. (See Thomas and Davies.)

Thomas, Richard B. (See Thomas and Davies.)

Thomas, William M., Los Angeles, Calif. Reinforced-concrete bridge construction. No. 1,303,741; May 13; v. 262; p. 263.

Thomas, William R., Great Falls, Mont. Plowshare. No. 1,303,129; May 6; v. 262; p. 124.

Thompson, Charles X. (See Perry and Hulting, assignors.)

Thompson, Everett L., Jr., Dover, N. J., assignor to Sypho-Chemical Sprinkler Corporation, Croton-on-Hudson, N. Y. Automatic fire-extinguishing apparatus. No. 1,303,130; May 6; v. 262; p. 124.

Thompson, George R., Hockessin, Del. Fluid-pressure valve. No. 1,304,409; May 20; v. 262; p. 426.

Thompson, Herbert L. (See Redeker and Thompson.)

Thompson, John B. (See Bagby and Thompson.)

Thompson, John T., Newport, Ky. Means for lubricating ammunition. No. 1,303,027; May 27; v. 262; p. 581.

Thompson, John T., Newport, Ky. Means for lubricating ammunition. No. 1,303,028; May 27; v. 262; p. 581.

Thompson, Joseph F., Kansas City, Mo. Bonding construction for buildings. No. 1,304,219; May 20; v. 262; p. 359.

Thompson, Newell A., Jr. (See Peck, Harry H., assignor.)

Thompson, Robert, Jersey City, N. J. Gas-burner. No. 1,303,615; May 13; v. 262; p. 240.

Thomson Electric Welding Company. (See Costello, Frederick A., assignor.)

Thomson Electric Welding Company. (See Palmer, Lindley G., assignor.)

Thomson Electric Welding Company. (See Patscheider, Walter A., assignor.)

Thomson Electric Welding Company. (See Rietzel, Adolph F., assignor.)

Thomson Electric Welding Company. (See Von Henke, Edmund J., assignor.)

Thoreen, Eric G. (See Johnson and Thoreen.)

Thornton, Beatrice, Sacramento, Calif. Spoon-holder. No. 1,304,628; May 27; v. 262; p. 507.

Thornton, Elizabeth W., West Philadelphia, Pa. Extension-table lock. No. 1,303,525; May 13; v. 262; p. 220.

Thornton, John A., assignor of one-third to S. B. Moran and one-third to H. M. Moran, Sault Ste. Marie, Mich. Sanitary ice-cream cone. No. 1,304,410; May 20; v. 262; p. 427.

Throop, Charles G., Chicago, Ill. Spraying system. No. 1,306,180; May 27; v. 262; p. 610.

Thropp, Joseph W., Trenton, N. J. Bearing for heavy rolls. No. 1,304,230; May 20; v. 262; p. 359.

Thornton, Harold H., Anoka, Minn. Grader drag-plate. No. 1,303,415; May 13; v. 262; p. 204.

Thurston, Robert J., assignor to The Wire Goods Company, Worcester, Mass. Jar-lifter. No. 1,304,717; May 27; v. 262; p. 524.

Tibbatts, Milton, assignor to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,306,029; May 27; v. 262; p. 582.

Tibbatts, Milton, assignor to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,306,030; May 27; v. 262; p. 582.

Tidymen, Alvin L., Jennings, Kans. Trestle. No. 1,303,416; May 13; v. 262; p. 204.

Tiernan, Martin P. (See Wallace and Tiernan.)

Tiffany, George H., Summit, N. J., assignor to Tiffany Motor Company, Governor. No. 1,303,417; May 13; v. 262; p. 204.

Tiffany Motor Company. (See Tiffany, George H., assignor.)

Tilbury, Charles M., Zion City, Ill. Ground-working implement. No. 1,302,583; May 6; v. 262; p. 77.

Tirrell, Allen A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical regulating system. No. 1,306,031; May 27; v. 262; p. 582.

Tittle, Lee. (See Anderson, Lewis, assignor.)

Tobias, Stephen J., assignor to Lauson Automatic Pump Co., Menomonee, Wis. Fluid-operated pumping mechanism. No. 1,304,411; May 20; v. 262; p. 427.

Todd, Frederick J., Bay Harbor, N. J., assignor to J. E. Maruden, Philadelphia, Pa. Window-regulator. No. 1,304,825; May 27; v. 262; p. 544.

Todd Protectograph Company. (See Sampson, Charles H., assignor.)

Todas, Julius, Winthrop, assignor, by mesne assignments, to W. M. Jameson, Cambridge, Mass. Apparatus for molding and shaping bat parts. No. 1,304,992; May 20; v. 262; p. 546.

Tomeath, Peter, administrator. (See Janczyk, Jakob.)

Tomlin, Bertha. (See De Vaul, William, assignor.)

Tomlinson, Edward J., assignor to Spittler Electrical Company, Newark, N. J. Timer-distributor mechanism. No. 1,303,523; May 13; v. 262; p. 224.

Tomlinson, Edward J., assignor to Spittler Electrical Company, Newark, N. J. Binding-post for electric cables. No. 1,304,524; May 13; v. 262; p. 224.

Tomlinson, Edward J., Newark, and B. C. McKenna, East Orange, assignors to Spittler Electrical Company, Newark, N. J. Electrical switch. No. 1,302,730; May 6; v. 262; p. 47.

Tompkins, Henry M., Detroit, Mich. Unit for motor-vehicle construction. No. 1,304,121; May 20; v. 262; p. 371.

Tone, Frank J., assignor to The Carborundum Company, Niagara Falls, N. Y. Refractory article. No. 1,303,995; May 20; v. 262; p. 348.

Toomey, John, Los Angeles, Calif. Internal-combustion engine. No. 1,304,629; May 27; v. 262; p. 507.

Torkelson, Reinhard T., Worcester, assignor to F. I. Johnson, Fitchburg, Mass. Spoke-clamp for non-skid chains. No. 1,304,122; May 20; v. 262; p. 371.

Toraberg, Eldor, assignor to R. Hoe and Co., New York, N. Y. Web-feeding mechanism for printing-machines. No. 1,304,630; May 27; v. 262; p. 507.

Tornajo, Gustaf E., St. Paul, Minn. Photographic-printing apparatus. No. 1,304,418; May 13; v. 262; p. 205.

Torres, Juan V., et al. (See Fernandez, Abel, assignor.)

Torrington Company, The. (See Johnson and Thoreen, assignors.)

Toscan, James E., Jamestown, N. Y. Insole lining or pad. No. 1,304,526; May 27; v. 262; p. 544.

Tothill, William S., Lockport, N. Y. Neck band for shirts. No. 1,304,921; May 27; v. 262; p. 561.

Toucheville, William H., assignor of one-half to F. R. Clement, Burlington, Vt. Double-exposure preventer. No. 1,303,742; May 13; v. 262; p. 263.

Tower, Andrew J., Mendota, Ill. Cultivator attachment. No. 1,304,631; May 27; v. 262; p. 508.

Townes, Thomas P., Springfield, Ill. Anti-back-firing device for automobile-cranks. No. 1,304,632; May 27; v. 262; p. 508.

Townsend, Katharine G., New York, N. Y. Holder for telephone-receivers. No. 1,304,718; May 27; v. 262; p. 524.

Toyokawa, Junya, Koshikawa, Tokyo, Japan. Nipple for steam-turbines. No. 1,304,412; May 20; v. 262; p. 427.

Tracy, James J., Cleveland, Ohio. Adjustable head-lamp bracket. No. 1,304,527; May 27; v. 262; p. 544.

Trail, Alexander, Vancouver, British Columbia, Canada. Floor-polishing mop. No. 1,304,413; May 20; v. 262; p. 427.

Traus Rubber Company. (See Jansen, Bernhard W., assignor.)

Travis, William O. (See Hughes, Travis, and Sturgeon.)

Trebell, Cynthia M., Mandett, Ohio. Water-filter. No. 1,304,781; May 6; v. 262; p. 47.

Tromblay, George, and J. N. DeFour, Chicoutimi, Quebec, Canada. Dust-separator. No. 1,304,123; May 20; v. 262; p. 371.

Troat, Harold E., Murrayville, Pa. Assignor to Westinghouse Electric & Manufacturing Company. Inspection device. No. 1,305,032; May 27; v. 262; p. 582.

Tribble, Robert A., Rolling Park, Miss. Vending apparatus. No. 1,305,033; May 27; v. 262; p. 582.

Triplett, William F., Grand Junction, Colo. Boiler-tube connection. No. 1,304,414; May 20; v. 262; p. 457.

Tripp, Charles, Cleveland, Ohio. Butter-dispensing machine. No. 1,304,131; May 6; v. 262; p. 125.

Tripp, Barton H., Los Angeles, Calif., and H. V. Ramsey, deceased, Gloucester, N. J.; J. M. Kelley and F. A. Stewart, administrators; said Tripp and said administrators assignors to The Economy Engineering Co., Camden, N. J. Liquid-fuel furnace or forge. No. 1,305,034; May 27; v. 262; p. 583.

Tripp, Charles A., assignor to Hockess & Hoke Manufacturing Company, Indianapolis, Ind. Cold-controlled switch. No. 1,303,419; May 13; v. 262; p. 204.

Trombador, Dudley, New York, N. Y. Submarine mine. No. 1,302,732; May 6; v. 262; p. 47.

Troy Wagon works Company, The. (See De Haeseler, Henry, assignor.)

True, James B., Saugus Center, Mass. Shaft-bearing. No. 1,304,616; May 13; v. 262; p. 241.

Trumbull, Milton J., Los Angeles, Calif. Assignor to Shell Company of California. Method and apparatus for dehydrating emulsions. No. 1,304,134; May 20; v. 262; p. 371.

Trumbull, Milton J., Alhambra, Calif. Assignor to Shell Company of California. Treating hydrocarbon oils. No. 1,304,125; May 20; v. 262; p. 371.

Trumbull Electric Manufacturing Company, The. (See Butherford, Alexander K., assignor.)

Tryon, George B., Derby, Conn. Automatic-cut-off gas-burner. No. 1,304,221; May 20; v. 262; p. 360.

Tueberling, Henry, assignor to Arnold Manufacturing Company, Prospect, Ill. Molding apparatus. No. 1,304,922; May 27; v. 262; p. 561.

Tuba, Isaac, Pigott, Ark. Machine for exterminating boll-weevils. No. 1,304,132; May 6; v. 262; p. 125.

Tuck, William W., Richmond Hill, N. Y. Vegetable-cutting apparatus. No. 1,303,417; May 13; v. 262; p. 204.

Tucker, Benjamin W., South Orange, N. J., assignor to Conitz Machine Tool Company, Inc., New York, N. Y. Duplex sawing apparatus. No. 1,304,420; May 13; v. 262; p. 305.

Tucker, Robert C., Parkersburg, W. Va. Palster's pall and brush-container. No. 1,304,415; May 20; v. 262; p. 428.

Turnbull, Ward W., Asheville, N. C. Machine for making ice-cream cones. No. 1,302,733; May 6; v. 262; p. 48.

Turnbull, William, Peoria, Ill. Assignor to The Holt Manufacturing Company, Stockton, Calif. Traction-engine. No. 1,304,416; May 20; v. 262; p. 428.

Turner & Seymour Manufacturing Co., The. (See Hilla, Sidney C., assignor.)

Turrettill, Horace, Geneva, Switzerland. Proceeding and apparatus for heating liquid by means of heat produced by chemical reactions in closed vessels. No. 1,303,618; May 13; v. 262; p. 241.

Tuttle, Montague H., Atlanta, Ga. Tire-tire. No. 1,302,734; May 6; v. 262; p. 48.

Twitcomb Process Company. (See Divine, Robert E., assignor.)

Twyman, Frank, London, England, and H. Workman, Glasgow, Scotland. Optical appliance for two-color heliography. No. 1,304,517; May 20; v. 262; p. 448.

Tubbs, James N., Berore, and E. H. Parker, Winthrop, Mass.; said Parker assignor to said Tubbs. Machine for affixing stamps and the like. No. 1,303,735; May 6; v. 262; p. 48.

Ulmann, Carl J., New York, N. Y. Chair. No. 1,303,994; May 20; v. 262; p. 349.

Ulrich, Paul T., Miami, Fla. Key-fastener. No. 1,304,123; May 6; v. 262; p. 125.

Underwood Compositing Machine Company. (See Johnson, Arthur A., assignor.)

Underwood, Lawrence H., Youngstown, Ohio. Tank for holding corrosive substances. No. 1,303,421; May 13; v. 262; p. 205.

Underwood, Percival G., Philadelphia, Pa. Indicating-tag. No. 1,304,417; May 20; v. 262; p. 428.

Underwood Typewriter Company. (See Karowski, Alfred G. F., assignor.)

Underwood Typewriter Company. (See Smith, Jesse A. B., assignor.)

Underwood Typewriter Company. (See Thomas, Edward, assignor.)

Union Radiator Company. (See Wendell, George W., assignor.)

Union Special Machine Company. (See Berger, Joseph, Jr., assignor.)

Union Special Machine Company. (See Seymour, Dudley E., assignor.)

United Shoe Machinery Corporation. (See Brock, Matthias, assignor.)

United Shoe Machinery Corporation. (See Cavanagh, James, assignor.)

United Shoe Machinery Corporation. (See Connor, John H., assignor.)

United Shoe Machinery Corporation. (See Davey, John F., assignor.)

United Shoe Machinery Corporation. (See Eaton, Charles C., assignor.)

United Shoe Machinery Corporation. (See Ferguson, George, assignor.)

United Shoe Machinery Corporation. (See Glass, Farley R., assignor.)

United Shoe Machinery Corporation. (See Jerram and Keill, assignors.)

United Shoe Machinery Corporation. (See Lawson, Robert H., assignor.)

United Shoe Machinery Corporation. (See Leveque, Bernard T., assignor.)

United Shoe Machinery Corporation. (See McMurray, Harry G., assignor.)

United Shoe Machinery Corporation. (See Pope, Joseph H., assignor.)

United Shoe Machinery Corporation. (See Ray, Eugene J., assignor.)

United Shoe Machinery Corporation. (See Seely, Thomas H., assignor.)

United Shoe Machinery Corporation. (See Thiesell, Jesse K., assignor.)

United States Cast Iron Pipe and Foundry Company. (See Anthony, Thomas F., assignor.)

United States Cast Iron Pipe and Foundry Company. (See Jones, Isaac, assignor.)

United States Cast Iron Pipe and Foundry Company. (See Lomelin, Louis E., assignor.)

United States Compressing Corporation. (See Whitney, George E., assignor.)

United States Envelope Company. (See Novick, Abraham, assignor.)

United States Hoffman Machinery Company. (See Chase, Herschel E., assignor.)

United States of America. (See Bonson, Herbert H., assignor.)

United States Ordnance Company. (See Powers, John N., assignor.)

United States Spot Ground Corporation. (See Merritt, Thomas Z., assignor.) (Release.)

United States Vaporizer Co. (See Olsen, George O., assignor.)

United States Wire Mat Company. (See Calef, Harry E., assignor.)

United-Xpedite Finishing Company. (See Lund, Thomas, assignor.)

Universal Electric Welding Company. (See Lachman, Laurence S., assignor.)

Universal Industrial Corporation. (See Swaidmark, Albin F., assignor.)

Universal Motor Company. (See Monahan, Louis J., assignor.)

Upham, Bart F., Boston, Mass. Assignor, by mesne assignments, to Cross Paper Feeder Company, Portland, Me. Sheet feeding and controlling apparatus. No. 1,305,181; May 27; v. 262; p. 610.

Urier, Edwin. (See Criner, Harry J., assignor.)

Van Arsdale, George D., and C. G. Maler, New York, N. Y. Extracting manganese and making sulfuric acid and manganese dioxide. No. 1,304,222; May 20; v. 262; p. 380.

Van Briggie, Lilburn H., Indianapolis, Ind. Carbureter. No. 1,304,418; May 20; v. 262; p. 428.

Van Derbeck, Stephen G., Hackensack, N. J., assignor to Ko Ko Mat Co., Inc., New York, N. Y. Self-locking mat. No. 1,304,518; May 20; v. 262; p. 448.

Van Dorn, William E., Chicago, Ill. Tractor. No. 1,302,607; May 6; v. 262; p. 23.

Van Gemert, Cornelius, Albia, Iowa. Cultivator attachment. No. 1,303,810; May 13; v. 262; p. 276.

Van Lynden, Robert A., Utrecht, Netherlands, assignor to Naamloose Vennootschap de Nederlandsche Thermo-Telefoon Maatschappij, Utrecht, Netherlands. Auxiliary device for the etching of arch-shaped Wollaston wires for the heat-conductors of thermic telephones. No. 1,305,240; May 27; v. 262; p. 622.

Van Meter, George F., Indianapolis, Ind. Automatic controller for air-brake emergency-valves. No. 1,303,743; May 13; v. 262; p. 264.

Van Nostrand, Charles E., Springfield, Mass. Grinding-machine. No. 1,303,744; May 13; v. 262; p. 264.

Van Volkenburg, Frederick H., Elko, Nev. Bed or cot. No. 1,304,419; May 20; v. 262; p. 429.

Vance, Betta H., San Francisco, Calif. Mosquito-foil for beds. No. 1,303,619; May 13; v. 262; p. 241.

Vanderhoff, Paul W., Topeka, Kans. Direction-signaling mechanism for motor-vehicles. No. 1,303,422; May 13; v. 262; p. 205.

Vanderhoff, Paul W., Topeka, Kans. Switch for motor-vehicle signaling devices. No. 1,303,423; May 13; v. 262; p. 205.

Varley, Edmund, Pietermaritzburg, Natal, South Africa. Book-posting device. No. 1,304,223; May 20; v. 262; p. 390.

Varney, Manford D., New York, N. Y. Scale bearing device. No. 1,802,884; May 6; v. 262; p. 77.
 Vaudreuil, Edward J., Eau Claire, Wis. Machine for preparing vegetables. No. 1,804,719; May 27; v. 262; p. 524.
 Vawter, John T., Los Angeles, Calif. Rotary engine. No. 1,803,134; May 6; v. 262; p. 125.
 Veld, Louis, Pireco, W. Va. Rail-fastening means. No. 1,804,828; May 27; v. 262; p. 545.
 Velard, Andre, Philadelphia, Pa. Pile-cutting device for use in looms for weaving pile fabrics. No. 1,803,630; May 18; v. 262; p. 241.
 Venable, Joseph C., East St. Louis, Ill. Emergency angle-coupling for broken train-lines. No. 1,804,128; May 20; v. 262; p. 372.
 Verner, James P., assignor to H. C. Anderson, Toronto, Ontario, Canada. Aeroplane control. No. 1,804,420; May 20; v. 262; p. 429.
 Vibration Specialty Company. (See Myers, Carlind E., assignor.)
 Vickers Limited. (See Buckingham, George T., assignor.)
 Vickers Limited. (See Dawson and Buckham, assignors.)
 Vickers Limited. (See Dawson and Horne, assignors.)
 Vickers Limited. (See Ella, Giovanni E., assignor.)
 Vickers Limited. (See North, Thomas K., assignor.)
 Victor Talking Machine Company. (See Squibb, Lloyd Y., assignor.)
 Victor Typewriter Company. (See Hagerstrom, John A., assignor.)
 Vierzengel, Matthew, Brooklyn, N. Y. Envelop. No. 1,802,885; May 6; v. 262; p. 78.
 Viertel, Hermann. (See Buchwald, Quieser, and Viertel.)
 Vieta, Henry Y., Maddock, N. D. Supporting attachment for neck-yokes. No. 1,802,608; May 6; v. 262; p. 24.
 Vigoureux, B. M., et al. (See Brown, Marvin H., assignor.)
 Vincent, Basilial. (See Vincent, Ira C. and B.)
 Vincent, Ira C. and B., Brilliant, Ohio. Safety-switch. No. 1,802,736; May 6; v. 262; p. 48.
 Vincent, Jesse G., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,805,038; May 27; v. 262; p. 583.
 Vincent, Jesse G., assignor to Packard Motor Car Company, Detroit, Mich. Carburetor. No. 1,805,036; May 27; v. 262; p. 583.
 Vincent, Jesse G., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,805,037; May 27; v. 262; p. 583.
 Vincent, William J., Cardiff, Wales. Tire. No. 1,803,995; May 20; v. 262; p. 348.
 Vitafide Company. (See Gilmore, Earl L., assignor.)
 Vlasak, William, Chicago, Ill. Traction-spur for motor-vehicle wheels. No. 1,802,737; May 6; v. 262; p. 48.
 Vogan, Robert R., Birmingham, Ala. Rotary engine. No. 1,803,745; May 13; v. 262; p. 264.
 Vogel, Gustave A., New Britain, Conn. Stock for spirit-levels. No. 1,803,829; May 13; v. 262; p. 280.
 Vogt, Louis F., assignor to Standard Chemical Company, Washington, Pa. Alloy. No. 1,804,224; May 20; v. 262; p. 390.
 Voigt, Philip F., et al. (See Bauer, Otto V., assignor.)
 Volk, Emil, Gemmill, Minn. Combination-lock. No. 1,804,633; May 27; v. 262; p. 508.
 Volkhart, William, Stapleton, N. Y. Hydrant-cock. No. 1,803,996; May 20; v. 262; p. 348.
 Vols, Herman, Newark, N. J. Band-saw guide. No. 1,804,128; May 20; v. 262; p. 372.
 Von Henke, Edmund J., New York, N. Y., assignor to Thomson Electric Welding Company, Lynn, Mass. Electric metal-working machine. No. 1,804,634; May 27; v. 262; p. 508.
 Von Trott, Harry L., Fort Madison, Iowa. Extension-table. No. 1,803,997; May 20; v. 262; p. 349.
 Von Trott, Harry L., Fort Madison, Iowa. Tire. No. 1,803,998; May 20; v. 262; p. 349.
 Von Wettberg, Eduard F., et al. (See Crane, Thomas S., assignor.)
 Vuelovich, Louis, Annapolis, Calif. Fruit-picker. No. 1,804,127; May 20; v. 262; p. 372.
 W. A. Freeman Company. (See Freeman, William A., assignor.)
 W. F. Powers Company, The. (See Cadmus, Arthur W., assignor.)
 W. H. Nicholson and Company. (See Nicholson and Belsinger, assignors.)
 Waage, Alvin H., New York, N. Y. Expansive screw-anchor. No. 1,802,609; May 6; v. 262; p. 24.
 Wachter, Louis E. F., New York, N. Y. Watch-crystal. No. 1,804,421; May 20; v. 262; p. 429.
 Wackwitz, Ernest F., assignor to The Peerless Motor Car Company, Cleveland, Ohio. Electrically-controlled transmission. No. 1,804,636; May 27; v. 262; p. 508.
 Waddingham, William H., and A. Taylor, assignors to Sir W. G. Armstrong, Whitworth and Company, Limited, Newcastle-upon-Tyne, England. Means for cutting of the supply of air to torpedo-tubes. No. 1,804,422; May 20; v. 262; p. 429.
 Wade, Clarence B., American Falls, Idaho. Gas-generator. No. 1,804,225; May 20; v. 262; p. 390.
 Wade, Joseph, et al. (See Harris, Robert H., assignor.)
 Wade, Thomas E., Burlingame, Calif. Airship. No. 1,803,999; May 20; v. 262; p. 349.
 Wadsworth, Frank L. O., Sevier, Pa., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Mining-machine. No. 1,804,829; May 27; v. 262; p. 545.

Wagner Electric Manufacturing Company. (See Fynn, Valere A., assignor.)
 Wagner, Frank J., assignor to J. B. Kirby, Cleveland, Ohio. Collecting bag for vacuum-cleaners. No. 1,805,039; May 6; v. 262; p. 583.
 Wagner, Robert E., Pittsfield, Mass., assignor to General Electric Company. Welding-machine. No. 1,805,039; May 27; v. 262; p. 583.
 Wahlberg, Nils J. A., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Clamping device. No. 1,804,434; May 13; v. 262; p. 264.
 Wales, Charles, New Haven, Conn., assignor, by mesne assignments, to The Federal Adding Machine Corporation, East Orange, N. J. Calculating-machine. No. 1,803,214; May 6; v. 262; p. 140.
 Walk, Jasper J., Oakland, Calif. Engine. No. 1,804,129; May 20; v. 262; p. 372.
 Walker, Robert J. (See Parsons, Walker, Cook, and Simon.)
 Walker, Sturges G., Memphis, Tenn. Automobile signaling device. No. 1,804,435; May 20; v. 262; p. 429.
 Walker, Willard B., Syracuse, N. Y. Valve. No. 1,804,510; May 20; v. 262; p. 449.
 Wall, Edward J., Syracuse, N. Y., assignor to Kalmus, Comstock & Westcott, Incorporated, Boston, Mass. Dye recovery. No. 1,803,426; May 13; v. 262; p. 264.
 Wall, Ormond E., Honolulu, Hawaii. Making artificial dentures and occluding-form for the same. No. 1,803,223; May 6; v. 262; p. 142.
 Wallace, Benjamin B., Poughkeepsie, N. Y., assignor to Moline Plow Company. Wheeled plow. No. 1,803,427; May 13; v. 262; p. 264.
 Wallace, Charles F., Tompkinsville, and M. F. Tierman, Jamaica, N. Y. Valve. No. 1,805,182; May 27; v. 262; p. 611.
 Wallace, Harry E., assignor of two-thirds to F. M. Fisher, Paducah, Ky. Means for automatically controlling electric headlights for automobiles. No. 1,804,000; May 20; v. 262; p. 340.
 Wallace, Harry G., Bag Harbor, N. Y. Fly-wheel attachment. No. 1,803,428; May 13; v. 262; p. 264.
 Wallman, Johann G., Oakland, Calif. Brake. No. 1,802,739; May 6; v. 262; p. 48.
 Walls, Marion C., Franklin township, Hendricks county, Ind., assignor of one-half to G. W. West, Amo, Ind. Pneumatic pump. No. 1,805,040; May 27; v. 262; p. 584.
 Walser, Joseph J., Chicago, and C. A. Dresser, Glenview, assignors to The Goss Printing Press Company, Chicago, Ill. Tension mechanism for printing-presses. No. 1,804,923; May 27; v. 262; p. 542.
 Walsh, Joseph A., Philadelphia, Pa. Projectile. No. 1,802,990; May 6; v. 262; p. 99.
 Walter, Cecil M., Birmingham, England. Furnace for the heat treatment of metals. No. 1,805,420; May 13; v. 262; p. 264.
 Walter, John. (See Leicht, Louis, assignor.)
 Walters, Francis M., Warrensburg, Mo. Measuring instrument. No. 1,802,997; May 6; v. 262; p. 99.
 Walther, Fred, Omaha, Neb. Collapsible poultry-crate. No. 1,803,746; May 13; v. 262; p. 264.
 Walther, George, assignor to The Dayton Steel Foundry Company, Dayton, Ohio. Wheel. No. 1,804,130; May 20; v. 262; p. 372.
 Walton, Clinton E., Livingston, Mont. Dividers. No. 1,803,747; May 13; v. 262; p. 264.
 Wanamaker, Henry, Albany, N. Y. Pump. No. 1,803,621; May 13; v. 262; p. 241.
 Wappler Electric Company. (See Wappler, Reinhold H., assignor.)
 Wappler, Reinhold H., New York, N. Y., assignor to Wappler Electric Company, Inc. Surgical instrument. No. 1,803,135; May 6; v. 262; p. 125.
 Ward, Frederick H., Brooklyn, N. Y. Electric box. No. 1,804,226; May 20; v. 262; p. 390.
 Ward, Henry L. (See Malcolmson and Ward.)
 Ward, Jean B. (See Ward, William A., assignor.)
 Ward, John T., Los Angeles, Calif. Dust-cap for tire-valves. No. 1,804,424; May 20; v. 262; p. 430.
 Ward, Lynford A., and W. D. Chase, Brooklyn, N. Y. License-tag for vehicles. No. 1,803,934; May 13; v. 262; p. 261.
 Ward, William A., assignor to J. B. Ward, Los Angeles, Calif. Seeder and fertilizer distributor. No. 1,803,136; May 6; v. 262; p. 125.
 Warland Dual Rim Company, The. (See Wright and Duke, assignors.)
 Warner Electric Company. (See Loughood, Victor, assignor.)
 Warner Manufacturing Company. (See Cadmus, Addi B., assignor.)
 Warner, William F., Frederickburg, Iowa. Mailage-cutter. No. 1,804,001; May 20; v. 262; p. 349.
 Warren Webster & Company. (See Jay, Edward G., Jr., assignor.)
 Washburn, John E., and A. E. Shaw, Lakewood, Ohio. Fillet material. No. 1,804,430; May 13; v. 262; p. 267.
 Washburn, William H., Chicago, Ill. Engine-starter. No. 1,803,431; May 13; v. 262; p. 267.
 Waterbury Clock Company. (See Wehinger, Frederick, assignor.)
 Watkins, Harry L., Philadelphia, Pa. Bottle-cap. No. 1,804,002; May 20; v. 262; p. 349.

Watkins, William R. (See Street, William R., assignor.)
 Watrous, Earl G., Chicago, Ill. Drinking-fountain. No. 1,804,943; May 20; v. 262; p. 540.
 Watson, Harold L., Lancaster, Pa. Thermostatic regulator for incubators. No. 1,804,635; May 27; v. 262; p. 583.
 Wattel, Achille L. F., St. Yves, France. Valve-gear for internal-combustion engines. No. 1,805,748; May 13; v. 262; p. 264.
 Waters, George M. (See Morsenich, William T., assignor.)
 Washburn Motor Company. (See Fisher, James B., assignor.)
 Wayman, Frank, Princeton, Mo. Wire-stretcher. No. 1,804,830; May 27; v. 262; p. 545.
 Webb, Irving F., Elizabeth, N. J., assignor to The Singer Manufacturing Company. Presser-foot for sewing-machine. No. 1,802,998; May 6; v. 262; p. 99.
 Webber, William F. (See Couch and Webber.)
 Weber, Frederick C., New York, N. Y. Track system. No. 1,803,936; May 13; v. 262; p. 261.
 Weber, Luther E., Brighton, Mass. Plastic composition. No. 1,802,730; May 6; v. 262; p. 48.
 Weber, Luther E., Brighton, Mass. Plastic material. No. 1,802,740; May 6; v. 262; p. 49.
 Webster Electric Company. (See Kleckner and Brown, assignors.)
 Webster, Henry, Newport, Ky., and W. B. Kincaid, Cincinnati, Ohio. Continuous brick kiln and drier. No. 1,804,511; May 27; v. 262; p. 545.
 Weck, George C. (See Ella, Milan A., assignor.)
 Weed, James M., Schenectady, N. Y., assignor to General Electric Company. Welding-electrode. No. 1,804,227; May 20; v. 262; p. 390.
 Wegner, Ferdinand M., Brooklyn, N. Y. Tire for automobile-wheels. No. 1,802,741; May 6; v. 262; p. 49.
 Wegner, Ferdinand M., Brooklyn, N. Y. Bridge or bar for unbalancing fur-shins. No. 1,804,037; May 27; v. 262; p. 509.
 Wehinger, Frederick, assignor to Waterbury Clock Co., Waterbury, Conn. Chime-clock. No. 1,804,924; May 27; v. 262; p. 542.
 Webb, Charles E., San Francisco, Calif. Pencil. No. 1,802,999; May 6; v. 262; p. 99.
 Webb, Ernst H. W., assignor to Nordiska Kullager Aktiebolaget, Gottenberg, Sweden. Flange-block for antifriction-bearings. No. 1,804,832; May 27; v. 262; p. 545.
 Weidenthal, Harold G., assignor to The James H. Heron Company, Cleveland, Ohio. Electric furnace. No. 1,804,425; May 20; v. 262; p. 430.
 Well, Charles L., Port Huron, Mich. Separating soluble bodies from mixed solutions. No. 1,804,004; May 20; v. 262; p. 349.
 Well, Maximilian, New York, N. Y. Communication-receiving apparatus. No. 1,802,997; May 6; v. 262; p. 99.
 Well, Maximilian, assignor, by mesne assignments, to Automatic Railway Control Company, Inc., New York, N. Y. Automatic train-controlling means. No. 1,804,833; May 27; v. 262; p. 545.
 Weinberg, Frederick, Detroit, Mich. Vacuum feed apparatus. No. 1,802,910; May 6; v. 262; p. 24.
 Weinhardt, Robert A., assignor to Continental Motor Corporation, Detroit, Mich. Crank-shaft. No. 1,803,008; May 6; v. 262; p. 99.
 Weinmann, George F. A., Oklahoma, Okla. Apparatus for holding plastic material on plows. No. 1,803,432; May 13; v. 262; p. 267.
 Weiss, Arthur J., West Orange, N. J., assignor, by mesne assignments, to J. B. McCoy & Son, New York, N. Y. Concealed fastener for wall-fixtures. No. 1,804,834; May 27; v. 262; p. 545.
 Weiss, Charles, Chicago, Ill. Frame and window for automobile-tops. No. 1,802,742; May 6; v. 262; p. 49.
 Welch, William H., Salem, Ohio. Power drop-hammer. No. 1,804,426; May 20; v. 262; p. 430.
 Welden, Ernest. (See Daniels, Edward T., assignor.)
 Wells, Joel C., Southbridge, Mass. Ophthalmic mounting. No. 1,802,611; May 6; v. 262; p. 24.
 Welton, Johnetta W., Rutherford, N. J. Luminous pen or pencil. No. 1,804,131; May 20; v. 262; p. 372.
 Wenborne-Karpen Dryer Co. (See Lippert, Frederick A., assignor.)
 Wendell, George W., assignor to Union Radiator Company, Johnstown, Pa. Rammer for molding-machines. No. 1,802,612; May 6; v. 262; p. 24.
 Wernick, Frank W., assignor to Acme Harvesting Machine Co., Peoria, Ill. Reversible gearing for rakes and tedders. No. 1,804,005; May 27; v. 262; p. 509.
 Werner, Albert, Berlin-Friedrichs, assignor to Siemens-Schuckertwerke, G. m. b. H., Berlin, Germany. System of boosting electric lines. No. 1,804,132; May 20; v. 262; p. 372.
 Werner, John A., assignor to The National Cash Register Company, Dayton, Ohio. Registering and recording mechanism. No. 1,802,613; May 6; v. 262; p. 25.
 Werner, Leo J., Arlington, N. J., assignor to Spittler Electric Company, Newark, N. J. Ignition system. No. 1,804,835; May 27; v. 262; p. 546.
 Werner, Leo J., Arlington, N. J., assignor to Spittler Electric Company, Newark, N. J. Ignition system. No. 1,804,836; May 27; v. 262; p. 546.

Werner, Leo J., Arlington, N. J., assignor to Spittler Electric Company, Newark, N. J. Circuit-breaker. No. 1,804,837; May 27; v. 262; p. 546.
 Wesley, Arthur, Chicago, Ill. Baby walker and swing. No. 1,802,743; May 6; v. 262; p. 49.
 Weseman, Edwin G., Fannin, N. J. Cup-dispensing apparatus. No. 1,803,433; May 13; v. 262; p. 267.
 West, George W. (See Walls, Marion C., assignor.)
 West Virginia Pulp & Paper Company. (See Drewsen, Viggo, assignor.)
 Westergaard, Peter J., Reinbeck, Iowa. Water-jacket for internal-combustion engines. No. 1,805,041; May 27; v. 262; p. 584.
 Western Electric Company. (See Bellamy and Smith, assignors.)
 Western Electric Company. (See Clausen and Goodrum, assignors.)
 Western Electric Company. (See Cummings, George C., assignor.)
 Western Electric Company. (See Egerton, Henry C., assignor.)
 Western Electric Company. (See Hague, Alfred E., assignor.)
 Western Electric Company. (See Keckler, Charles W., assignor.)
 Western Electric Company. (See Kochendorfer and Blount, assignors.)
 Western Electric Company. (See Lundell, Alben E., assignor.)
 Western Electric Company. (See Lundquist, Frank A., assignor.)
 Western Electric Company. (See Malcolmson and Ward, assignors.)
 Western Electric Company. (See Nicolson, Alexander M., assignor.)
 Western Electric Company. (See Quass, Ralph L., assignor.)
 Western Electric Company. (See Rainey, Paul M., assignor.)
 Western Electric Company. (See Shackleton, William J., assignor.)
 Western Electric Company. (See Wilbur, Ray S., assignor.)
 Western Electric Company. (See Williams, Samuel B., Jr., assignor.)
 Western Electric Company. (See Wright, Joseph L., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Applearth and Taylor, assignors.)
 Westinghouse Electric & Manufacturing Company. (See Baker, Ralph, assignor.)
 Westinghouse Electric & Manufacturing Company. (See Boddie, Clarence A., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Boggs, Addison E., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Brown, James M., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Conrad and Aalborg, assignors.)
 Westinghouse Electric & Manufacturing Company. (See Davis, James A., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Davis, Harry P., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Denman, Earl W., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Fortescue, Charles L., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Hall, Arthur J., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Hannell, John B., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Hellmuth, Rudolf E., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Hellmuth and Starker, assignors.)
 Westinghouse Electric & Manufacturing Company. (See Hoyer, Samuel C., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Jackson, Roy P., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Lamm, Benjamin G., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Lehr, Edwin, assignor.)
 Westinghouse Electric & Manufacturing Company. (See Leisegang, John, assignor.)
 Westinghouse Electric & Manufacturing Company. (See Lum, Walter O., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Mahoney, Joseph N., assignor.)
 Westinghouse Electric & Manufacturing Company. (See McManis, Robert D., Jr., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Moray, Archie F., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Morris, Hurd T., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Beardon, William J., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Shepard, Francis H., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Starker, Charles W., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Starker and Kronfeld, assignors.)

Westinghouse Electric and Manufacturing Company. (See Tirrell, Allen A., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Trent, Harold E., assignor.)
 Westinghouse Electric & Manufacturing Company. (See Wahlberg, Nils J. A., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Whitaker, Charles C., assignor.)
 Westlund, Albert F. (See Smith and Westlund.)
 Westman, Carl J., assignor to Aktiebolaget Scania, Stockholm, Sweden. Dust-shield for bearings. No. 1,302,614; May 6; v. 261; p. 25.
 Weston, Thomas M., Chicago, Ill. Soil preparer and cultivator. No. 1,304,838; May 27; v. 262; p. 546.
 Wheary, George H., Racine, Wis. Drawer-guide. No. 1,304,133; May 20; v. 262; p. 373.
 Wheeler, Joel N., Geneva, Ill. Brace and bracket for ladders. No. 1,304,427; May 20; v. 262; p. 430.
 Whellon, William M., Ashland, assignor to E. H. Angier, Framingham, Mass. Package. No. 1,303,187; May 6; v. 262; p. 126.
 Wheller, Harry B. (See Fleux and Wheller.)
 Wherry, John A., New Orleans, La. Fishing-reel. No. 1,303,525; May 13; v. 262; p. 224.
 Whitaker, John, North Wales, assignor to Safe-Guard Check Writer Company, Inc., Lansdale, Pa. Check. No. 1,303,434; May 13; v. 262; p. 207.
 White, Alvah C., et al. (See Wilcox, Lealand C., assignor.)
 White, Arthur, Sheboygan Falls, Wis. Chair-iron. No. 1,305,042; May 27; v. 262; p. 585.
 White, Bishop, et al. (See Crane, Thomas S., assignor.)
 White, Frank S., Dos Cabezas, Ariz. Rotary valve for internal-combustion engines. No. 1,304,836; May 27; v. 262; p. 547.
 White, Harold C., assignor to The Holt Manufacturing Company, Stockton, Calif. Tractor-truck mechanism. No. 1,304,428; May 20; v. 262; p. 430.
 White, Harold H., Putney, London, England, assignor to The Acolian Company, New York, N. Y. Tone-modifier. No. 1,304,005; May 20; v. 262; p. 250.
 White, Howard L., Brooklyn, N. Y. Rifling-tool. No. 1,304,429; May 20; v. 262; p. 431.
 Whitehead, Howard H. (See Gore, Henry H., assignor.)
 Whitman, Owen L., Cosascho, N. Y. Gate-valve. No. 1,304,228; May 20; v. 262; p. 391.
 Whitesel, Frederick. (See Whitesel, Newton and F.)
 Whitesel, Newton and F., Omaha, Nebr. Stretcher. No. 1,304,006; May 20; v. 262; p. 250.
 Whitford, Wilbur W., New York, N. Y. Pipe construction. No. 1,302,744; May 6; v. 262; p. 49.
 Whitt Machine Works. (See Owen, Oscar L., assignor.)
 Whitting & Davis Company. (See Berkley, Richard H., assignor.)
 Whitting & Davis Company. (See Pratt, Alphonse C., assignor.)
 Whitney, George E., Bridgeport, Conn., assignor to United States Compressing Corporation, New York, N. Y. Press. No. 1,302,745; May 6; v. 262; p. 50.
 Whitney, Loren L., Hammond, Ind., assignor to American Steel Foundries, New York, N. Y. Manufacturing brake-beams. No. 1,303,435; May 13; v. 262; p. 208.
 Whitney, William M. (See Emery, Raymond D., assignor.)
 Whitney, William M. (See Farnum, William C., assignor.)
 Whitney, William M. (See Folson, Arthur E., assignor.)
 Whitney, William M. (See Sawyer, Willard N., assignor.)
 Whitt, Robert F., Beckley, W. Va. Photographic-film-developing tank. No. 1,305,043; May 27; v. 262; p. 586.
 Whittaker, Charles C., Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control apparatus. No. 1,303,436; May 13; v. 262; p. 208.
 Whittaker, Charles C., Wilkesburg, Pa., assignor to Westinghouse Electric & Manufacturing Company. System of control. No. 1,305,044; May 27; v. 262; p. 585.
 Whitworth, Bevil W., assignor to T. A. Whitworth, Cedar Falls, Iowa. Assembling-table for end-gates. No. 1,303,437; May 13; v. 262; p. 208.
 Whitworth, Thomas A. (See Whitworth, Bevil W., assignor.)
 Wiard, John B., Lynn, Mass., assignor to General Electric Company. High-speed grinding-machine. No. 1,304,229; May 20; v. 262; p. 391.
 Wickerham, Elmer E., assignor to The Holt Manufacturing Company, Stockton, Calif. End-thrust roller-bearing. No. 1,304,430; May 20; v. 262; p. 431.
 Wickman, Magnus H., assignor of one-fourth to C. H. Crawford, Spokane, Wash. Child's car. No. 1,303,127; May 6; v. 262; p. 124.
 Wickstrom, Alfred, and C. A. Borgstrom, Minneapolis, Minn. Spring-wheel for vehicles. No. 1,304,007; May 20; v. 262; p. 250.
 Wiegand, William B. (See Rieder and Wiegand.)
 Wiehl, Ferdinand and T., New York, N. Y. Strainer. No. 1,303,438; May 13; v. 262; p. 208.
 Wiehl, Thomas. (See Wiehl, Ferdinand and T.)
 Wilbur, Ray R., Jersey City, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,303,001; May 6; v. 262; p. 100.
 Wilcox, Doctor M., Menominee, Mich. Tooth-brush holder and steriliser. No. 1,304,030; May 27; v. 262; p. 560.

Wilkin, George W., and J. P. Kea, Grandville, Ind. Four-wheel drive for motor-vehicles. No. 1,304,040; May 27; v. 262; p. 509.
 Wilkinson, Henry O., Potteridge, England. Casing for cylindrical distributing-valves. No. 1,304,539; May 20; v. 262; p. 448.
 Wilkinson, James, Pittsfield, Mass., assignor to General Electric Company. Load-bushing. No. 1,304,230; May 20; v. 262; p. 391.
 Wilkinson, Theodore S., Washington, D. C., assignor to the Government of the United States. Smoke apparatus. No. 1,303,749; May 13; v. 262; p. 263.
 Wilkinson, William J., Oakland, and E. Hedstrom, San Francisco, Calif. Boat-davit. No. 1,303,750; May 13; v. 262; p. 264.
 Wilcox, Lealand C., Des Moines, Iowa, assignor of one-half to National Pie Crust Company, Milwaukee, Wis., and one-half to A. C. White, Des Moines, Iowa. Pastry-baking machine. No. 1,303,183; May 27; v. 262; p. 611.
 William Wharton, Jr., & Company. (See Chao, Albert R., assignor.)
 Williams, Charles H., assignor to Chicago Railway Equipment Company, Chicago, Ill. Fourth-point support for brake-beams. No. 1,304,136; May 20; v. 262; p. 373.
 Williams, Charles H., assignor to Chicago Railway Equipment Company, Chicago, Ill. Fourth-point support for brake-beams. No. 1,304,135; May 20; v. 262; p. 373.
 Williams, Charles H., assignor to Chicago Railway Equipment Company, Chicago, Ill. Fourth-point support for brake-beams. No. 1,304,136; May 20; v. 262; p. 373.
 Williams, Jeremiah, Aberystwyth, Wales. Board game and appliances therefor. No. 1,304,431; May 20; v. 262; p. 431.
 Williams, Jesse J., Utica, N. Y. Wire frame. No. 1,302,638; May 6; v. 262; p. 78.
 Williams, John N. S., Honolulu, Hawaii. Attachment for centrifugal machines. No. 1,304,840; May 27; v. 262; p. 547.
 Williams, Martin L., South Bend, Ind., assignor, by mesne assignments, to American Sleeve-Valve Motor Company. Lubricating system. No. 1,303,623; May 13; v. 262; p. 248.
 Williams, Robert N., London, England, assignor to Powers Accounting Machine Company, New York, N. Y. Automatic tabulating-machine. No. 1,302,610; May 6; v. 262; p. 25.
 Williams, Samuel B., Jr., Brooklyn, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y. Call-distributing system. No. 1,304,441; May 27; v. 262; p. 509.
 Williams, William M., Tonopah, assignor of one-half to E. Langston, Reno, Nev. Dental-bit-pulling device. No. 1,305,184; May 27; v. 262; p. 611.
 Williamson, Samuel S., Philadelphia, Pa. Flush-tank valve. No. 1,304,432; May 20; v. 262; p. 431.
 Wilmarth, Charles A., Detroit, Mich. Pant-pressing machine. No. 1,304,137; May 20; v. 262; p. 373.
 Willys-Overland Company, Inc. (See Brockway, Carl P., assignor.)
 Wilpette, Alice A. (See Wilpette, Louis, assignor.)
 Wilpette, Louis, assignor of two-thirds to A. A. Wilpette, New Rochelle, N. Y. Coal-charging lorry. No. 1,304,526; May 13; v. 262; p. 234.
 Wilson & Bennett Mfg. Co. (See Bennett, Stevens A., assignor.)
 Wilson, Charles W., assignor of six forty-eighths to W. K. Evans, sixteen forty-eighths to R. Chagryn, and twenty-six forty-eighths to M. E. Evans, Berre, Ohio. Automatic train control. No. 1,304,642; May 27; v. 262; p. 509.
 Wilson, George A., Chase Mills, assignor of fifty-one one-hundredths to F. R. Martin, Louisville, and F. J. Flanagan, Norfolk, N. Y. Ice-cream can. No. 1,303,751; May 13; v. 262; p. 265.
 Wilson, John P., Rockville Center, N. Y. Type-writer type-cleaner. No. 1,302,746; May 6; v. 262; p. 50.
 Wilson, John S., and W. E. Dalby, London, assignors of one-third to Sir W. G. Armstrong-Whitworth and Company Limited, Newcastle-upon-Tyne, England. Gun-sight. No. 1,303,440; May 13; v. 262; p. 208.
 Wilson, Martha E. (See Stranga, Porter A., assignor.)
 Wilson, Neal W., et al. (See Harris, Robert H., assignor.)
 Wilson, Samuel C., Chicago, Ill. Flag. No. 1,303,028; May 13; v. 262; p. 242.
 Wilson, William H., Tulsa, Okla. Tool. No. 1,303,439; May 13; v. 262; p. 208.
 Wilson, William R., Terre Haute, Ind. Hub structure. No. 1,304,231; May 20; v. 262; p. 391.
 Wilton, Carl E., Philadelphia, Pa. Automatic lift-support. No. 1,303,441; May 13; v. 262; p. 209.
 Wiltschko, James D. (See Fries and Wiltschko.)
 Winch, Charles F., New York, N. Y. Manufacture of hydrocarbon liquids for use in internal-combustion engines. No. 1,304,433; May 20; v. 262; p. 432.
 Winchester Repeating Arms Co. (See Gravelly, Julian S., assignor.)
 Winchester Repeating Arms Co. (See Jewett, Arthur C., assignor.)
 Wineman, Lillian H., Devils Lake, N. D. Duplex punch-holder. No. 1,303,442; May 13; v. 262; p. 209.
 Wingert, Martha E., Los Angeles, Calif. Doll. No. 1,304,434; May 20; v. 262; p. 432.
 Winslow Brothers Company, Inc. (See Winslow, Francis A., assignor.)

Winslow, Francis A., assignor to The Winslow Brothers Company, Chicago, Ill. Window. No. 1,303,752; May 13; v. 262; p. 266.
 Winterhoff, Herman E., assignor to Leedy Manufacturing Company, Indianapolis, Ind. Medical instrument. No. 1,304,435; May 20; v. 262; p. 432.
 Wire Goods Company. (See Green, Irving A., assignor.)
 Wire Goods Company, The. (See Thurston, Robert J., assignor.)
 Wire Wheel Corporation of America. (See Pugh, John V., assignor.)
 Wise, David F., Ashland, Ohio. Suspenders. No. 1,302,615; May 6; v. 262; p. 25.
 Withersell, Earl M., assignor of one-fourth to O. I. Johnson and one-half to F. A. Patrick & Company, Duluth, Minn. Garment-drying form. No. 1,302,617; May 6; v. 262; p. 25.
 Withington, Winthrop, Jackson, Mich., assignor to The American Fork & Hoe Company, Cleveland, Ohio. Making miter. No. 1,304,436; May 20; v. 262; p. 432.
 Witmer, John M., Lancaster, Pa. Warning-signal. No. 1,302,618; May 6; v. 262; p. 25.
 Wiegman, Howard C., Hartford, Conn., assignor to Pratt & Whitney Company, New York, N. Y. Collet-chuck. No. 1,302,619; May 6; v. 262; p. 25.
 Wohlschlag, Walter J., Bozeman, Mont. Field-meter. No. 1,303,426; May 13; v. 262; p. 373.
 Wohlschlag, Walter J., Lincoln, Neb. Elastic-fluid meter. No. 1,303,443; May 13; v. 262; p. 373.
 Wolf, Jacob. (See Crispin, Morris, assignor.)
 Wolf, Rudolf, assignor to The Crawford Manufacturing Company, New Brunswick, N. J. Stop-motion. No. 1,304,045; May 27; v. 262; p. 505.
 Wolgramm, Ludwig, Erie, Pa. Clutch. No. 1,304,138; May 20; v. 262; p. 374.
 Wollaston, Thomas R., Manchester, England. Gas-producer. No. 1,303,527; May 13; v. 262; p. 224.
 Woodard, Frank A., Schenectady, N. Y. Torpedo-launching apparatus for flying-machines. No. 1,302,747; May 6; v. 262; p. 50.
 Wood, Edward S., Cinnaminson, N. J. Pen. No. 1,305,046; May 27; v. 262; p. 585.
 Wood, Henry A. W., New York, and J. A. Isbell, Middletown, assignors, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Folding and cutting mechanism. No. 1,304,232; May 20; v. 262; p. 391.
 Wood, James J., Fort Wayne, Ind., assignor to General Electric Company. Talking-machine. No. 1,304,233; May 20; v. 262; p. 391.
 Wood, James J., Fort Wayne, Ind., assignor to General Electric Company. Talking-machine. No. 1,304,234; May 20; v. 262; p. 392.
 Wood Newspaper Machinery Corporation. (See Wood and Isbell, assignors.)
 Wood, William H., assignor, by mesne assignments, to The Anstrup Company, Cleveland, Ohio. Door-stop. No. 1,303,444; May 13; v. 262; p. 209.
 Woodman, George A. (See Archibald and Woodman.)
 Woods, Homer A., Indianapolis, Ind. Switch construction for lanterns. No. 1,304,525; May 27; v. 262; p. 502.
 Woods Motor Vehicle Company. (See Fend, Roland S., assignor.)
 Woodstock Typewriter Company. (See Ebert, Alfred O. H., assignor.)
 Woodward, Gilbert N., Portland, Oreg. Purveying device. No. 1,304,437; May 20; v. 262; p. 432.
 Woodson, Orasco C., Newark, N. J. Furnace. No. 1,304,235; May 20; v. 262; p. 392.
 Woolverton, William H., Washington, D. C., assignor of one-half to J. C. Scarborough, Bishopville, S. C. Medical vibrator. No. 1,302,620; May 6; v. 262; p. 26.
 Woolwine, Joseph W., Memphis, Tenn. Carton. No. 1,303,138; May 6; v. 262; p. 126.
 Worcester, Philip L., Yonkers, N. Y. Purifying sugar juices or syrups. No. 1,304,439; May 20; v. 262; p. 433.
 Worthingham, Charles H., Redhill, England. Disconnecting device for electric supply-circuits. No. 1,304,236; May 20; v. 262; p. 392.
 Worthingham, Charles H., Redhill, England. System for distributing electric energy. No. 1,304,237; May 20; v. 262; p. 392.
 Workman, Harold. (See Twyman and Workman.)
 Workman, Edwin F. (See Harttman, John, assignor.)
 Wright, Alfred C., and W. Duker, Birmingham, assignors to The Warland Dual Rim Company, Limited, Aston, Birmingham, England. Road-vehicle wheel. No. 1,303,139; May 6; v. 262; p. 126.

Wright, Clyde E., assignor to The National Supply Company, Toledo, Ohio. Band-wheel. No. 1,303,445; May 13; v. 262; p. 209.
 Wright, John P., Newark, Del. Composite board. No. 1,303,753; May 13; v. 262; p. 266.
 Wright, Joseph L., Cleveland, Ohio, assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,303,528; May 13; v. 262; p. 225.
 Wright, Judson E., assignor of one-half to C. Frey, San Diego, Calif. Tide-motor. No. 1,304,238; May 20; v. 262; p. 392.
 Wright, Lee O., Dante, Va. Wrench. No. 1,302,748; May 6; v. 262; p. 50.
 Wyckoff, Alvin, and M. Handachlegl, Los Angeles, Calif., assignors to Famous Players-Lasky Corporation. Coloring cinematographic films. No. 1,303,336; May 13; v. 262; p. 261.
 Wyckoff, Alvin, and M. Handachlegl, Los Angeles, Calif., assignors to Famous Players-Lasky Corporation. Machine for and art of coloring cinematographic films. No. 1,303,337; May 13; v. 262; p. 262.
 Yamada, Takeo. (See Dawson and Yamada.)
 Yaw, Chlo E., Arlington, N. J., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,302,621; May 6; v. 262; p. 26.
 Yeager, Robert L., Cave in Rock, Ill. Bridge-plate for violins. No. 1,304,841; May 27; v. 262; p. 547.
 Yeamans Company, The. (See Yeamans, Eugene N., assignor.)
 Yeamans, Eugene N., Houston, Tex., assignor to The Yeamans Company. Automatic fountain-valve for locomotives. No. 1,303,749; May 6; v. 262; p. 50.
 Yeiser, Leon B., assignor to Glauber Bros Manufacturing Company, Cleveland, Ohio. Thermostat shower-head. No. 1,303,140; May 6; v. 262; p. 126.
 Ylloja, Matti, Brooklyn, N. Y. Attachment for sewing-machines. No. 1,302,750; May 6; v. 262; p. 50.
 York, Lorne M., Detroit, Mich., assignor to Automotive Manufacturing Company, Dayton, Ohio. Auxiliary air-inlet device. No. 1,303,529; May 13; v. 262; p. 225.
 Young, George W., et al. (See Norman, Frank, assignor.)
 Young, Jacob L., New Rochelle, N. Y. Dental pliers. No. 1,304,730; May 27; v. 262; p. 524.
 Young, Jacob L., New Rochelle, N. Y. Orthodontia appliance. No. 1,304,721; May 27; v. 262; p. 525.
 Young, Jacob L., New Rochelle, N. Y. Orthodontia appliance. No. 1,304,722; May 27; v. 262; p. 525.
 Young, Jacob L., New Rochelle, N. Y. Orthodontia appliance. No. 1,304,723; May 27; v. 262; p. 525.
 Young, Otto W., assignor to Erie-National Electric Headlight Company, Chicago, Ill. Throttle-valve. No. 1,304,724; May 27; v. 262; p. 525.
 Young, Philip H., Fairhaven, Mass. Toy aeroplane. No. 1,304,139; May 20; v. 262; p. 374.
 Younger, Frank, assignor of fifteen one-hundredths to J. Calenterra, Wallace, Calif. Sanitary dispensing apparatus. No. 1,303,141; May 6; v. 262; p. 127.
 Youngson, Stewart. (See Beaton and Youngson.)
 Yonaga, Cecil C., Sebastian, Tex. Air-compressor. No. 1,304,439; May 20; v. 262; p. 433.
 Zabawa, Andrej, Shawanegan Falls, Quebec, Canada. Folding furniture. No. 1,303,446; May 13; v. 262; p. 209.
 Zacharias, Walther, Neville Island, Pa. Extracting metal values. No. 1,304,842; May 27; v. 262; p. 547.
 Zacharias, Walther, Pittsburgh, Pa. Circulating-pump. No. 1,304,843; May 27; v. 262; p. 547.
 Zagermeyer, Frank, Bay City, Mich. Camping outfit. No. 1,304,440; May 20; v. 262; p. 432.
 Zales, Fred E., Chicago, Ill. Machine for forming candy. No. 1,304,140; May 20; v. 262; p. 374.
 Zellers, Mahlon M., Belleville, Ill. Stirrup. No. 1,303,142; May 6; v. 262; p. 127.
 Zimmer, Paul H., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Controlling device. No. 1,304,008; May 20; v. 262; p. 251.
 Zimmerman, Peter, et al. (See McLaughlin, William D., assignor.)
 Zimmermann, William F., Newark, N. J. Worm-grinder. No. 1,304,644; May 27; v. 262; p. 510.
 Zimmermann, William F., assignor to Gould & Eberhardt, Newark, N. J. Spindle-supporting member. No. 1,304,645; May 27; v. 262; p. 510.
 Ziz, Karl, Bathbeach, N. Y. Making finger-rings. No. 1,303,530; May 13; v. 262; p. 225.
 Zoni, Rino, Genoa, Italy. Instrument for navigation and like purposes. No. 1,305,047; May 27; v. 262; p. 586.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

- Adam, Harry C., St. Louis, Mo. Lighting-structure. No. 53,365; May 6; v. 262; p. 143.
- Adam, Harry C., St. Louis, Mo. Lighting-structure bowl. No. 53,366; May 13; v. 262; p. 282.
- Allen, Edward R., Rutland, Vt. Statuette. No. 53,349; May 27; v. 262; p. 623.
- American Can Company. (See Hoffman, Edmund, assignor.)
- Ames, Louis A., assignor to Annin & Co., New York, N. Y. Banner, flag, pennant, sign, emblem, or article of a similar nature. No. 53,351; May 13; v. 262; p. 284.
- Annin & Co. (See Ames, Louis A., assignor.)
- Armstrong, Herbert J., Atlantic City, N. J. Combination mirror, razor-strop, and match-lighter. No. 53,352; May 13; v. 262; p. 284.
- Armstrong, Nancy V., Toronto, Ontario, Canada. Outer garment. No. 53,350; May 27; v. 262; p. 623.
- Art Hand-Bag Frame Co., The. (See Montroll, Giuseppe, assignor.)
- Bauman, Max, New York, N. Y. Article of manufacture. No. 53,351; May 27; v. 262; p. 623.
- Beardale Chandler Manufacturing Company. (See Neneider, Robert, assignor.)
- Becke and Runyan Furniture Company. (See Fitch, Almond L., assignor.)
- Bohlen, Charles A., Cincinnati, Ohio. Autotrailer. No. 53,328; May 20; v. 262; p. 451.
- Bishop, Minnie R. (See Spiegel, Morris, assignor.)
- Boehring, Albert, assignor to Edward Miller & Co., Meriden, Conn. Lamp-shade. No. 53,353; May 13; v. 262; p. 284.
- Boehring, Albert, assignor to Edward Miller & Co., Meriden, Conn. Pedestal. No. 53,354; May 13; v. 262; p. 284.
- Brace, Richard D., Nassau, New Providence, Bahama Islands. Combination-tool. No. 53,353; May 27; v. 262; p. 623.
- Bridgewater, Jesse R., Empire, Colo. Rail-tie. No. 53,355; May 27; v. 262; p. 624.
- Brightman, Joseph F., assignor to The Syracuse Faucet and Valve Company, Syracuse, N. Y. Radiator-valve casing and handle. No. 53,329; May 20; v. 262; p. 451.
- Bunting, James H., assignor to Susquehanna Silk Mills, New York, N. Y. Printed silk. Nos. 53,355-7; May 13; v. 262; pp. 284-5.
- Bunting, James H., assignor to Susquehanna Silk Mills, New York, N. Y. Printed silk. Nos. 53,354-6; May 27; v. 262; p. 624.
- Bunting, James H., assignor to Susquehanna Silk Mills, New York, N. Y. Brocade. Nos. 53,357-8; May 27; v. 262; p. 624.
- Burnett-Larsh Manufacturing Company, The. (See Larsh, Everett P., assignor.)
- Carewell, Richard, Brooklyn, N. Y. Peak-cap. No. 53,356; May 13; v. 262; p. 285.
- Cheney Brothers. (See Orange, Henry, assignor.)
- Clark, George H., River Point, R. I. Cotton lace. No. 53,359; May 13; v. 262; p. 286.
- Clark, Walter H., Akron, Ohio. Rubber heel. No. 53,359; May 27; v. 262; p. 625.
- Clay, Geneva, Doylestown, Pa. Pin, badge, charm, or article of similar nature. No. 53,350; May 13; v. 262; p. 285.
- Coleman, William C., Wichita, Kans. Lamp-shade. No. 53,356; May 6; v. 262; p. 143.
- Cole, Samuel L., St. Louis county, Mo. Toy vehicle. No. 53,351; May 13; v. 262; p. 285.
- Connor, Martha H., assignor to Tin Decorating Company of Baltimore, Baltimore, Md. Bitter-top can or similar receptacle. No. 53,350; May 20; v. 262; p. 452.
- Connor, Martha H., assignor to Tin Decorating Company of Baltimore, Baltimore, Md. Bitter-top can or similar receptacle. No. 53,350; May 27; v. 262; p. 625.
- Cooper, Ernest H., Kansas City, Mo. Tire. No. 53,392; May 13; v. 262; p. 286.
- Cottrell, Millard F. (See Hill, John F., assignor.)
- Croanga, Henry, New York, N. Y., assignor to Cheney Brothers, South Manchester, Conn. Flag. No. 53,393; May 13; v. 262; p. 286.
- Decorating Company of Baltimore, The. (See Connor, Martha H., assignor.)
- Edward Miller & Co. (See Boehring, Albert, assignor.)
- Hesse, Adolph, assignor to Susquehanna Silk Mills, New York, N. Y. Printed silk. Nos. 53,354-5; May 13; v. 262; p. 286.
- Empire Phone Parts Company. (See McNamara, William J., assignor.)
- Everett, Frank W., Brooklyn, assignor to Sweet-Nut Butter Co., Boston, Mass. Display device. No. 53,361; May 27; v. 262; p. 625.
- Firestone Tire and Rubber Company, The. (See Warner, Martin L., assignor.)
- Fitch, Almond L., assignor to Becke and Runyan Furniture Company, Omaha, Neb. Photograph-cabinet. No. 53,352; May 27; v. 262; p. 624.
- Fraser, James R., assignor to Joseph Fahys & Company, New York, N. Y. Spoon, fork, or similar article. No. 53,394; May 13; v. 262; p. 286.
- Gates, John G., assignor to The Gates Rubber Company, Denver, Colo. Rubber tire. No. 53,331; May 20; v. 262; p. 452.
- Gates Rubber Company, The. (See Gates, John G., assignor.)
- General Tire and Rubber Company, The. (See O'Neil, William, assignor.)
- Giesenhans, Fred, Muscatine, Iowa. Badge. No. 53,397; May 13; v. 262; p. 286.
- Goodman, Louis, Dubuque, Iowa. Shaving and dressing stand. No. 53,353; May 27; v. 262; p. 625.
- Grafin, Alvin J., Montclair, N. J., assignor to Grafin & Dolson, New York, N. Y. Textile fabric. No. 53,364; May 27; v. 262; p. 625.
- Grafin & Dolson. (See Grafin, Alvin J., assignor.)
- Gramlich, Adolph, New York, N. Y. Flag, pennant, sign, emblem, or article of a similar nature. No. 53,358; May 13; v. 262; p. 286.
- Greene, Frederick E., assignor to The Mount Vernon Company, Silvermiths, Inc., Mount Vernon, N. Y. Handle. No. 53,359; May 13; v. 262; p. 287.
- Greene, Frederick E., assignor to The Mount Vernon Company, Silvermiths, Inc., Mount Vernon, N. Y. Automobile-trimming and the like. No. 53,360; May 13; v. 262; p. 287.
- Griffith, George H., St. Paul, Minn., assignor to A. C. Townley, W. Lemke, and F. B. Wood, Fargo, N. D. League-button. No. 53,355; May 27; v. 262; p. 624.
- Hajewski, Gertruda. (See Wolski and Hajewski.)
- Hammann, Sarah F., Chicago, Ill. Record tablet plate, frame, or the like. No. 53,361; May 13; v. 262; p. 287.
- Hansen, Charles J., New York, N. Y. Supporting-plate for a hose-supporter. No. 53,362; May 13; v. 262; p. 287.
- Hill, John E., Melrose Highlands, assignor of one-half to M. F. Cottrell, Brookline, Mass. Cigarette-holder. No. 53,367; May 6; v. 262; p. 143.
- Hoffman, Edmund, Brooklyn, assignor to American Can Company, New York, N. Y. Powder-container. No. 53,363; May 13; v. 262; p. 287.
- Hollingsworth, Jephtha G., Kansas City, Mo. Individual dental-plate cleaner. No. 53,366; May 27; v. 262; p. 626.
- Holstein, William, New York, N. Y. Button, badge, pin, or article of similar nature. No. 53,368; May 6; v. 262; p. 143.
- Hosner, John W., Dallas, Tex. Engine-manifold for internal-combustion motors. No. 53,369; May 6; v. 262; p. 143.
- Hubbard, Cecil R. (See Knoderer and Hubbard.)
- Hubbard, Cecil R., Baden, and H. G. Knoderer, Edgeworth, assignors to National Metal Molding Company, Pittsburgh, Pa. Reducing-bushing base for fittings for electrical-conductor conduits. No. 53,332; May 20; v. 262; p. 452.
- Hubbard, Cecil R., Baden, and H. G. Knoderer, Edgeworth, assignors to National Metal Molding Company, Pittsburgh, Pa. Bushing-base for fittings for electrical-conductor conduits. No. 53,333; May 20; v. 262; p. 452.
- Hubbard, Cecil R., Baden, and H. G. Knoderer, Edgeworth, assignors to National Metal Molding Company, Pittsburgh, Pa. Internal-elbow base for fittings for electrical-conductor conduits. No. 53,334; May 20; v. 262; p. 452.
- Hubbard, Cecil R., Baden, and H. G. Knoderer, Edgeworth, assignors to National Metal Molding Company, Pittsburgh, Pa. Internal-elbow cap for fittings for electrical-conductor conduits. No. 53,335; May 20; v. 262; p. 453.
- International Motor Company. (See Masury, Alfred F., assignor.)
- Iowa Cord Tire Company. (See Klopfcastine, Clarence B., assignor.)
- Jones, Joseph W., New York, N. Y. Tachometer-casing. No. 53,370; May 6; v. 262; p. 144.
- Joseph Fahys & Company. (See Fraser, James R., assignor.)
- Kanitz, Thomas J., Chicago, Ill. Cigarette-paper case. No. 53,367; May 27; v. 262; p. 626.
- Keller, Eugene W., North Bergen, N. J. Flag or banner. No. 53,368-9; May 27; v. 262; p. 626.
- Kelly, Elean A., New York, N. Y. Article of manufacture. No. 53,370; May 27; v. 262; p. 626.
- Kemp, Charles, New York, N. Y. Lock-casing. No. 53,364; May 13; v. 262; p. 287.
- Kendall, Julian H., Pittsburgh, Pa. Automobile-radiator ornament. No. 53,371; May 27; v. 262; p. 626.
- Klenk, Charles, Englewood, N. J., assignor to The Palm Brothers Company, New York, N. Y. Plate or similar article. No. 53,366; May 13; v. 262; p. 287.

Klopfenstein, Clarence B., assignor to Iowa Cord Tire Company, Des Moines, Iowa. Non-skid tire. No. 53,372; May 27; v. 262; p. 627.

Knoderer, Homer G. (See Hubbard and Knoderer.)

Knoderer, Homer G., Edgeworth, and C. R. Hubbard, assignors to National Metal Molding Company, Pittsburgh, Pa. Corner and twist box for electrical conductor conduits. No. 53,271; May 6; v. 262; p. 144.

Larab, Everett P., assignor to The Burnett-Larab Manufacturing Company, Dayton, Ohio. Pump-casing. No. 53,336; May 20; v. 262; p. 453.

Laurent, Emile A., Denver, Colo. Lamp. No. 53,306; May 13; v. 262; p. 288.

Leach, Walter R., Baltimore, Md. Bottle. No. 53,337; May 20; v. 262; p. 463.

Leavenworth, Seth H., assignor to The Van Hergh Silver Plate Company, Rochester, N. Y. Candelabrum. No. 53,307-8; May 13; v. 262; p. 288.

Lemke, William, et al. (See Griffith, George H., assignor.)

Luttringhaus, Walter, Maywood, Ill. Borth kettle. No. 53,309; May 13; v. 262; p. 288.

Macdonald, Angus S., Great Neck Station, and J. Muller, Flushing, N. Y., assignors to The Seacal & Co. Iron Works, Jersey City, N. J. Panel for a lamp or a similar article. No. 53,310; May 13; v. 262; p. 288.

Malone, John H. (See May and Malone.)

Markowitz, Louis, New York, N. Y. Badge. No. 53,311; May 13; v. 262; p. 288.

Masury, Alfred F., assignor to International Motor Company, New York, N. Y. Engine-hood for a motor-vehicle. No. 53,373; May 27; v. 262; p. 627.

May, Oscar D., Oak Park, and J. H. Malone, Chicago, Ill. Badge. No. 53,312; May 13; v. 262; p. 288.

McNamara, William J., assignor to The Empire Phone Parts Company, Cleveland, Ohio. Tone-arm. No. 53,314; May 13; v. 262; p. 289.

Messinger Automatic Sales Corporation. (See Messinger, George E., assignor.)

Messinger, George E., Birmingham, Ala., assignor, by means assignments, to Messinger Automatic Sales Corporation, New York, N. Y. Vending-machine. Nos. 53,272-4; May 6; v. 262; p. 144.

Meyer, Clifford L., Bellevue borough, Pa. Continuous-web men's hose-supporter. No. 53,313; May 13; v. 262; p. 289.

Mirabito, Richard W., Webster, Mass. Flag or emblem. No. 53,374; May 27; v. 262; p. 627.

Montroll, Giuseppe, Hoboken, N. J., assignor to The Art Hand-Bag Frame Co., New York, N. Y. Hand-bag frame. No. 53,275; May 6; v. 262; p. 144.

Moore, William J. P., New York, N. Y. Automobile-body. Nos. 53,333-40; May 20; v. 262; pp. 453-4.

Mount Vernon Company, Silversmiths, The. (See Greene, Frederick E., assignor.)

Muller, John. (See Macdonald and Muller.)

National Metal Molding Company. (See Hubbard and Knoderer, assignors.)

National Metal Molding Company. (See Knoderer and Hubbard, assignors.)

Neudecker, Robert, Hollywood, assignor to Beardslee Chandler Manufacturing Company, Chicago, Ill. Shade for lighting-fixture. No. 53,341; May 20; v. 262; p. 454.

Neudecker, Robert, Hollywood, assignor to Beardslee Chandler Manufacturing Company, Chicago, Ill. Bowl for lighting-fixture. No. 53,342; May 20; v. 262; p. 454.

Newhall, Henry B., Jr., executor. (See Pfeister, Henry W., assignor.)

Nock, Harold E. and G. F. Parker, assignors to Towle Manufacturing Company, Newburyport, Mass. Tray, dish, plate, platter, bowl, compote, basket, or analogous article of hollow ware. No. 53,315; May 13; v. 262; p. 289.

O'Donnell, Thomas, Ironwood, Mich. Electric-light receptacle. No. 53,375; May 27; v. 262; p. 627.

O'Neill, William, assignor to The General Tire and Rubber Company, Akron, Ohio. Automobile-tire. No. 53,316; May 13; v. 262; p. 289.

Palm Brothers Company, The. (See Klenk, Charles, assignor.)

Parker, George F. (See Nock and Parker.)

Pfeister, Henry W., Westfield, N. J., assignor to H. B. Newhall, Jr., executor. Conduit-clamp or similar article. No. 53,276; May 6; v. 262; p. 145.

Post, John R., Newark, N. J. Article of manufacture. No. 53,317; May 13; v. 262; p. 289.

Rauch, Charles J., Memphis, Tenn. Button. No. 53,376; May 27; v. 262; p. 627.

Reith, William G., assignor to Susquehanna Silk Mills, New York, N. Y. Printed silk. Nos. 53,377-8; May 27; v. 262; pp. 627-8.

Ridgway, Edward J., Staten Island, N. Y. Dish or similar article. No. 53,379; May 27; v. 262; p. 628.

Risland, V. (See Shropshire, George E., assignor.)

Runne, Henry G., assignor of one-half to C. L. Townsend, Rochester, N. Y. Toy. No. 53,343; May 20; v. 262; p. 454.

Ryser, Walter, Milwaukee, Wis. Container. No. 53,318; May 13; v. 262; p. 289.

Schneider, Frank, Buffalo, N. Y. Goblet or similar article. No. 53,319; May 13; v. 262; p. 289.

Schwinn, Frederick, Attleboro, Mass. Spoon, fork, or similar article. No. 53,277; May 6; v. 262; p. 145.

Sheppard, John R. (See Stark and Sheppard.)

Sheridan, James W., assignor to Woods Mobillette Company, Chicago, Ill. Automobile-body. No. 53,320; May 27; v. 262; p. 628.

Shropshire, George E., assignor, by means assignments, to V. Risland, New York, N. Y. Decorative paper. No. 53,320; May 13; v. 262; p. 290.

Smith, Charles H., Chattanooga, Tenn. Service-pin. No. 53,321; May 27; v. 262; p. 628.

Snead & Co. Iron Works, The. (See Macdonald and Muller, assignors.)

Sondy, William P., New York, N. Y. Button. Nos. 53,344-5; May 20; v. 262; pp. 454-5.

Spiegel, Morris, assignor of one-half to M. E. Bishop, Chicago, Ill. Book-cover, calendar, or similar article. No. 53,322; May 27; v. 262; p. 628.

Stark, Lewis D., and J. R. Sheppard, Detroit, Mich. Badge or button. Nos. 53,321-2; May 13; v. 262; p. 290.

Stungo, Joseph, Pittsburgh, Pa., assignor to Stungo-Radium Rubber Company, Tire. No. 53,278; May 6; v. 262; p. 145.

Stungo-Radium Rubber Company. (See Stungo, Joseph, assignor.)

Susquehanna Silk Mills. (See Dunning, James H., assignor.)

Susquehanna Silk Mills. (See Elsie, Adolpho, assignor.)

Susquehanna Silk Mills. (See Reith, William G., assignor.)

Swagden, Joseph, Riverside, N. J. Clothes-basket. No. 53,323; May 13; v. 262; p. 290.

Sweet-Nut Butter Co. (See Everett, Frank W., assignor.)

Swift, Joseph H., North Attleboro, Mass. Emblem, brooch, ring-top, lavalliere, button, or similar article. No. 53,324; May 27; v. 262; p. 628.

Symons, Wilson E., New York, N. Y. Portable electric-welding truck. No. 53,324; May 27; v. 262; p. 629.

Symons, Wilson E., New York, N. Y. Electric-welding autotruck. No. 53,325; May 27; v. 262; p. 629.

Syracuse Faucet and Valve Company, The. (See Brightman, Joseph F., assignor.)

Thomas, Joseph A., Birmingham, Ala. Tobacco-can. No. 53,326; May 27; v. 262; p. 629.

Tin Decorating Company of Baltimore. (See Connor, Martha H., assignor.)

Towle Manufacturing Company. (See Nock and Parker, assignors.)

Townley, Arthur C., et al. (See Griffith, George H., assignor.)

Townsend, Charles L. (See Ruane, Henry G., assignor.)

United Metal Manufacturing Co. (See Wellman, Lester B., assignor.)

Van Hergh Silver Plate Company, The. (See Leavenworth, Seth H., assignor.)

Vaughn, Harry, Jamaica, N. Y. Bottle. No. 53,324; May 13; v. 262; p. 290.

Vérel, Antoine, New York, N. Y. Display-stand. No. 53,327; May 27; v. 262; p. 629.

Wade, John, St. Paul, Minn. Vehicle-body. No. 53,328; May 27; v. 262; p. 629.

Walker, Fred M., Detroit, Mich. Light-globe. No. 53,329; May 27; v. 262; p. 629.

Waterhouse, Frederick A., New Haven, Conn. Flag. No. 53,325; May 13; v. 262; p. 291.

Weeks, Frank A., Plainfield, N. J. Loose-leaf pad-calendar holder. No. 53,346; May 20; v. 262; p. 455.

Wellman, Lester B., Chicago, Ill., assignor to United Metal Manufacturing Co., Norwich, Conn. Bowl-book for lighting-fixture. No. 53,247; May 20; v. 262; p. 455.

Wheat, George S., New York, N. Y. Button or emblem. No. 53,326; May 13; v. 262; p. 291.

White, John F., assignor, by means assignments, to White Products Company, Chicago, Ill. Wind-aid cleaner. No. 53,349; May 20; v. 262; p. 455.

White Products Company. (See White, John F., assignor.)

Wiener, Martin L., assignor to The Firestone Tire and Rubber Company, Akron, Ohio. Pneumatic tire. No. 53,279; May 6; v. 262; p. 145.

Wohl, Hieronym A., and G. Hajewski, Buffalo, N. Y. Display-stand. No. 53,330; May 27; v. 262; p. 629.

Wood, Frank R., et al. (See Griffith, George H., assignor.)

Woods Mobillette Company. (See Sheridan, James W., assignor.)

Zamecnik, Frank, Washington, D. C. Medical-instrument case. No. 53,327; May 13; v. 262; p. 291.

Zink, Anthony, Baltimore, Md. Combined scholar's companion and puzzle. No. 53,301; May 27; v. 262; p. 630.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Baldwin & Co., Limited, New Orleans, La. Certain named cutlery, machinery, and tools and parts thereof. No. 125,450; May 27; v. 262; p. 642.

Acme Specialty Manufacturing Company, The Toledo, Ohio. Buttons. No. 125,454; May 27; v. 262; p. 644.

Adams, Charles & Foster, Inc., Boston, Mass. Fountain-pens. No. 125,370; May 20; v. 262; p. 473.

Alexander Propper Co., Inc., New York, N. Y. Certain named clothing. No. 125,541; May 27; v. 262; p. 643.

Allen and Black, Cleveland, Ohio. Pamphlets and coupons used as medium of exchange. No. 125,379; May 20; v. 262; p. 473.

American Shaded Goods Company, New York, N. Y. Certain piece goods. No. 125,380; May 20; v. 262; p. 473.

American Brokerage Company, Sioux City, Iowa. Certain named medicines. No. 125,381; May 20; v. 262; p. 473.

American Marine Paint Company, San Francisco, Calif. Marine paints. No. 125,321; May 13; v. 262; p. 289.

American Pharmaceutical Co., Detroit, Mich. Medicative fluids for use in fabric conditions. No. 125,322; May 13; v. 262; p. 289.

Applegate Fisheries Co., Seattle, Wash. Canned salmon. No. 125,453; May 27; v. 262; p. 643.

Arbuthnot Company, Boston, Mass. Certain named fancy goods. No. 125,382; May 20; v. 262; p. 473.

Arbuthnot Company, Inc., Iron Mountains, Mich. Certain named non-alcoholic non-intoxicating beverages. No. 125,383; May 13; v. 262; p. 289.

Associated Industries of Japan, Limited, Vancouver, British Columbia, Canada. Watch-glasses. No. 125,384; May 20; v. 262; p. 473.

Atlas Publishing Co., Inc., New York, N. Y. Trade journal published weekly. No. 125,286; May 6; v. 262; p. 163.

Atrebia Medical Company, Watertown, N. Y. Medicinal preparations for the liver and blood. No. 125,334; May 13; v. 262; p. 289.

Aurora Corset Company, Aurora, Ill. Corsets. No. 125,385; May 20; v. 262; p. 473.

Auto-Ped Company of America, Long Island City, N. Y. Self-propelled bicycles and tricycles. No. 125,386; May 20; v. 262; p. 473.

Automotive Specialties Co., Inc., assignor to Grandy Mfg. Corporation, New York, N. Y. Patent-rings. No. 125,387; May 13; v. 262; p. 289.

Averell, Albert J., Medford, Mass. Partition-cartridge. No. 125,388; May 20; v. 262; p. 473.

Baird & McGuire, Inc., Woburn, Mass. Cattle, sheep, and horse dips. No. 125,387; May 20; v. 262; p. 473.

Bell, George A., Dayton, Ohio. Candy. No. 125,323; May 13; v. 262; p. 289.

Bell, William J., Portland, Ore. Ladies' shirt-waists. No. 125,389; May 20; v. 262; p. 473.

Benjamin, Albert, New York, N. Y. Dental and hypodermic syringes and metallic washers for the same. No. 125,390; May 27; v. 262; p. 643.

Banks, Edna, St. Louis, Mo. Certain pharmaceutical preparations for toilet use. No. 125,390; May 20; v. 262; p. 473.

Barber Wire & Iron Works, Chicago, Ill. Wire fencing, gauze, netting, etc. No. 125,390; May 20; v. 262; p. 473.

Barlow Chemical Company, Shawnee, Ohio. Preparation for cancer, ointment for skin diseases, blood-tonic. No. 125,391; May 20; v. 262; p. 473.

Becker, Smith & Page, Inc., Philadelphia, Pa. Wallpaper. No. 125,392; May 20; v. 262; p. 473.

Bell, Arthur K., Perth, Scotland. Scotch whisky. No. 125,393; May 20; v. 262; p. 473.

Bellak, Charles E., Philadelphia, Pa. Pianos and player-pianos. No. 125,394; May 20; v. 262; p. 473.

Blenven, Moss, New York, N. Y. Certain named foot-covers. No. 125,395; May 20; v. 262; p. 473.

Brady, John F., Providence, R. I. Autographic registers. No. 125,396; May 20; v. 262; p. 473.

Breier, Benjamin, New York, N. Y. Certain named clothing. No. 125,397; May 20; v. 262; p. 473.

Bristol Machine Tool Co., The, Bristol, Conn. Metal-working milling and grinding machines. No. 125,398; May 20; v. 262; p. 473.

Brosch Co., The, Brooklyn, N. Y. Salve for certain named complaints. No. 125,399; May 27; v. 262; p. 643.

Burdett Oxygen Company, The, Denver, Colo. Electrolytic oxygen. No. 125,400; May 20; v. 262; p. 473.

Burton, E. R., New York, N. Y. Salves for cuts, burns, etc. No. 125,400; May 27; v. 262; p. 643.

Butler Brothers, Chicago, Ill. Hosiery. No. 125,400; May 6; v. 262; p. 163.

Butler Brothers, Chicago, Ill. Certain named clothing. No. 125,400; May 20; v. 262; p. 473.

C. R. Maynard & Co., Inc., New York, N. Y. Cotton piece goods. Nos. 125,400-3; May 20; v. 262; p. 475.

C. & J. Hampton, Limited, Sheffield, England. Vases. No. 125,407; May 20; v. 262; p. 474.

Celluloid Company, The, Newark, N. J., and New York, N. Y. Back-scratchers. No. 125,430; May 13; v. 262; p. 290.

Celluloid Company, The, Newark, N. J., and New York, N. Y. Certain named brushes. No. 125,430; May 27; v. 262; p. 643.

Charles H. Leach Shoe Mfg. Co., Inc., The Pennsylvania and New York, N. Y. Leather boots and shoes. No. 125,230; May 6; v. 262; p. 163.

Charles E. Shodaker & Sons, Philadelphia, Pa. Cotton union-suits. No. 125,210; May 6; v. 262; p. 163.

Charles E. Shodaker & Sons, Philadelphia, Pa. Women's athletic union-suits. No. 125,520; May 20; v. 262; p. 475.

Cheney Brothers, South Manchester, Conn. Fabric of silk and silk mixtures. Nos. 125,403-4; May 20; v. 262; p. 473.

Cheney Brothers, South Manchester, Conn. Silk fabrics. Nos. 125,401-2; May 20; v. 262; p. 473.

Chicago Apparatus Company, Chicago, Ill. Pumps, hydraulic pressure. No. 125,406; May 20; v. 262; p. 473.

Chicago Steel Post Company, Chicago, Ill. Metallic fence-posts. No. 125,501; May 27; v. 262; p. 643.

Clyric Spring Co., New York, N. Y. Table-water and soft drinks. No. 125,405; May 20; v. 262; p. 473.

Columbian Enameling & Stamping Company, Terre Haute, Ind. Certain named enameled ware for household use. No. 125,407; May 20; v. 262; p. 474.

Commercial Chemical Co., Memphis, Tenn. Chemical composition for destroying insects. No. 125,320; May 13; v. 262; p. 289.

Commercial Milling Co., The, Detroit, Mich. Wheat-flour. No. 125,393; May 27; v. 262; p. 473.

Concord Grape Juice Company, Providence, R. I. Grape-juice. No. 125,396; May 6; v. 262; p. 163.

Contracting Publishing Corporation, New York, N. Y. Periodicals, semi-monthly. No. 125,408; May 20; v. 262; p. 474.

Copper Clad Steel Co., Rankin borough, Pa. Certain named welded bronze and steel products. No. 125,410; May 20; v. 262; p. 474.

Copper Clad Steel Co., Rankin borough, Pa. Certain named welded brass and steel products. No. 125,411; May 20; v. 262; p. 474.

Converse & Company, New York, N. Y. Cotton piece goods. No. 125,409; May 20; v. 262; p. 474.

Corning Glass Works, Corning, N. Y. Lenses to be used in lamps. No. 125,412; May 20; v. 262; p. 474.

Crown Perfumery Company, New York, N. Y. Smelling-salts. No. 125,391; May 13; v. 262; p. 289.

Crucible Steel Company of America, Pittsburgh, Pa. Steel in certain named forms. Nos. 125,413-14; May 20; v. 262; p. 474.

Cutline, Edmund D., Kansas City, Mo. Teeth, nail, hair, and hand brushes or scrubs. No. 125,392; May 27; v. 262; p. 643.

D. W. Shoyer & Co., New York, N. Y. Night shirts, sweaters, slippers, spencers. No. 125,311; May 6; v. 262; p. 163.

Dan, Frederick W., New York, N. Y. Social registers or directories. No. 125,415; May 20; v. 262; p. 474.

Davis Bros. Fisheries, Inc., Gloucester, Mass. Fish. No. 125,267; May 6; v. 262; p. 163.

Davis Bros. Fisheries, Inc., Gloucester, Mass. Fresh, canned, etc., fish. No. 125,323; May 13; v. 262; p. 289.

Davis, Charles C., Chicago, Ill. Yarns and thread spun from jute. No. 125,416; May 20; v. 262; p. 474.

Deep Sea Salmon Company, Seattle, Wash. Canned salmon. Nos. 125,504-5; May 27; v. 262; p. 643.

Derrysville Lumber Co., New York, N. Y. Certain named fabrics. No. 125,417; May 20; v. 262; p. 474.

Di Santo, Joseph, Duluth, Minn. Recurrent granular & magenta preparation. No. 125,393; May 13; v. 262; p. 289.

Dixon Tool Co., Inc., New York, N. Y. Axes, saws, hammers. No. 125,418; May 20; v. 262; p. 474.

Dr. Johnston Medicine Co., St. Paul, Minn. Liniments for rheumatism, sprains, etc. No. 125,294; May 6; v. 262; p. 163.

Drinkwater, Charles M., Kokomo, Ind. Ash-sifters. No. 125,419; May 20; v. 262; p. 474.

Dwinnell-Wright Company, Boston, Mass. Coffee. No. 125,506; May 27; v. 262; p. 643.

E. Pepper & Co., Inc., New York, N. Y. Cigars. No. 125,420; May 20; v. 262; p. 473.

E. A. Robertson Co., Saginaw, Mich. Silk waist, skirts, and dresses, cotton-voile waist and dresses. No. 125,308; May 6; v. 262; p. 165.

Eclairissant Beautifier Company, Seattle, Wash. Cold and massage creams, face lotion and powder, rouges. No. 125,420; May 20; v. 262; p. 474.

Edson Bros., Philadelphia, Pa. Italian-type and other cheese. No. 125,334; May 13; v. 262; p. 309.

Eisenstadt Manufacturing Company, St. Louis, Mo. Service, scarf, bag, and brooch pins, fobs, etc. No. 125,421; May 20; v. 262; p. 474.

Ezekiel Brothers, New York, N. Y. Dyes. No. 125,422; May 20; v. 262; p. 474.

F. Meyer & Bro. Co., Peoria, Ill. Tin furnace-pipes. No. 125,353; May 13; v. 262; p. 310.

Fargo Food Products Co., Fargo, N. D. Certain named foods. No. 125,567; May 27; v. 262; p. 475.

Federal Snap Fastener Corporation, New York, N. Y. Snap and placket fasteners. No. 125,423; May 20; v. 262; p. 474.

Federal System of Baking Company, Oakland, Calif. Bread. No. 125,335; May 13; v. 262; p. 309.

Fessenden, Charles E., Salem, Mass. Preparation for the treatment of coal-ashes. No. 125,424; May 20; v. 262; p. 474.

Fisher Flouring Mills Company, Seattle, Wash. Dairy feed. No. 125,568; May 27; v. 262; p. 475.

Fishermen's Canning Corporation, Monterey, Calif. Canned sardines. No. 125,425; May 20; v. 262; p. 474.

Fitzgerald Mfg. Company, The, Torrington, Conn. Electric-massage vibrators. No. 125,569; May 27; v. 262; p. 475.

Flores Onasio, Dayton, Ohio. Palliative for venereal diseases and a tissue-builder. No. 125,426; May 20; v. 262; p. 474.

Flores Onasio, Dayton, Ohio. Emulsion for all forms of influenza, etc. No. 125,570; May 27; v. 262; p. 475.

France American Cigarette & Tobacco Company, Louisville, Ky. Cigarettes. No. 125,427; May 20; v. 262; p. 474.

Fungo, W. W., Jr., San Francisco, Calif. Section or department in newspapers and other publications. No. 125,571; May 27; v. 262; p. 475.

G. A. & W. Co., New York, N. Y. Hosiery. No. 125,319; May 6; v. 262; p. 166.

Gagnon, William C., Haron, S. D. Peanut-bar. No. 125,428; May 20; v. 262; p. 474.

Garrett and Company, Incorporated, Penn Yan, N. Y. Beverages made from the juice of grapes, etc. No. 125,429-30; May 20; v. 262; p. 474.

General Cigar Co., Inc., New York, N. Y. Cigars. No. 125,431; May 20; v. 262; p. 474.

General Cigar Co., Inc., New York, N. Y. Cigars. No. 125,571; May 27; v. 262; p. 475.

George Mortimer & Company, Incorporated, Boston, Mass. Ointment for certain named ailments. No. 125,500; May 6; v. 262; p. 165.

George Zucker Company, The, Newark, N. J. Baking compounds. No. 125,546; May 20; v. 262; p. 475.

Goldard & Goldard Company, Detroit, Mich. Certain named cutlery, machinery, etc. No. 125,432; May 20; v. 262; p. 474.

Goetz Flour Mills Co., Newton, Kans. Wheat-flour. No. 125,572; May 27; v. 262; p. 475.

Gordamer, Harry A., Minneapolis, Minn. Creamery-butter. No. 125,336; May 13; v. 262; p. 309.

Grasselli Chemical Company, The, Cleveland, Ohio. Silicate of soda. No. 125,433; May 20; v. 262; p. 474.

Grafton, George R., Dobbs Ferry, N. Y. Ointment for the treatment of pimples, eruptions, etc. No. 125,569; May 6; v. 262; p. 165.

Griffin Creamery Ice & Produce Co., Harrisonville, Mo. Butter. No. 125,338; May 13; v. 262; p. 309.

Grossmith, John L., London, England. Perfume. No. 125,590; May 6; v. 262; p. 165.

Guterman, Rosenfeld & Company, New York, N. Y. Hosiery. No. 125,434; May 20; v. 262; p. 474.

H-O Company, Buffalo, N. Y. Steam-cooked oatmeal and rolled oats. No. 125,435; May 13; v. 262; p. 309.

Hass, Baruch & Co., Los Angeles, Calif. Coffee. No. 125,339; May 13; v. 262; p. 309.

Haley, F. L., Marion, Ala. Yeast. No. 125,435; May 20; v. 262; p. 474.

Hall-Weiler Company, Inc., Rochester, N. Y. Check-writing machine. No. 125,436; May 20; v. 262; p. 474.

Hansen, Christian E., San Diego, Calif. Depilatory. No. 125,438; May 20; v. 262; p. 474.

Harris, Mark, New York, N. Y. Writing-paper, bill-heads, etc. No. 125,439; May 20; v. 262; p. 475.

Haviland, Lyman P., Camden, N. Y. Canned vegetables. No. 125,573; May 27; v. 262; p. 475.

Hazard Lead Works, Inc., The, Hazardville, Conn. Certain named paints and painters' materials. No. 125,340; May 13; v. 262; p. 309.

Hecker-Jones-Jewell Milling Company, New York, N. Y. Wheat and rye flours. No. 125,341; May 13; v. 262; p. 309.

Hennelager & Ayes Mfg. Co., Portland, Ore. Certain named canning machinery and canners' supplies. No. 125,444; May 20; v. 262; p. 475.

Herman Scheuer & Sons, Brooklyn, N. Y. Tourist kits. No. 125,515; May 20; v. 262; p. 477.

Hineck, Otto H., New York, N. Y. Cotton piece goods. No. 125,342; May 13; v. 262; p. 309.

Hood Rubber Company, Watertown, Mass. Rubber boots, shoes, and overshoes, rubber-soled canvas shoes. No. 125,392; May 6; v. 262; p. 165.

Hollenbach, Joseph T., New York, N. Y. Men's outer suits. No. 125,391; May 6; v. 262; p. 165.

Howard Bros. Chem. Co., Buffalo, N. Y. Toilet cream. No. 125,451; May 20; v. 262; p. 475.

Hump Hair Fin Mfg. Co., The, Chicago, Ill. Hair-pins. No. 125,452; May 20; v. 262; p. 475.

Huntington Shoe and Leather Co., Huntington, Ind. Boots and shoes. No. 125,393; May 6; v. 262; p. 165.

International Stock Feed Co., Minneapolis, Minn. Stock-feed tonic. No. 125,453; May 20; v. 262; p. 475.

J. A. Migel, Inc., New York, N. Y. Silk and cotton goods in the piece. No. 125,454; May 20; v. 262; p. 475.

J. A. Migel, Inc., New York, N. Y. Ladies' and misses' outer garments. No. 125,470; May 20; v. 262; p. 475.

J. A. Migel, Inc., New York, N. Y. Silk and cotton goods in the piece. No. 125,471; May 20; v. 262; p. 475.

J. A. Migel, Inc., New York, N. Y. Certain named clothing for ladies and misses. No. 125,472; May 20; v. 262; p. 475.

J. A. Migel, Inc., New York, N. Y. Broad silk in the piece. No. 125,473; May 20; v. 262; p. 475.

J. D. Hollingshead Co., Chicago, Ill. Certain named receptacles. No. 125,446; May 20; v. 262; p. 475.

J. L. Hopkins & Company, New York, N. Y. Extract white-pine compound. No. 125,448; May 20; v. 262; p. 475.

James J. Began Mfg. Co., The, Rockville, Conn. Certain named woven overcoatings and suitings. No. 125,505; May 20; v. 262; p. 475.

James N. Williamson & Sons Co., Burlington, N. C. Flannels in the piece. No. 125,540; May 20; v. 262; p. 475.

Jennings & Company, Inc., Boston, Mass. Dyestuffs. No. 125,454-5; May 20; v. 262; p. 475.

John Hess & Co., Astoria, N. Y. Salve for piles, burns, sores, etc. No. 125,510; May 20; v. 262; p. 477.

K. Hervey Co., Monterey, Calif. Canned sardines and tuna fish. No. 125,456-57; May 20; v. 262; p. 475.

Kale and Auer Company, Cleveland, Ohio. Ventilators of the rotary type for buildings. No. 125,344; May 13; v. 262; p. 309.

Kaala Company, Portland, Ore. Coconut-butter. No. 125,574; May 27; v. 262; p. 475.

Keet & Bountree Dry Goods Co., Springfield, Mo. Hosiery. No. 125,394; May 6; v. 262; p. 165.

Keet & Bountree Dry Goods Co., Springfield, Mo. Neckwear. No. 125,394; May 6; v. 262; p. 165.

Keith-O'Brien Company, Salt Lake City, Utah. Underwear. No. 125,458; May 20; v. 262; p. 475.

Kindler, Charles F., Huntington, Ind. Medicine for the treatment of rheumatism and a blood-purifier. No. 125,457; May 20; v. 262; p. 475.

Knox Hat Company, Inc., New York, N. Y. Men's hats. No. 125,459; May 20; v. 262; p. 475.

L. P. Larson, Jr., Company, Chicago, Ill. Confection known as mints. No. 125,575; May 27; v. 262; p. 475.

Lancaster Mills, Clinton, Mass. Cotton piece goods. No. 125,345; May 13; v. 262; p. 309.

Lancaster Mills, Clinton, Mass. Cotton piece goods. No. 125,460; May 20; v. 262; p. 475.

Lange Canning Co., San Claire, Wis. Certain named canned vegetables. No. 125,576; May 27; v. 262; p. 475.

Lantz Bros. & Co., Buffalo, N. Y. Soap. No. 125,397; May 6; v. 262; p. 165.

Lawrenceburg Roller Mills Co., Lawrenceburg, Ind. Cornmeal, barley and corn flours. No. 125,346; May 13; v. 262; p. 309.

Leonard & Barrows, Boston, Mass. Leather boots and shoes. No. 125,460; May 20; v. 262; p. 475.

Leonard Henry Company, Inc., New York, N. Y. Bedspreads. No. 125,547; May 13; v. 262; p. 309.

Levin, Florence N., New York, N. Y. Talcum powder. No. 125,461; May 20; v. 262; p. 475.

Lewiston Milling Co., Ltd., Lewiston, Idaho, and Astoria, Wash. Wheat-flour. No. 125,348; May 13; v. 262; p. 309.

Lonsdale Company, Providence, R. I. Cotton goods by the piece. No. 125,462; May 20; v. 262; p. 475.

Landberg Company, New York, N. Y. Perfumery. No. 125,349; May 13; v. 262; p. 309.

M. C. D. Borden & Sons, New York, N. Y. Cotton piece goods. No. 125,377; May 13; v. 262; p. 309.

MacMillan Chemical Co., Falls City, Neb. Foot-powder. No. 125,350; May 13; v. 262; p. 310.

Manteca Packing Co., Manteca, Calif. Canned foods. No. 125,465; May 20; v. 262; p. 475.

Marine Products Company, Terminal, Calif. Canned sardines. No. 125,466; May 20; v. 262; p. 475.

Marquette Cloak & Suit Co., St. Louis, Mo. Women's coats, suits, dresses, skirts. No. 125,399; May 6; v. 262; p. 165.

Marshall Field & Company, Chicago, Ill. Draperies and decorative fabrics. No. 125,467; May 20; v. 262; p. 475.

Marston and Martin, Los Angeles, Cal. Peanut-butter. No. 125,351; May 13; v. 262; p. 310.

McCormick & Co., Baltimore, Md. Effervescent and laxative salts. No. 125,464; May 20; v. 262; p. 475.

Meadow, Pauline E., Birmingham, Ala. Preparation for treatment of the hair and scalp. No. 125,352; May 13; v. 262; p. 310.

Metal Specialty Mfg. Co., The, Waterbury, Conn. Steel bearing-balls. No. 125,468; May 20; v. 262; p. 475.

Metinkin Co., Inc., Rochester, N. Y. Liquid preparation for use as a boiler-scale cleaner and preventive. No. 125,577; May 27; v. 262; p. 475.

Microscopicos Bros., New York, N. Y. Edible oil. No. 125,354; May 13; v. 262; p. 310.

Minnesota Tobacco Company, Duluth, Minn. Tobacco products. No. 125,475; May 20; v. 262; p. 475.

Mojo-Schoy Co., Inc., New York, N. Y. Hosiery and woven and knit underwear. No. 125,476; May 20; v. 262; p. 475.

Moline Plow Company, Moline, Ill. Quarterly periodical. No. 125,477; May 20; v. 262; p. 475.

Monaghan, Thomas F., Philadelphia, Pa. Headache and nerve-pain capsules. No. 125,478; May 20; v. 262; p. 475.

Muehr Manufacturing Company, Muncie, Ind. Folding beds. No. 125,578; May 27; v. 262; p. 475.

Morris D. Neumann & Company, Philadelphia, Pa. Cigars. No. 125,485; May 20; v. 262; p. 475.

Morrison, George, Santa Paula, Calif. Washing-powder. No. 125,479; May 20; v. 262; p. 475.

Mount Vernon-Woodberry Mills, Incorporated, Baltimore, Md. Cotton duck. No. 125,480-1; May 20; v. 262; p. 475.

Muesmann & Stube, New York, N. Y. Scrub and dish cloths, glass and kitchen towels, etc. No. 125,482; May 20; v. 262; p. 475.

Nathan, Albert, Glen Cove, N. Y. Body-protector of coat or vest shape made of wind and water proof material. No. 125,501; May 6; v. 262; p. 166.

National Device and Drill Company, Ypsilanti, Mich. High-speed twist-drills. No. 125,483; May 20; v. 262; p. 475.

National Enameling & Stamping Co., New York, N. Y. Certain named enamelled metal ware. No. 125,484; May 20; v. 262; p. 475.

Nenna, Henslein & Co., New York, N. Y. Woven cotton piece goods. No. 125,486-9; May 20; v. 262; p. 475.

Nelson & Kittle Canning Co., Ltd., East San Pedro, Calif. Canned sardines. No. 125,490-1; May 20; v. 262; p. 475.

Nelson & Kittle Canning Co., Ltd., East San Pedro, Calif. Canned sardines and macaroni. No. 125,492; May 20; v. 262; p. 475.

Nikolova, John, Chicago, Ill. Ointment or salve for diseases of the skin. No. 125,493; May 20; v. 262; p. 475.

Nitrogen Products Company, Providence, R. I. Sodium cyanide. No. 125,579; May 27; v. 262; p. 475.

Nochke Mills, Philadelphia, Pa. Cotton piece goods. No. 125,555; May 13; v. 262; p. 310.

Northwestern Chemical Co., The, Marietta, Ohio. Powdered talc and mica. No. 125,494; May 20; v. 262; p. 475.

O. W. Richardson & Company, Chicago, Ill. Certain named furniture and upholstery. No. 125,511; May 20; v. 262; p. 477.

Odette Hat Company, New York, N. Y. Ladies' trimmed hats. No. 125,502; May 6; v. 262; p. 166.

Opiotone Co., Richmond, Va. Syc-rash. No. 125,495; May 20; v. 262; p. 475.

Oriskany Fruit Grower's Association, Springfield, Mo. Fresh strawberries, blackberries, raspberries, cherries, grapes. No. 125,496; May 20; v. 262; p. 475.

P. Linck Co., Inc., The, New York, N. Y. Cotton piece goods. No. 125,497; May 20; v. 262; p. 475.

P. W. Coppersmith & Co., Chicago, Ill. Fresh tomatoes. No. 125,498; May 13; v. 262; p. 309.

Pacific Mills, Lawrence and Boston, Mass. Cotton piece goods. No. 125,474; May 20; v. 262; p. 475.

Paramount Drug Co., The, Washington, D. C. Certain medicinal tonic and blood-purifier. No. 125,503; May 6; v. 262; p. 166.

Patterson, James A., Glasgow, Scotland. Leather boots and shoes. No. 125,504; May 6; v. 262; p. 166.

Pearla, Mamie, Bluefield, W. Va. Preparation for promoting the growth of the hair. No. 125,506; May 13; v. 262; p. 310.

Peace Piano Co., New York, N. Y. Pianos and piano players. No. 125,507; May 13; v. 262; p. 310.

Pelegro, Jose L., New York, N. Y. Canned olive-oil. No. 125,497; May 20; v. 262; p. 475.

Pepperell Manufacturing Company, Boston, Mass. Cotton piece goods. No. 125,553; May 13; v. 262; p. 310.

Permutit Company, The, New York, N. Y. Certain named chemicals or mixtures thereof for treating liquids. No. 125,508; May 6; v. 262; p. 166.

Petroleum Publishing Company, Chicago, Ill. Journals published monthly. No. 125,499; May 20; v. 262; p. 475.

Philadelphia Quartz Company, Philadelphia, Pa. Sodium silicate. No. 125,499; May 20; v. 262; p. 475.

Pine Tree Milling Machine Co., Chicago, Ill. Milling-machines. No. 125,500; May 20; v. 262; p. 475.

Freeman Brothers, New York, N. Y. Cleaning and polishing cream for ivory and silver. No. 125,501; May 20; v. 262; p. 475.

Priscilla Publishing Co., Boston, Mass. Certain named threads and yarns. No. 125,502; May 20; v. 262; p. 475.

Pugh, Charles H., Denver, Colo. Quarterly periodical publication. No. 125,503; May 6; v. 262; p. 166.

Quackenbush, Francisco F., New York, N. Y. Medicinal preparation for nerves and blood. No. 125,504; May 20; v. 262; p. 475.

Quimby & Cheney, Inc., Boston, Mass. Candy. No. 125,307; May 6; v. 262; p. 165.

Quimby & Cheney, Inc., Boston, Mass. Candy. No. 125,350; May 13; v. 262; p. 310.

Rahn, Charles C., Springfield, Mass. Vegetable-seed. No. 125,360; May 13; v. 262; p. 310.

Ravarino & Frech Importing & Mfg. Co., St. Louis, Mo. Alimentary paste products. No. 125,361; May 13; v. 262; p. 310.

Reiley, James J., Philadelphia, Pa. Canned tomatoes. No. 125,509; May 20; v. 262; p. 475.

Remington Typewriter Company, Ilion and New York, N. Y. Type-writing machines. No. 125,508; May 20; v. 262; p. 477.

Remington Typewriter Company, Ilion and New York, N. Y. Carbon-paper. No. 125,509; May 20; v. 262; p. 477.

Ritenthaler, John C. O., New York, N. Y. Cleaning and polishing cloths. No. 125,512; May 20; v. 262; p. 477.

Robert Rele & Co., New York, N. Y. Wearing-apparel and furnishings for men, women, and children. No. 125,507; May 20; v. 262; p. 477.

Robert, Chas. R., Knoxville, Tenn. Bread. No. 125,583; May 27; v. 262; p. 475.

Rockfield Products Company, Milwaukee, Wis. Lime-stone-rock chicken feed. No. 125,582; May 13; v. 262; p. 310.

Rogers Feet Company, New York, N. Y. Hosiery for men and boys. No. 125,513; May 20; v. 262; p. 477.

Romagnolo, Henri, Levallois-Perret, Paris, France. Antiseptics, disinfectants, and germicides. No. 125,504; May 20; v. 262; p. 475.

Royal Embroidery Works, Naday & Fleischer, New York, N. Y. Dress fabrics. No. 125,514; May 20; v. 262; p. 477.

Russell Mfg. Co., Middletown, Conn. Woven machinery-belts. No. 125,563; May 13; v. 262; p. 310.

S. D. Warren Company, Boston, Mass. Printing-paper. No. 125,574-5; May 13; v. 262; p. 310.

S. D. Warren Company, Boston, Mass. Printing-paper. No. 125,548; May 20; v. 262; p. 475.

San Fernando Canning Co., San Fernando, Calif. Canned peaches and apricots. No. 125,583-4; May 27; v. 262; p. 475.

Sandborn, Mary E., New York, N. Y. Ladies' and children's dresses, hats, skirts, coats. No. 125,509; May 6; v. 262; p. 166.

Savoy & Des Inc., Boston, Mass. Fresh salmon. No. 125,545; May 27; v. 262; p. 475.

Sealer Distributing Company, Chicago, Ill. Chemical preparation for purifying gasoline and increasing its efficiency. No. 125,510; May 20; v. 262; p. 477.

Shapleigh Hardware Company, St. Louis, Mo. Clocks and watches. No. 125,517; May 20; v. 262; p. 477.

Shapleigh Hardware Company, St. Louis, Mo. Certain named cutlery made wholly or in part of precious metal. No. 125,518; May 20; v. 262; p. 477.

Shapleigh Hardware Company, St. Louis, Mo. Grind-stone-disks, oilstones, sandpaper, etc. No. 125,519; May 20; v. 262; p. 477.

Shappell, Charles H., Lima, Ohio. Petroleum products. No. 125,564; May 13; v. 262; p. 310.

Shober, Mary E., Rockville Center, N. Y. Cleaning and polishing powder for metals and glassware. No. 125,546; May 13; v. 262; p. 310.

Silver & Co., New York and Brooklyn, N. Y. Food-preparing presses. No. 125,521; May 20; v. 262; p. 477.

Simmons, George F., Peoria, Ill. Towels, table linens, covers, and napkins. No. 125,522; May 20; v. 262; p. 477.

Simmons & Norris, Cincinnati, Ohio. Poultry and stock feeds. No. 125,566; May 13; v. 262; p. 310.

Slocumb, Frank F., Wilmington, Del. Cabinets for talking-machine records. No. 125,586; May 27; v. 262; p. 475.

Sodium silicate. Philadelphia Quartz Company. No. 125,499; May 20; v. 262; p. 475.

Soeffgen, Charles A., Chicago, Ill. Cartons. No. 125,523; May 20; v. 262; p. 477.

Solvell Co., Inc., The, New York, N. Y. Tone-controlling attachment for player-pianos. No. 125,524; May 20; v. 262; p. 477.

Sonora Phonograph Corporation, New York, N. Y. Talking-machines, phonographs, gramophones, etc. No. 125,512; May 6; v. 262; p. 166.

Southern California Fish Co., East San Pedro, Calif. Canned tuna fish and sardines. No. 125,525; May 20; v. 262; p. 477.

Southland Perfume Company, Jacksonville, Fla. Perfumes, toilet waters, face-powders, sachets. No. 125,526; May 20; v. 262; p. 477.

Spirode Corporation, New York, N. Y. Antiseptic. No. 125,507; May 13; v. 262; p. 310.

Standard Parts Company, The, Cleveland, Ohio. Monthly newspaper. No. 125,515; May 6; v. 262; p. 166.

Standard Parts Company, The, Cleveland, Ohio. Monthly magazine. No. 125,514; May 6; v. 262; p. 166.

Star Company, New York, N. Y. Newspaper-section. No. 125,527; May 20; v. 262; p. 477.

Stearns, Wm. E., Fairfax, Wash. Depilatory preparations. No. 125,516; May 6; v. 262; p. 166.

Stein, Hall & Co., Chicago, Ill. Dextrinose product as a substitute in part for wheat or similar flours. No. 125,516; May 6; v. 262; p. 166.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

Stetson-Barrett Co., Los Angeles, Calif. Coffee. No. 125,523; May 20; v. 262; p. 477.
Stetson, George W., Boston, Mass. Food-water contrivance for steam-bollers. No. 125,520; May 20; v. 262; p. 477.
Stevens & Howell, Limited, London, England. Certain named foods and ingredients of foods. No. 125,530; May 20; v. 262; p. 477.
Stevens & Howell, Limited, London, England. Compounded natural oils for use in the manufacture of perfumes, etc. No. 125,535; May 20; v. 262; p. 477.
Sils, Haer & Fuller Dry Goods Co., St. Louis, Mo. Awnings. No. 125,545; May 13; v. 262; p. 478.
Suffern, Robert A., New York, N. Y. Cotton place goods. No. 125,551-2; May 20; v. 262; p. 477.
Sunbeam Products Co., Milwaukee, Wis. Egg substitute. No. 125,560; May 13; v. 262; p. 478.
Sunde & Evers Co., Seattle, Wash. Canvas and duck in the piece. No. 125,565; May 20; v. 262; p. 477.
Swift and Company, Chicago, Ill. Hams, bacon, shoulders. No. 125,564; May 20; v. 262; p. 477.
Tate, E. Clair, Chicago, Ill. Ribbons made of silk and cotton and silk. No. 125,535; May 20; v. 262; p. 477.
Tamel Packing Co., San Francisco, Calif. Canned vegetables. No. 125,536; May 20; v. 262; p. 477.
Taylor, James H., Baltimore, Md. Asbestos and rubber packing for piston-rods, etc. No. 125,537; May 20; v. 262; p. 477.
Terwilliger, Alexander C., Titusville, Fla. Fresh oranges. No. 125,538; May 27; v. 262; p. 444.
Texas Star Flour Mills, Galveston, Tex. Wheat-flour. No. 125,533; May 20; v. 262; p. 478.
Thames Paper Company, Ltd., Farnet, England. Card-board. No. 125,530; May 20; v. 262; p. 478.
Thiele & Baker Manufacturing Company, The, Marion, Ohio, assignor to Brooks Anderson, Chicago, Ill. Metal fence-posts and fences. No. 125,539; May 27; v. 262; p. 444.
Thompson Shoe Company, St. Paul, Minn. Boots and shoes. No. 125,540; May 20; v. 262; p. 478.
Toy Tinklers, The, Evanston, Ill. Wooden toy. No. 125,591; May 27; v. 262; p. 444.
Tree Company, Inc., New York, N. Y. Certain named clothing. No. 125,517; May 6; v. 262; p. 164.
United Canneries Company of California, Oakland, Calif. Canned peaches. No. 125,502-5; May 27; v. 262; p. 444.
Valdesia Chemical Company, Valdosta, Ga. Insecticide. No. 125,590; May 27; v. 262; p. 444.
Vanity Fair Publishing Co., New York, N. Y. Monthly magazine. No. 125,541; May 20; v. 262; p. 478.
Vogue Company, New York, N. Y. Semi-monthly publication. No. 125,542; May 20; v. 262; p. 478.
W. F. Tanner-Green & Company, Inc., New York, N. Y. Wheat-flour. No. 125,530; May 20; v. 262; p. 478.
W. E. Grace & Co., New York, N. Y. and San Francisco, Calif. Textile fabric consisting of cotton place goods. No. 125,537; May 20; v. 262; p. 478.
Wahl Company, The, Chicago, Ill. Leads for mechanical pencils. No. 125,547; May 20; v. 262; p. 478.
Ward Baking Company, New York, N. Y. Bread. No. 125,571; May 13; v. 262; p. 478.
Ward Baking Company, New York, N. Y. Cakes. No. 125,572-3; May 13; v. 262; p. 478.
Washburn Crutcher Co., Milwaukee, Wis. Wheat-flour. No. 125,507-8; May 27; v. 262; p. 444.
Wharton, Frank, Marion, Ohio. Rubber boots for shoes. No. 125,548; May 20; v. 262; p. 478.
William E. Tishman Co., Salisbury, Md. Portland-cement. No. 125,550; May 27; v. 262; p. 444.
William E. Tishman & Company, Limited, London, England. Certain named women's garments. No. 125,550-7; May 20; v. 262; p. 478.
William T. Baker, Inc., Jersey City, N. J. Snap-potatoes. No. 125,554-5; May 27; v. 262; p. 444.
Wills & Atwood, Chicago, Ill. Leather boots and shoes for men and women. No. 125,533; May 6; v. 262; p. 165.
Winport, Martha S., Los Angeles, Calif. Bells. No. 125,601; May 27; v. 262; p. 444.
Winkler, Carl W., Chicago, Ill. Rubber boots for shoes. No. 125,515; May 6; v. 262; p. 165.
Wisconsin Butterline Co., Milwaukee, Wis. Oleomargarine. No. 125,570; May 13; v. 262; p. 478.
Witard Foot Appliance Company, St. Louis, Mo. Certain named appliances for correcting foot deformities. No. 125,550; May 6; v. 262; p. 164.
Wojcik, Stanley, Portland, Ore. Machine for rhammation, catarrh, and gonorrhea. No. 125,552; May 20; v. 262; p. 478.
Wood, M. M., Elkhart, W. Va. Hair-tonic. No. 125,553; May 20; v. 262; p. 478.
Woodruff Company, The, Oklahoma, Okla. Cigarettes and packages. No. 125,602; May 27; v. 262; p. 444.
Yalovich Bros. Drug Co., Rochester, N. Y. Cigarettes and certain named almonds. No. 125,603; May 27; v. 262; p. 444.
Yeoman, Thomas, New York, N. Y. Combination belt, cutters and safety-cases. No. 125,545; May 20; v. 262; p. 478.
Young, Edwin J., Wadsworth and Pittman, Ohio. Board containers for packing rubber tires. No. 125,544; May 20; v. 262; p. 478.
Zimmeter Co., The, Louisville, Ky. Overalls and work-shirts. No. 125,546; May 20; v. 262; p. 478.
Zoe, Christ A., Chicago, Ill. Dressing for leather, shoes, and other leather articles. No. 125,577; May 13; v. 262; p. 478.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Bates, Herbert B., Canton, Ohio. "Maple Crest." (For Butter.) No. 21,235; May 20; v. 262; p. 478.
Beach Leather Company, The, Coebsen, Ohio. "Beach's All Leather" Pocket-Books. "Best for Your Money." (For Pocket-Books.) No. 21,236; May 20; v. 262; p. 478.
Carlton Co., The, New York, N. Y. "Baby Bunting's Castle Soap." (For Castle Soap.) No. 21,237; May 20; v. 262; p. 478.
Cook & McKenna, Monticello, Calif. "Quail." (For Fresh Peas.) No. 21,238; May 20; v. 262; p. 478.
Cook, Sam R. "Bone Dry Gen-U-Wine (Genuine)." (For a Soft Drink.) No. 21,278; May 27; v. 262; p. 444.
Crescent Broom Company, Inc., New Orleans, La. "Bangle and Crescent." (For Brooms and Mops.) No. 21,239; May 20; v. 262; p. 478.
Curtiss Candy Co., Chicago, Ill. "Chocolate Fruit." (For Chocolate Candy.) No. 21,225; May 13; v. 262; p. 311.
Curtiss Candy Co., Chicago, Ill. "Kandy Kaka." (For Candy.) No. 21,226; May 13; v. 262; p. 311.
Curtiss Candy Co., Chicago, Ill. "Honey Comb Chip." (For Honey Comb Chip Candy.) No. 21,227; May 13; v. 262; p. 311.
Curtiss Candy Co., Chicago, Ill. "Jack-O-Lantern." (For Chocolate Fruit Slice Candy.) No. 21,228; May 13; v. 262; p. 311.
Curtiss Candy Co., Chicago, Ill. "Polar Bar." (For Candy-Bar.) No. 21,229; May 13; v. 262; p. 311.
Curtiss Candy Co., Chicago, Ill. "Maple Nut Bar." (For Nut-Bar Candy.) No. 21,230; May 13; v. 262; p. 311.
Curtiss Candy Co., Chicago, Ill. "Big Bite Chocolate." (For Chocolate Candy.) No. 21,231; May 13; v. 262; p. 311.
Curtiss Candy Co., Chicago, Ill. "Marsh-O-Nut Dip." (For Candy.) No. 21,232; May 13; v. 262; p. 311.
Curtiss Candy Co., Chicago, Ill. "Curtiss Peanut Bar." (For Peanut Candy.) No. 21,233; May 13; v. 262; p. 311.
Curtiss Candy Co., Chicago, Ill. "Jolly Jacks Peanut Bar." (For Chocolate Candy.) No. 21,234; May 13; v. 262; p. 311.
Eisenstadt Mfg. Co., St. Louis, Mo. "Madonna." (For Wrist-Watch.) No. 21,240; May 20; v. 262; p. 479.
Etter, Charles E., Hartsville, Ohio. "Etter's Gutter Remedy." (For Gutter Remedy.) No. 21,241; May 20; v. 262; p. 479.
Federal Snap Fastener Corporation, New York, N. Y. "Harmony Snap Fastener Disappearing Discords." (For Snap-Fasteners.) No. 21,242; May 20; v. 262; p. 479.
Fitzpatrick Bros., Chicago, Ill. "Economy." (For a Detergent Washing Compound.) No. 21,243; May 20; v. 262; p. 479.
Fischer, A. C., Chicago, Ill. "Servicised." (For Breading and other Building Materials.) No. 21,244; May 20; v. 262; p. 479.
Franklin Baker Company, The, Philadelphia, Pa. "Baker's Coconut." (For Packaged Coconut.) No. 21,245; May 20; v. 262; p. 479.
Frisch, Emil, Chicago, Ill. "Bread Wrapper." (For Bread.) No. 21,246; May 20; v. 262; p. 479.
Griffin, Madam M. L., West Palm Beach, Fla. "Indian Sage O Hair Grower." (For Indian Sage O Hair-Grower.) No. 21,247; May 20; v. 262; p. 479.
Lorette Corset Co., Chicago, Ill. "May-O-Bell." (For Corsets.) No. 21,248; May 20; v. 262; p. 479.
Milwaukee Paper Box Company, Milwaukee, Wis. "Pack-age Box." (For Boxes Containing Candy.) No. 21,249; May 20; v. 262; p. 479.
Money-Bach Laboratories, Inc., Oklahoma, Okla. "Money Back." (For Tube, Casing and Tube Patch.) No. 21,251; May 20; v. 262; p. 479.
Northwestern Fisheries Co., Seattle, Wash. "Puritan." (For Canned Salmon.) No. 21,252; May 20; v. 262; p. 479.
Northwestern Fisheries Co., Seattle, Wash. "Cost of Arms Brand." (For Canned Salmon.) No. 21,253; May 20; v. 262; p. 479.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Nut House Incorporated, The, Seattle, Wash. "The Chief Nut." (For Nut and Fruit Bars.) No. 21,254; May 20; v. 262; p. 479.
Nut House Incorporated, The, Seattle, Wash. "Sun." (For Nut and Fruit Bars.) No. 21,255; May 20; v. 262; p. 479.
Ohio Beverage Company, The, Columbus, Ohio. "Cold Seal." (For a Non-Intoxicating Beverage.) No. 21,256; May 20; v. 262; p. 479.
Pallister Bros., Ottumwa, Iowa. "The Ottumwa Cigar O. K." (For Cigars.) No. 21,257; May 20; v. 262; p. 479.
Penick & Ford, Ltd., New Orleans, La. "Blue Label Penick & Ford's Brer Rabbit Brand." (For Pure Country-Made Ribbon-Cane Syrup.) No. 21,258; May 20; v. 262; p. 479.
Parial Products Corporation, "Parial." (For Soaps.) No. 21,259; May 20; v. 262; p. 479.
Reimann, M., New York, N. Y. "Germocid." (For Antiseptic Germicide and Deodorant.) No. 21,260; May 20; v. 262; p. 479.
Robertson Paper Company, Bellows Falls, Vt. "Mother Hubbard Bread." (For Bread.) No. 21,261; May 20; v. 262; p. 479.
Rom-baw Chemical Co., Inc., Clinton, N. Y. "Rom-baw Polish The Big Idea." (For a Polish for Dressing Varnished Surfaces.) No. 21,262; May 20; v. 262; p. 479.
Rusconi, L., Wahtake, Calif. "Native Son." (For Grapes.) No. 21,263; May 20; v. 262; p. 479.
Rusconi, L., Wahtake, Calif. "Our Pride." (For Grapes.) No. 21,264; May 20; v. 262; p. 479.
Rusconi, L., Wahtake, Calif. "William Tell." (For Grapes.) No. 21,265; May 20; v. 262; p. 479.
Russian Candy Company, The, Chicago, Ill. "Russian Style Fruit Karamel." (For Candy.) No. 21,266-70; May 20; v. 262; p. 479.
S. Liebmann's Sons, Inc., Brooklyn, N. Y. "A Pure Soft Beverage." (For a Non-Intoxicating Beverage.) No. 21,249; May 20; v. 262; p. 479.
Signode System, Inc., Chicago, Ill. "Signode System." (For Reinforcing-Seals.) No. 21,271; May 20; v. 262; p. 479.
Smith & Neele Company, Inc., New York, N. Y. "Russian Maid." (For Wheat-Flour.) No. 21,272; May 20; v. 262; p. 479.
Smovel, Harry H., Van Wert, Ohio. "Millionaire Harry." (For Cigars.) No. 21,273; May 20; v. 262; p. 479.
Touraine Company, The, Boston, Mass. "Touraine." (For Candy.) No. 21,274; May 20; v. 262; p. 479.
Touraine Company, The, Boston, Mass. "Touraine Chocolate Boston Made." (For Candy.) No. 21,275; May 20; v. 262; p. 479.
W. F. Young, Inc., Springfield, Mass. "Absorbine, Jr. The Antiseptic Lintiment." (For Absorbine, Jr. Lintiment.) No. 21,277; May 20; v. 262; p. 479.
Wildroot Chemical Company, Buffalo, N. Y. "Garden Gate." (For Toilet Water.) No. 21,276; May 20; v. 262; p. 479.

ALPHABETICAL LIST OF REGISTRANTS OF PRINTS.

Affa Specialty Co., Worcester, Mass. "License Plate Holder." (For License-Plate Holders.) No. 5,089; May 20; v. 262; p. 480.
B. V. D. Company, The, New York, N. Y. "The Dough-boy's Return." (For Athletic Underwear.) No. 5,090; May 20; v. 262; p. 480.
B. V. D. Company, The, New York, N. Y. "The Canteen That 'Sore Comes Clean.'" (For Athletic Underwear.) No. 5,091; May 20; v. 262; p. 480.
Benedict, J. F., Portsmouth, Ohio. "Spot Slide." (For Garment-Spotter.) No. 5,106; May 20; v. 262; p. 480.
Chicago Coal & Mining Company, Chicago, Ill. "Dixie Diamond Coal." (For Coal.) No. 5,092; May 20; v. 262; p. 480.
Dr. Swift Root Beer Company, The, Boston, Mass. "From Childhood to Old Age—Dr. Swift's Root Beer." (For Root-Beer.) No. 5,093; May 20; v. 262; p. 480.
Indian Packing Company, Green Bay, Wis. "Council Meats, A Meat Market on Your Pantry Shelf." (For Canned Meats.) No. 5,094; May 20; v. 262; p. 480.
Indian Packing Company, Green Bay, Wis. "Council Meats From the Wisconsin Country to You." (For Canned Meats.) No. 5,095; May 20; v. 262; p. 480.
James S. Kirk & Company, Chicago, Ill. "Above All." (For Kirk's Flake Soap.) No. 5,096; May 20; v. 262; p. 480.
James S. Kirk & Company, Chicago, Ill. "You'll Like It." (For Kirk's Jap Rose Soap.) No. 5,097; May 20; v. 262; p. 480.
James S. Kirk & Company, Chicago, Ill. "Loved by Children." (For Kirk's Jap Rose Soap.) No. 5,098; May 20; v. 262; p. 480.
James S. Kirk & Company, Chicago, Ill. "Why Buy New Blankets?" (For Kirk's Flake White Soap.) No. 5,099; May 20; v. 262; p. 480.
James S. Kirk & Company, Chicago, Ill. "Just Like New Again!" (For Kirk's Flake Soap.) No. 5,100; May 20; v. 262; p. 480.
Mar-Ed National Auto Supply Co., The, Baltimore, Md. "Sh-Rain." (For Wind-Shields of Automobiles.) No. 5,101; May 20; v. 262; p. 480.
New Departure Manufacturing Company, The, Bristol, Conn. "Ball Bearings." (For Ball-Bearings.) No. 5,102; May 20; v. 262; p. 480.
Peary Fruit Co., Peary, Calif. "California Fruits." (For Fruit.) No. 5,103; May 20; v. 262; p. 480.
Silverhorn, F. C., Chicago, Ill. "The Home Trinity." (For Electric Washing, Sweeper, and Ironing Machine.) No. 5,104; May 20; v. 262; p. 480.
Travelight Mfg. Co., Philadelphia, Pa. "Radium Lighted Dial." (For Watch and Clock Dials.) No. 5,105; May 20; v. 262; p. 480.

DISCLAIMER.

Goodrum, Charles M., New York, N. Y.; disclaimer filed by patentee. Telephone-exchange system. No. 1,275,016; disclaimer filed May 10, 1919; v. 262; p. 319.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF MAY, 1919.

- Accounting-machine, Ticket-issuing. F. Skerl. No. 1,302,600; May 6; v. 262; p. 22.
- Acetylene-generator. A. F. Jenkins. No. 1,304,696; May 27; v. 262; p. 518.
- Acid, Manufacture of mesochloracetic. L. Simon and G. Chavanne. No. 1,304,106; May 20; v. 262; p. 262.
- Acid, Method of and apparatus for producing liquid hydrocarbon. W. G. Dinga. No. 1,304,745; May 27; v. 262; p. 529.
- Adding-machine. A. Pentecost. No. 1,302,945; May 6; v. 262; p. 94.
- Advertising device. C. Gardillan. No. 1,302,650; May 13; v. 262; p. 246.
- Aerial-navigation apparatus, Bracket-seat for passengers on. H. Letord. No. 1,302,076; May 6; v. 262; p. 112.
- Aeroplane. F. Caproni. No. 1,302,506; May 6; v. 262; p. 6.
- Aeroplane. L. B. Dorr. No. 1,302,544; May 13; v. 262; p. 228.
- Aeroplane. C. A. Lind. No. 1,304,187; May 20; v. 262; p. 262.
- Aeroplane. P. C. Sherner. No. 1,302,964; May 6; v. 262; p. 78.
- Aeroplane. J. A. Spencer. No. 1,303,787; May 13; v. 262; p. 262.
- Aeroplane control. E. G. La Voie. No. 1,303,568; May 13; v. 262; p. 262.
- Aeroplane control. J. F. Verner. No. 1,304,420; May 20; v. 262; p. 429.
- Aeroplane manufacture, Jig system for. G. Riffard. No. 1,302,896; May 13; v. 262; p. 237.
- Aeroplane, Safety parachute attachment for. J. H. Hall. No. 1,304,474; May 13; v. 262; p. 218.
- Agitating-machine. S. C. Hilla. No. 1,302,923; May 6; v. 262; p. 85.
- Agricultural implement. O. C. Flower. No. 1,302,051; May 6; v. 262; p. 109.
- Agricultural machine. C. C. Craven. No. 1,302,636; May 6; v. 262; p. 29.
- Aiming apparatus, Illuminated. H. Paban. No. 1,304,702; May 27; v. 262; p. 521.
- Air-compressor. C. C. Yamaga. No. 1,304,439; May 20; v. 262; p. 432.
- Air-cooled systems for machinery, Apparatus for separating oil from air in. W. P. Kelly and D. C. Slattery. No. 1,303,207; May 6; v. 262; p. 139.
- Air-inlet device, Auxiliary. L. M. York. No. 1,303,529; May 13; v. 262; p. 225.
- Air-inlet device. W. B. Robeson. No. 1,304,374; May 20; v. 262; p. 420.
- Air-motor. J. A. Albisa. No. 1,302,680; May 6; v. 262; p. 76.
- Aircraft construction, Strut, spar, or the like for use in. F. Sigrist. No. 1,303,507; May 13; v. 262; p. 221.
- Aircraft-stabiliser. D. McKinley. No. 1,302,688; May 6; v. 262; p. 89.
- Aircraft, Stabilising and neutralising device for. J. V. Martin. No. 1,302,947; May 6; v. 262; p. 89.
- Airplane. T. P. Leaman. No. 1,304,525; May 20; v. 262; p. 450.
- Airship. J. W. Boughton. No. 1,304,654; May 27; v. 262; p. 512.
- Airship. J. B. De Stefano. No. 1,302,174; May 6; v. 262; p. 183.
- Airship attachment. D. Smith. No. 1,303,976; May 20; v. 262; p. 345.
- Airship. T. H. Wade. No. 1,303,990; May 20; v. 262; p. 349.
- Alarm. See—Door-alarm.
- Alarm. C. F. Bobo. No. 1,305,190; May 27; v. 262; p. 612.
- Alimentary substance and product thereof, Producing an. E. E. Gridley. No. 1,304,679; May 27; v. 262; p. 517.
- Alligator-wrench. R. F. McCraith. No. 1,304,564; May 27; v. 262; p. 499.
- Alligator-wrench, Adjustable. F. W. Rhines. No. 1,303,943; May 20; v. 262; p. 343.
- Alloy. W. J. Reardon. No. 1,305,166; May 27; v. 262; p. 607.
- Alloy. L. F. Vogt. No. 1,304,234; May 20; v. 262; p. 390.
- Aluminium compounds, Producing. O. Ravner and V. M. Goldschmidt. No. 1,302,952; May 6; v. 262; p. 71.
- Ambulance. C. C. Blackmore. No. 1,303,016; May 6; v. 262; p. 102.
- Ammonia, Regulating the oxidation of. L. Rabinovitz. No. 1,304,707; May 27; v. 262; p. 522.
- Ammonium perchlorate, Manufacture of. E. Collett. No. 1,303,167; May 6; v. 262; p. 132.
- Ammunition-holding apparatus. A. T. Dawson and J. Horne. No. 1,302,927; May 6; v. 262; p. 9.
- Ammunition, Means for lubricating. J. T. Thompson. No. 1,305,027; May 27; v. 262; p. 581.
- Ammunition, Means for lubricating. J. T. Thompson. No. 1,305,028; May 27; v. 262; p. 581.
- Ampere-hour meter. C. A. Boddie. No. 1,303,242; May 13; v. 262; p. 174.
- Ampere-hour meter. C. A. Boddie. No. 1,303,243; May 13; v. 262; p. 174.
- Amplification of energies, System for successive. A. Nicolson. No. 1,303,579; May 13; v. 262; p. 233.
- Amusement apparatus. E. S. Doughty. No. 1,302,642; May 6; v. 262; p. 30.
- Amyl acetate and its homologues from chlor-hydrocarbons of the paraffin series, Manufacture of. G. G. Oberfell and H. T. Boyd. No. 1,302,583; May 6; v. 262; p. 19.
- Anchor, Expansive screw. A. H. Waage. No. 1,302,609; May 6; v. 262; p. 24.
- Angle-bar, Slot. E. B. Rice. No. 1,303,726; May 13; v. 262; p. 261.
- Angle spring and transposing device. A. J. Brock, Jr., and L. J. E. Holst. No. 1,304,017; May 20; v. 262; p. 252.
- Animal-trap. G. J. Blevins. No. 1,305,054; May 27; v. 262; p. 567.
- Animal-trap. T. H. Donlon. No. 1,303,265; May 13; v. 262; p. 178.
- Animal-trap. M. E. Dorsch. No. 1,305,075; May 27; v. 262; p. 561.
- Animal-trap. T. J. Ellison. No. 1,303,547; May 13; v. 262; p. 288.
- Anthraquinone, Manufacture of. C. Conover. No. 1,303,168; May 6; v. 262; p. 182.
- Anti-friction bearings, Flange-block for. E. H. W. Welbull. No. 1,304,832; May 27; v. 262; p. 545.
- Antisiphon-seal for heating systems. W. Shurtleff. No. 1,304,612; May 27; v. 262; p. 504.
- Antislipping ladder attachment. C. J. Brown. No. 1,304,018; May 20; v. 262; p. 352.
- Arbor-support. H. W. Jacobson. No. 1,304,684; May 27; v. 262; p. 518.
- Arm and hand, Artificial. J. T. Jensen. No. 1,303,905; May 20; v. 262; p. 332.
- Armored war apparatus. P. C. Broadway. No. 1,303,764; May 13; v. 262; p. 268.
- Armor-plate mounting. J. Mieski. No. 1,303,355; May 13; v. 262; p. 193.
- Article of manufacture. C. W. Bublitz. No. 1,303,536; May 13; v. 262; p. 220.
- Articles from pulp, Manufacturing. W. H. Drake. No. 1,305,268; May 27; v. 262; p. 615.
- Article-securing device. W. W. Blakely. No. 1,303,450; May 13; v. 262; p. 211.
- Artificial dentures and occluding-forms for same, Making. O. E. Wall. No. 1,303,223; May 6; v. 262; p. 142.
- Asphaltic plates and asphaltic articles of a similar nature, Manufacture of. H. Inoue. No. 1,304,483; May 20; v. 262; p. 441.
- Auto-bed. E. E. Haney. No. 1,304,966; May 27; v. 262; p. 569.
- Auto-lift, Automatic. O. A. and E. F. Taegs. No. 1,304,654; May 27; v. 262; p. 531.
- Auto-top. A. T. Allen. No. 1,305,165; May 27; v. 262; p. 611.
- Automatic coupling. F. G. Koehler. No. 1,302,931; May 6; v. 262; p. 84.
- Automatic fire-thruster. A. E. Seidler. No. 1,304,710; May 27; v. 262; p. 523.
- Automatic signal. W. Larkin. No. 1,303,923; May 20; v. 262; p. 335.
- Automobile. E. S. Fend. No. 1,303,570; May 20; v. 262; p. 336.
- Automobile. H. F. Manley. No. 1,303,350; May 13; v. 262; p. 192.
- Automobile-bearing, Adjustable. N. and G. W. Lea. No. 1,303,213; May 6; v. 262; p. 140.
- Automobile-tamper. E. Downing. No. 1,303,267; May 13; v. 262; p. 178.

Automobile cranks, Anti-back-spring device for. T. P. Townes. No. 1,304,632; May 27; v. 262; p. 508.
 Automobile draft attachment. E. B. La Marche and A. Appel. No. 1,305,520; May 20; v. 262; p. 354.
 Automobile-extiricator. W. D. McLaughlin. No. 1,303,000; May 13; v. 262; p. 255.
 Automobile foot-rest. J. Pollak. No. 1,303,950; May 20; v. 262; p. 341.
 Automobile-fuel control. H. M. Mack. No. 1,304,406; May 20; v. 262; p. 444.
 Automobile-hood. F. Drlica. No. 1,304,751; May 27; v. 262; p. 530.
 Automobile-jack. L. H. Berry. No. 1,303,240; May 13; v. 262; p. 173.
 Automobile-jack. J. C. Doerder. No. 1,304,400; May 20; v. 262; p. 437.
 Automobile jack and ambulance. Combined. A. C. Hopkins. No. 1,303,313; May 13; v. 262; p. 187.
 Automobile-knuckle. J. J. Stenagard. No. 1,302,980; May 6; v. 262; p. 97.
 Automobile-lock. F. O. Boswell. No. 1,302,502; May 6; v. 262; p. 5.
 Automobile luggage-carrier. M. Meyer and P. W. Gomer. No. 1,304,502; May 20; v. 262; p. 445.
 Automobile offset for pedals. H. T. North. No. 1,302,807; May 6; v. 262; p. 88.
 Automobile-radiator. K. M. Doblett. No. 1,302,627; May 6; v. 262; p. 28.
 Automobile radiator-shield. G. W. Payne. No. 1,304,080; May 20; v. 262; p. 343.
 Automobile-rim. J. H. Miskimen. No. 1,303,857; May 13; v. 262; p. 104.
 Automobile-seat cover. F. C. Brock. No. 1,303,010; May 6; v. 262; p. 103.
 Automobile-scapamore. W. J. Henry. No. 1,303,312; May 13; v. 262; p. 106.
 Automobile shock-absorber. E. W. Bryan. No. 1,302,000; May 6; v. 262; p. 38.
 Automobile-signal. E. C. Anson and H. E. Kelm. No. 1,303,764; May 13; v. 262; p. 306.
 Automobile-signal. J. J. Archibald and G. A. Woodman. No. 1,303,147; May 6; v. 262; p. 128.
 Automobile signaling device. S. C. Walker. No. 1,304,423; May 20; v. 262; p. 429.
 Automobile sled attachment. A. Jacquet. No. 1,304,183; May 20; v. 262; p. 382.
 Automobile spot-light. N. Macneale. No. 1,304,787; May 27; v. 262; p. 587.
 Automobile steering-knuckle. J. M. Scott. No. 1,304,008; May 27; v. 262; p. 503.
 Automobile switch-lock. J. H. Shaw. No. 1,303,235; May 13; v. 262; p. 279.
 Automobile table and robe-rail. Combined. J. R. Hardman. No. 1,302,542; May 6; v. 262; p. 12.
 Automobile-top, frame and window for. C. Weiss. No. 1,302,742; May 6; v. 262; p. 49.
 Automobile torpedos. H. W. Shennard. No. 1,302,982; May 6; v. 262; p. 93.
 Automobile-turning device. J. Kelen. No. 1,303,305; May 13; v. 262; p. 270.
 Automobile-wheel. Anti-lapping attachment for. F. E. Gale. No. 1,303,051; May 13; v. 262; p. 247.
 Automobiles, Acetylene generating and supply system for. F. Norman. No. 1,303,040; May 20; v. 262; p. 380.
 Automobiles, Auxiliary water-cooling system for. C. J. Bristol. No. 1,304,340; May 27; v. 262; p. 503.
 Automobiles, Covering for the back and seats of. F. C. Brock. No. 1,303,020; May 6; v. 262; p. 103.
 Automobiles, Electric-circuit closer for. K. R. Leet. No. 1,303,086; May 6; v. 262; p. 118.
 Automobiles, Fuel-shut-off mechanism for. J. E. Fuchs. No. 1,303,578; May 20; v. 262; p. 327.
 Automobiles, Locking device for. M. A. Jennings. No. 1,303,800; May 13; v. 262; p. 274.
 Automobiles, Method and apparatus for loading. S. D. Butterworth. No. 1,304,054; May 27; v. 262; p. 512.
 Automobiles, Portable driving device and carrier for. F. H. Hart. No. 1,304,680; May 27; v. 262; p. 347.
 Automobiles, Spring motor gear for driving. O. Krause. No. 1,303,643; May 13; v. 262; p. 314.
 Automobiles, Turn-table device for. J. Geyer. No. 1,304,564; May 13; v. 262; p. 220.
 Autotruck-dump. P. Hedstrom. No. 1,302,797; May 6; v. 262; p. 98.
 Auxiliary seat. T. Miller. No. 1,302,828; May 6; v. 262; p. 60.
 Aviating-machines, Means for raising submerged vessels by means of. H. Katayama. No. 1,303,912; May 20; v. 262; p. 333.
 Awning. L. Kagan. No. 1,304,363; May 20; v. 262; p. 361.
 Awning, Roller. A. L. Clark. No. 1,302,633; May 6; v. 262; p. 29.
 Baby walker and swing. A. Westley. No. 1,302,743; May 6; v. 262; p. 40.
 Bag. W. H. Deubener. No. 1,303,198; May 27; v. 262; p. 614.
 Bag. W. H. Deubener. No. 1,305,199; May 27; v. 262; p. 614.
 Bag or sack, Collapsible. H. P. Beers. No. 1,303,787; May 13; v. 262; p. 267.
 Bag-sewing apparatus. F. H. D. S. Byrnes. No. 1,303,121; May 6; v. 262; p. 123.

Bag, Appliance for applying and removing garment. W. A. Shields. No. 1,304,913; May 27; v. 262; p. 509.
 Belt, Fishing. R. Ettershank. No. 1,303,467; May 13; v. 262; p. 213.
 Baking-machine. D. Takahashi. No. 1,303,128; May 6; v. 262; p. 124.
 Baking-pan. P. Carpenter. No. 1,304,740; May 27; v. 262; p. 523.
 Baking-pan. J. G. Jackson. No. 1,302,961; May 6; v. 262; p. 34.
 Baking-pan. J. G. Jackson. No. 1,302,962; May 6; v. 262; p. 34.
 Baking-pan. J. G. Jackson. No. 1,302,963; May 6; v. 262; p. 34.
 Baking-pan. J. G. Jackson. No. 1,302,964; May 6; v. 262; p. 34.
 Balancing appliance. C. H. Myers. No. 1,305,150; May 27; v. 262; p. 604.
 Balling-press. J. T. Smith. No. 1,302,738; May 6; v. 262; p. 46.
 Ball-and-socket joint. A. T. Dawson and G. T. Buckham. No. 1,304,270; May 20; v. 262; p. 399.
 Ball-cock, known as Boat-valve. D. E. Galt. No. 1,302,538; May 6; v. 262; p. 11.
 Balloon equilibrium device. J. Danowski. No. 1,304,080; May 27; v. 262; p. 580.
 Band cleaner, Space. W. H. Schuyler. No. 1,304,000; May 20; v. 262; p. 422.
 Band sawing-machine. J. J. Meyers. No. 1,302,900; May 6; v. 262; p. 89.
 Band-wheel. C. S. Wright. No. 1,303,445; May 13; v. 262; p. 206.
 Bar. See—
 Grate-bar.
 Barber-chair. W. F. Kohn and G. G. Anderson. No. 1,302,672; May 6; v. 262; p. 36.
 Barre. H. E. F. Leparmetier. No. 1,303,030; May 13; v. 262; p. 254.
 Barre, Compound. R. E. F. Leparmetier. No. 1,303,030; May 13; v. 262; p. 254.
 Barrel, Metallic. H. W. Avery. No. 1,303,532; May 13; v. 262; p. 225.
 Barrel-protecting ring. S. A. Bennett. No. 1,303,148; May 6; v. 262; p. 129.
 Barrels and the like, containers, Machine for dumping. C. D. Galloway. No. 1,305,087; May 27; v. 262; p. 602.
 Base-exchanging bodies, Making. G. Ruffert. No. 1,304,290; May 20; v. 262; p. 397.
 Basket, Clothes. J. L. Barnum. No. 1,303,231; May 13; v. 262; p. 172.
 Basket reinforcement. J. J. Demuth. No. 1,303,074; May 27; v. 262; p. 300.
 Battery. See—
 Electric battery. Storage battery.
 Battery-adaptor. M. H. Smith. No. 1,304,214; May 20; v. 262; p. 383.
 Battery-cell. H. T. Hipwell. No. 1,303,890; May 13; v. 262; p. 230.
 Battery-cell tray. J. P. Monahan. No. 1,304,330; May 27; v. 262; p. 500.
 Battery elements, Ac. Means for forming. R. Scholow and A. Polinsky. No. 1,302,722; May 6; v. 262; p. 61.
 Battery filler, Automatic storage. O. P. Lashburn. No. 1,304,894; May 27; v. 262; p. 584.
 Battery-grid-pasting apparatus. L. G. Clements. No. 1,303,460; May 6; v. 262; p. 163.
 Battery plate and treating machine. Stupp. R. H. Chamberlain. No. 1,304,658; May 27; v. 262; p. 589.
 Battery, Secondary or storage. L. H. Fandora. No. 1,304,004; May 27; v. 262; p. 402.
 Batteries, Negative plate for lead storage. W. Morrison. No. 1,304,102; May 20; v. 262; p. 394.
 Beans, Device for winnowing. J. Murphy. No. 1,304,797; May 27; v. 262; p. 520.
 Bearing. A. Blackman. No. 1,304,160; May 27; v. 262; p. 612.
 Bearing Ball. J. Newman. No. 1,303,712; May 13; v. 262; p. 269.
 Bearing, Ball. K. O. Lee. No. 1,305,131; May 27; v. 262; p. 601.
 Bearing, Composite roller. C. H. Lockwood. No. 1,304,073; May 20; v. 262; p. 342.
 Bearing device, Scale. M. D. Varney. No. 1,302,904; May 6; v. 262; p. 37.
 Bearing for casting-machines. D. E. Lavand. No. 1,302,641; May 6; v. 262; p. 30.
 Bearing for heavy rolls. J. W. Thorpe. No. 1,304,230; May 20; v. 262; p. 340.
 Bearing for spindles, Ball. J. H. Mayes. No. 1,303,104; May 27; v. 262; p. 603.
 Bearing, Roller. E. Mider. No. 1,302,325; May 6; v. 262; p. 65.
 Bearing, Roller. W. D. Burns. No. 1,303,767; May 13; v. 262; p. 269.
 Bearing, Roller side. A. Stock. No. 1,303,598; May 20; v. 262; p. 347.
 Bearing, Roller. J. B. Trice. No. 1,303,610; May 13; v. 262; p. 241.
 Bearings, Ball-roller for double-row radial ball. A. G. E. Hultgren and P. R. Rydbeck. No. 1,303,479; May 13; v. 262; p. 216.

Beardman, Dent-shoulder. C. J. Westman. No. 1,302,814; May 6; v. 262; p. 25.
 Beardsman, Wm. L. Olson. No. 1,302,804; May 6; v. 262; p. 19.
 Bearings, Making Head. W. Klucka. No. 1,302,848; May 6; v. 262; p. 38.
 Bearings, Making Head. W. Klucka. No. 1,302,849; May 6; v. 262; p. 38.
 Bed. T. M. Beck. No. 1,304,860; May 27; v. 262; p. 611.
 Bed, Chaise. N. Stodder. No. 1,303,300; May 13; v. 262; p. 221.
 Bed, Couch. J. A. Dewey. No. 1,302,774; May 6; v. 262; p. 55.
 Bed, Divan. C. B. Hall. No. 1,303,498; May 13; v. 262; p. 214.
 Bed, Folding. R. F. Fowler. No. 1,303,875; May 20; v. 262; p. 334.
 Bed or couch. G. H. Van Vollenburg. No. 1,304,419; May 20; v. 262; p. 420.
 Bed, Portable folding. R. H. McCann. No. 1,303,607; May 13; v. 262; p. 217.
 Bed, Sofa. H. M. Swellum. No. 1,303,610; May 13; v. 262; p. 240.
 Bed, Mattress-fold for. R. H. Vance. No. 1,304,619; May 13; v. 262; p. 241.
 Bedstead, Invalid-lifting appliance for. P. Nelson. No. 1,304,549; May 13; v. 262; p. 194.
 Beer, Brewing. H. Meuser. No. 1,302,540; May 6; v. 262; p. 12.
 Beer, Manufacture of alcohol-reduced. H. Meuser. No. 1,302,551; May 6; v. 262; p. 14.
 Beet-cultivator. E. Sees. No. 1,303,002; May 13; v. 262; p. 223.
 Bell, Electric. C. H. Dahl. No. 1,303,400; May 13; v. 262; p. 212.
 Bell-ringing apparatus. R. G. Shaffroth. No. 1,304,312; May 27; v. 262; p. 540.
 Belt. G. E. Carr. No. 1,303,037; May 6; v. 262; p. 104.
 Belt-catch. S. B. Girdler. No. 1,303,003; May 13; v. 262; p. 247.
 Belt or girder. I. L. Kane. No. 1,303,548; May 13; v. 262; p. 381.
 Belt-shipper. O. L. Owen. No. 1,303,908; May 20; v. 262; p. 344.
 Bench. See—
 Tube-drawing bench.
 Bending-machine. E. J. Genetal and T. B. Jenkins. No. 1,303,667; May 13; v. 262; p. 348.
 Bending-machine. J. L. Kershner. No. 1,304,386; May 20; v. 262; p. 410.
 Benzene, Manufacture of alcohol-reduced. H. Meuser. No. 1,302,552; May 6; v. 262; p. 14.
 Benzene, Manufacture of alcohol-reduced. H. Meuser. No. 1,302,553; May 6; v. 262; p. 14.
 Bicycle. P. H. Smith. No. 1,304,450; May 20; v. 262; p. 435.
 Bicycle hand-grip. J. A. Kennedy. No. 1,303,308; May 13; v. 262; p. 278.
 Bicycle, Side-car attachment to motor. J. Gooding. No. 1,302,781; May 13; v. 262; p. 273.
 Bicycle. F. H. Crump. No. 1,304,340; May 13; v. 262; p. 227.
 Bifurcated knife attachment for kitchen-arms of. A. J. Steady. No. 1,302,644; May 6; v. 262; p. 31.
 Bits, Attachment for grinding thread-cut. A. H. Lenz. No. 1,304,070; May 20; v. 262; p. 392.
 Bituminous composition and coating. L. Klucka. No. 1,302,610; May 6; v. 262; p. 62.
 Blasting container and heater, Combined. W. O. Arns. No. 1,303,681; May 13; v. 262; p. 323.
 Blank-folding mechanism. A. Novich. No. 1,303,571; May 13; v. 262; p. 193.
 Blast-furnace. C. H. Bligham. No. 1,303,123; May 6; v. 262; p. 124.
 Blast-furnace. J. Kennedy. No. 1,303,914; May 20; v. 262; p. 383.
 Blasting apparatus. A. G. Hinkle. No. 1,303,315; May 13; v. 262; p. 200.
 Block-signal system, Locomotive equipment for. G. W. Gerlach. No. 1,303,182; May 6; v. 262; p. 124.
 Blocks, Manufacture of carbon. T. W. E. Hutchins. No. 1,304,043; May 20; v. 262; p. 380.
 Blower. R. Hudack. No. 1,303,902; May 20; v. 262; p. 322.
 Board. See—
 Composite board. Washboard.
 Game-board. White leather-board.
 Board or frame, Advertising. H. Mastella. No. 1,304,000; May 20; v. 262; p. 394.
 Boat-lifting means. J. Good. No. 1,304,361; May 27; v. 262; p. 549.
 Boat, Collapsible. A. B. Ford. No. 1,303,890; May 13; v. 262; p. 224.
 Boat, Collapsible. A. McNell. No. 1,303,790; May 13; v. 262; p. 264.
 Boat construction. E. K. Fisher. No. 1,304,308; May 27; v. 262; p. 551.
 Boat construction, Canvas metallic. J. Dimes. No. 1,303,046; May 6; v. 262; p. 100.
 Boat-dock. J. R. Brown. No. 1,304,904; May 27; v. 262; p. 573.

Boat-dock. W. J. Wilkinson and R. Hedstrom. No. 1,304,750; May 13; v. 262; p. 385.
 Boat-lifting apparatus. J. A. Hyland. No. 1,304,310; May 20; v. 262; p. 400.
 Boat, Multiple-propeller. W. M. Simpson. No. 1,303,508; May 13; v. 262; p. 221.
 Boat-propelling means. A. Moss. No. 1,302,961; May 6; v. 262; p. 30.
 Boat, Self-propelling. R. F. Jackson. No. 1,304,318; May 20; v. 262; p. 402.
 Boat, Submarine. C. Eysenbogen and H. Teckel. No. 1,305,238; May 27; v. 262; p. 621.
 Boats, Launching stage. W. E. Moss. No. 1,304,353; May 20; v. 262; p. 415.
 Bobbin control. L. Leshovitz. No. 1,302,936; May 6; v. 262; p. 87.
 Body-protector. J. C. Shannon. No. 1,302,090; May 6; v. 262; p. 53.
 Boiler. See—
 Convertible boiler. Steam-boiler.
 Five-tube boiler.
 Boiler-cleaning apparatus. H. J. Lund. No. 1,302,940; May 6; v. 262; p. 37.
 Boiler elements, Header for. C. Radgner. No. 1,305,108; May 27; v. 262; p. 607.
 Boiler-eliminator. N. Schreiber. No. 1,304,385; May 20; v. 262; p. 422.
 Boiler stay-bolt. H. A. Lacerda. No. 1,304,889; May 27; v. 262; p. 543.
 Boiler stay-bolt. H. A. Lacerda. No. 1,304,890; May 27; v. 262; p. 543.
 Boiler-tube connection. W. F. Triplett. No. 1,304,414; May 20; v. 262; p. 427.
 Boilers, Header construction for. E. C. Meter. No. 1,304,500; May 20; v. 262; p. 445.
 Boilers, Steam-superheater for. J. G. Robinson. No. 1,304,910; May 27; v. 262; p. 560.
 Boilers, Superheater construction for. J. H. Hinman. No. 1,304,480; May 20; v. 262; p. 441.
 Bolt-weaver, Machine for exterminating. I. Tabba. No. 1,303,132; May 6; v. 262; p. 125.
 Bolt-anchor. J. Kennedy. No. 1,304,586; May 27; v. 262; p. 545.
 Bolt-anchor. J. E. Ogden. No. 1,303,001; May 27; v. 262; p. 570.
 Bolt-locking device. H. Kohnen. No. 1,304,575; May 27; v. 262; p. 497.
 Bolt-puller. V. H. Fitzgerald. No. 1,303,963; May 27; v. 262; p. 542.
 Bolts and the like, Safety-guard for. W. Grien. No. 1,303,293; May 13; v. 262; p. 152.
 Bolting-up device. W. T. Hogan. No. 1,303,085; May 13; v. 262; p. 250.
 Bomb, Aerial. J. Hill. No. 1,302,654; May 6; v. 262; p. 14.
 Bomb-dropping machine. P. M. Hooty and C. E. Irvine. No. 1,305,214; May 27; v. 262; p. 617.
 Book-poster device. E. Varley. No. 1,304,223; May 20; v. 262; p. 390.
 Book, Case-holder for. A. Engel. No. 1,304,000; May 27; v. 262; p. 514.
 Books, Tablets, Ac. Binding-machine for. L. J. Frohn. No. 1,304,700; May 27; v. 262; p. 532.
 Book and photo rack. J. W. Davis and G. L. Lacey. No. 1,304,647; May 27; v. 262; p. 548.
 Book, Reader. M. C. Bigham. No. 1,303,154; May 6; v. 262; p. 129.
 Books, Cases, and the like, Making. W. J. J. Van. No. 1,303,005; May 6; v. 262; p. 111.
 Boring-tool. E. Kromer. No. 1,303,071; May 6; v. 262; p. 112.
 Bottle. S. B. Staples. No. 1,304,114; May 20; v. 262; p. 370.
 Bottle-cap. W. G. Nichols. No. 1,304,193; May 20; v. 262; p. 394.
 Bottle-cap. H. L. Winkler. No. 1,304,002; May 20; v. 262; p. 350.
 Bottle cap, Molding. G. W. Earnest. No. 1,303,179; May 6; v. 262; p. 120.
 Bottle capping and sealing machine. T. J. Levey. No. 1,302,633; May 6; v. 262; p. 34.
 Bottle-capping machine. C. J. Lawrence. No. 1,304,578; May 27; v. 262; p. 406.
 Bottle-capping machine. P. C. Lieber. No. 1,303,240; May 13; v. 262; p. 191.
 Bottle-capping machine. E. Nordstrom. No. 1,303,200; May 13; v. 262; p. 323.
 Bottle-capping machine. E. Nordstrom. No. 1,303,201; May 13; v. 262; p. 324.
 Bottle-capping machine, Crown-feeder for. R. Kaye. No. 1,304,323; May 20; v. 262; p. 409.
 Bottle-cleaning. G. Luptak. No. 1,303,085; May 6; v. 262; p. 115.
 Bottle-loading machine. E. Arnold. No. 1,304,319; May 20; v. 262; p. 400.
 Bottle-labeling machine. G. E. Reiners. No. 1,304,373; May 20; v. 262; p. 419.
 Bottle, Molding. A. C. Eggers. No. 1,303,546; May 13; v. 262; p. 228.
 Bottle supporter, Molding. M. Kraschky. No. 1,304,008; May 20; v. 262; p. 361.
 Bottle-capping machine. E. A. Keara. No. 1,304,004; May 20; v. 262; p. 361.

Bottles, Paper cap for milk. A. R. Munro. No. 1,302,710; May 13; v. 262; p. 253.
 Bowl for animals, Drinkings. W. Loudon. No. 1,302,939; May 6; v. 262; p. 87.
 Bowling-alley. A. F. Butler. No. 1,302,997; May 6; v. 262; p. 86.
 Bowling-alleys, Surfacing-machine for. L. Engel. No. 1,303,043; May 13; v. 262; p. 248.
 Box: See—
 Electric box. Powder-box.
 Explosive-powder safety. Refrigerator-box.
 box. Stuffing-box.
 Outlet-box. Switch-box.
 Box. E. J. Cady. No. 1,302,507; May 6; v. 262; p. 8.
 Box-covering machine. E. M. Hawkins. No. 1,302,546; May 6; v. 262; p. 13.
 Box-covering machine and the like. C. B. Pearsall. No. 1,302,587; May 6; v. 262; p. 20.
 Box-nailing bench. P. N. McGlothlen. No. 1,303,488; May 13; v. 262; p. 217.
 Box or carton. H. E. Calcutt. No. 1,304,020; May 20; v. 262; p. 353.
 Box-seal. E. J. Brooks. (Reissue.) No. 14,049; May 20; v. 262; p. 450.
 Brace: See—
 Door-brace.
 Bracket. C. G. King. No. 1,303,220; May 6; v. 262; p. 142.
 Bracket. W. H. Pruefer. No. 1,304,706; May 27; v. 262; p. 522.
 Bracket: See—
 Hanging bracket. Stair-tread bracket.
 Lamp-bracket. Window-shade bracket.
 Reinforcing and repair bracket.
 Brake: See—
 Governor-brake. Truck-brake.
 Machine-brake. Vehicle-brake.
 Brake. J. G. Wallmann. No. 1,302,738; May 6; v. 262; p. 49.
 Brake-band. E. J. Lee and E. H. Steinmetz. No. 1,302,680; May 6; v. 262; p. 38.
 Brake-beam fulcrum, Forming. A. H. Peyche. No. 1,302,702; May 6; v. 262; p. 42.
 Brake-beams, Fourth-point support for. C. H. Williams. No. 1,304,134; May 20; v. 262; p. 373.
 Brake-beams, Fourth-point support for. C. H. Williams. No. 1,304,135; May 20; v. 262; p. 373.
 Brake-beams, Fourth-point support for. C. H. Williams. No. 1,304,136; May 20; v. 262; p. 373.
 Brake-beams, Manufacturing. L. L. Whitney. No. 1,303,435; May 13; v. 262; p. 208.
 Brake-handle. E. H. Schmidt. No. 1,304,008; May 27; v. 262; p. 503.
 Brake-hanger. W. F. Cremona. No. 1,304,062; May 27; v. 262; p. 513.
 Brake-hanger. L. E. Keil. No. 1,303,069; May 6; v. 262; p. 112.
 Brake-lever set. A. D. Jack. No. 1,304,317; May 20; v. 262; p. 408.
 Brake-lining. G. F. Hollis. No. 1,304,481; May 20; v. 262; p. 441.
 Brake-operating mechanism. B. E. House. No. 1,304,315; May 20; v. 262; p. 408.
 Brake-safety means. J. Horrigan. No. 1,303,064; May 6; v. 262; p. 111.
 Brake-shoe. M. R. De France. No. 1,303,172; May 6; v. 262; p. 132.
 Brake-shoe. M. R. De France. No. 1,303,173; May 6; v. 262; p. 133.
 Brake-shoe-key lock. A. W. Hawkins. No. 1,304,044; May 20; v. 262; p. 357.
 Brake-supporting mechanism. O. R. Mitchell. No. 1,302,575; May 6; v. 262; p. 18.
 Brake systems, Air-pressure governor for air. J. W. De Schampa. No. 1,304,162; May 20; v. 262; p. 378.
 Braking mechanism. M. P. Holmes. No. 1,303,219; May 6; v. 262; p. 141.
 Brick-conveyer. R. S. Moore. No. 1,303,359; May 13; v. 262; p. 194.
 Brick-cutting machine. G. F. Pemberton. No. 1,302,964; May 6; v. 262; p. 92.
 Brick kiln and drier, Continuous. H. Webster and W. V. Kincaid. No. 1,304,831; May 27; v. 262; p. 545.
 Brick-machine. H. R. McCune. No. 1,303,344; May 13; v. 262; p. 191.
 Brickwork, concrete, Ac. Metal reinforcement for. W. Sharp. No. 1,304,515; May 27; v. 262; p. 542.
 Briquets or other molded articles, Making. C. Ellis. (Reissue.) No. 14,653; May 27; v. 262; p. 622.
 Briquetting. F. A. Jordan. No. 1,304,186; May 20; v. 262; p. 333.
 Briquetting apparatus. F. A. Jordan. No. 1,304,185; May 20; v. 262; p. 333.
 Brooches, Ac. Safety-catch for. G. W. Dover and W. H. Hughes. No. 1,304,066; May 27; v. 262; p. 514.
 Brooder. C. Kohl. No. 1,303,804; May 13; v. 262; p. 275.
 Brooder, Colony. F. E. Bowser. No. 1,304,446; May 20; v. 262; p. 434.
 Broom-protector. P. Petersen. No. 1,305,157; May 27; v. 262; p. 608.
 Brush. M. Rosenberg. No. 1,303,500; May 13; v. 262; p. 219.
 Brush, Expansion. P. Myres. No. 1,303,966; May 13; v. 262; p. 195.
 Brush, Folding teeth. A. H. Hendrickson. No. 1,304,769; May 27; v. 262; p. 533.
 Brush holder and sterilizer. Tooth. D. M. Wilcox. No. 1,304,639; May 27; v. 262; p. 509.
 Brush holder, Sanitary tooth. C. F. Goodnow, Jr. No. 1,303,884; May 20; v. 262; p. 323.
 Brush-making machine. C. J. J. J. No. 1,303,907; May 20; v. 262; p. 322.
 Brush, Rotary. W. F. Concanon and F. E. Klefer. No. 1,304,543; May 27; v. 262; p. 492.
 Brush, Tooth. A. E. Peck. No. 1,303,586; May 13; v. 262; p. 235.
 Bucket, Turbine. J. L. Moore. No. 1,304,763; May 27; v. 262; p. 538.
 Buckles, Attachment device for shoe. S. Rivella. No. 1,303,118; May 6; v. 262; p. 122.
 Building mechanism. J. F. O'Connor. No. 1,303,378; May 13; v. 262; p. 197.
 Building. T. V. Buckwalter. No. 1,303,233; May 13; v. 262; p. 176.
 Buildings, Bonding construction for. J. F. Thompson. No. 1,304,318; May 20; v. 262; p. 380.
 Burial-vault closure. T. E. Lutz. No. 1,303,067; May 6; v. 262; p. 115.
 Burner: See—
 Fuel-burner. Oil-burner.
 Gas-burner. Oil and gas burner.
 Horizontal oil-burner. Valve and oil-burner.
 Hydrocarbon-burner. Vapor-burner.
 Liquid-fuel burner.
 Burner. T. W. Muckle. No. 1,302,960; May 6; v. 262; p. 69.
 Burner. J. Rohr and F. Kirschock. No. 1,303,597; May 13; v. 262; p. 237.
 Burner-tip. W. P. Hill. No. 1,304,045; May 20; v. 262; p. 367.
 Bushing-machine. T. Land. No. 1,303,981; May 20; v. 262; p. 357.
 Bushing, Expansion. H. Belding. No. 1,304,250; May 20; v. 262; p. 396.
 Bushing, Lead. J. Wilkinson. No. 1,304,230; May 20; v. 262; p. 391.
 Bushing, Oil-filled lead. J. J. Frank. No. 1,304,400; May 20; v. 262; p. 430.
 Bushing-remover. R. Simon, J. A. Gauthier, and F. J. Hauwer. No. 1,304,100; May 20; v. 262; p. 369.
 Butter-cutter. E. A. Simpson. No. 1,302,963; May 6; v. 262; p. 94.
 Butter-dispensing machine. T. Tripolitia. No. 1,303,131; May 6; v. 262; p. 125.
 Button. L. A. Angie and J. P. Sager. No. 1,303,223; May 13; v. 262; p. 171.
 Button-covering. H. H. Strauss. No. 1,302,575; May 6; v. 262; p. 74.
 Button, Detachable shirt. L. H. Davis. No. 1,305,073; May 27; v. 262; p. 590.
 Buttons, Machine for use in assorting. H. G. Reustle and W. W. Cannon. No. 1,303,594; May 13; v. 262; p. 236.
 Buzzer apparatus for producing whistle-simulating sounds. W. C. Mac. No. 1,303,117; May 6; v. 262; p. 123.
 Cabinet, Filing. W. W. Dismukes. No. 1,303,778; May 13; v. 262; p. 270.
 Cabinet, Kitchen. W. F. McLaughlin. No. 1,303,097; May 13; v. 262; p. 255.
 Cabinet, Phonographic-disk-record. C. D. McVay. No. 1,302,943; May 6; v. 262; p. 83.
 Cabinet, Record. J. A. and M. R. Sanford. No. 1,303,731; May 13; v. 262; p. 261.
 Cabinet, Record. G. M. Schaff. No. 1,302,718; May 6; v. 262; p. 45.
 Cabinet, Tower. W. W. Bagley. No. 1,305,048; May 27; v. 262; p. 590.
 Cable-splice. N. K. Bowman. No. 1,304,534; May 27; v. 262; p. 490.
 Cables, Binding-post for electric. E. B. Nowostelski. No. 1,305,153; May 27; v. 262; p. 605.
 Calculating device. O. M. Kile. No. 1,304,781; May 27; v. 262; p. 536.
 Calculating-machine. A. Bontempi. No. 1,302,561; May 6; v. 262; p. 5.
 Calculating-machine. H. Kuentsler. No. 1,305,124; May 27; v. 262; p. 599.
 Calculating-machine. C. Wales. No. 1,303,314; May 6; v. 262; p. 140.
 Calculator, Angle. W. N. Benson, Jr. No. 1,302,890; May 6; v. 262; p. 20.
 Calculator, Mechanical. T. A. McCarthy. No. 1,302,941; May 6; v. 262; p. 87.
 Cake-hanger. T. L. Green. No. 1,304,306; May 20; v. 262; p. 407.
 Cake, Impression. J. H. Downie. No. 1,303,545; May 13; v. 262; p. 228.
 Calling device. W. Kaitling. No. 1,304,082; May 20; v. 262; p. 261.
 Camera. J. E. Potts. No. 1,304,093; May 20; v. 262; p. 366.
 Camera, Aeroplane. W. F. Folmer. No. 1,304,673; May 27; v. 262; p. 518.
 Camera attachment. A. J. Oshring. No. 1,304,361; May 20; v. 262; p. 417.

Camera, Film. R. Kropfel. No. 1,303,918; May 20; v. 262; p. 334.
 Camera, Photographic. J. P. Hansen. No. 1,305,097; May 27; v. 262; p. 595.
 Camera-shutter releaser. J. L. McFarland. No. 1,304,585; May 27; v. 262; p. 490.
 Cameras, Exposure-identification device for. A. F. Kellogg. No. 1,304,123; May 20; v. 262; p. 410.
 Camp site, Foldable. H. J. Dietrich. No. 1,304,270; May 20; v. 262; p. 401.
 Camping outfit. F. Ziegelmeyer. No. 1,304,440; May 20; v. 262; p. 433.
 Can: See—
 Oil-can.
 Can, Ice-cream. G. A. Wilson. No. 1,303,751; May 13; v. 262; p. 263.
 Can-stamping machine. C. E. Priest. No. 1,304,904; May 27; v. 262; p. 534.
 Can-washing apparatus. W. A. Erickson. No. 1,308,198; May 6; v. 262; p. 135.
 Cans, Apparatus for and method of filling. W. H. Hanna. No. 1,303,003; May 6; v. 262; p. 117.
 Canner and evaporator. W. E. Ribb. No. 1,304,014; May 20; v. 262; p. 352.
 Candy-cutting machine. G. K. Bainbridge. No. 1,303,151; May 6; v. 262; p. 129.
 Candy-forming machine. F. E. Kaim. No. 1,304,140; May 20; v. 262; p. 374.
 Candy-mold. I. Conn. No. 1,303,773; May 13; v. 262; p. 370.
 Case-stripping machine. M. E. Davis. No. 1,302,908; May 6; v. 262; p. 61.
 Cap: See—
 Metal roofing-cap.
 Cap, Sanitary and protective. M. Goger. No. 1,304,960; May 27; v. 262; p. 583.
 Car and heating and ventilating system therefor, Railway. E. H. Gold. No. 1,308,582; May 20; v. 262; p. 323.
 Car, Armored. L. M. Moser. No. 1,302,577; May 6; v. 262; p. 18.
 Car center-plate and truck-aligning device, Combined. J. F. O'Connor. No. 1,304,086; May 20; v. 262; p. 345.
 Car, Child's. M. H. Wickman. No. 1,303,127; May 6; v. 262; p. 124.
 Car, Coal-mine. W. A. Dorsey. No. 1,305,076; May 27; v. 262; p. 591.
 Car construction. H. J. Lounsbury. No. 1,303,341; May 13; v. 262; p. 191.
 Car-draw. W. Sleeper. No. 1,305,018; May 27; v. 262; p. 589.
 Car draft-rigging, Draft-yoke for railway. G. A. Johnson. No. 1,303,909; May 20; v. 262; p. 333.
 Car, Dump. H. S. Hart. No. 1,304,590; May 27; v. 262; p. 570.
 Car, Dump. E. Jungmann. No. 1,305,118; May 27; v. 262; p. 588.
 Car-fender. I. Pascal. No. 1,302,586; May 6; v. 262; p. 10.
 Car, Freight. J. M. Coleman. No. 1,304,623; May 20; v. 262; p. 353.
 Car, Freight. F. M. Foote. No. 1,302,533; May 6; v. 262; p. 10.
 Car, Pony. C. H. Eastman. No. 1,302,770; May 6; v. 262; p. 56.
 Car structure. H. C. Priole. No. 1,302,706; May 6; v. 262; p. 43.
 Car structure. H. C. Priole. No. 1,302,707; May 6; v. 262; p. 43.
 Car structure. H. C. Priole. No. 1,302,708; May 6; v. 262; p. 43.
 Car-ticket holder. H. J. Stewart and R. C. McGrath. No. 1,305,020; May 27; v. 262; p. 580.
 Car-vestibule, diaphragm face-plates, Buffer spring for. W. P. Murphy. No. 1,303,304; May 13; v. 262; p. 195.
 Car-wheels, Apparatus for finishing. C. L. Taylor. No. 1,302,880; May 6; v. 262; p. 77.
 Car wheels, Rim for motor. R. L. Morgan. No. 1,304,494; May 27; v. 262; p. 534.
 Cars, Friction draft-gear for railway. J. S. Naery. No. 1,303,943; May 20; v. 262; p. 359.
 Cars, Grain-door for. V. W. Miller. No. 1,303,832; May 13; v. 262; p. 281.
 Cars, Releasing-wrench for coal. H. M. Paster. No. 1,304,080; May 20; v. 262; p. 385.
 Cars, Sheet-metal end structures for railway. W. P. Murphy. No. 1,304,999; May 27; v. 262; p. 579.
 Car-trail-holder. A. F. Jenkins. No. 1,304,608; May 27; v. 262; p. 518.
 Carbons for electric-arc lamps, Manufacture of. W. Henspe and H. E. Grylla. No. 1,302,795; May 6; v. 262; p. 59.
 Carbureter. D. J. Angus. No. 1,303,229; May 13; v. 262; p. 172.
 Carbureter. A. P. Brush. No. 1,304,449; May 20; v. 262; p. 424.
 Carbureter. C. A. and O. F. Rossum. No. 1,304,205; May 20; v. 262; p. 386.
 Carbureter. J. W. Stevens. No. 1,304,715; May 27; v. 262; p. 523.
 Carburetor. L. H. Van Briggie. No. 1,304,413; May 20; v. 262; p. 428.
 Carburetor. J. G. Vincent. No. 1,305,036; May 27; v. 262; p. 381.
 Carburetor air-inlet. A. A. Sebastian and D. R. Capea. No. 1,303,972; May 20; v. 262; p. 344.
 Carburetor attachment. H. Fredrickson. No. 1,302,594; May 6; v. 262; p. 11.
 Carburetor for gasoline-engine. E. Knausa. No. 1,304,588; May 27; v. 262; p. 574.
 Carburetor for internal-combustion engines. J. Boutelle. No. 1,303,761; May 13; v. 262; p. 267.
 Carburetor, Vaporizing. C. F. Byrnes. No. 1,302,782; May 6; v. 262; p. 53.
 Carburetors, Hydrocarbon-preheater for. G. E. Ross. No. 1,305,170; May 27; v. 262; p. 608.
 Card-holder, Universal. F. Haskel. No. 1,303,061; May 13; v. 262; p. 249.
 Card, Novelty. C. E. Howell. No. 1,304,773; May 27; v. 262; p. 534.
 Card-table, Folding. E. T. Barrowes. No. 1,304,640; May 27; v. 262; p. 491.
 Cards, Machine for applying samples to. M. H. Clark. No. 1,304,948; May 27; v. 262; p. 545.
 Cards, Duplex recording. E. B. Nisbet, Jr. No. 1,303,106; May 6; v. 262; p. 110.
 Carding. S. Juan. No. 1,303,833; May 13; v. 262; p. 281.
 Carding-engines, Apparatus for stripping. J. W. Cook, T. E. Leigh, and J. Jowett. No. 1,303,538; May 13; v. 262; p. 234.
 Carriage, Baby. A. L. Lucas. No. 1,303,930; May 20; v. 262; p. 430.
 Carrier: See—
 Automobile luggage-carrier. Tire or rim carrier.
 Cash-carrier. Trace-carrier.
 Carrying-chair, Foldable. J. Janczyk. No. 1,302,927; May 6; v. 262; p. 58.
 Cart, Convertible. F. J. Hofer. No. 1,305,106; May 27; v. 262; p. 594.
 Carton. J. W. Woolwine. No. 1,303,138; May 6; v. 262; p. 136.
 Cartridge-receiving receptacle. A. Fernandez. No. 1,304,468; May 20; v. 262; p. 439.
 Case: See—
 Eyeglass-case.
 Cases, cupboards, and the like, Sliding door for. J. Stoen and H. B. Cross. No. 1,303,984; May 20; v. 262; p. 347.
 Case, A. H. Carrier. No. 1,302,708; May 6; v. 262; p. 53.
 Case-shift mechanism. J. A. Hagerstrom. No. 1,304,041; May 20; v. 262; p. 357.
 Cash-carrier. G. A. Amaden. No. 1,303,811; May 13; v. 262; p. 286.
 Cash-register. T. Carroll. No. 1,302,509; May 6; v. 262; p. 6.
 Casting. G. G. Floyd. No. 1,304,866; May 27; v. 262; p. 561.
 Camerole-holder. J. M. Dillmeier. No. 1,305,201; May 27; v. 262; p. 615.
 Caster. A. E. Dim. No. 1,304,748; May 27; v. 262; p. 539.
 Caster. J. A. Jones. No. 1,304,061; May 20; v. 262; p. 361.
 Casting-machine. F. W. Stokes. No. 1,304,118; May 20; v. 262; p. 370.
 Casting machine, Sling. W. S. Coe. No. 1,304,600; May 27; v. 262; p. 513.
 Casting process. C. Pack. No. 1,302,958; May 6; v. 262; p. 81.
 Castings, Forming cores for hollow. A. W. Finlayson. No. 1,303,785; May 13; v. 262; p. 272.
 Catalyst, Production of nickel. W. P. Schuck. No. 1,305,178; May 27; v. 262; p. 609.
 Cellulose-acetate composition. J. M. Kessler. No. 1,302,563; May 13; v. 262; p. 231.
 Cement, Manufacture of Keene's. J. C. Best. No. 1,304,148; May 20; v. 262; p. 376.
 Centrifugal die-casting machine. L. Olsen. No. 1,302,838; May 6; v. 262; p. 68.
 Centrifugal machine. L. Raach. No. 1,304,905; May 27; v. 262; p. 559.
 Centrifugal machine. R. A. Sturgeon. No. 1,304,621; May 27; v. 262; p. 508.
 Centrifugal-machine attachment. J. N. S. Williams. No. 1,304,840; May 27; v. 262; p. 547.
 Chain. W. J. Gagnon. No. 1,303,649; May 13; v. 262; p. 246.
 Chain-coupling and chain-adjusting device. W. Sylvester. No. 1,303,521; May 13; v. 262; p. 223.
 Chain, Non-skid. W. J. Asher. No. 1,302,496; May 6; v. 262; p. 4.
 Chain-pendant. R. W. Erdle. No. 1,304,170; May 20; v. 262; p. 380.
 Chain, Transmission. J. E. Barrows. No. 1,304,933; May 27; v. 262; p. 543.
 Chains, Spoke-clamp for non-skid. R. T. Torkelson. No. 1,304,122; May 20; v. 262; p. 371.
 Chair: See—
 Barber-chair. Table-chair.
 Industrial chair. Wheel-chair.
 Chair. C. J. Uimann. No. 1,303,994; May 20; v. 262; p. 348.
 Chair attachment for tables. G. C. Lancaster. No. 1,303,921; May 20; v. 262; p. 335.

Chair-bum. T. W. Fouts. No. 1,303,646; May 13; v. 262; p. 246.
 Chair, Combination. F. Karschitz. No. 1,303,321; May 27; v. 262; p. 618.
 Chair-cover. L. E. Dwyer. No. 1,304,738; May 27; v. 262; p. 530.
 Chair-drum. A. White. No. 1,304,042; May 27; v. 262; p. 585.
 Chair-seat. J. Goldstein. No. 1,303,896; May 6; v. 262; p. 11.
 Change-making apparatus. E. P. Parker. No. 1,302,931; May 6; v. 262; p. 82.
 Change-over and reversing mechanism. Control device for. G. Roesch. No. 1,302,593; May 6; v. 262; p. 21.
 Change-speed device. C. A. Hartig and G. E. Taylor. No. 1,304,052; May 20; v. 262; p. 350.
 Channeling-machine. H. H. Mercer. No. 1,304,334; May 20; v. 262; p. 450.
 Chaplet. P. L. Geer. No. 1,304,950; May 27; v. 262; p. 568.
 Charcoal-burner. W. M. Barter. (Reissue.) No. 14,646; May 20; v. 262; p. 450.
 Check. J. Whitaker. No. 1,303,434; May 13; v. 262; p. 507.
 Check-cutter and check-book holder. J. F. Shoemaker. No. 1,304,208; May 20; v. 262; p. 387.
 Check-line coupling. P. F. Somers. No. 1,303,735; May 13; v. 262; p. 392.
 Check-perforator. C. P. Speer. No. 1,303,124; May 6; v. 262; p. 123.
 Checks and the like. Machine for protecting. C. H. Hasbrouck. No. 1,302,645; May 6; v. 262; p. 34.
 Chocic-boasting apparatus. J. G. Rose. No. 1,304,101; May 20; v. 262; p. 367.
 Christmas-tree decoration. M. N. Armstrong. No. 1,302,754; May 6; v. 262; p. 51.
 Christmas trees, illuminating means for. H. H. Mosmann. No. 1,303,103; May 6; v. 262; p. 419.
 Chuck. F. Cobey. No. 1,304,650; May 27; v. 262; p. 513.
 Chuck. F. Cobey. No. 1,304,650; May 27; v. 262; p. 513.
 Chuck. E. J. McChellan. No. 1,303,136; May 27; v. 262; p. 602.
 Chuck, Collet. H. C. Woglom. No. 1,302,619; May 6; v. 262; p. 28.
 Cigar-making machine. A. J. Colwell. No. 1,303,835; May 20; v. 262; p. 323.
 Cigar-making machine. A. A. Groth. No. 1,302,730; May 6; v. 262; p. 58.
 Cigars in boxes, Adjustable retainer for. L. C. Davidson. No. 1,304,204; May 20; v. 262; p. 398.
 Cigarette-making device. A. Poll. No. 1,304,538; May 27; v. 262; p. 501.
 Cinematograph-machine. M. E. Myers and M. A. J. Harper. No. 1,302,579; May 6; v. 262; p. 13.
 Circuit-breaker. W. H. Ratcliff. No. 1,304,135; May 27; v. 262; p. 607.
 Circuit-breaker. L. J. Werner. No. 1,304,537; May 27; v. 262; p. 548.
 Circuit-breaker mechanism, Automatically-reclosing. E. C. Boney. No. 1,302,951; May 6; v. 262; p. 71.
 Circuit-interrupter. J. M. Mahoney. No. 1,304,142; May 27; v. 262; p. 603.
 Circular-saw table. O. J. Gehrke. No. 1,304,573; May 27; v. 262; p. 593.
 Clamp. See—
 Interlocking clamp.
 Hose-clamp.
 Clamp. J. Kennedy. No. 1,304,005; May 20; v. 262; p. 361.
 Clamp. N. G. Ferry and C. E. Hawking. No. 1,304,138; May 27; v. 262; p. 608.
 Clamping device. H. F. Krantz. No. 1,302,674; May 6; v. 262; p. 36.
 Clamping device. N. J. A. Wahlberg. No. 1,302,626; May 13; v. 262; p. 204.
 Cleaner. See—
 Bottle-cleaner.
 Cotton-cleaner.
 Suction-cleaner.
 Cleaning contact-points. C. A. Frenschmidt. No. 1,304,938; May 27; v. 262; p. 540.
 Cleaning cooking utensils and other articles, Contrivance for. E. M. Goldsmith. No. 1,304,176; May 20; v. 262; p. 381.
 Cleaning device. A. E. Hobbs. No. 1,303,304; May 6; v. 262; p. 188.
 Cleaning device. E. A. Teepell. No. 1,303,414; May 13; v. 262; p. 394.
 Cleaning device, Suction. F. C. Helmich. No. 1,303,080; May 6; v. 262; p. 110.
 Cleat, Pivot. W. D. Smith. No. 1,304,816; May 27; v. 262; p. 564.
 Clip. See—
 Concrete-clip.
 Clip. C. J. Gadd. No. 1,304,534; May 27; v. 262; p. 493.
 Clipper-chassis. G. A. La Fontaine. No. 1,303,672; May 6; v. 262; p. 112.
 Clock, Chime. J. B. Phillips. No. 1,302,845; May 6; v. 262; p. 70.
 Clock, Chime. F. Wehinger. No. 1,304,924; May 27; v. 262; p. 562.

Clock, Secondary. A. L. Sohn. No. 1,302,698; May 6; v. 262; p. 21.
 Clock, Secondary. A. L. Sohn. No. 1,302,694; May 6; v. 262; p. 21.
 Clock, Secondary. A. L. Sohn. No. 1,302,695; May 6; v. 262; p. 21.
 Closet. See—
 Water-closet.
 Closet-seats, Automatic shutter for sanitary. G. E. Kinch. No. 1,303,364; May 13; v. 262; p. 331.
 Closing device. E. L. Gilford. No. 1,304,371; May 20; v. 262; p. 429.
 Closure adjusting and securing device. F. E. Carlisle. No. 1,304,484; May 20; v. 262; p. 436.
 Cloth cropping or shearing machine. T. Canby. (Reissue.) No. 14,642; May 6; v. 262; p. 142.
 Cloth-cutting machine. A. Rubin. (Reissue.) No. 14,644; May 27; v. 262; p. 632.
 Cloth-cutting-machine knives, Sharpening apparatus for. H. Malmia and W. J. Marshall. No. 1,303,938; May 20; v. 262; p. 388.
 Cloth-measuring machine. L. L. Scott. No. 1,303,971; May 20; v. 262; p. 244.
 Cloth remapping and redressing machine. R. J. Dunfee. No. 1,304,351; May 20; v. 262; p. 491.
 Clothes-line attachment. F. J. Cunningham and A. R. Hammon. No. 1,302,771; May 6; v. 262; p. 53.
 Clothes-line stretcher. C. Johnson. No. 1,303,116; May 27; v. 262; p. 506.
 Clothes-line support. F. V. Miller. No. 1,303,491; May 13; v. 262; p. 313.
 Clutch. C. F. Schaeck. No. 1,303,508; May 13; v. 262; p. 220.
 Clutch. L. Wolfgram. No. 1,304,138; May 20; v. 262; p. 374.
 Clutch, Electrically-controlled. W. Lampson-Davies. No. 1,303,684; May 13; v. 262; p. 319.
 Clutch transmission mechanism. W. G. Kruse. No. 1,304,560; May 27; v. 262; p. 574.
 Coal. Apparatus for loading. E. C. Morgan. No. 1,304,664; May 20; v. 262; p. 364.
 Coal-charging lorry. L. W. Wright. No. 1,303,938; May 13; v. 262; p. 324.
 Coal-loading machine. H. T. Franklin. No. 1,304,080; May 27; v. 262; p. 562.
 Coating machine, Cake. P. D. Harton. No. 1,304,043; May 20; v. 262; p. 378.
 Cook, Hydrant. W. Volkhardt. No. 1,303,998; May 20; v. 262; p. 346.
 Coin-controlled switch. C. A. Tripp. No. 1,303,419; May 13; v. 262; p. 303.
 Coin-controlled timer-machine. R. H. Nelson. No. 1,304,994; May 27; v. 262; p. 571.
 Coin-separator. J. Besic. No. 1,304,937; May 27; v. 262; p. 564.
 Coina. Device for receiving. R. C. Knauer. No. 1,303,331; May 6; v. 262; p. 348.
 Coin-operated. P. F. Puntigam. No. 1,304,567; May 27; v. 262; p. 501.
 Cold-rolling shaft-hum. Apparatus for. J. W. Hyatt. No. 1,302,533; May 6; v. 262; p. 15.
 Collar and support. J. L. Murphy. No. 1,303,308; May 13; v. 262; p. 130.
 Comb. A. W. Holmstedt. No. 1,303,672; May 13; v. 262; p. 223.
 Combination article. F. Schuler. No. 1,304,812; May 27; v. 262; p. 542.
 Combination-lock. W. Volk. No. 1,304,683; May 27; v. 262; p. 504.
 Combination switch. Continuous. C. A. Norman. No. 1,302,532; May 6; v. 262; p. 19.
 Communication-receiving apparatus. M. Weil. No. 1,303,687; May 6; v. 262; p. 70.
 Commutator-mechanism. Reversing. R. Wundberg. No. 1,304,611; May 27; v. 262; p. 573.
 Commutator-switching machine. F. E. Aumail. No. 1,304,611; May 6; v. 262; p. 192.
 Compass, Magnetic. A. V. F. Hayton. No. 1,304,700; May 27; v. 262; p. 587.
 Composite band. J. P. Wright. No. 1,303,708; May 13; v. 262; p. 268.
 Compound-turbine control mechanism. J. A. Dutton. No. 1,302,630; May 6; v. 262; p. 30.
 Concentration treating. W. G. Saut and E. G. Kling. No. 1,303,411; May 13; v. 262; p. 303.
 Concrete aggregate. Conveying. H. G. Stamp. No. 1,304,619; May 27; v. 262; p. 565.
 Concrete bridge construction. Reinforced. W. M. Thomas. No. 1,303,741; May 13; v. 262; p. 302.
 Concrete building. S. B. Moore. No. 1,303,730; May 27; v. 262; p. 630.
 Concrete-clip. E. B. Maston. No. 1,304,336; May 27; v. 262; p. 499.
 Concrete-form. H. O. Davidson. No. 1,304,945; May 27; v. 262; p. 586.
 Concrete pipe. J. H. Henson. No. 1,302,853; May 6; v. 262; p. 14.
 Concrete-pipe-making apparatus. Hollow. J. J. Gorman. No. 1,303,308; May 20; v. 262; p. 389.
 Concrete-read-laying machine. G. Lamer. No. 1,303,930; May 13; v. 262; p. 231.
 Concrete ships and tankers. Piping system for. E. L. Heidenrich. No. 1,302,847; May 6; v. 262; p. 12.

Concrete without the use of false work or mold. Flooring in armored. A. Haller. No. 1,304,364; May 27; v. 262; p. 588.
 Conditioning and drying machine. T. Andrew. No. 1,303,690; May 6; v. 262; p. 381.
 Conduct-equipped structure. C. J. Kypkist. No. 1,304,130; May 20; v. 262; p. 386.
 Cone-holder. J. De Hale. No. 1,303,106; May 27; v. 262; p. 607.
 Confection-coating machine. F. B. Fennell. No. 1,304,332; May 20; v. 262; p. 418.
 Container. M. J. Du Bois. No. 1,303,488; May 13; v. 262; p. 213.
 Container. J. M. Hotherhall. No. 1,304,772; May 27; v. 262; p. 594.
 Container. C. Lefter. No. 1,303,687; May 13; v. 262; p. 253.
 Container. A. C. Meier. No. 1,303,984; May 20; v. 262; p. 367.
 Container. A. G. Raymond. No. 1,303,710; May 6; v. 262; p. 48.
 Control apparatus. S. C. Hoey. No. 1,303,317; May 13; v. 262; p. 168.
 Control apparatus. R. D. McDaniel, Jr. No. 1,303,340; May 13; v. 262; p. 168.
 Control apparatus. C. C. Whitaker. No. 1,303,436; May 13; v. 262; p. 305.
 Control device, Automatic. C. G. Falkner. No. 1,305,305; May 27; v. 262; p. 604.
 Control, Expression-driven. J. W. Boyce. No. 1,304,101; May 27; v. 262; p. 611.
 Control system. R. E. Hellmund. No. 1,303,397; May 13; v. 262; p. 185.
 Control system. R. E. Hellmund. No. 1,303,398; May 13; v. 262; p. 185.
 Control system. R. E. Hellmund. No. 1,303,399; May 13; v. 262; p. 185.
 Control system. R. E. Hellmund. No. 1,303,399; May 13; v. 262; p. 185.
 Control system. W. Q. Lamm. No. 1,303,912; May 13; v. 262; p. 186.
 Control system. N. T. Morris. No. 1,303,140; May 27; v. 262; p. 604.
 Control system. C. C. Whitaker. No. 1,303,436; May 27; v. 262; p. 585.
 Controlling device. P. H. Hume. No. 1,304,008; May 20; v. 262; p. 342.
 Contrivance mechanism. Salvator. C. F. Marston. No. 1,303,088; May 6; v. 262; p. 117.
 Contrivance mechanism. Salvator. C. F. Marston. No. 1,303,143; May 27; v. 262; p. 603.
 Converter, Automatic tapper-cleaner for metallurgical. C. J. Arch. No. 1,303,765; May 13; v. 262; p. 264.
 Convertible boiler. H. C. Meier. No. 1,304,400; May 20; v. 262; p. 444.
 Conveyor apparatus, Liquid-cooled. J. C. Gillette. No. 1,304,470; May 13; v. 262; p. 214.
 Conveyor-cable. H. F. Ellard. No. 1,303,304; May 27; v. 262; p. 618.
 Conveyor system. L. A. Griffin. No. 1,304,763; May 27; v. 262; p. 532.
 Conveyor-tracks. Counterbalanced guide for. J. D. Murphy. No. 1,303,574; May 13; v. 262; p. 230.
 Cooker, Stirring. G. A. Lambert. No. 1,303,333; May 13; v. 262; p. 180.
 Cooking kit, Box. E. B. Gilbert. No. 1,302,911; May 6; v. 262; p. 88.
 Cooking utensil. W. E. Browning. No. 1,304,448; May 20; v. 262; p. 484.
 Cooking utensil. S. H. Petra. No. 1,304,500; May 20; v. 262; p. 446.
 Coop. F. J. Spritzer. No. 1,303,736; May 13; v. 262; p. 202.
 Coop-holder. J. Tamm. No. 1,303,938; May 6; v. 262; p. 90.
 Core-bar puller. T. P. Anthony. No. 1,304,142; May 20; v. 262; p. 374.
 Corium, Asphalting. W. Goodrow. No. 1,304,678; May 27; v. 262; p. 618.
 Corset. A. J. Locantia. No. 1,304,802; May 27; v. 262; p. 550.
 Corset. E. Sanning. No. 1,303,812; May 13; v. 262; p. 321.
 Cotton-cleaner. M. Cabana. No. 1,303,638; May 6; v. 262; p. 104.
 Cotton-chopper. M. T. Janes. No. 1,303,798; May 13; v. 262; p. 374.
 Cotton-cleaning machine. A. Bruno and C. H. Stann. No. 1,304,160; May 6; v. 262; p. 180.
 Cotton-cord treating. H. A. Pro and G. H. Aveson. No. 1,304,670; May 27; v. 262; p. 518.
 Couch or divan. M. Lipp. No. 1,304,579; May 27; v. 262; p. 408.
 Coupling. See—
 Check-line coupling.
 Flexible coupling.
 Hose-coupling.
 Inflating-coupling.
 Pipe-coupling.
 Coupling. P. Antonetti. No. 1,303,446; May 13; v. 262; p. 210.
 Coupling. J. Hirschman. No. 1,304,970; May 27; v. 262; p. 672.

Coupling. J. Hirschman. No. 1,304,969; May 27; v. 262; p. 572.
 Coupling. A. W. Judy. No. 1,303,986; May 6; v. 262; p. 61.
 Cover. Smp. P. C. Brock. No. 1,303,021; May 6; v. 262; p. 108.
 Covering. W. Achtmeyer. No. 1,303,334; May 13; v. 262; p. 171.
 Covering. Floor, wall, or like. F. W. Moore. No. 1,304,032; May 20; v. 262; p. 304.
 Craft, Aerial and marine. S. H. Lyman. No. 1,303,605; May 13; v. 262; p. 255.
 Craft of reinforced concrete. Floating. N. K. Fogner. No. 1,303,647; May 13; v. 262; p. 344.
 Craft, Sailing. I. Henderson. No. 1,303,839; May 13; v. 262; p. 282.
 Crane safety device. R. H. Schubert. No. 1,304,381; May 20; v. 262; p. 431.
 Crank-shaft. E. A. Weinhardt. No. 1,303,900; May 6; v. 262; p. 100.
 Crate, Collapsible poultry. F. Wakker. No. 1,304,740; May 13; v. 262; p. 264.
 Crate, Container. H. T. Fogg. No. 1,303,973; May 20; v. 262; p. 323.
 Crane, Knuckdown banna. J. Llanos. No. 1,304,604; May 27; v. 262; p. 578.
 Crane, Knuckdown. W. A. Landquist. No. 1,303,884; May 6; v. 262; p. 114.
 Crusher. See—
 Rock-crusher.
 Crutch. H. L. Herrold. No. 1,304,978; May 27; v. 262; p. 592.
 Crutch-handle. A. Plouffe. No. 1,302,721; May 13; v. 262; p. 268.
 Crutch. C. A. Segur and W. Burnip. No. 1,304,339; May 20; v. 262; p. 422.
 Cuff. S. Burk. No. 1,303,254; May 13; v. 262; p. 176.
 Cuff. G. W. Cooper. No. 1,303,687; May 27; v. 262; p. 590.
 Cultivator article. E. Lamm. No. 1,303,083; May 6; v. 262; p. 118.
 Cultivator. S. L. Allen. No. 1,304,926; May 27; v. 262; p. 562.
 Cultivator. C. T. Ray. No. 1,304,512; May 20; v. 262; p. 447.
 Cultivator attachment. C. Van Gemert. No. 1,303,510; May 13; v. 262; p. 278.
 Cultivator attachment. A. J. Towse. No. 1,304,631; May 27; v. 262; p. 508.
 Cultivator device. J. Cramer. No. 1,303,084; May 6; v. 262; p. 104.
 Cultivator riding attachment. O. D. Bendura. No. 1,303,838; May 13; v. 262; p. 224.
 Cultivators, Hand-lever mechanism for. C. C. Lederer. No. 1,304,733; May 27; v. 262; p. 538.
 Cup. See—
 Grease-cup.
 Priming and testing cup.
 Oil-cup.
 Cup-dispensing apparatus. E. G. Weisman. No. 1,303,433; May 13; v. 262; p. 267.
 Cups, Ac. Coupling device for grease. C. H. Quintin. No. 1,304,601; May 27; v. 262; p. 562.
 Current-controlling regulator. Contact member for vibrating. V. G. Agnew and J. G. King. No. 1,302,622; May 6; v. 262; p. 27.
 Current interrupter, Electric. M. B. Rodriguez. No. 1,304,376; May 20; v. 262; p. 429.
 Currycomb. G. T. Ayer. No. 1,302,785; May 6; v. 262; p. 82.
 Curtain-fastener. W. Altpeter. No. 1,304,527; May 27; v. 262; p. 488.
 Curtain-fastener. J. Kirschbaum. No. 1,304,400; May 20; v. 262; p. 442.
 Curtain-fastener device for vehicle-tops. E. J. Feighery. No. 1,305,062; May 27; v. 262; p. 592.
 Curtain fixture, Adjustable roll. C. H. Angus. No. 1,303,010; May 6; v. 262; p. 102.
 Curtain-light. C. J. U. Rosenberg. No. 1,302,500; May 6; v. 262; p. 4.
 Curtain-light. S. Day. No. 1,302,771; May 13; v. 262; p. 270.
 Curtain-rod and shade-roller hanger. G. Anderson. No. 1,303,812; May 13; v. 262; p. 277.
 Cushion. See—
 Seat-cushion.
 Cushion-wheel. A. L. Bennett. No. 1,304,011; May 20; v. 262; p. 351.
 Cut-off, Automatic. W. G. Colborn. No. 1,303,166; May 6; v. 262; p. 132.
 Cut-out and alarm. Combined. E. Mehlmer. No. 1,303,950; May 20; v. 262; p. 334.
 Cut-out. Muller. I. Stanley. No. 1,304,113; May 20; v. 262; p. 300.
 Cutter. See—
 Butter-cutter.
 Hair-cutter.
 Rastings-cutter.
 Cutter-knives, Instrument for laying out the cutting edges of. R. D. Emery. No. 1,302,645; May 6; v. 262; p. 21.
 Cutting and stopping machine. L. E. Moore. No. 1,303,221; May 6; v. 262; p. 142.
 Cutting-off machine. K. W. Hallden. No. 1,302,791; May 6; v. 262; p. 58.

Cutting-off machine. C. F. Holderman. No. 1,305,106; May 27; v. 262; p. 597.
 Cycle Motor. J. F. Hausmann. No. 1,302,656; May 6; v. 262; p. 33.
 Cylinder Engine. P. J. Messer. No. 1,302,092; May 6; v. 262; p. 40.
 Cylinders of internal-combustion engine. Bolster-support for. T. C. Menges. No. 1,302,691; May 6; v. 262; p. 40.
 Damper-regulator. T. Connell. No. 1,302,635; May 6; v. 262; p. 29.
 Dayenport. J. G. Stoneback. (Reissue.) No. 14,955; May 27; v. 262; p. 623.
 Davit. T. H. Marten. No. 1,304,897; May 27; v. 262; p. 557.
 Dehydrating metal salts. Means for. M. J. Kermer. No. 1,303,682; May 13; v. 262; p. 253.
 Demand meter. Maximum. C. A. Boddie. No. 1,303,244; May 13; v. 262; p. 174.
 Demand meter. Maximum. C. A. Boddie. No. 1,303,457; May 13; v. 262; p. 211.
 Demountable wheel. A. J. Spranger. No. 1,304,112; May 20; v. 262; p. 369.
 Dental crowns. Apparatus for the manufacture of. D. T. Parkinson. No. 1,304,067; May 20; v. 262; p. 368.
 Dental liquids and the like. Bottle or jar for dispensing. N. K. Garhart. No. 1,304,304; May 20; v. 262; p. 404.
 Dental plate. A. J. Glaser. No. 1,304,086; May 20; v. 262; p. 356.
 Dental pliers. J. L. Young. No. 1,304,720; May 27; v. 262; p. 524.
 Denture. Removable. E. C. Bennett. No. 1,302,499; May 6; v. 262; p. 4.
 Desk. Drawing. H. M. Fiedner. No. 1,303,280; May 13; v. 262; p. 190.
 Detachable wheel. J. V. Pugh. No. 1,304,510; May 20; v. 262; p. 447.
 Die. C. M. Braham. No. 1,304,151; May 20; v. 262; p. 376.
 Die-stock. M. W. Bechtel. No. 1,304,249; May 20; v. 262; p. 395.
 Digger. See—
 Peasant-digger.
 Direction-indicator. J. B. Harshman. No. 1,303,476; May 13; v. 262; p. 218.
 Direction-indicator. Electrical. H. Kageyama. No. 1,304,573; May 27; v. 262; p. 497.
 Directory. Telephone. C. F. Middlebrook. No. 1,303,100; May 6; v. 262; p. 118.
 Disinfecting solutions. Ac. Composition of matter adapted for use as. C. Ellis. No. 1,302,905; May 6; v. 262; p. 51.
 Disk-ink-eraser-operating device. F. H. Call. No. 1,302,765; May 6; v. 262; p. 59.
 Dispensing apparatus. Sanitary. F. Younger. No. 1,303,141; May 6; v. 262; p. 127.
 Dispensing machine. Ticket. R. H. Helms. No. 1,304,976; May 27; v. 262; p. 571.
 Dispensing vessel. R. H. Elliott. No. 1,304,463; May 20; v. 262; p. 438.
 Display-card support. J. A. Heithaus. No. 1,303,306; May 13; v. 262; p. 184.
 Display-counter top. Refrigerated. W. A. Freeman. No. 1,304,966; May 27; v. 262; p. 585.
 Display device. A. W. Cadmus. No. 1,304,787; May 27; v. 262; p. 527.
 Display device. Millinery. H. Stearns. No. 1,302,967; May 6; v. 262; p. 97.
 Display-fixture. C. H. Morgan. No. 1,303,361; May 13; v. 262; p. 194.
 Display-rack. W. T. Holmes. No. 1,304,771; May 27; v. 262; p. 534.
 Displaying announcements, advertisements, or the like. Apparatus for. C. Skelke. No. 1,304,395; May 20; v. 262; p. 424.
 Displaying device. M. G. Mather. No. 1,304,899; May 27; v. 262; p. 557.
 Distillation process and apparatus. E. J. Hudson and H. C. Merriam. No. 1,303,321; May 13; v. 262; p. 187.
 Distillation-tube. F. W. Sperr, Jr. No. 1,303,980; May 20; v. 262; p. 346.
 Distributor. P. C. Haas. No. 1,305,093; May 27; v. 262; p. 594.
 Distributing system. Call. S. B. Williams, Jr. No. 1,304,041; May 27; v. 262; p. 509.
 Dividers. C. E. Walton. No. 1,303,747; May 13; v. 262; p. 264.
 Doll. E. S. Wingert. No. 1,304,434; May 20; v. 262; p. 432.
 Door-alarm. Automatic. J. R. Anderson. No. 1,304,243; May 20; v. 262; p. 394.
 Door-brace. J. D. Shyer. No. 1,304,394; May 20; v. 262; p. 424.
 Door check and closer. A. T. Loftsgaarden. No. 1,304,333; May 20; v. 262; p. 411.
 Door-hanger. J. E. Corbin. No. 1,303,775; May 13; v. 262; p. 270.
 Door-holding device. H. K. Hitchcock. No. 1,305,212; May 27; v. 262; p. 617.
 Door-lock. R. P. Gehret. No. 1,304,175; May 20; v. 262; p. 351.
 Door. Revolving. D. C. Smith. No. 1,303,406; May 13; v. 262; p. 202.

Door. Revolving. J. F. Sunderland. No. 1,303,988; May 20; v. 262; p. 341.
 Door-stop. W. H. Wood. No. 1,303,444; May 13; v. 262; p. 309.
 Double-exposure preventer. W. H. Touchette. No. 1,303,742; May 13; v. 262; p. 362.
 Double-speed wrench. J. P. Firpa. No. 1,304,786; May 27; v. 262; p. 531.
 Doung. Machine for dividing and working. H. Bertram. No. 1,303,484; May 13; v. 262; p. 211.
 Dough-treating device. E. Schiller. No. 1,304,104; May 20; v. 262; p. 368.
 Draft-gear. H. C. Friebe. No. 1,302,704; May 6; v. 262; p. 42.
 Draft-gear. H. C. Friebe. No. 1,302,705; May 6; v. 262; p. 42.
 Draft-gears. Mechanism for recording actions of. J. F. O'Connor. No. 1,303,948; May 20; v. 262; p. 340.
 Draft-rigging. Friction. K. F. Nystrom. No. 1,303,372; May 13; v. 262; p. 194.
 Draft-rigging. Friction. J. F. O'Connor. No. 1,303,374; May 13; v. 262; p. 197.
 Draft-rigging. Friction. J. F. O'Connor. No. 1,303,376; May 13; v. 262; p. 197.
 Drag-plane. Grader. H. H. Thurston. No. 1,303,415; May 13; v. 262; p. 304.
 Drag-saw. J. Johnson. No. 1,303,561; May 13; v. 262; p. 329.
 Drawbridge and the like. Safety device for. J. Landall. No. 1,303,077; May 6; v. 262; p. 112.
 Drawer-guide. G. H. Wheary. No. 1,304,123; May 20; v. 262; p. 378.
 Drawing-table. R. R. Koechlin. No. 1,303,683; May 13; v. 262; p. 253.
 Drier. See—
 Hair-drier. Operating drier.
 Drying and aerating machines. Driving mechanism for. J. A. Sparks and C. R. and W. M. Clark. No. 1,304,499; May 20; v. 262; p. 435.
 Drying and conditioning machine. T. Allsup and W. W. Gibson. No. 1,304,648; May 27; v. 262; p. 516.
 Drying-chamber. O. H. Abbott. No. 1,302,496; May 6; v. 262; p. 5.
 Drying machine. Machine for. A. G. H. No. 1,302,780; May 6; v. 262; p. 87.
 Drying materials. Apparatus for. H. E. Hollister. No. 1,304,182; May 20; v. 262; p. 382.
 Drying-room. F. A. Lippert. No. 1,303,078; May 6; v. 262; p. 114.
 Drift-belt pulley. F. Engstrom. No. 1,304,080; May 27; v. 262; p. 518.
 Drill. See—
 Rock-drill.
 Roller-drill.
 Oil-drill.
 Drill. P. O. Hoagland. No. 1,304,961; May 27; v. 262; p. 572.
 Drill and tap driver. J. C. Gilmer. No. 1,304,473; May 20; v. 262; p. 429.
 Drill-bit-pulling device. W. M. Williams. No. 1,305,184; May 27; v. 262; p. 611.
 Drill-making machine. E. Ljunggren. No. 1,302,695; May 6; v. 262; p. 29.
 Drill-pipe reinforcing. W. O. Maxwell and H. Schwab. No. 1,302,690; May 6; v. 262; p. 40.
 Drill-press. W. F. McCarty. No. 1,303,080; May 6; v. 262; p. 116.
 Drills and the like. Power-transmitting mechanism for. F. H. Mills. No. 1,303,256; May 13; v. 262; p. 194.
 Drills. Cylinder and guide construction for hammer. L. C. Bayles and F. M. Slater. No. 1,304,443; May 20; v. 262; p. 432.
 Drilling apparatus. G. H. Gilman. No. 1,303,790; May 13; v. 262; p. 273.
 Drilling or sowing machine. Rotary. C. E. P. Jellen. No. 1,304,321; May 20; v. 262; p. 409.
 Drinking-cup. H. B. Cooley. (Reissue.) No. 14,950; May 20; v. 262; p. 461.
 Drinking-fountain. E. G. Watrous. No. 1,304,083; May 20; v. 262; p. 350.
 Driving-wheel. Drivable. J. Dain. No. 1,304,029; May 20; v. 262; p. 354.
 Dump tripping device. Bottom. G. E. Strom. No. 1,302,576; May 6; v. 262; p. 76.
 Dust-arrestor and the like. A. Anderson. No. 1,303,006; May 6; v. 262; p. 101.
 Dust-collector. Pneumatic. V. J. Johnson and E. G. Thoreen. No. 1,303,819; May 13; v. 262; p. 278.
 Dust-separator. C. E. Sargent. No. 1,302,716; May 6; v. 262; p. 44.
 Dust-separator. G. Tremblay and J. N. Dufour. No. 1,304,123; May 20; v. 262; p. 371.
 Dye recovery. E. J. Wall. No. 1,303,426; May 13; v. 262; p. 204.
 Dyes. Production of blue sulfur. O. Knecht. No. 1,302,671; May 6; v. 262; p. 84.
 Dynamo-electric machine. R. E. Hollmann and C. W. Starker. No. 1,305,108; May 27; v. 262; p. 595.
 Dynamometer. J. R. Pouch. No. 1,303,766; May 13; v. 262; p. 272.
 Ear-ring. A. Kessler. No. 1,304,966; May 27; v. 262; p. 572.
 Edge-setting tool. Retaining member for. J. Cavanagh. No. 1,302,510; May 6; v. 262; p. 7.

Edging-machine. A. A. Arnold. No. 1,302,494; May 6; v. 262; p. 2.
 Egg-case fillers. Dividing board or set for. G. W. Swift, Jr. No. 1,302,962; May 6; v. 262; p. 98.
 Egg-strap and fastener. E. S. Boardman. No. 1,304,532; May 27; v. 262; p. 499.
 Eggs. Method and apparatus for preserving. E. M. Nichols. No. 1,302,955; May 6; v. 262; p. 91.
 Electric-arc lights. Carbon-holder for. R. C. Miller. No. 1,304,508; May 20; v. 262; p. 445.
 Electric battery. G. N. Antosoff. No. 1,303,842; May 20; v. 262; p. 321.
 Electric battery. G. N. Antosoff. No. 1,303,844; May 20; v. 262; p. 321.
 Electric battery. R. C. Beamer and H. F. French. No. 1,303,453; May 13; v. 262; p. 211.
 Electric battery. H. F. French. No. 1,303,286; May 13; v. 262; p. 181.
 Electric box. F. H. Ward. No. 1,304,226; May 20; v. 262; p. 399.
 Electric braking-switch. P. F. Alsmann. No. 1,303,007; May 6; v. 262; p. 101.
 Electric cables. Binding-post for. E. J. Tomlinson. No. 1,303,834; May 13; v. 262; p. 224.
 Electric controlling means. H. W. Leonard. No. 1,302,917; May 6; v. 262; p. 64.
 Electric-current meter. C. A. Boddie. No. 1,303,241; May 13; v. 262; p. 174.
 Electric-energy-distributing system. C. H. Wordingham. No. 1,304,337; May 20; v. 262; p. 392.
 Electric furnace. H. A. Greaves and H. Etchells. No. 1,303,780; May 6; v. 262; p. 68.
 Electric furnace. W. H. Moore. No. 1,304,280; May 20; v. 262; p. 415.
 Electric furnace. I. Beamerfelt. No. 1,303,167; May 27; v. 262; p. 607.
 Electric furnace. H. G. Woldenthal. No. 1,304,426; May 20; v. 262; p. 499.
 Electric heater. B. R. Kahn. No. 1,304,987; May 27; v. 262; p. 618.
 Electric heaters. Guard for. R. G. Ledy and N. Gerson. No. 1,305,180; May 27; v. 262; p. 608.
 Electric heating and melting furnace. V. Stobbe. No. 1,304,177; May 27; v. 262; p. 609.
 Electric heating apparatus. J. P. Sunderland. No. 1,304,084; May 27; v. 262; p. 504.
 Electric heating apparatus. J. P. Sunderland. No. 1,304,080; May 27; v. 262; p. 504.
 Electric-light socket. H. Molau. No. 1,303,090; May 6; v. 262; p. 112.
 Electric lamp. System of boosting. A. Warner. No. 1,304,123; May 20; v. 262; p. 371.
 Electric machine. Dynamo. V. A. Fynn. No. 1,304,953; May 27; v. 262; p. 592.
 Electric motor. P. M. Lincoln. No. 1,304,227; May 27; v. 262; p. 399.
 Electric perforating and recording machine. G. H. Davis. No. 1,304,983; May 20; v. 262; p. 524.
 Electric plug and socket connection. W. Stewart. No. 1,303,608; May 13; v. 262; p. 229.
 Electric regulation. J. L. Creveling. No. 1,303,776; May 13; v. 262; p. 276.
 Electric regulator. J. Bijur. No. 1,304,922; May 20; v. 262; p. 449.
 Electric riveting. F. L. Dyer. No. 1,305,078; May 27; v. 262; p. 591.
 Electric supply-circuit. Disconnecting device for. C. H. Wordingham. No. 1,304,226; May 20; v. 262; p. 392.
 Electric switch. J. P. Cavanagh. No. 1,303,161; May 6; v. 262; p. 181.
 Electric switch. A. E. Francis. No. 1,303,876; May 20; v. 262; p. 327.
 Electric switch. E. A. Hawthorne. No. 1,304,564; May 27; v. 262; p. 404.
 Electric switch. E. J. Rohne. No. 1,304,277; May 20; v. 262; p. 420.
 Electric system. F. H. Shepard. No. 1,305,015; May 27; v. 262; p. 579.
 Electrical apparatus. J. Bijur. No. 1,304,935; May 27; v. 262; p. 594.
 Electrical apparatus. F. P. Brand. No. 1,304,257; May 20; v. 262; p. 397.
 Electrical area. Arrangement for forming. B. Duschultz. No. 1,304,169; May 20; v. 262; p. 380.
 Electrical-conduit installation. H. G. Knodner and C. E. Hubbard. No. 1,302,911; May 6; v. 262; p. 62.
 Electrical connector. J. Ladgren. No. 1,304,075; May 20; v. 262; p. 322.
 Electrical energy. Method and apparatus for controlling. C. D. Ebert. No. 1,303,164; May 6; v. 262; p. 124.
 Electrical fixture. W. J. Allphin. No. 1,303,004; May 6; v. 262; p. 109.
 Electrical indicating device. S. F. Cole. No. 1,304,022; May 20; v. 262; p. 383.
 Electrical protective device. A. E. Boggs. No. 1,305,057; May 27; v. 262; p. 597.
 Electrical regulating system. A. A. Tirrill. No. 1,305,081; May 27; v. 262; p. 592.
 Electrical thermometer system. L. H. Des Isles. No. 1,304,277; May 20; v. 262; p. 400.
 Electrical switch. E. J. Tomlinson and S. C. McKeown. No. 1,302,730; May 6; v. 262; p. 47.
 Electrically-controlled transmission. E. E. Wackwitz. No. 1,304,636; May 27; v. 262; p. 508.

Electrode for search-lights, projectors, and the like. Negative. C. Buchwald, P. Quisner, and H. Viertel. No. 1,302,886; May 6; v. 262; p. 80.
 Electrode. Spot-welding. L. S. Lachman. No. 1,303,919; May 20; v. 262; p. 324.
 Electrodes. Production of. W. K. Page. No. 1,302,959; May 6; v. 262; p. 91.
 Electrodes. Reinforced joint for carbon. W. P. Bidelman. No. 1,304,444; May 20; v. 262; p. 434.
 Electrolytic cell. C. W. Marsh. No. 1,302,524; May 6; v. 262; p. 65.
 Electromagnetic circuit-interrupter. H. O. Putt. No. 1,302,847; May 6; v. 262; p. 70.
 Electromagnetic current-limiter. G. Trygve. No. 1,302,916; May 6; v. 262; p. 83.
 Electrolysis. H. I. Allen. No. 1,303,226; May 13; v. 262; p. 171.
 Electrolytic cell and electrode therefor. A. T. Stuart. No. 1,303,519; May 13; v. 262; p. 222.
 Electromechanical brake apparatus. E. L. Gale, Jr. No. 1,304,570; May 27; v. 262; p. 552.
 Electrotherapeutic device. W. A. D. Evans. No. 1,303,378; May 13; v. 262; p. 179.
 Electrotherapeutic device. W. A. D. Evans. No. 1,303,374; May 13; v. 262; p. 179.
 Elevator. See—
 Safety-elevator. Straight-lift elevator.
 Elevator attachment. A. G. Lebel. No. 1,303,685; May 13; v. 262; p. 252.
 Elevator-car-controlling mechanism. A. W. Hubers. No. 1,302,847; May 6; v. 262; p. 14.
 Elevator for corn, &c. J. H. Gilman. No. 1,303,532; May 13; v. 262; p. 229.
 Elevator safety and other devices. Safety-clutch for. R. C. Smith. No. 1,302,601; May 6; v. 262; p. 22.
 Elevator safety apparatus. J. Mutton. No. 1,304,798; May 27; v. 262; p. 539.
 Elevators. Emergency safety-brake for. J. A. Durst. No. 1,303,371; May 13; v. 262; p. 179.
 Ellipsograph. J. McNeil. No. 1,304,494; May 20; v. 262; p. 443.
 Emergency-brake. F. J. Bock. No. 1,304,254; May 20; v. 262; p. 394.
 Emulsion. Method and apparatus for dehydrating. M. J. Trumble. No. 1,304,124; May 20; v. 262; p. 371.
 Endgate. Wagon. H. B. Reed. No. 1,303,590; May 13; v. 262; p. 199.
 End-trimming machine. A. F. Donaldson. No. 1,302,532; May 6; v. 262; p. 10.
 Engine. See—
 Combustion-engine. Motive-power engine.
 Governor-engine. Rotary engine.
 Internal-combustion engine. Rotary gas-engine.
 Internal-combustion rotary engine. Steam-engine.
 Traction-engine.
 Engine connection. H. T. Kraus. No. 1,304,577; May 27; v. 262; p. 498.
 Engine-cooling system. T. B. Slate. No. 1,303,605; May 13; v. 262; p. 229.
 Engine. J. J. Walk. No. 1,304,129; May 20; v. 262; p. 372.
 Engine lighter-bar. Beating. M. R. Rust. No. 1,304,604; May 27; v. 262; p. 508.
 Engine or pump. Rotary. H. E. Little. No. 1,305,132; May 27; v. 262; p. 601.
 Engine-starter. V. H. Washburne. No. 1,303,431; May 13; v. 262; p. 207.
 Engine. starter. Automobile. S. B. McHenry. No. 1,304,996; May 27; v. 262; p. 575.
 Engine starter. Explosive. P. Crosley. No. 1,302,637; May 6; v. 262; p. 29.
 Engine starting device. J. Bijur. No. 1,304,252; May 20; v. 262; p. 396.
 Engine starting system. C. F. Kettering and W. A. Chryst. No. 1,303,631; May 13; v. 262; p. 280.
 Engine-valve. E. L. Camfield. No. 1,304,155; May 20; v. 262; p. 377.
 Engines. Automatic control for internal-combustion. C. H. Kenneweg. No. 1,304,888; May 27; v. 262; p. 555.
 Engines. Automatic reversible fan for explosive. A. Holland. No. 1,304,048; May 20; v. 262; p. 358.
 Engines. Charge-forming device for internal-combustion. H. Manthey. No. 1,303,708; May 13; v. 262; p. 257.
 Engines. Connecting-rod for internal-combustion. H. B. Ricardo. No. 1,303,498; May 13; v. 262; p. 219.
 Engines. Cross-head for. T. Rogatchoff. No. 1,303,723; May 13; v. 262; p. 261.
 Engines. Fuel-feed system for internal-combustion. F. H. Gibbs. No. 1,303,290; May 13; v. 262; p. 182.
 Engines. Gas and spark lever for the control of motor-vehicle. E. Godlove. No. 1,303,653; May 13; v. 262; p. 247.
 Engines. Governor for internal-combustion. J. B. Fisher. No. 1,304,672; May 27; v. 262; p. 515.
 Engines. Manifold-heater for internal-combustion. F. J. Hoag and R. M. Smith. No. 1,303,559; May 13; v. 262; p. 230.
 Engines. Manufacture of hydrocarbon liquids for use in internal-combustion. C. F. Winch. No. 1,304,463; May 20; v. 262; p. 432.
 Engines. Means for cooling and lubricating. J. E. Southcombe. No. 1,304,399; May 20; v. 262; p. 425.

Engines, Means for producing hydrocarbon fuel suitable for use in internal-combustion. F. J. Moore and C. F. Mercer. No. 1,304,290; May 20; v. 262; p. 418.

Engines, Primer for internal-combustion. W. T. Murnich. No. 1,303,353; May 13; v. 262; p. 188.

Engines, Rotary valve for internal-combustion. P. E. White. No. 1,304,830; May 27; v. 262; p. 547.

Engines, Scavenging of internal-combustion. P. Balyash. No. 1,304,443; May 20; v. 262; p. 423.

Engines, Valve construction for internal-combustion. H. H. Cove. No. 1,303,064; May 13; v. 262; p. 247.

Engines, Vaporizing attachment for internal-combustion. T. Popier. No. 1,302,844; May 6; v. 262; p. 38.

Engines, Water-jackets for internal-combustion. P. J. Westergaard. No. 1,303,041; May 27; v. 262; p. 384.

Endings-cutting. W. F. Warner. No. 1,304,091; May 20; v. 262; p. 349.

Envelop. J. A. Delaughter. No. 1,304,181; May 20; v. 262; p. 378.

Envelope. M. Gay. No. 1,303,181; May 13; v. 262; p. 229.

Envelope. E. H. Heock. No. 1,303,098; May 6; v. 262; p. 111.

Envelope. M. Vierengel. No. 1,302,986; May 6; v. 262; p. 78.

Envelope, Duplex. J. Sawdon. No. 1,303,908; May 20; v. 262; p. 344.

Envelope-grip. T. F. Connor. No. 1,302,514; May 6; v. 262; p. 7.

Envelope, Window. V. E. Heywood. No. 1,304,577; May 27; v. 262; p. 583.

Envelope, Adjustable gasket for. R. Belcher. No. 1,304,148; May 20; v. 262; p. 375.

Ethylene diacetate, Manufacture of. J. Koetschet and M. Beudet. No. 1,304,908; May 27; v. 262; p. 574.

Evaporator. G. H. Benjamina. No. 1,302,625; May 6; v. 262; p. 27.

Evaporator. R. W. King and H. G. Miller. No. 1,303,908; May 6; v. 262; p. 128.

Evaporator, feed-water heater, and the like. R. E. How and H. C. Davis. No. 1,304,579; May 20; v. 262; p. 421.

Evaporator-furnace. J. S. Clarke. No. 1,304,542; May 27; v. 262; p. 491.

Explosive. J. T. Dewry. No. 1,302,778; May 6; v. 262; p. 64.

Explosive. W. Ristved and D. Cross. No. 1,303,118; May 6; v. 262; p. 122.

Explosive device. A. D. Romann. No. 1,303,480; May 13; v. 262; p. 210.

Explosive gaseous mixtures, Burning of. C. E. Luchs. No. 1,302,819; May 6; v. 262; p. 64.

Explosive-powder safety-box. C. I. Snyder. No. 1,302,909; May 6; v. 262; p. 74.

Extension-table. G. H. Ross and A. Anderson. No. 1,304,204; May 20; v. 262; p. 364.

Extension-table. H. L. von Troit. No. 1,303,907; May 20; v. 262; p. 349.

Extension-table lock. E. W. Thornton. No. 1,303,823; May 13; v. 262; p. 280.

Farming implement. G. Raun. No. 1,303,961; May 20; v. 262; p. 342.

Eyeglass-case. B. F. Lindeman. No. 1,303,485; May 13; v. 262; p. 217.

Eyefitting-machine. P. R. Glass. No. 1,303,194; May 6; v. 262; p. 130.

Eye-protector. H. T. Reeve. No. 1,304,305; May 27; v. 262; p. 540.

Factory-machine spool-holding apparatus. S. Berkhovits. No. 1,303,015; May 6; v. 262; p. 102.

Fan, Revolving. E. W. Donnan. No. 1,303,261; May 13; v. 262; p. 177.

Farming implements, Power unit for. C. M. Gillespie. No. 1,305,088; May 27; v. 262; p. 583.

Fastener-inserting machine. J. F. Davey. No. 1,302,516; May 6; v. 262; p. 7.

Fastener, Separable. D. Bourque. No. 1,302,628; May 6; v. 262; p. 28.

Fastener-solder, Separable. G. Sundback. No. 1,302,606; May 6; v. 262; p. 23.

Fastener, Turn-builton. F. R. Carr. No. 1,303,770; May 13; v. 262; p. 209.

Fastener, Window. C. Lombardo. No. 1,302,687; May 6; v. 262; p. 38.

Fastening device. S. H. Harris. No. 1,302,918; May 6; v. 262; p. 84.

Fastening device. F. S. Sargeant. No. 1,303,118; May 6; v. 262; p. 122.

Faucet. E. R. Stuart. No. 1,305,023; May 27; v. 262; p. 580.

Feed apparatus, Vacuum. F. Weinberg. No. 1,302,610; May 6; v. 262; p. 24.

Feed-bag, Horse. J. Schmidt. No. 1,303,403; May 13; v. 262; p. 202.

Feed lubricator, Forced. F. C. Blanchard. No. 1,304,149; May 20; v. 262; p. 376.

Feed-regulator for powdered coal. H. Thomas and J. Dahlstrom. No. 1,304,407; May 20; v. 262; p. 426.

Feeder, Hog. E. A. Klump. No. 1,303,917; May 20; v. 262; p. 334.

Feeder, Hog. O. B. Shook. No. 1,304,107; May 20; v. 262; p. 368.

Feeder mechanism, Cold-roll. T. R. Hughes, W. J. Davis, and D. D. Hughes. No. 1,304,080; May 20; v. 262; p. 353.

Feeding mechanism for cattle, etc. Duplex. F. L. Harman. No. 1,302,794; May 6; v. 262; p. 38.

Fence-post. E. R. Dougherty. No. 1,304,572; May 6; v. 262; p. 58.

Fence-post. E. R. Dougherty. No. 1,303,894; May 20; v. 262; p. 330.

Fender. See—Ship-fender.

Fertilizer. T. C. Meadows. No. 1,304,080; May 20; v. 262; p. 344.

Fiber-treating device. H. M. Duffry. No. 1,304,908; May 27; v. 262; p. 581.

Fiber-treating device. H. M. Duffry. No. 1,304,908; May 27; v. 262; p. 581.

Filing-cabinet. L. T. Kuhl. No. 1,304,988; May 27; v. 262; p. 574.

Pinlet material. J. H. Washburn and A. E. Shaw. No. 1,303,420; May 13; v. 262; p. 297.

Film-developing device. J. R. Oliver. No. 1,303,708; May 6; v. 262; p. 42.

Film-developer. C. J. and C. T. A. Oshold. No. 1,303,708; May 13; v. 262; p. 261.

Film. Coloring cinematograph. A. Wyckoff and H. Handeschild. No. 1,303,886; May 13; v. 262; p. 381.

Film. Machine for and art of coloring cinematograph. A. Wyckoff and H. Handeschild. No. 1,303,887; May 13; v. 262; p. 382.

Filter. C. H. Moore. No. 1,304,594; May 20; v. 262; p. 468.

Filter apparatus. H. M. Nichols. No. 1,303,928; May 6; v. 262; p. 67.

Filter medium or other article of manufacture. H. J. Sweetland. No. 1,304,988; May 27; v. 262; p. 581.

Filter, Water. C. M. Trebell. No. 1,302,721; May 6; v. 262; p. 67.

Filters in filtering condition, Maintaining. M. E. Kuryla. No. 1,303,618; May 6; v. 262; p. 68.

Filtering apparatus. M. E. Kuryla. No. 1,303,612; May 6; v. 262; p. 68.

Fire-alarm apparatus. A. E. Allen. No. 1,303,088; May 6; v. 262; p. 100.

Fire-alarm apparatus, Automatic. E. A. Lowe. No. 1,303,088; May 6; v. 262; p. 114.

Fire-escape. A. G. Miller. No. 1,303,708; May 13; v. 262; p. 261.

Fire-extinguisher. M. G. Kopf. No. 1,303,678; May 6; v. 262; p. 58.

Fire-extinguisher. W. F. Lauterbach. No. 1,303,878; May 6; v. 262; p. 37.

Fire-extinguisher. W. F. Lauterbach, U. J. Ruppel, and M. G. Kopf. No. 1,303,679; May 6; v. 262; p. 57.

Fire-extinguisher. D. E. Mahr. No. 1,303,680; May 6; v. 262; p. 60.

Fire-extinguishing apparatus, Automatic. R. R. Brodton. No. 1,303,708; May 13; v. 262; p. 261.

Fire-extinguishing apparatus, Automatic. R. L. Thompson, Jr. No. 1,303,180; May 6; v. 262; p. 134.

Fire-extinguishing apparatus, Chemical. J. R. Hamilton. No. 1,303,680; May 6; v. 262; p. 116.

Fire-tube boiler. J. D. MacLeichman. No. 1,304,098; May 20; v. 262; p. 464.

Firearm. W. D. Corlier. No. 1,303,688; May 6; v. 262; p. 108.

Firearm cartridge-feed mechanism. J. W. Smith. No. 1,303,697; May 13; v. 262; p. 262.

Firing mechanism of ordnance, Percussive. A. T. Dawson and G. T. Buckham. No. 1,303,894; May 6; v. 262; p. 9.

Fireproof safe. A. D. Coulter. No. 1,304,365; May 27; v. 262; p. 549.

Fish-crop. C. D. Olson. No. 1,302,839; May 6; v. 262; p. 68.

Fishing device. L. R. Gage, Sr. No. 1,304,302; May 20; v. 262; p. 408.

Fishing-line support. E. A. Heidmann. No. 1,304,570; May 27; v. 262; p. 583.

Fishing-rod. J. A. Wherry. No. 1,303,928; May 13; v. 262; p. 224.

Fing. A. C. Wilson. No. 1,303,622; May 13; v. 262; p. 242.

Flanged sections, Rolling. G. H. Barbour. No. 1,303,497; May 6; v. 262; p. 4.

Flash-light and mirror, Combined. C. W. Dalberg. No. 1,304,586; May 27; v. 262; p. 584.

Flasks or the like, Obtaining device for non-refillable. L. A. Olive. No. 1,303,882; May 13; v. 262; p. 104.

Flat-iron stand. H. H. Smith. No. 1,303,880; May 6; v. 262; p. 74.

Flax and other fibrous materials, Scrubbing of. G. Michel. No. 1,304,791; May 27; v. 262; p. 584.

Flexible coupling. C. H. Clark. No. 1,303,983; May 20; v. 262; p. 323.

Flexible metal tubing, Manufacture of. R. James. No. 1,303,674; May 13; v. 262; p. 251.

Flexible transparent material and making same. W. Glaeser. No. 1,303,683; May 6; v. 262; p. 109.

Floot feed-chamber and supply system therefor. C. L. Stokes. No. 1,303,610; May 13; v. 262; p. 280.

Floor construction. E. N. Murphy. No. 1,302,578; May 6; v. 262; p. 18.

Floor or wall screen. T. R. Merritt. (Balance.) No. 1,303,882; May 20; v. 262; p. 451.

Fluid-meter. W. J. Wehler. No. 1,303,425; May 13; v. 262; p. 208.

Fluid meter, Elastic. W. J. Wehler. No. 1,303,448; May 13; v. 262; p. 208.

Fluid-treating apparatus. G. F. Goerner. No. 1,302,918; May 6; v. 262; p. 83.

Flushing apparatus. L. Meyer. No. 1,303,145; May 27; v. 262; p. 603.

Fly-escape screen. G. W. Mittelstaedt. No. 1,303,147; May 27; v. 262; p. 604.

Fly-wheel attachment. H. G. Wallace. No. 1,303,428; May 13; v. 262; p. 208.

Flying-machine. A. Harb. No. 1,304,987; May 27; v. 262; p. 570.

Flying-machine. E. C. Sooy. No. 1,304,308; May 20; v. 262; p. 424.

Feeding apparatus. H. C. Jones. No. 1,303,676; May 13; v. 262; p. 251.

Feder-disintegrator. G. M. Merwin. No. 1,303,882; May 13; v. 262; p. 108.

Felder. M. W. Brueshaber. No. 1,302,894; May 6; v. 262; p. 79.

Folding and cutting mechanism. H. A. W. Wood. No. 1,304,232; May 20; v. 262; p. 391.

Folding-machine. P. R. Glass. No. 1,304,472; May 20; v. 262; p. 489.

Folding mechanism. A. Novick. No. 1,303,870; May 13; v. 262; p. 196.

Folding stand. A. Z. Polhamus. No. 1,302,703; May 6; v. 262; p. 42.

Folding table or stand. M. Plasecki. No. 1,302,589; May 6; v. 262; p. 20.

Food product and its manufacture. E. Douglas. No. 1,304,106; May 20; v. 262; p. 379.

Foot-supporter. A. E. Block. No. 1,302,760; May 6; v. 262; p. 82.

Footwear. W. H. Lambert. No. 1,303,565; May 13; v. 262; p. 231.

Force and suction device. E. Noppel. No. 1,304,196; May 20; v. 262; p. 384.

Formers for milling-machines, Method and apparatus for generating. B. M. W. Hansen. No. 1,302,640; May 6; v. 262; p. 12.

Forming-machine. J. W. Fitch. No. 1,303,189; May 6; v. 262; p. 135.

Foundry pattern composition and process and apparatus for using the same. C. M. Menefee. No. 1,303,097; May 6; v. 262; p. 118.

Fountain. See—Drinking-fountain.

Fountain, Duplex stock. W. A. McCollough. No. 1,303,500; May 13; v. 262; p. 232.

Fountain-pen feed-bar. Machine for making. F. H. Mooney. No. 1,303,940; May 20; v. 262; p. 338.

Frame. See—Motor-vehicle frame.

Motor-vehicle frame. Wire frame.

Furnace. See—Blast-furnace.

Blast-furnace. Evaporator-furnace.

Continuous reduction-furnace. Refuse-furnace.

Tipping furnace.

Electric furnace.

Fruit-picker. E. C. Goumy. No. 1,303,885; May 20; v. 262; p. 328.

Fruit-picker. V. Vucelovich. No. 1,304,127; May 20; v. 262; p. 372.

Fruit-pulp extractor. R. F. Leedfield. No. 1,304,392; May 27; v. 262; p. 584.

Fuel and making same, Artificial. A. W. Goulding. No. 1,303,209; May 27; v. 262; p. 618.

Fuel burner, Waste. W. J. Santmyer. No. 1,304,380; May 20; v. 262; p. 421.

Fuel-feeding device. T. A. Edison, Jr. No. 1,304,550; May 27; v. 262; p. 498.

Fuel-feeding device. C. B. Heffelfinger. No. 1,304,978; May 27; v. 262; p. 571.

Fuel-gage. J. H. Leitch. No. 1,304,080; May 20; v. 262; p. 362.

Fuel-heater. G. O. Olsen. No. 1,305,003; May 27; v. 262; p. 577.

Fuel in the treatment of metals, Utilizing. H. O. Breaker. No. 1,304,288; May 20; v. 262; p. 397.

Fumigating. W. G. Dingle. No. 1,304,747; May 27; v. 262; p. 529.

Fumigating and spraying apparatus. W. G. Dingle. No. 1,304,748; May 27; v. 262; p. 529.

Funnel. A. Drusher. No. 1,303,270; May 13; v. 262; p. 178.

Funnel. J. H. Gustafson. No. 1,303,880; May 20; v. 262; p. 328.

Furnace. W. D. Latham. No. 1,303,924; May 20; v. 262; p. 326.

Furnace. O. C. Woolson. No. 1,304,383; May 20; v. 262; p. 392.

Furnace-charging apparatus. W. E. Moore. No. 1,304,251; May 20; v. 262; p. 418.

Furnaces, Preheating apparatus for. H. E. Smythe. No. 1,305,176; May 27; v. 262; p. 609.

Furniture, Folding. A. Zabawa. No. 1,303,446; May 13; v. 262; p. 268.

Furrow-marker. F. E. Rumpel. No. 1,302,714; May 6; v. 262; p. 44.

Gage. See—Recording water-gage.

Gage. E. H. Bristol. No. 1,303,018; May 6; v. 262; p. 103.

262 O. G.—v

Gage. E. Danner. No. 1,303,289; May 13; v. 262; p. 177.

Game and appliances therefor, Board. J. Williams. No. 1,304,431; May 20; v. 262; p. 481.

Game apparatus. H. O. Fortune. No. 1,303,874; May 20; v. 262; p. 326.

Game. E. Jackson. No. 1,303,204; May 6; v. 262; p. 138.

Game. N. E. Knall. No. 1,303,482; May 13; v. 262; p. 210.

Game apparatus. C. Jentz. No. 1,302,805; May 6; v. 262; p. 81.

Game-board. L. P. Nichols. No. 1,303,494; May 13; v. 262; p. 218.

Game of fortunes. K. Hashimoto. No. 1,305,100; May 27; v. 262; p. 595.

Game of skill. A. L. Landis and W. D. Roy. No. 1,308,508; May 13; v. 262; p. 278.

Garment. A. H. Butler. No. 1,303,192; May 27; v. 262; p. 618.

Garment. N. Hatch. No. 1,303,663; May 13; v. 262; p. 249.

Garment. B. Hawkey. No. 1,304,179; May 20; v. 262; p. 381.

Garment. B. Noxon. No. 1,303,947; May 20; v. 262; p. 340.

Garment and hat rack, Combined. H. Hankwitz. No. 1,305,210; May 27; v. 262; p. 610.

Garment clamp or fastener. I. L. Sanger. No. 1,303,401; May 13; v. 262; p. 201.

Garment-drying form. E. M. Witherell. No. 1,302,617; May 6; v. 262; p. 25.

Garment, Inflatable bathing. J. Rebel. No. 1,303,889; May 13; v. 262; p. 199.

Garment, Lady's. A. Malsin. No. 1,303,092; May 6; v. 262; p. 117.

Garment-press. C. L. Braley. No. 1,303,247; May 13; v. 262; p. 175.

Garment with adjustable waistband. J. Busacker. No. 1,304,452; May 20; v. 262; p. 435.

Gas. Apparatus for burning. C. K. Harding. No. 1,304,042; May 20; v. 262; p. 357.

Gas-burner. J. I. Robin. No. 1,304,807; May 27; v. 262; p. 541.

Gas-burner. R. Thompson. No. 1,303,615; May 13; v. 262; p. 240.

Gas-burner, Automatic. J. J. Noeth. No. 1,304,195; May 20; v. 262; p. 384.

Gas-burner, Automatic cut-off. G. B. Tryon. No. 1,304,221; May 20; v. 262; p. 390.

Gas dissolved in liquid and producing same, Storing mass for. G. Dufrenoy. No. 1,304,160; May 20; v. 262; p. 378.

Gas-distribution apparatus. C. Ellis. No. 1,304,754; May 27; v. 262; p. 531.

Gas for cutting and welding purposes. J. Harris. No. 1,303,891; May 20; v. 262; p. 329.

Gas from vegetation, Apparatus for generating. F. Pfeiffer. No. 1,303,385; May 13; v. 262; p. 198.

Gas-generator. C. B. Wade. No. 1,304,225; May 20; v. 262; p. 390.

Gas generator, Portable acetylene. J. O. Bewan. No. 1,304,251; May 20; v. 262; p. 395.

Gas-heater. C. Bergmann. No. 1,304,531; May 27; v. 262; p. 489.

Gas-heater. G. F. Schwartz. No. 1,303,970; May 20; v. 262; p. 344.

Gas-lighting, Burner applicable for use with incandescent mantles for. A. Day. No. 1,304,273; May 20; v. 262; p. 400.

Gas, Method of and apparatus for determining the purity of carbonic-acid. C. Spindler. No. 1,303,514; May 13; v. 262; p. 222.

Gas-producer. T. R. Wollaston. No. 1,303,527; May 13; v. 262; p. 224.

Gas-purifying apparatus. T. Kaval. No. 1,304,884; May 27; v. 262; p. 554.

Gas, Separating mixed. C. F. Crommett. No. 1,304,027; May 20; v. 262; p. 354.

Gas-tank flash-check. H. S. Smith and A. F. Westlund. No. 1,303,123; May 6; v. 262; p. 123.

Gas-tractors, Cooling system for. H. W. Adams. No. 1,303,003; May 6; v. 262; p. 100.

Gas turbine and silencer, Exhaust. E. Anderson. No. 1,304,928; May 27; v. 262; p. 568.

Gases, Apparatus for electrical fixation of. B. Thomas. No. 1,304,623; May 27; v. 262; p. 544.

Gases, Apparatus for the detection and measurement of. G. A. Shakespear. No. 1,304,208; May 20; v. 262; p. 387.

Gases, Apparatus for treating. W. D. Mount. No. 1,304,607; May 27; v. 262; p. 520.

Gases, Method and means for detecting. G. M. S. Tait. No. 1,305,025; May 27; v. 262; p. 581.

Gaseous mixtures, Apparatus for quantitatively analyzing. H. Gerden. No. 1,304,037; May 20; v. 262; p. 356.

Gasoline-dispensing device. E. Crouse. No. 1,304,028; May 20; v. 262; p. 354.

Gasoline from natural gas, Recovery of. E. S. Merriam. No. 1,304,587; May 27; v. 262; p. 490.

Gasoline-heater. H. E. McLaughlin. No. 1,304,890; May 27; v. 262; p. 557.

Gasoline, Tap for barrels, drums, or receptacles containing. S. D. Semenow and H. L. Abramovitz. No. 1,304,800; May 20; v. 262; p. 428.

Gate. G. L. Parslow. No. 1,304,190; May 20; v. 262; p. 385.
 Gates, Assembling-table for end-. B. W. Whitworth. No. 1,303,437; May 13; v. 262; p. 208.
 Gear and clutch, Variable-speed. W. J. Gee. No. 1,303,287; May 13; v. 262; p. 181.
 Gear-case and forming same. C. W. Starker and G. L. S. Kronfeld. No. 1,305,019; May 27; v. 262; p. 580.
 Gear drive, Oil-retaining internal-. A. P. Herff. No. 1,305,103; May 27; v. 262; p. 586.
 Gear-lapping machine. D. D. Armsby and C. H. Logue. No. 1,304,099; May 27; v. 262; p. 521.
 Gear manufacture. F. F. Beall. No. 1,305,050; May 27; v. 262; p. 586.
 Gear-shifting mechanism. H. D. Church. No. 1,305,063; May 27; v. 262; p. 588.
 Gear-testing machine. C. G. Olson. No. 1,304,592; May 27; v. 262; p. 590.
 Gear-train. C. A. Parsons, S. S. Cook, and E. R. Chapman. No. 1,302,943; May 6; v. 262; p. 92.
 Gear, Transmission-. W. G. Beatty. No. 1,304,048; May 27; v. 262; p. 511.
 Gearing. K. Alquist. No. 1,304,241; May 20; v. 262; p. 393.
 Gearing, Assembling. K. Alquist. No. 1,304,242; May 20; v. 262; p. 393.
 Gearing for spring-motor fans. P. Musillo. No. 1,303,711; May 13; v. 262; p. 268.
 Gearing for well-rigs, Reversing-. F. J. Moser. No. 1,302,576; May 6; v. 262; p. 18.
 Gearing, Transmission-. D. R. Frick. No. 1,305,208; May 27; v. 262; p. 616.
 Gearing, Transmission-. J. S. Harger. No. 1,303,660; May 13; v. 262; p. 249.
 Generator, Sec—
 Ignition-generator. Smoke-generator.
 Geometric instrument. F. Stanton. No. 1,304,713; May 27; v. 262; p. 523.
 Glass. E. C. Sullivan and W. C. Taylor. No. 1,304,023; May 27; v. 262; p. 508.
 Glass and making the same. B. F. Drakenfeld, Jr. No. 1,303,268; May 13; v. 262; p. 178.
 Glass and making the same. B. F. Drakenfeld, Jr. No. 1,303,269; May 13; v. 262; p. 178.
 Glass articles, Machine for shaping tubular. R. Koenig. No. 1,304,091; May 27; v. 262; p. 519.
 Glass-gathering machine and process. J. O. Jensen and J. Henle. No. 1,304,568; May 27; v. 262; p. 404.
 Glass, Process and apparatus for drawing. H. T. Bellamy and J. C. Smith. No. 1,303,462; May 13; v. 262; p. 210.
 Go-cart. A. B. Foans. No. 1,303,207; May 27; v. 262; p. 610.
 Goggles, Safety-. H. J. Brennecke. (Release.) No. 1,304,045; May 13; v. 262; p. 283.
 Gold separator, Rotary placer-. O. V. Bauer. No. 1,303,233; May 13; v. 262; p. 172.
 Golf-club attachment. A. Sargent. No. 1,302,960; May 6; v. 262; p. 73.
 Governor. L. J. Monahan. No. 1,304,348; May 20; v. 262; p. 414.
 Governor. G. S. Tiffany. No. 1,303,417; May 13; v. 262; p. 204.
 Governor-brake. P. Catucci. No. 1,304,057; May 27; v. 262; p. 512.
 Governor, Engine-. W. Robbins and H. F. Bryan. No. 1,302,855; May 6; v. 262; p. 72.
 Grain, Apparatus for treating standing. J. Hanson. No. 1,303,650; May 13; v. 262; p. 249.
 Grapple. C. J. Coulter. No. 1,303,083; May 6; v. 262; p. 163.
 Grapple. L. N. Smith. No. 1,305,175; May 27; v. 262; p. 609.
 Grate, Furnace-. P. Scherman. No. 1,303,119; May 6; v. 262; p. 122.
 Grate-bar. J. C. Sherry. No. 1,304,398; May 20; v. 262; p. 423.
 Grease-cup. H. D. Boyer. No. 1,304,537; May 27; v. 262; p. 491.
 Grease-cup. A. A. Klems. No. 1,304,328; May 20; v. 262; p. 410.
 Grenade and the like, Hand-. E. W. Chamler. No. 1,303,164; May 6; v. 262; p. 131.
 Grenade and the like, Hand-. F. W. Chamler and W. Curtis. No. 1,303,163; May 6; v. 262; p. 131.
 Grenade, Hand-. F. Conrad and C. Aalborg. No. 1,304,544; May 27; v. 262; p. 492.
 Grenade, Hand-. H. P. Davis. No. 1,303,260; May 13; v. 262; p. 177.
 Grinder. J. Kowalski. No. 1,304,067; May 20; v. 262; p. 361.
 Grinder, Disk. T. Nicholson. No. 1,304,098; May 27; v. 262; p. 520.
 Grinder head-stock. M. A. Smith. No. 1,303,607; May 13; v. 262; p. 239.
 Grinder, Worm-. W. F. Zimmermann. No. 1,304,044; May 27; v. 262; p. 510.
 Grinding and polishing machine. C. Danemann. No. 1,303,801; May 20; v. 262; p. 324.
 Grinding-machine. L. N. Bruner. No. 1,302,506; May 6; v. 262; p. 6.
 Grinding-machine. C. E. Van Norman. No. 1,303,744; May 13; v. 262; p. 264.

Grinding-machine, Double-head. C. H. Norton. No. 1,304,790; May 27; v. 262; p. 539.
 Grinding-machine, High-speed. J. B. Wlard. No. 1,304,229; May 20; v. 262; p. 391.
 Grinding-mill, Cylinder. O. Soder. No. 1,304,819; May 27; v. 262; p. 548.
 Grinding or crushing machine. D. J. G. Miller and R. A. Lloyd. No. 1,304,345; May 20; v. 262; p. 414.
 Grinding-wheel for dental purposes. W. W. Curtis. No. 1,303,541; May 13; v. 262; p. 227.
 Gripper-pad adjustment. C. Henderson and B. D. Stevens. No. 1,303,798; May 13; v. 262; p. 278.
 Ground-working implement. C. M. Tibbory. No. 1,302,883; May 6; v. 262; p. 77.
 Gun. C. F. Lefever. No. 1,303,836; May 13; v. 262; p. 190.
 Gun and projectile therefor. L. C. Davis. No. 1,304,857; May 27; v. 262; p. 550.
 Gun and wire-cutter, Combination. J. Karasewicz. No. 1,302,668; May 6; v. 262; p. 35.
 Gun, Double-barrel. G. H. Giddings. No. 1,302,909; May 6; v. 262; p. 82.
 Gun, Fly-. A. Limoges. No. 1,304,074; May 20; v. 262; p. 362.
 Gun-loading device. H. F. McClain. No. 1,304,583; May 27; v. 262; p. 490.
 Gun-loading mechanism. C. De Felice. No. 1,304,274; May 20; v. 262; p. 400.
 Gun magazine, Lewis. G. H. W. Cashmore. No. 1,303,028; May 6; v. 262; p. 104.
 Gun-mounting. G. T. Buckham. No. 1,303,024; May 6; v. 262; p. 104.
 Gun-mounting. A. T. Dawson and G. T. Buckham. No. 1,302,522; May 6; v. 262; p. 9.
 Gun-mounting. A. T. Dawson and G. T. Buckham. No. 1,302,525; May 6; v. 262; p. 9.
 Gun-mounting. A. T. Dawson and G. T. Buckham. No. 1,302,528; May 6; v. 262; p. 10.
 Gun-sight. J. B. Wilson and W. B. Dalby. No. 1,303,440; May 13; v. 262; p. 202.
 Gun sights or targets, Distant control of mechanism such as. A. T. Dawson and G. T. Buckham. No. 1,304,269; May 20; v. 262; p. 390.
 Gun-wad felt and making. A. L. Clapp. No. 1,302,512; May 6; v. 262; p. 7.
 Guns, Ammunition-belt for machine-. W. de C. Pridoux. No. 1,303,161; May 27; v. 262; p. 604.
 Guns, Construction of links for ammunition-belts of machine-. W. de C. Pridoux. No. 1,303,160; May 27; v. 262; p. 604.
 Guns, Lock mechanism of breech-loading. A. T. Dawson and G. T. Buckham. No. 1,302,518; May 6; v. 262; p. 8.
 Guns, Mounting for automatic. T. K. North. No. 1,304,591; May 27; v. 262; p. 500.
 Guns, Mounting of automatic. G. T. Buckham. No. 1,303,023; May 6; v. 262; p. 104.
 Guns, Sighting apparatus for anti-aircraft. A. T. Dawson and G. T. Buckham. No. 1,304,272; May 20; v. 262; p. 390.
 Gyrotory crusher-head. C. B. Andrews. No. 1,303,447; May 13; v. 262; p. 210.
 Hackaw-blade adjuster. C. H. Driver. No. 1,302,648; May 6; v. 262; p. 31.
 Hair brush and comb, Combined. C. G. Peltier. No. 1,303,720; May 13; v. 262; p. 260.
 Hair-clipper. F. M. Noonan. No. 1,302,836; May 6; v. 262; p. 68.
 Hair-cutter. E. E. Ninin. No. 1,302,835; May 6; v. 262; p. 67.
 Hair-drier. G. W. Moore. No. 1,304,389; May 27; v. 262; p. 500.
 Hair-spring-collet remover. W. M. Jones. No. 1,303,500; May 13; v. 262; p. 230.
 Hame-loop, Adjustable. R. F. Johnson. No. 1,305,117; May 27; v. 262; p. 598.
 Hammer. M. Basta. No. 1,304,047; May 27; v. 262; p. 511.
 Hammer. S. Hamilton. No. 1,303,792; May 13; v. 262; p. 273.
 Hammer. W. H. Swift. No. 1,302,878; May 6; v. 262; p. 76.
 Hammer attachment. W. H. Swift. No. 1,302,879; May 6; v. 262; p. 76.
 Hand, Artificial. G. Ralston and E. Blankenship. No. 1,304,201; May 20; v. 262; p. 393.
 Hand, Artificial. E. Robinson. No. 1,304,090; May 20; v. 262; p. 367.
 Hand, Artificial. K. F. Rohmann. No. 1,305,169; May 27; v. 262; p. 608.
 Hand-hole plate, Boiler. J. C. Sherry. No. 1,304,591; May 20; v. 262; p. 423.
 Handle, Sec—
 Brake-handle. Switch-handle.
 Crutch-handle. Switch-handle.
 Spoon-handle.
 Hanger, Sec—
 Brake-hanger. Pipe-hanger.
 Cake-hanger. Scabbard-hanger.
 Door-hanger. Shaft-hanger.
 Picture-hanger. Trolley-hanger.
 Hanger. C. G. Hanson. No. 1,302,793; May 6; v. 262; p. 59.
 Hanger. T. J. Steele. No. 1,303,400; May 13; v. 262; p. 203.

Hangar bracket. R. Pollard. No. 1,304,800; May 27; v. 262; p. 552.
 Harness-girth. R. Morrey. No. 1,303,941; May 20; v. 262; p. 339.
 Harness-trivet. K. L. Cron. No. 1,303,366; May 13; v. 262; p. 177.
 Harrow. R. H. Campbell. No. 1,303,700; May 13; v. 262; p. 300.
 Harrow, Hand-. F. J. John. No. 1,304,058; May 20; v. 262; p. 360.
 Harrow, Sharpener for disk. L. Haines. No. 1,303,057; May 6; v. 262; p. 110.
 Harvester, Beet-. A. Crume. No. 1,303,857; May 20; v. 262; p. 323.
 Harvester, Beet-. J. Cullen. No. 1,303,858; May 20; v. 262; p. 323.
 Harvester, Beet-. F. D. Keith. No. 1,304,486; May 20; v. 262; p. 442.
 Harvester, Beet-. W. M. Reynolds. No. 1,302,973; May 6; v. 262; p. 94.
 Harvester, Corn-. C. A. Hagadone. No. 1,303,298; May 13; v. 262; p. 163.
 Harvester, Cranberry-. P. W. Dilley. No. 1,302,531; May 6; v. 262; p. 10.
 Harvester, Pea-. F. V. Scott and J. D. Haskett. No. 1,303,130; May 6; v. 262; p. 122.
 Harvester, Potato-. G. O. Eberhardt. No. 1,303,190; May 6; v. 262; p. 124.
 Harvester, Folding divider for. W. H. Crane. No. 1,302,799; May 6; v. 262; p. 84.
 Hat. D. L. Davis. No. 1,304,268; May 20; v. 262; p. 390.
 Hat. V. O. Hintan. No. 1,303,796; May 13; v. 262; p. 274.
 Hat and making same. V. Bovic. No. 1,303,246; May 13; v. 262; p. 175.
 Hat parts, Apparatus for molding and shaping. J. Tolan. No. 1,303,992; May 20; v. 262; p. 348.
 Hat-renewing machine. L. Filcher. No. 1,303,190; May 6; v. 262; p. 122.
 Hats, Treating wool. G. W. Bollman. No. 1,305,055; May 27; v. 262; p. 597.
 Hay, grain, and the like, Apparatus for curing. P. J. Nichols. No. 1,303,945; May 20; v. 262; p. 339.
 Hay-loader, Extension. R. Easign. No. 1,303,844; May 13; v. 262; p. 348.
 Header, Foot-blower. W. F. Sellers. No. 1,304,009; May 27; v. 262; p. 503.
 Headlight. H. W. Brown. No. 1,303,798; May 13; v. 262; p. 260.
 Headlight. R. H. Kaiser. No. 1,303,838; May 13; v. 262; p. 193.
 Headlight, Dirigible. C. O. Blake. No. 1,303,017; May 6; v. 262; p. 103.
 Headlights for automobiles, Means for automatically controlling electric. H. E. Wallace. No. 1,304,000; May 20; v. 262; p. 349.
 Health food. B. S. Ravenel. No. 1,303,724; May 13; v. 262; p. 260.
 Heat-controlling alarm mechanism. P. A. Roth. No. 1,303,395; May 13; v. 262; p. 200.
 Heat-distributor. J. Baron. No. 1,304,728; May 27; v. 262; p. 520.
 Heat-retainer. F. Shriver. No. 1,303,122; May 6; v. 262; p. 123.
 Heater, Sec—
 Fuel-heater. Intake-manifold heater.
 Gas-heater. Orchard-heater.
 Gasoline-heater. Water-heater.
 Heater. C. C. Pirtle. No. 1,304,596; May 27; v. 262; p. 501.
 Heater system. L. P. Hynes. No. 1,303,823; May 13; v. 262; p. 188.
 Heater system. L. P. Hynes. No. 1,303,600; May 13; v. 262; p. 261.
 Heater system. L. P. Hynes. No. 1,303,670; May 13; v. 262; p. 261.
 Heating apparatus. L. C. Smith. No. 1,303,977; May 20; v. 262; p. 345.
 Heating apparatus, Domestic gas. C. Ellis. No. 1,304,785; May 27; v. 262; p. 531.
 Heating liquid by means of heat produced by chemical reactions in closed vessels, Proceeding and apparatus for. H. Turrettill. No. 1,303,618; May 13; v. 262; p. 241.
 Heel-lift. G. S. Ellithorpe. No. 1,303,969; May 20; v. 262; p. 325.
 Heel-plate. A. Baran. No. 1,304,530; May 27; v. 262; p. 480.
 Heels, Machine for turning. C. E. Reed. No. 1,305,007; May 27; v. 262; p. 577.
 Heels, Producing. W. C. Callahan. No. 1,305,060; May 27; v. 262; p. 588.
 Heeling-machine. C. C. Eaton. No. 1,303,967; May 20; v. 262; p. 325.
 Hides and skins, Treating. R. R. da Silva. No. 1,304,080; May 20; v. 262; p. 355.
 Hinge, Spring. C. M. Lemke. No. 1,302,500; May 6; v. 262; p. 17.
 Hobbing-machine, Automatic. F. H. Greenwood. No. 1,304,574; May 27; v. 262; p. 553.
 Hoisting apparatus. A. E. Norris. No. 1,304,359; May 20; v. 262; p. 417.

Hoisting attachment for dump-bodies. J. S. Minton. No. 1,304,792; May 27; v. 262; p. 538.
 Hoisting-jack and control therefor. G. B. Read. No. 1,300,006; May 27; v. 262; p. 577.
 Hoisting means. T. F. Hunter. No. 1,303,322; May 13; v. 262; p. 187.
 Holder, Sec—
 Tool-holder.
 Holder. W. J. Davis. No. 1,303,864; May 20; v. 262; p. 325.
 Hoof-trimming machine. J. R. Gilliland. No. 1,304,761; May 27; v. 262; p. 532.
 Hook, Sec—
 Logging-hook. Bottle-suspending hook.
 Hook-switch and circuit therefor. R. H. Manson. No. 1,303,881; May 13; v. 262; p. 192.
 Hoppers or bins, Tilttable and means for controlling the feed of material to. C. J. Gadd. No. 1,304,553; May 27; v. 262; p. 408.
 Horsehoe. H. Krawczynski. No. 1,302,675; May 6; v. 262; p. 36.
 Hose-clamp. F. P. D'Arcy. No. 1,304,546; May 27; v. 262; p. 492.
 Hose-coupling. R. B. Booth. No. 1,304,653; May 27; v. 262; p. 512.
 Hose-coupling. J. T. Nelson. No. 1,303,867; May 13; v. 262; p. 195.
 Hose-reducer. J. Marx. No. 1,303,098; May 6; v. 262; p. 118.
 Hotel-register device, Loose-leaf. W. H. Hall. No. 1,302,854; May 6; v. 262; p. 83.
 House, Sec—
 Smoke-house. Toy house.
 Hub, Ball-bearing. A. Benson. No. 1,303,285; May 13; v. 262; p. 172.
 Hub structure. W. R. Wilson. No. 1,304,231; May 20; v. 262; p. 391.
 Hubs, Dust-cap for. R. D. Jeffries. No. 1,303,006; May 6; v. 262; p. 111.
 Humidifying air, Method and apparatus for. G. W. D'Arcy. No. 1,302,516; May 6; v. 262; p. 7.
 Hydrant and coupling therefor. Fire. F. Antonietti. No. 1,303,449; May 13; v. 262; p. 210.
 Hydraulic transmission. P. R. Horabrook. No. 1,304,566; May 27; v. 262; p. 495.
 Hydrocarbon-burner. J. O. Alwood. No. 1,304,927; May 27; v. 262; p. 562.
 Hydrocarbon-burner. L. M. Bowman. No. 1,304,848; May 27; v. 262; p. 548.
 Hydrocarbon-burner. M. Brasmard. No. 1,303,252; May 13; v. 262; p. 176.
 Hydrocarbon-burner. G. M. Bergen-Stierpof. No. 1,304,781; May 27; v. 262; p. 526.
 Hydrocarbon-burner. F. V. Detwiler. No. 1,303,809; May 20; v. 262; p. 325.
 Hydrocarbon-burner. H. H. Hastings. No. 1,303,662; May 13; v. 262; p. 249.
 Hydrocarbon-burner. J. M. Miller. No. 1,302,826; May 6; v. 262; p. 65.
 Hydrocarbon-burner. J. M. Miller. No. 1,302,827; May 6; v. 262; p. 65.
 Hydrocarbon-motor. W. E. Blaine. No. 1,304,738; May 27; v. 262; p. 527.
 Hydrocarbon-motor. J. G. Vincent. No. 1,305,035; May 27; v. 262; p. 583.
 Hydrocarbon-motor. J. G. Vincent. No. 1,305,037; May 27; v. 262; p. 583.
 Hydrocarbon or other liquids, Distilling apparatus for. S. E. Kelsey. No. 1,302,600; May 6; v. 262; p. 85.
 Hydrocarbons, Apparatus for treating. F. L. Slocum and C. E. Stutz. No. 1,304,211; May 20; v. 262; p. 387.
 Hydrocarbons, Apparatus for treating. F. L. Slocum and C. E. Stutz. No. 1,304,212; May 20; v. 262; p. 388.
 Hydrocarbons, Treating. C. R. Downs. No. 1,303,639; May 13; v. 262; p. 245.
 Hydrometer apparatus. J. Steiner. No. 1,304,115; May 20; v. 262; p. 370.
 Hydrovaporizer. E. D. Ferrell. No. 1,303,187; May 6; v. 262; p. 125.
 Ice-cream-cone machine, Boring mechanism for. F. A. Bruckman. No. 1,302,893; May 6; v. 262; p. 79.
 Ice-cream cone, Sanitary. J. A. Thornton. No. 1,304,410; May 20; v. 262; p. 427.
 Ice-cream cones, Machine for making. W. W. Turnbull. No. 1,302,788; May 6; v. 262; p. 48.
 Ice-cream molds, Holder for. C. B. Telling. No. 1,303,990; May 20; v. 262; p. 348.
 Ice-cutting device. F. M. Hairsrove. No. 1,302,917; May 6; v. 262; p. 84.
 Ice-machine ammonia-condenser. E. H. Oderman. No. 1,303,107; May 6; v. 262; p. 120.
 Ignition device. M. M. Caster. No. 1,303,771; May 13; v. 262; p. 269.
 Ignition-generator. I. P. Galantia. No. 1,303,469; May 13; v. 262; p. 214.
 Ignition system. S. C. McKeown. No. 1,305,140; May 27; v. 262; p. 602.
 Ignition system. L. J. Werner. No. 1,304,835; May 27; v. 262; p. 546.
 Ignition system. L. J. Werner. No. 1,304,836; May 27; v. 262; p. 546.
 Implement-tongues, Truck-support for. J. M. Lee and H. G. Halverson. No. 1,303,076; May 6; v. 262; p. 113.

Inclinator, Sanitary. J. B. Owens. No. 1,303,584; May 13; v. 262; p. 224.
Inclination-indicator. W. H. Nelson. No. 1,302,580; May 6; v. 262; p. 18.
Incubators, Heating, ventilating, and humidifying system for. A. T. Pope. No. 1,303,722; May 13; v. 262; p. 260.
Incubators, Thermostatic regulator for. H. L. Watson. No. 1,304,635; May 27; v. 262; p. 508.
Index. J. H. Rand. No. 1,302,848; May 6; v. 262; p. 70.
Index. J. H. Rand. No. 1,302,849; May 6; v. 262; p. 70.
Index device. J. H. Rand. No. 1,302,850; May 6; v. 262; p. 71.
Index or Re. R. D. Hayes. No. 1,304,180; May 20; v. 262; p. 387.
Indicating instrument. C. F. Bullock. No. 1,304,250; May 20; v. 262; p. 397.
Indicator. See—
Direction-indicator. Station-indicator.
Inclination-indicator. Street-car indicator.
Micrometer-indicator. Temperature-indicator.
Picture-indicator.
Indicator. R. P. McMahon. No. 1,303,699; May 13; v. 262; p. 256.
Indicator and mirror, Direction. C. L. Ray. No. 1,304,370; May 20; v. 262; p. 419.
Indirect and semi-indirect fixture. K. F. Peckham. No. 1,304,363; May 20; v. 262; p. 418.
Induction-motor control. M. Shuttlesworth and G. M. Brown. No. 1,304,219; May 20; v. 262; p. 387.
Inductive interferences, Distributing system for minimizing. C. L. Fortescue. No. 1,303,282; May 13; v. 262; p. 181.
Industrial chair. J. Salomon. No. 1,302,850; May 6; v. 262; p. 72.
Inflammable gases, Disposition of. A. Spice. No. 1,302,871; May 6; v. 262; p. 75.
Insulating-coupling. H. P. Kraft. No. 1,304,576; May 27; v. 262; p. 497.
Insulating-coupling. M. C. Schweinert and H. P. Kraft. No. 1,304,814; May 27; v. 262; p. 542.
Ink-ribbon feed and similar reversing mechanism. W. H. Browning. No. 1,303,150; May 6; v. 262; p. 130.
Inkstand, Sealed safety fountain. J. O. Fowler. No. 1,303,468; May 13; v. 262; p. 213.
Inner tube. F. E. Bessler. No. 1,304,147; May 20; v. 262; p. 375.
Insect-destructor. F. Bea. No. 1,302,972; May 6; v. 262; p. 94.
Insect-trap. H. G. Sneed. No. 1,304,397; May 20; v. 262; p. 424.
Insoluble-seal-smoothing machine. B. T. Leveque. No. 1,303,926; May 20; v. 262; p. 336.
Insoluble lining or pad. J. E. Toscan. No. 1,304,826; May 27; v. 262; p. 544.
Insoluble, Pneumatic. B. A. Spinney. No. 1,304,915; May 27; v. 262; p. 560.
Insoluble, Machine, for trimming. W. Fowler. No. 1,303,283; May 13; v. 262; p. 181.
Inspection device. H. E. Trent. No. 1,305,032; May 27; v. 262; p. 582.
Inspirator, Eucathol. R. R. McGregor. No. 1,304,339; May 20; v. 262; p. 413.
Instrument, Combination. H. B. Fowler. No. 1,302,783; May 6; v. 262; p. 57.
Insulating-bushing. E. D. Eby. No. 1,304,283; May 20; v. 262; p. 402.
Insulating chambers, walls, floors, and ceilings, Manufacture of heat. J. Davies. No. 1,304,267; May 20; v. 262; p. 390.
Insulation for electrical apparatus. W. J. Shackleton. No. 1,303,511; May 13; v. 262; p. 221.
Insulator. O. C. Barker. No. 1,304,247; May 20; v. 262; p. 395.
Insulator. T. J. Heard. No. 1,302,796; May 6; v. 262; p. 59.
Insulator. O. L. Roberts. No. 1,305,168; May 27; v. 262; p. 608.
Insulator, Electric. R. P. Jackson. No. 1,303,324; May 13; v. 262; p. 188.
Insulators or other porcelain objects, Mold for forming. C. J. Kirk and G. Brain. No. 1,304,571; May 27; v. 262; p. 497.
Insulators, Testing and locating defective multiple-part pin-type. T. P. Johnson, Jr. No. 1,303,206; May 6; v. 262; p. 129.
Intake-manifold. W. E. Kemp. No. 1,304,987; May 27; v. 262; p. 574.
Intake-manifold heater. W. L. Caldwell. No. 1,304,738; May 27; v. 262; p. 528.
Interlocking clamp, Adjustable. H. L. Hartburg. No. 1,302,544; May 6; v. 262; p. 12.
Internal-combustion engine. M. H. Brown. No. 1,304,019; May 20; v. 262; p. 353.
Internal-combustion engine. G. J. Carter. No. 1,305,193; May 27; v. 262; p. 613.
Internal-combustion engine. A. Dickinson. No. 1,304,744; May 27; v. 262; p. 529.
Internal-combustion engine. M. Goldbeck. No. 1,304,039; May 20; v. 262; p. 356.
Internal-combustion engine. A. B. Goodspeed. No. 1,302,689; May 6; v. 262; p. 32.
Internal-combustion engine. J. F. Kelly. No. 1,304,988; May 27; v. 262; p. 518.

Internal-combustion engine. E. F. O'Haver. No. 1,305,155; May 27; v. 262; p. 605.
Internal-combustion engine. F. H. Royce. No. 1,304,908; May 27; v. 262; p. 541.
Internal-combustion engine. C. A. Sawtelle. No. 1,305,172; May 27; v. 262; p. 608.
Internal-combustion engine. J. A. Toomey. No. 1,304,629; May 27; v. 262; p. 507.
Internal-combustion engine apparatus. C. F. Park. No. 1,303,954; May 20; v. 262; p. 341.
Internal-combustion engine, Double-acting. S. H. Roddie and E. C. Davidson. No. 1,303,598; May 13; v. 262; p. 237.
Internal-combustion engine, Rotary. A. M. Briggs. No. 1,302,504; May 6; v. 262; p. 5.
Internal-combustion engines. Magneto for. H. Schmid and G. Fuegel. No. 1,303,600; May 13; v. 262; p. 238.
Iodine and other chemical products from seaweeds by dry distillation, Extracting. J. A. W. Bredenberg and E. G. Cron. No. 1,305,058; May 27; v. 262; p. 588.
Iron. See—
Pig-iron.
Iron and steel, Manufacture of. G. A. Jarvis. No. 1,303,799; May 13; v. 262; p. 274.
Iron or steel or other articles, Treatment of. H. C. Baime. No. 1,303,627; May 13; v. 262; p. 242.
Iron-working machine, Universal. G. F. Robbins. No. 1,303,394; May 13; v. 262; p. 200.
Ironing-board cover. F. S. Perry. No. 1,304,802; May 27; v. 262; p. 540.
Ironing-board, step-ladder, and drying-rack, Combination. M. J. Shackman. No. 1,302,862; May 6; v. 262; p. 73.
Jack. See—
Automobile-jack. Supporting-jack.
Lifting-jack.
Jar-lifter. R. J. Thurston. No. 1,304,717; May 27; v. 262; p. 524.
Jewel-blank-shaping machine. A. Gabus. No. 1,302,907; May 6; v. 262; p. 82.
Jewel-making machine. A. Gabus. No. 1,302,908; May 6; v. 262; p. 82.
Jewelry. A. Shiman. No. 1,305,017; May 27; v. 262; p. 579.
Jewelry-case having interchangeable cover. S. D. Hendry. No. 1,305,241; May 27; v. 262; p. 622.
Joint. See—
Ball-and-socket joint. Rail-joint.
Expansion-joint. Swivel-joint.
Metallic joint. Universal joint.
Jointer, Band-saw stove. E. F. Beugler. No. 1,305,053; May 27; v. 262; p. 587.
Key-fastener. P. T. Ulrich. No. 1,303,123; May 6; v. 262; p. 125.
Key-holder, Safety. S. Stoeck and H. Gellman. No. 1,304,403; May 20; v. 262; p. 425.
Key-operated mechanism, Electrically-governed. J. T. and R. G. Austin. No. 1,303,626; May 13; v. 262; p. 242.
Key-ring holder. J. Blue. No. 1,304,015; May 20; v. 262; p. 332.
Keyless lock. M. B. Burgess. No. 1,302,896; May 6; v. 262; p. 80.
Kill. D. K. Bone. No. 1,303,760; May 13; v. 262; p. 267.
Kill, Shaft. E. Schmatolla. No. 1,304,514; May 20; v. 262; p. 447.
Knife and wire-cutter, Combined. J. Federkiewicz and M. Olzak. No. 1,303,277; May 13; v. 262; p. 180.
Knife-blade-hardening device. O. L. Hemming. No. 1,303,200; May 6; v. 262; p. 137.
Knife-blade switch. H. J. L. Frank. No. 1,303,284; May 13; v. 262; p. 181.
Knife-marker. W. C. Farnum. No. 1,302,646; May 6; v. 262; p. 31.
Knitting-machine latch-opener. R. W. Scott. No. 1,303,823; May 13; v. 262; p. 279.
Label and capsule. G. H. Knight and H. G. Thackray. No. 1,303,212; May 6; v. 262; p. 140.
Lace. Shoe. A. Eklund. No. 1,303,806; May 20; v. 262; p. 325.
Ladder. H. Hogan. No. 1,305,107; May 27; v. 262; p. 506.
Ladder. T. N. Russell. No. 1,304,809; May 27; v. 262; p. 541.
Ladder brace and bracket. J. N. Wheeler. No. 1,304,427; May 20; v. 262; p. 450.
Lamp. Acetylene. A. L. Hansen. No. 1,303,636; May 13; v. 262; p. 248.
Lamp adjuster, Head. J. A. Ormiston. No. 1,304,305; May 20; v. 262; p. 446.
Lamp bracket, Adjustable head. J. J. Tracy. No. 1,304,827; May 27; v. 262; p. 544.
Lamp, Electric. O. and C. Kurz. No. 1,303,332; May 13; v. 262; p. 169.
Lamp, Gas. N. Comstock. No. 1,302,991; May 6; v. 262; p. 81.
Lamp generator, Pocket. O. Jauchana. No. 1,302,668; May 6; v. 262; p. 112.
Lamp holder, Electric. H. Haumann and G. C. Klant. No. 1,303,555; May 13; v. 262; p. 230.
Lamp-holders, Socket for incandescent electric. A. Georja. No. 1,302,787; May 6; v. 262; p. 57.

Lamp shade, Automobile. F. J. Dale. No. 1,304,860; May 27; v. 262; p. 550.
Lamp-stand, Portable. W. D. Herwig, Jr. No. 1,303,061; May 6; v. 262; p. 111.
Lamp-supporting device. M. Kosmann. No. 1,303,123; May 27; v. 262; p. 590.
Lamps, Shade-holder for electric. W. H. Pritchett and J. F. Morton. No. 1,303,112; May 6; v. 262; p. 121.
Lampblack, Producing. L. Bendit. No. 1,304,729; May 27; v. 262; p. 528.
Lantern, Collapsible. G. Patterson. No. 1,304,088; May 20; v. 262; p. 365.
Lantern, Signal. G. M. Gray. No. 1,304,580; May 27; v. 262; p. 495.
Lanterns, Switch construction for. H. Woods. No. 1,304,925; May 27; v. 262; p. 562.
Latching-machine. A. E. Jerram and F. B. Keall. No. 1,305,217; May 27; v. 262; p. 617.
Latching-machine, End-wiper mechanism for. M. Brock. No. 1,303,847; May 20; v. 262; p. 322.
Latch. W. H. Appleby. No. 1,304,244; May 20; v. 262; p. 394.
Latch, Door. G. W. Stiff. No. 1,302,873; May 6; v. 262; p. 75.
Latch, Refrigerator-door. J. Portes. No. 1,302,846; May 6; v. 262; p. 70.
Lathedog. J. M. Crosswicks. No. 1,304,663; May 27; v. 262; p. 513.
Lathes, Tool-holder for. E. I. Hunt. No. 1,304,051; May 20; v. 262; p. 330.
Lathing material. A. W. Herbert. No. 1,303,312; May 13; v. 262; p. 188.
Laundry-machine. J. F. Smrz. No. 1,302,868; May 6; v. 262; p. 74.
Laundry-machine. J. W. Spaulding. No. 1,304,712; May 27; v. 262; p. 523.
Leak-stopper. J. Endreson. No. 1,303,040; May 6; v. 262; p. 108.
Leather-splitting machine. J. F. Funck. No. 1,302,651; May 6; v. 262; p. 32.
Leather-working machine. J. W. O'Donnell. No. 1,303,840; May 13; v. 262; p. 282.
Leg, Artificial. H. Erickson. No. 1,303,645; May 13; v. 262; p. 246.
Lens. C. E. Quimby. No. 1,303,495; May 13; v. 262; p. 218.
Lens and similar apparatus. G. Dalka. No. 1,303,900; May 20; v. 262; p. 324.
Lenses and apparatus therefor, Manufacture of bifocal. R. J. Fleming. No. 1,305,085; May 27; v. 262; p. 592.
Lenses, Making bifocal. A. E. Paige. No. 1,302,960; May 6; v. 262; p. 92.
Lenses, Means for tightening eyeglasses. J. Brincher. No. 1,304,950; May 27; v. 262; p. 640.
Letter-guide, Proportional. H. R. Shiffer. No. 1,303,505; May 13; v. 262; p. 220.
Letter or message writing, Combined blank for. A. F. Callahan. No. 1,303,838; May 13; v. 262; p. 282.
Letter-sheet and envelop, Combined. C. L. Taggart. No. 1,303,412; May 13; v. 262; p. 208.
Lever. D. E. Enloe. No. 1,304,952; May 27; v. 262; p. 567.
Lever, Stock for spirit. G. A. Vogel. No. 1,303,829; May 13; v. 262; p. 280.
Lever-controlling lock. A. C. Saxton and H. J. Menard. No. 1,302,976; May 6; v. 262; p. 95.
Lever, Uncoupling. N. E. Hirsch. No. 1,303,316; May 13; v. 262; p. 186.
Lid-support, Automatic. C. E. Wilton. No. 1,303,441; May 13; v. 262; p. 206.
Life-preserver. F. Marovsky. No. 1,302,823; May 6; v. 262; p. 65.
Life-saving apparatus. M. Field and H. A. Schlick. No. 1,303,872; May 20; v. 262; p. 326.
Life-saving suit. A. G. Alfandri. No. 1,303,144; May 6; v. 262; p. 127.
Lifter. See—
Folding valve-lifter. Sack-lifter.
Lifting-jack. R. B. Jester. No. 1,304,560; May 27; v. 262; p. 496.
Lifting-jack. L. E. Johnson. No. 1,304,682; May 27; v. 262; p. 554.
Lifting-jack. O. A. Norlund. No. 1,304,358; May 20; v. 262; p. 417.
Lifting-jack. F. Schwarzer. No. 1,304,515; May 20; v. 262; p. 448.
Lifting-jack. J. B. Smythe. No. 1,303,734; May 13; v. 262; p. 262.
Lifting-trap. G. E. Carter. No. 1,303,636; May 13; v. 262; p. 244.
Light. See—
Automobile spot-light. Pilot-light.
Curtain-light. Portable light.
Light projection. H. P. Hollnagel. No. 1,302,924; May 6; v. 262; p. 85.
Lights, Distant-control-switch socket for electric. J. M. Davis. No. 1,303,464; May 13; v. 262; p. 215.
Lighting-structure. E. F. Oath. No. 1,304,963; May 27; v. 262; p. 569.
Lighting-structure. R. F. Pierce. No. 1,305,234; May 27; v. 262; p. 621.
Lighting-structure. D. E. Roberts. No. 1,302,712; May 6; v. 262; p. 44.

Lighting-structure. T. W. Wolfe and W. F. Miner. No. 1,304,575; May 20; v. 262; p. 420.
Lighting-structure. A. Sechrist. No. 1,304,387; May 20; v. 262; p. 422.
Lighting system. J. Bijur. No. 1,304,904; May 27; v. 262; p. 563.
Lighting system. A. P. Robinson. No. 1,304,208; May 20; v. 262; p. 386.
Lighting unit. A. L. Arenberg. No. 1,302,492; May 6; v. 262; p. 3.
Lighting-red. J. E. Swenson and F. E. Stehlik. No. 1,303,739; May 13; v. 262; p. 262.
Ligne tanning material and producing same from waste sulfite liquor, Ac. V. Drewsen. No. 1,303,176; May 6; v. 262; p. 123.
Ligno tanning material from waste sulfite liquor, Ac. Producing. V. Drewsen. No. 1,303,179; May 6; v. 262; p. 123.
Link, Flexible. A. C. Rowley. No. 1,305,010; May 27; v. 262; p. 578.
Linsed-oil, Amplification of. J. Illas. No. 1,303,671; May 13; v. 262; p. 251.
Liquid-conveyer. E. W. Crane. No. 1,303,814; May 13; v. 262; p. 277.
Liquid fuel, Apparatus for utilizing. C. E. Broad. No. 1,302,905; May 6; v. 262; p. 8.
Liquid-fuel burner. B. Foley. No. 1,304,293; May 20; v. 262; p. 404.
Liquid-fuel furnace or forge. B. H. Tripp and H. V. Ramsey. No. 1,305,034; May 27; v. 262; p. 583.
Liquid-fuel tank. C. O. Ellert. No. 1,303,642; May 13; v. 262; p. 245.
Liquid-measuring device. F. Schorik. No. 1,304,007; May 27; v. 262; p. 503.
Liquid-raising apparatus. J. Harrison and H. Arundel. No. 1,304,313; May 20; v. 262; p. 407.
Liquid-raising apparatus. A. Ovalle (Vicula). No. 1,304,701; May 27; v. 262; p. 521.
Liquids and solids, Treating mixtures of. M. H. Kuryla. No. 1,302,814; May 6; v. 262; p. 63.
Liquids in emulsion, Apparatus for separating. C. W. McKibben. No. 1,304,780; May 27; v. 262; p. 537.
Liquors, Manufacture of bisulfite. A. G. Hinks. No. 1,303,314; May 13; v. 262; p. 168.
Loader. O. L. Gilliland. No. 1,304,307; May 20; v. 262; p. 404.
Loader. J. P. Humphries. No. 1,304,774; May 27; v. 262; p. 534.
Loading-machine. C. L. Blewett. No. 1,304,445; May 20; v. 262; p. 434.
Lock. See—
Automobile-lock. Lever-controlling lock.
Automobile switch-lock. Nut-lock.
Brake-shoe-key lock. Pocket-lock.
Combination-lock. Sash-lock.
Door-lock. Valve-lock.
Extension-table lock. Wheel-lock.
Keyless lock.
Lock. J. Kohn. No. 1,302,565; May 6; v. 262; p. 16.
Lock. J. H. Shaw. No. 1,302,863; May 6; v. 262; p. 78.
Lock. R. E. Shepherd. No. 1,305,016; May 27; v. 262; p. 579.
Lock-fitting. W. H. Appleby. No. 1,304,245; May 20; v. 262; p. 394.
Lock-nut for couplings. H. E. Robertson. No. 1,305,009; May 27; v. 262; p. 578.
Lock-protecting device, Pin. S. Segal. No. 1,304,105; May 20; v. 262; p. 368.
Lock, Sash. J. A. Jones. No. 1,303,677; May 13; v. 262; p. 252.
Locking device, Electromagnetic. L. Cadanel. No. 1,304,463; May 20; v. 262; p. 435.
Locomotives, Circulation and feed device for. L. Parish. No. 1,303,953; May 20; v. 262; p. 341.
Log-splitting machine. L. Anderson. No. 1,304,528; May 27; v. 262; p. 489.
Logging-hoe. P. J. Elliott. No. 1,303,048; May 6; v. 262; p. 108.
Loom, Pile-fabric. H. J. Hope. No. 1,304,579; May 27; v. 262; p. 553.
Looms, Box-operating mechanism for. J. T. Kennedy. No. 1,302,670; May 6; v. 262; p. 36.
Looms, Filling-end-extracting mechanism for. H. H. Gore. No. 1,303,886; May 20; v. 262; p. 329.
Looms for weaving pile fabrics, Pile-cutting device for use in. A. Veluard. No. 1,303,620; May 13; v. 262; p. 241.
Looms, Shuttle for side-motion feeder. T. F. Brazell. No. 1,302,629; May 6; v. 262; p. 28.
Looms, Shuttle for side-motion feeder. D. Osgood. No. 1,303,583; May 13; v. 262; p. 234.
Lubricant for non-metallic gear-wheels. E. J. Guay. No. 1,304,477; May 20; v. 262; p. 440.
Lubricants and the like, Dispensing and measuring apparatus for. A. B. Klay. No. 1,304,327; May 20; v. 262; p. 410.
Lubricating device. O. D. H. Bentley. No. 1,304,730; May 27; v. 262; p. 528.
Lubricating device. C. Clark. No. 1,303,772; May 13; v. 262; p. 260.
Lubricating device for internal-combustion engines. C. J. Megeret and L. Picker. No. 1,304,498; May 20; v. 262; p. 444.

Lubricating system. M. L. Williams. No. 1,303,622; May 13; v. 262; p. 242.
 Lubrication of sliding couplings. C. A. Parsons. No. 1,303,586; May 13; v. 262; p. 235.
 Lubricator. See—
 Feed-lubricator.
 Lubricator. H. D. Boyer. No. 1,304,535; May 27; v. 262; p. 490.
 Lubricator. H. D. Boyer. No. 1,304,536; May 27; v. 262; p. 490.
 Machine-brake. W. E. Cain. No. 1,303,460; May 13; v. 262; p. 212.
 Magnetic dolly-bar. T. J. Shea. No. 1,302,978; May 6; v. 262; p. 95.
 Magnetic separator. L. G. Rowand. No. 1,303,397; May 13; v. 262; p. 200.
 Magneto. A. C. Kleckner and W. Brown. No. 1,304,782; May 27; v. 262; p. 536.
 Mail-bag catching and delivering apparatus. H. Kershaw. No. 1,302,561; May 6; v. 262; p. 15.
 Mail-bag-catching device. H. Kershaw. No. 1,302,562; May 6; v. 262; p. 15.
 Manganese and making sulfuric acid and manganese dioxide. G. D. Van Arsdale and C. G. Maler. No. 1,304,223; May 20; v. 262; p. 290.
 Manifold, intake. C. P. Smith. No. 1,305,174; May 27; v. 262; p. 606.
 Manifold sales-book. E. K. Bottle. No. 1,305,056; May 27; v. 262; p. 587.
 Map. Globes. W. F. Smith. No. 1,302,602; May 6; v. 262; p. 23.
 Margin-release. A. O. H. Ebert. No. 1,303,793; May 13; v. 262; p. 271.
 Marine boiler. J. E. Bell. No. 1,303,758; May 13; v. 262; p. 267.
 Marine propulsion mechanism. R. B. Owen. No. 1,302,957; May 6; v. 262; p. 91.
 Mat. See—
 Self-locking mat.
 Mat. C. E. Goldsmith. No. 1,304,474; May 20; v. 262; p. 440.
 Match-scratcher. W. B. Nicoll. No. 1,304,194; May 20; v. 262; p. 384.
 Matrices for use in the restoration of teeth. Former for W. C. Smith. No. 1,304,360; May 20; v. 262; p. 424.
 Mattress. Hospital. S. L. Gosard. No. 1,302,918; May 6; v. 262; p. 83.
 Measure dispensing apparatus. Visible. A. McKellar. No. 1,305,130; May 27; v. 262; p. 602.
 Measuring and indicating instrument. Gas. D. Lambert. No. 1,303,073; May 6; v. 262; p. 112.
 Measuring device. Liquid. A. A. Lanoux. No. 1,303,920; May 13; v. 262; p. 278.
 Measuring instrument. G. W. Gross. No. 1,303,471; May 13; v. 262; p. 214.
 Measuring instrument. F. M. Walters. No. 1,302,997; May 6; v. 262; p. 99.
 Measuring instrument. Electrical. H. G. Applegarth and H. B. Taylor. No. 1,303,144; May 6; v. 262; p. 128.
 Measuring-machine. C. G. Richardson. No. 1,304,608; May 27; v. 262; p. 502.
 Measuring-tank. J. L. Geler. No. 1,304,305; May 20; v. 262; p. 406.
 Meat-saw. F. E. Dobbins. No. 1,304,859; May 27; v. 262; p. 550.
 Mechanical manipulating mechanism. C. B. Hardy and K. E. Gibson. No. 1,303,475; May 13; v. 262; p. 215.
 Mechanical movement. D. D. Gordon. No. 1,303,198; May 6; v. 262; p. 137.
 Mechanical-stoker shovel. A. G. Elvin and A. B. Fahnestock. No. 1,304,464; May 20; v. 262; p. 428.
 Metal alloy. Soft. P. S. Brancher. No. 1,304,840; May 27; v. 262; p. 549.
 Metal-bending machine. T. Briegel. No. 1,304,152; May 20; v. 262; p. 376.
 Metal compound and producing the same. N. Sulsberger. (Reissue.) No. 14,850; May 27; v. 262; p. 623.
 Metal-heating apparatus. W. B. Pierce. No. 1,302,843; May 6; v. 262; p. 60.
 Metal panel and door construction. Combined. W. D. Martin and H. Schrik. No. 1,304,343; May 20; v. 262; p. 413.
 Metal valves. Extracting. W. Zacharias. No. 1,304,842; May 27; v. 262; p. 547.
 Metal-working machine. Electric. E. J. von Henke. No. 1,304,634; May 27; v. 262; p. 508.
 Metal-working machine. Single-drive. F. L. Cone. No. 1,303,216; May 6; v. 262; p. 141.
 Metals. Furnace for heat treatment of. C. M. Walter. No. 1,303,420; May 13; v. 262; p. 206.
 Metals. Process of and means for removing sand cores from hollow rolled. C. F. Prescott. No. 1,304,200; May 20; v. 262; p. 385.
 Metallic chloride. Preparation of anhydrous. P. L. Hullin. No. 1,304,567; May 27; v. 262; p. 406.
 Metallic joint. W. E. Taylor. No. 1,303,740; May 13; v. 262; p. 263.
 Metallic structure. R. G. Bullock and H. E. Leave. No. 1,303,850; May 20; v. 262; p. 322.
 Metallurgical process. C. M. Malisch and C. H. Gilson. No. 1,303,701; May 13; v. 262; p. 256.
 Meter. See—
 Ampere-hour meter. Electric-current meter.
 Demand-meter. Fluid-meter.
 Elastic-fluid meter. Wave-meter.
 Meter. C. C. Thomas. No. 1,304,920; May 27; v. 262; p. 541.
 Micrometer-indicator. J. Boulet. No. 1,303,245; May 13; v. 262; p. 174.
 Milk-can washer. C. A. Christ. No. 1,304,280; May 20; v. 262; p. 397.
 Milking apparatus. R. E. Disbrow. No. 1,304,280; May 20; v. 262; p. 401.
 Mill. See—
 Rolling-mill.
 Mill screen attachment. O. J. Mousette, Sr. No. 1,302,907; May 6; v. 262; p. 41.
 Milling-machine. Contour-cutter. E. M. W. Hanson. No. 1,302,541; May 6; v. 262; p. 12.
 Mine-drill. F. Kalata. No. 1,305,319; May 27; v. 262; p. 618.
 Mine fields. Means to protect submarine. F. I. du Pont. No. 1,304,840; May 27; v. 262; p. 493.
 Mine-ship. D. F. Lepley. No. 1,304,784; May 27; v. 262; p. 536.
 Mine, submarine. D. Treubtschankoff. No. 1,302,782; May 6; v. 262; p. 47.
 Mines. Anchor for submarine. G. E. Elia. No. 1,303,272; May 13; v. 262; p. 179.
 Mines. Inertia device for controlling the firing of submarine. G. E. Elia. No. 1,305,050; May 27; v. 262; p. 591.
 Mining apparatus. W. E. Hamilton. No. 1,303,303; May 13; v. 262; p. 194.
 Mining apparatus. E. C. Morgan. No. 1,304,363; May 20; v. 262; p. 415.
 Mining-machine. M. P. Holmes. No. 1,303,797; May 13; v. 262; p. 274.
 Mining-machine. F. L. O. Wadsworth. No. 1,304,829; May 27; v. 262; p. 544.
 Mineral acid sulfonic acid and making. R. E. Divina. No. 1,303,770; May 13; v. 262; p. 271.
 Minerals. Flotation of. C. L. Perkins. No. 1,302,966; May 6; v. 262; p. 93.
 Mirror. Search-light and other. A. M. Barnes. No. 1,304,844; May 27; v. 262; p. 548.
 Mitten. Automobile driving. A. Chambers. No. 1,302,766; May 6; v. 262; p. 84.
 Mixer. J. J. Cochran. No. 1,305,064; May 27; v. 262; p. 599.
 Mixing machine. Clay. H. R. Straight. No. 1,303,611; May 13; v. 262; p. 240.
 Mold. See—
 Candy-mold.
 Molding apparatus. H. Techerling. No. 1,304,922; May 27; v. 262; p. 541.
 Molding appliance. L. R. Lemelin. No. 1,302,816; May 6; v. 262; p. 63.
 Molding-machine rammer. G. W. Wendell. No. 1,302,612; May 6; v. 262; p. 24.
 Monoplane. B. Johnston. No. 1,304,883; May 27; v. 262; p. 554.
 Mop. C. O. Quimby. No. 1,304,694; May 20; v. 262; p. 366.
 Mop. Floor-polishing. A. Trall. No. 1,304,413; May 20; v. 262; p. 437.
 Mop. Self-cleaning. O. M. Barron. No. 1,302,498; May 6; v. 262; p. 4.
 Mortar. W. H. Livens. No. 1,303,070; May 6; v. 262; p. 114.
 Motive-power engine. C. D. Douglas. No. 1,303,781; May 13; v. 262; p. 271.
 Motor. See—
 Air-motor. Vehicle-motor.
 Hydrocarbon-motor. Water-motor.
 Polyphase motor. Wave-motor.
 Tide-motor.
 Motor-car. Tractor attachment for. R. F. Crawford. No. 1,303,856; May 20; v. 262; p. 323.
 Motor-controller. A. J. Horton. No. 1,303,319; May 13; v. 262; p. 187.
 Motor-cycle seat. A. Stowasser. No. 1,304,831; May 27; v. 262; p. 543.
 Motor-cycle stand. W. L. Craig. No. 1,304,457; May 20; v. 262; p. 436.
 Motor-heater and like device. W. B. Powell. No. 1,304,365; May 20; v. 262; p. 416.
 Motor-trucks. Highway-maintenance attachment for. G. A. Goss. No. 1,304,557; May 27; v. 262; p. 494.
 Motor-vehicle-construction unit. H. M. Tompkins. No. 1,304,121; May 20; v. 262; p. 371.
 Motor-vehicle frame. M. V. Liddell. No. 1,303,339; May 13; v. 262; p. 180.
 Motor-vehicles. Front-radius-rod brace for. C. W. Murphy and W. J. Brittain. No. 1,302,666; May 6; v. 262; p. 41.
 Motor-vehicles. Steering device for. V. Longhead. No. 1,303,928; May 20; v. 262; p. 394.
 Motor-vehicles. Supplemental holding device for. W. Pfeiffer. No. 1,303,110; May 6; v. 262; p. 150.
 Motors. Control apparatus for induction. E. Lehr. No. 1,303,337; May 13; v. 262; p. 190.
 Motors. Indicator mechanism for springs. A. V. Gullborg. No. 1,302,539; May 6; v. 262; p. 11.
 Motors. Pitman for rotary radial. F. Clerget. No. 1,303,194; May 27; v. 262; p. 614.
 Mower. Lawn. M. H. Reed. No. 1,304,572; May 20; v. 262; p. 419.
 Muller. J. J. Redeker and H. L. Thompson. No. 1,304,904; May 20; v. 262; p. 306.

Multiple reproducing-machine. G. Roessler. No. 1,302,594; May 6; v. 262; p. 21.
 Music-sheet-guiding device. T. P. Brown. No. 1,303,250; May 13; v. 262; p. 175.
 Musical instrument. H. E. Winterhoff. No. 1,304,435; May 20; v. 262; p. 432.
 Musical instrument. Note-sheet for. C. F. Stoddard. No. 1,304,117; May 20; v. 262; p. 370.
 Musical instruments. Starting and stopping mechanism for automatically played. W. E. Haskell. No. 1,304,971; May 27; v. 262; p. 579.
 Musical instruments. Stringed. L. D. Smith. No. 1,304,914; May 27; v. 262; p. 560.
 Nail-making machine. Oscillating. C. A. Taylor. No. 1,303,418; May 13; v. 262; p. 203.
 Nails. Machine for manufacturing nails from unfinished horseshoe. O. H. Lund. No. 1,303,604; May 13; v. 262; p. 253.
 Nailing-machine. R. C. Neff. No. 1,304,900; May 27; v. 262; p. 558.
 Napkin-clasp. J. H. Poole. No. 1,303,957; May 20; v. 262; p. 341.
 Navigation. Instrument for. E. Zena. No. 1,305,047; May 27; v. 262; p. 585.
 Neck-yoke-supporting attachment. H. Y. Vieta. No. 1,302,908; May 6; v. 262; p. 24.
 Necktie-package. B. Rogall. No. 1,304,911; May 27; v. 262; p. 560.
 Necktie-preserver. H. Kaugleser. No. 1,302,907; May 6; v. 262; p. 62.
 Needle. Crochet. I. M. Jensen. No. 1,303,327; May 13; v. 262; p. 188.
 Nest. Egg-recording. L. S. Linder. No. 1,302,818; May 6; v. 262; p. 64.
 Nitrogen. Purifying. N. T. Bacon. No. 1,304,932; May 27; v. 262; p. 583.
 Non-conducting and waterproof composition and manufacturing same. J. J. Laing and C. W. Bolling. No. 1,305,125; May 27; v. 262; p. 600.
 Non-inductive interference system. C. L. Fortescue. No. 1,303,261; May 13; v. 262; p. 160.
 Non-refillable container. C. H. Nowack. No. 1,304,909; May 27; v. 262; p. 582.
 Non-skid chain and tire. C. H. Schneider. No. 1,304,813; May 27; v. 262; p. 542.
 Non-skid cushion suction-heel. C. E. Siegfried. No. 1,303,841; May 13; v. 262; p. 282.
 Nozzle for steam-turbines. J. Toyokawa. No. 1,304,412; May 20; v. 262; p. 427.
 Numbering-machine. Typographic. A. H. Benham. No. 1,303,014; May 6; v. 262; p. 102.
 Nut. M. H. J. Redmer. No. 1,302,554; May 6; v. 262; p. 71.
 Nut-lock. I. L. Edwards. No. 1,304,067; May 27; v. 262; p. 514.
 Nut-lock. W. E. Emery. No. 1,303,784; May 13; v. 262; p. 272.
 Nut-lock. G. E. Outlaw. No. 1,303,715; May 13; v. 262; p. 269.
 Nut-lock. A. Sack. No. 1,302,858; May 6; v. 262; p. 72.
 Nut-tightening device. J. E. Myers. No. 1,302,830; May 6; v. 262; p. 68.
 Obturator-rings. Manufacture of. J. S. Hecht and A. T. Dowdell. No. 1,303,690; May 20; v. 262; p. 336.
 Oil-adhesion transmission device. M. L. Parret. No. 1,302,701; May 6; v. 262; p. 42.
 Oil and gas burner. Combined. W. H. Spira. No. 1,304,402; May 20; v. 262; p. 426.
 Oil-burner. G. W. Foss. No. 1,304,062; May 20; v. 262; p. 306.
 Oil-burner. Horizontal. A. Q. Nash. No. 1,303,578; May 13; v. 262; p. 233.
 Oil-can. W. B. Blair. No. 1,303,845; May 20; v. 262; p. 321.
 Oil-can. J. F. McGregor. No. 1,303,696; May 13; v. 262; p. 255.
 Oil-can and like containers. Jacket for. R. K. Mills and K. B. Moen. No. 1,302,604; May 6; v. 262; p. 40.
 Oil-container. E. L. Slemantel. No. 1,302,965; May 6; v. 262; p. 73.
 Oil-cup. A. H. Elia. No. 1,304,556; May 27; v. 262; p. 494.
 Oil-cup. W. D. Hughes. No. 1,302,797; May 6; v. 262; p. 60.
 Oil-cup. T. G. Philfeldt and F. C. Hartung. No. 1,305,005; May 27; v. 262; p. 577.
 Oil-dispensing machine. D. W. Anthony. No. 1,303,145; May 6; v. 262; p. 127.
 Oil-dispensing machine. D. W. Anthony. No. 1,303,215; May 6; v. 262; p. 140.
 Oil-drill. N. C. Phillips and T. W. Huff. No. 1,304,364; May 20; v. 262; p. 418.
 Oil in motors of motor-vehicles. Apparatus for controlling the flow of lubricating. B. G. Gartia. No. 1,302,585; May 6; v. 262; p. 11.
 Oil-trap. Crank-case. L. R. Poehadel. No. 1,303,111; May 6; v. 262; p. 121.
 Oils. Manufacture of lubricating. H. F. Grant. No. 1,303,292; May 13; v. 262; p. 182.
 Oils. Treating hydrocarbon. M. J. Trumble. No. 1,304,125; May 20; v. 262; p. 372.
 Oiler. J. L. Fanner. No. 1,304,301; May 20; v. 262; p. 405.
 Oiler. Hig. H. J. Criner. No. 1,303,815; May 13; v. 262; p. 277.
 Oiler. Hig. H. J. Schipper. No. 1,302,979; May 6; v. 262; p. 85.
 Oiling device for dough-molding machines. R. F. Lawson. No. 1,305,127; May 27; v. 262; p. 600.
 Operating drier. Continuously. W. W. Stevens. No. 1,303,382; May 20; v. 262; p. 346.
 Ophthalmic mounting. N. M. Baker and H. K. Parsons. No. 1,303,628; May 13; v. 262; p. 243.
 Ophthalmic mounting. P. H. Herbert. No. 1,302,548; May 6; v. 262; p. 13.
 Ophthalmic mounting. J. C. Wells. No. 1,302,611; May 6; v. 262; p. 24.
 Optical appliance for two-color heliography. F. Twyman and H. Workman. No. 1,304,517; May 20; v. 262; p. 448.
 Optical instrument. H. H. Peck. No. 1,304,507; May 20; v. 262; p. 446.
 Orchard-heater. C. Stollberg. No. 1,304,820; May 27; v. 262; p. 543.
 Ordnance. A. T. Dawson and G. T. Buckham. No. 1,302,519; May 6; v. 262; p. 8.
 Ordnance. Air-blast gear of breech-loading. A. T. Dawson and G. T. Buckham. No. 1,302,621; May 6; v. 262; p. 8.
 Ordnance. Breech-loading. A. T. Dawson and G. T. Buckham. No. 1,302,520; May 6; v. 262; p. 8.
 Ordnance. Breech-loading. A. T. Dawson and G. T. Buckham. No. 1,302,523; May 6; v. 262; p. 9.
 Ordnance. Breech mechanism. A. T. Dawson and G. T. Buckham. No. 1,304,271; May 20; v. 262; p. 390.
 Ordnance. Breech mechanism of. A. T. Dawson and G. T. Buckham. No. 1,302,517; May 6; v. 262; p. 8.
 Ordnance. Hang-fire device for breech-loading. A. T. Dawson and G. T. Buckham. No. 1,302,530; May 6; v. 262; p. 10.
 Ordnance. Loading apparatus for. A. T. Dawson and G. T. Buckham. No. 1,302,526; May 6; v. 262; p. 9.
 Ordnance. Lock mechanism of. A. T. Dawson and G. T. Buckham. No. 1,303,638; May 13; v. 262; p. 244.
 Ordnance. Percussive firing mechanism of. A. T. Dawson and G. T. Buckham. No. 1,302,529; May 6; v. 262; p. 10.
 Ordnance. Sight for. T. C. Sinclair. No. 1,304,816; May 27; v. 262; p. 542.
 Ore-pulp. Dewatering, classifying, and rabbling apparatus for. C. W. McArthur. No. 1,304,077; May 20; v. 262; p. 363.
 Ore-separator. Magnetic. L. G. Rowand. No. 1,303,396; May 13; v. 262; p. 200.
 Ore-separator. Magnetic. L. G. Rowand. No. 1,303,396; May 13; v. 262; p. 201.
 Organ-valve. Electropneumatic. G. H. Chapman. No. 1,302,511; May 6; v. 262; p. 7.
 Orthodontia appliance. J. L. Young. No. 1,304,721; May 27; v. 262; p. 525.
 Orthodontia appliance. J. L. Young. No. 1,304,722; May 27; v. 262; p. 525.
 Orthodontia appliance. J. L. Young. No. 1,304,723; May 27; v. 262; p. 525.
 Oscillating-bur machine. C. S. Lockwood. No. 1,304,526; May 20; v. 262; p. 450.
 Outlet-box. A. Guth. No. 1,304,040; May 20; v. 262; p. 354.
 Oven. Baking. M. Feder. No. 1,303,275; May 13; v. 262; p. 179.
 Oven. Baking. M. Feder. No. 1,303,276; May 13; v. 262; p. 179.
 Oven. Refex coke. A. Roberts. No. 1,304,907; May 27; v. 262; p. 559.
 Overall. F. H. Smedley. No. 1,304,613; May 27; v. 262; p. 504.
 Overhaul for animals. Slip-resisting. M. M. O'Brien. No. 1,303,878; May 13; v. 262; p. 197.
 Overhaul-retainer. V. E. Langhardt. No. 1,302,677; May 6; v. 262; p. 37.
 Overshoe. Non-clipping attachment for. W. A. Mintzloff. No. 1,303,571; May 13; v. 262; p. 282.
 Package. W. M. Wheldon. No. 1,303,137; May 6; v. 262; p. 126.
 Package and packing-box. J. D. McLaurin. No. 1,303,489; May 13; v. 262; p. 217.
 Packing and valve. Combination. R. D. Bradford. No. 1,304,763; May 13; v. 262; p. 268.
 Packing for piston-rods or other fluid-engines. T. M. Mallon. No. 1,303,490; May 13; v. 262; p. 218.
 Packing. Piston-rod. I. H. Goldman. No. 1,303,883; May 20; v. 262; p. 328.
 Packing retainer. Journal-box. J. McMullen. No. 1,303,933; May 20; v. 262; p. 337.
 Packings. Manufacture of piston. F. W. Lancaster. (Reissue.) No. 14,844; May 6; v. 262; p. 143.
 Pail and brush-container. Painter's. R. C. Tucker. No. 1,304,415; May 20; v. 262; p. 428.
 Pail cover. Garbage. M. A. Dandrow. No. 1,305,197; May 27; v. 262; p. 614.
 Pad. See—
 Pedal-pad.
 Pan. See—
 Baking-pan.
 Panel-board construction. E. A. Olley. No. 1,303,582; May 13; v. 262; p. 284.

Paper-board and the like, Creasing. W. E. Naugler. No. 1,302,831; May 6; v. 262; p. 66.
 Paper-cup holder. D. F. Curtin. No. 1,303,171; May 6; v. 262; p. 132.
 Paper doll. E. G. G. Davis. No. 1,305,071; May 27; v. 262; p. 500.
 Paper fastener. C. O. Fisher. No. 1,303,279; May 13; v. 262; p. 180.
 Paper hollow ware, Apparatus for making. W. H. Fulcher. No. 1,303,191; May 6; v. 262; p. 135.
 Paper, Machine for pasting, tinning, and folding wall. N. Hendland. No. 1,303,895; May 20; v. 262; p. 330.
 Paper-making machine. C. E. Pope. No. 1,304,903; May 27; v. 262; p. 558.
 Paper-making machine, Fourdrinier. S. Milne. No. 1,303,493; May 13; v. 262; p. 216.
 Paper or the like, Apparatus for rolling up. S. Lebensart. No. 1,302,934; May 6; v. 262; p. 86.
 Paper receptacle. A. G. Porter. No. 1,303,723; May 13; v. 262; p. 260.
 Paper reel, Making. L. F. Barnum. No. 1,304,143; May 20; v. 262; p. 375.
 Paper-rolling machine. G. F. McAdams. No. 1,302,571; May 6; v. 262; p. 17.
 Paper stick, Rotary screen for. C. S. Bird. No. 1,304,253; May 20; v. 262; p. 396.
 Paper tubes, Machine for coating. C. B. Macy. No. 1,304,189; May 20; v. 262; p. 383.
 Parachute-launching device. E. R. Calthrop. No. 1,302,898; May 6; v. 262; p. 80.
 Paring machine, Potato. J. M. Struzas and J. Kulluk. No. 1,304,716; May 27; v. 262; p. 524.
 Passages and lining same with earthenware, Ac. Machine for forming subterraneous. N. M. Ryan. No. 1,303,899; May 13; v. 262; p. 201.
 Pastry-baking machine. C. L. Willcox. No. 1,305,183; May 27; v. 262; p. 611.
 Pastry-form machines, Batter-feeder for. L. H. Esselmann. No. 1,303,218; May 6; v. 262; p. 141.
 Pastry-making apparatus. E. H. Lanier. (Reissue.) No. 1,4651; May 20; v. 262; p. 451.
 Pattern: See—
 Pie and bean viner, Attachment for. H. E. Goff. No. 1,303,193; May 6; v. 262; p. 137.
 Pen-annulator. F. Hamacheck. No. 1,304,705; May 27; v. 262; p. 533.
 Pen-cutting device. J. T. Lee. No. 1,302,668; May 6; v. 262; p. 17.
 Pen-pressing machine. C. A. Willmarth. No. 1,304,137; May 20; v. 262; p. 372.
 Pen-pusher. J. E. Redfern. No. 1,302,853; May 6; v. 262; p. 71.
 Pen. E. S. Wood. No. 1,305,046; May 27; v. 262; p. 585.
 Pen, Drawing. W. A. Schenck. No. 1,304,709; May 27; v. 262; p. 522.
 Pen, Fountain. G. Dalton. No. 1,304,264; May 20; v. 262; p. 398.
 Pen, Fountain. F. Le Boeuf. No. 1,302,935; May 6; v. 262; p. 87.
 Pen, Fountain, and stylographic. F. M. Peart. No. 1,302,842; May 6; v. 262; p. 60.
 Pen or pencil, Luminous. J. W. Welton. No. 1,304,131; May 20; v. 262; p. 373.
 Pen, Self-filling fountain. H. L. Carman. No. 1,304,739; May 27; v. 262; p. 528.
 Pens, Combined closure and eraser for fountain. S. Newell. No. 1,302,954; May 6; v. 262; p. 90.
 Pens, Pencil attachment for fountain. A. L. Oppenheim. No. 1,302,585; May 6; v. 262; p. 19.
 Penholder, Duplex. L. H. Wineman. No. 1,303,442; May 13; v. 262; p. 200.
 Pencil. C. E. Wehm. No. 1,302,009; May 6; v. 262; p. 90.
 Pencil and eraser, Combination. L. F. Nelson. No. 1,303,944; May 20; v. 262; p. 339.
 Pencil, Mosaic. R. Nardil. No. 1,304,500; May 27; v. 262; p. 500.
 Percussion-tube for shells or projectiles. F. Davies. No. 1,302,902; May 6; v. 262; p. 81.
 Perforating-machine. C. B. Bartee. No. 1,304,441; May 20; v. 262; p. 433.
 Petroleum, tar, and the like, Preheater for use in the distillation of. L. Steinschneider. No. 1,302,988; May 6; v. 262; p. 97.
 Phonograph. F. A. Lee and F. G. Rose. No. 1,303,686; May 13; v. 262; p. 253.
 Phonograph. L. J. O'Riley. No. 1,303,951; May 20; v. 262; p. 340.
 Phonograph and picture-reproducer, Combination. M. De La Fontaine. No. 1,303,217; May 6; v. 262; p. 141.
 Phonograph attachment. A. J. M. Corns. No. 1,303,031; May 6; v. 262; p. 106.
 Phonograph, Automatic magazine. R. Armbrist. No. 1,304,246; May 20; v. 262; p. 394.
 Phonograph-horn. E. L. Kenyon. No. 1,303,209; May 6; v. 262; p. 139.
 Phonograph or talking-machine. J. P. Constable. No. 1,304,188; May 20; v. 262; p. 378.
 Phonograph-record. G. Leake. No. 1,303,074; May 6; v. 262; p. 113.
 Phonograph stop mechanism. A. H. Franke. No. 1,302,650; May 6; v. 262; p. 32.

Phonograph-transmitter. H. C. Egerton. No. 1,303,183; May 6; v. 262; p. 134.
 Phonographic apparatus, Control mechanism for. F. D. Lewis. No. 1,303,927; May 20; v. 262; p. 386.
 Phonographic attachment. A. G. Remblit. No. 1,304,518; May 20; v. 262; p. 447.
 Photographic and cinematographic pictures, Coloring of. H. Shorrock. No. 1,303,506; May 13; v. 262; p. 230.
 Photographic-film-developing tank. R. F. Whitt. No. 1,305,043; May 27; v. 262; p. 565.
 Photographic films and plates, Apparatus for developing, fixing, and washing. J. P. Hansen. No. 1,305,098; May 27; v. 262; p. 564.
 Photographic films, Means and method of developing. F. E. Edelman. No. 1,304,082; May 20; v. 262; p. 364.
 Photographic motion-recording device. A. E. Michaelson. No. 1,303,090; May 6; v. 262; p. 116.
 Photographic plates and cinematograph-films, Antihalation coating for. S. Cocanari. No. 1,305,186; May 27; v. 262; p. 614.
 Photographic positive prints, Method of and article for making. J. G. Capota. No. 1,303,635; May 13; v. 262; p. 244.
 Photographic-printing apparatus. G. E. Tornajo. No. 1,303,416; May 13; v. 262; p. 205.
 Photographic-printing machine. W. E. Mowrey. No. 1,304,796; May 27; v. 262; p. 539.
 Photographic raw films, Packing of. J. P. Hansen. No. 1,305,096; May 27; v. 262; p. 564.
 Piano-action. H. P. Ballou. No. 1,303,451; May 13; v. 262; p. 210.
 Piano-player devices, Reed attachment for. A. W. Meyer. No. 1,304,844; May 20; v. 262; p. 414.
 Pianos, Wippen connection for player. J. Fern. No. 1,302,647; May 6; v. 262; p. 31.
 Picker: See—
 Fruit-picker.
 Picker-strap. M. B. Griffin. No. 1,304,764; May 27; v. 262; p. 532.
 Pickling ferrous articles and electrically regenerating the pickling-bath. A. F. Hoffman. No. 1,305,218; May 27; v. 262; p. 617.
 Pictorial, artistic, and graphic works, Reproducing. J. Leurgan. No. 1,304,071; May 20; v. 262; p. 342.
 Picture apparatus, Motion. H. R. Evans. No. 1,304,466; May 20; v. 262; p. 488.
 Picture apparatus, Motion. C. F. Jenkins. No. 1,302,891; May 6; v. 262; p. 60.
 Picture apparatus, Motion. F. E. Otter. No. 1,305,002; May 27; v. 262; p. 576.
 Picture apparatus, Portable motion. J. G. R. O'Hara. No. 1,303,154; May 27; v. 262; p. 605.
 Picture-film reel. C. F. Jenkins. No. 1,302,803; May 6; v. 262; p. 61.
 Picture-hanger. M. B. McClung. No. 1,304,237; May 20; v. 262; p. 412.
 Picture indicator, Moving. L. J. Bechtold. No. 1,304,010; May 20; v. 262; p. 351.
 Picture machine, Motion. H. A. de Vry. No. 1,303,542; May 13; v. 262; p. 227.
 Picture machine, Motion. H. A. de Vry. No. 1,303,543; May 13; v. 262; p. 227.
 Picture machines, Mechanical movement for motion. E. W. Clark. No. 1,304,834; May 27; v. 262; p. 449.
 Picture-projecting machine. C. F. Jenkins. No. 1,302,890; May 6; v. 262; p. 60.
 Picture projectors and sound-reproducing mechanism, Synchronizing means for motion. C. W. Ebeling. No. 1,303,047; May 6; v. 262; p. 108.
 Pile-driver base. E. J. Stone. No. 1,304,119; May 20; v. 262; p. 371.
 Pilot-light. N. G. Gorseau. No. 1,302,914; May 6; v. 262; p. 83.
 Pins of brooches, Ac. Pivot-mounting for. W. H. Taylor. No. 1,304,406; May 20; v. 262; p. 426.
 Pins, Safety-shield for. C. A. Roman. No. 1,302,713; May 6; v. 262; p. 44.
 Pipe: See—
 Smoking-pipe.
 Pipe and pipe-fittings, Lining. G. Monrath. No. 1,303,102; May 6; v. 262; p. 119.
 Pipe construction. W. W. Whitford. No. 1,302,744; May 6; v. 262; p. 46.
 Pipe-coupling. J. L. Brochart. No. 1,303,848; May 20; v. 262; p. 322.
 Pipe-cutter, Ratchet. R. S. Hestand. No. 1,304,770; May 27; v. 262; p. 533.
 Pipe-hanger. G. H. McFeaters. No. 1,303,345; May 13; v. 262; p. 191.
 Pipe-hanger. G. H. McFeaters. No. 1,303,346; May 13; v. 262; p. 192.
 Pipe-hanger. G. H. McFeaters. No. 1,303,347; May 13; v. 262; p. 192.
 Pipe-molds, Gate-cutter and head-former for. I. Jones. No. 1,304,000; May 20; v. 262; p. 390.
 Pipe, Smoking. F. W. Beall. No. 1,303,629; May 13; v. 262; p. 243.
 Pipes, Antiburst-tube for lining water. W. Ebelby. No. 1,304,036; May 20; v. 262; p. 354.
 Pipes, Apparatus for making flanged. L. H. Brinkman. No. 1,304,933; May 27; v. 262; p. 564.
 Pipe, Making flanged. L. H. Brinkman. No. 1,304,939; May 27; v. 262; p. 564.

Piston. P. P. Smith, Jr. No. 1,304,615; May 27; v. 262; p. 505.
 Piston-ring. J. E. Norwood. No. 1,304,360; May 20; v. 262; p. 417.
 Piston-ring compressor. C. E. Swart and G. W. Smith. No. 1,303,614; May 13; v. 262; p. 240.
 Piston-ring contractor. W. G. Stroud. No. 1,303,612; May 13; v. 262; p. 240.
 Piston-ring remover. J. Bretz, Jr. No. 1,303,458; May 13; v. 262; p. 211.
 Piston-rings, Machine for producing. F. Ray. No. 1,304,371; May 20; v. 262; p. 419.
 Piston, Skeleton adjustable. U. McCadden. No. 1,302,572; May 6; v. 262; p. 17.
 Planer feed device. C. G. Johannesmeyer. No. 1,303,675; May 13; v. 262; p. 251.
 Planer, Road and street. G. W. Cartwright. No. 1,304,741; May 27; v. 262; p. 528.
 Planter. H. L. Dooley. No. 1,303,780; May 13; v. 262; p. 271.
 Planter. E. M. Heyman. No. 1,302,922; May 6; v. 262; p. 84.
 Planter, Corn. C. W. Lanham. No. 1,304,992; May 27; v. 262; p. 574.
 Planter, Seed. H. S. Dickinson. No. 1,303,264; May 13; v. 262; p. 178.
 Planters, Blind-plowing attachment for. J. E. Stevens and W. Thackeray, Jr. No. 1,303,222; May 6; v. 262; p. 142.
 Planters, Checking attachment for. W. L. Sprowl. No. 1,304,916; May 27; v. 262; p. 561.
 Planters, Seed-boost for corn. R. C. Henderson. No. 1,304,312; May 20; v. 262; p. 407.
 Planters, ointments, Ac. Composition of matter for. E. M. Pond. No. 1,304,600; May 27; v. 262; p. 562.
 Plastic articles, Making. W. J. Burns. No. 1,304,851; May 27; v. 262; p. 549.
 Plastic composition. L. E. Weber. No. 1,302,739; May 6; v. 262; p. 49.
 Plastic manifolding composition. G. Fechter. No. 1,304,291; May 20; v. 262; p. 403.
 Plastic material. L. E. Weber. No. 1,302,740; May 6; v. 262; p. 49.
 Plastic material, Machine for forming sheets of. T. Rose. No. 1,303,906; May 20; v. 262; p. 348.
 Plate, Breast. S. Sokol. No. 1,303,510; May 13; v. 262; p. 221.
 Plate-cutting device. J. P. McBride. No. 1,304,895; May 27; v. 262; p. 554.
 Player-pianos, Automatically-operated foot-pedal for. W. Schuck. No. 1,304,005; May 27; v. 262; p. 503.
 Plaything for children. E. J. Renner. No. 1,303,892; May 13; v. 262; p. 200.
 Ploew. M. H. Brabant. No. 1,303,813; May 13; v. 262; p. 277.
 Ploew. T. Strite. No. 1,303,518; May 13; v. 262; p. 222.
 Ploew, Gang. J. B. Bartholomew. No. 1,303,232; May 13; v. 262; p. 172.
 Ploew-lift, Automatic power-operated. G. T. Strite. No. 1,303,516; May 13; v. 262; p. 222.
 Ploew-lift, Power-operated. G. T. Strite. No. 1,303,517; May 13; v. 262; p. 222.
 Ploew, Motor. C. F. Hellas. No. 1,302,657; May 6; v. 262; p. 33.
 Ploew, Wheel. B. B. Wallace. No. 1,303,427; May 13; v. 262; p. 204.
 Ploew, Apparatus for holding plastic material on. G. P. A. Welzenborn. No. 1,303,432; May 13; v. 262; p. 207.
 Ploewhare. W. R. Thomas. No. 1,303,129; May 6; v. 262; p. 124.
 Ploewshare-frame. A. Hollenhorst. No. 1,302,555; May 6; v. 262; p. 14.
 Plug, Clean-out. C. E. Gate. No. 1,304,174; May 20; v. 262; p. 380.
 Plug, Quick-service attachment. A. C. Kong and W. C. Kam. No. 1,304,491; May 20; v. 262; p. 443.
 Pneumatic control apparatus. W. G. Haas. No. 1,303,297; May 13; v. 262; p. 183.
 Pneumatic-dispatch tubes, Coupling for. J. G. McLaren. No. 1,302,944; May 6; v. 262; p. 88.
 Pocket lock. Verbl. L. Bach and R. Kubler. No. 1,302,800; May 6; v. 262; p. 70.
 Polishing and finishing composition. G. H. Iwamoto. No. 1,303,072; May 13; v. 262; p. 251.
 Polyphase motor. V. A. Fynn. No. 1,304,937; May 27; v. 262; p. 568.
 Portable light. J. D. Newton. No. 1,305,151; May 27; v. 262; p. 605.
 Post: See—
 Fence-post.
 Post-card. E. E. Stout. No. 1,303,842; May 13; v. 262; p. 282.
 Poultry-disinfectant. G. Carlson. No. 1,303,851; May 20; v. 262; p. 322.
 Powder-box. V. L. Beauchamp. No. 1,303,630; May 13; v. 262; p. 243.
 Powder-puff. M. Crupain. No. 1,305,070; May 27; v. 262; p. 560.
 Power-developing machine. C. Franco. No. 1,304,296; May 20; v. 262; p. 404.
 Power drop-hammer. W. H. Welch. No. 1,304,426; May 20; v. 262; p. 430.

Power plant, Auxiliary. W. C. Cronkright. No. 1,305,068; May 27; v. 262; p. 589.
 Power-reverse gear. J. R. Snyder and H. W. Fleming. No. 1,303,970; May 20; v. 262; p. 346.
 Power transmission. T. Maurer. No. 1,304,081; May 20; v. 262; p. 364.
 Power transmission, Electrical system of. E. F. W. Alexander. No. 1,304,289; May 20; v. 262; p. 393.
 Power transmission, Electrical system of. W. S. H. Hamilton. No. 1,304,178; May 20; v. 262; p. 381.
 Precious stones, Apparatus for grinding or polishing. H. de Vries and W. A. Donaldson. No. 1,305,038; May 27; v. 262; p. 583.
 Preheating. A. Roberts. No. 1,304,906; May 27; v. 262; p. 559.
 Preserving, Means for. C. T. Evans. No. 1,303,549; May 13; v. 262; p. 228.
 Press: See—
 Haling-press.
 Drill-press.
 Press. J. E. Singmaster. No. 1,303,826; May 13; v. 262; p. 279.
 Press. G. E. Whitney. No. 1,302,745; May 6; v. 262; p. 50.
 Press mechanism. A. P. Swaldmark. No. 1,303,520; May 13; v. 262; p. 223.
 Pressing machine, Garment. H. E. Chase. No. 1,305,853; May 27; v. 262; p. 549.
 Pressure-controlled switch. E. E. Taubert. No. 1,304,217; May 20; v. 262; p. 289.
 Pressure-controlling device. J. Buchel. No. 1,305,059; May 27; v. 262; p. 588.
 Pressure-regulator. J. M. Larson. No. 1,303,807; May 13; v. 262; p. 276.
 Pressure-regulator. O. H. and A. F. Pieper. No. 1,304,704; May 27; v. 262; p. 521.
 Priming and testing cup. O. A. Smith. No. 1,304,110; May 20; v. 262; p. 369.
 Priming and testing cup. O. A. Smith. No. 1,304,111; May 20; v. 262; p. 369.
 Printing-board. L. Smith. No. 1,303,733; May 13; v. 262; p. 262.
 Printing device, Web. R. H. Plasse. No. 1,305,235; May 27; v. 262; p. 621.
 Printing-machine. C. H. Sampson. No. 1,305,012; May 27; v. 262; p. 578.
 Printing-machines, Web-feeding mechanism for. I. Tornberg. No. 1,304,630; May 27; v. 262; p. 507.
 Printing-plates, Machine for making. J. A. H. Hatt. No. 1,302,920; May 6; v. 262; p. 84.
 Printing-plates, Producing. J. A. H. Hatt. No. 1,302,919; May 6; v. 262; p. 84.
 Printing-press mechanism. G. C. Johnson. No. 1,302,606; May 6; v. 262; p. 35.
 Printing-press, Multiweb. H. Lange. No. 1,305,126; May 27; v. 262; p. 600.
 Printing-presses, Folding mechanism for. H. Lange. No. 1,305,129; May 27; v. 262; p. 600.
 Printing-presses, Plate-clamp for. J. R. Blaine. No. 1,304,732; May 27; v. 262; p. 526.
 Printing-presses, Tension mechanism for. F. J. Walser and C. A. Dresser. No. 1,304,923; May 27; v. 262; p. 542.
 Printing-presses, Trip-control mechanism for. R. Michle. No. 1,302,093; May 6; v. 262; p. 40.
 Prints, Device for printing blue. C. C. Cooper. No. 1,303,774; May 13; v. 262; p. 270.
 Producing anilin hydrochloride. C. C. Ahlum. No. 1,302,024; May 13; v. 262; p. 242.
 Projectile. P. J. Francois. No. 1,303,877; May 20; v. 262; p. 327.
 Projectile. C. James. No. 1,305,210; May 27; v. 262; p. 617.
 Projectile. T. Nomoto. No. 1,303,713; May 13; v. 262; p. 258.
 Projectile. K. A. Schultz. No. 1,302,720; May 6; v. 262; p. 45.
 Projectile. J. A. Walsh. No. 1,302,996; May 6; v. 262; p. 99.
 Projectile for use against submarines and submerged mines. A. J. Stone. No. 1,303,738; May 13; v. 262; p. 263.
 Projectile, Hollow. T. E. Jr. and J. B. Murray. No. 1,303,870; May 13; v. 262; p. 233.
 Projectile, Illuminating. A. G. Bergman. No. 1,305,186; May 27; v. 262; p. 612.
 Projectile, Illuminating. A. G. Bergman. No. 1,305,188; May 27; v. 262; p. 612.
 Projectile-shells, Trailing elongated. T. E. Jr. and J. B. Murray. No. 1,303,577; May 13; v. 262; p. 233.
 Projector. E. L. Gilmore. No. 1,303,103; May 6; v. 262; p. 196.
 Propeller, Air. E. D. Fleux and H. S. Wheller. No. 1,304,871; May 27; v. 262; p. 515.
 Propeller, Screw. W. Routledge. No. 1,304,102; May 20; v. 262; p. 367.
 Protector. W. L. Cook. No. 1,304,024; May 20; v. 262; p. 354.
 Puff-iron, Electrically heated. D. Bertuleit. No. 1,304,146; May 20; v. 262; p. 375.
 Puller: See—
 Bolt-puller.
 Core-bar puller.
 Drift-bolt puller.
 Sickle-puller.

Self-locking mat. S. G. Van Derbeck. No. 1,304,518; May 20; v. 262; p. 448.
 Semaphore and train-stop mechanism, Automatic pneumatic. F. D. Robb. No. 1,302,711; May 6; v. 262; p. 43.
 Sensitized mediums, Development of exposed. E. B. Downing. No. 1,302,777; May 6; v. 262; p. 56.
 Separating device. N. A. Helmer. No. 1,304,681; May 27; v. 262; p. 517.
 Separator: See—
 Coin-separator. Ore-separator.
 Dust-separator. Pea-separator.
 Magnetic separator.
 Separator and cleaner, Boll-cotton. R. H. Furnell and R. F. Bridges. No. 1,304,804; May 27; v. 262; p. 540.
 Sewing-machine. O. L. Dosch and M. Hemleb. No. 1,304,750; May 27; v. 262; p. 530.
 Sewing-machine. C. L. Du Bois and W. Payne. No. 1,304,861; May 27; v. 262; p. 550.
 Sewing-machine. J. H. Masterson. No. 1,302,689; May 6; v. 262; p. 30.
 Sewing machine, Buttonhole. E. J. Ray. No. 1,303,400; May 13; v. 262; p. 201.
 Sewing-machine presser-foot. I. F. Webb. No. 1,302,908; May 6; v. 262; p. 99.
 Sewing-machine throat-plate. J. Berger, Jr. No. 1,305,051; May 27; v. 262; p. 556.
 Sewing-machine, Wax-thread. T. H. Seely. No. 1,302,597; May 6; v. 262; p. 22.
 Sewing-machine, Wax-thread. T. H. Seely. No. 1,302,598; May 6; v. 262; p. 22.
 Sewing-machines, Attachment for. M. Ylloja. No. 1,302,750; May 6; v. 262; p. 50.
 Sewing-machines, Position-bracket for. G. Jackson. No. 1,303,904; May 20; v. 262; p. 332.
 Sewing-machines, Stitch-forming mechanism for. C. W. Thomas. No. 1,304,627; May 27; v. 262; p. 507.
 Shackle. R. H. Harris. No. 1,303,008; May 27; v. 262; p. 695.
 Shade and curtain bracket. L. A. Powell. No. 1,304,705; May 27; v. 262; p. 522.
 Shade-holder. A. L. Arenberg. No. 1,302,493; May 6; v. 262; p. 3.
 Shade-holder. M. Herskovitz. No. 1,303,898; May 20; v. 262; p. 331.
 Shade-holder. J. T. Johnson. No. 1,304,320; May 20; v. 262; p. 409.
 Shade-roller. Adjustable. D. E. Schimmel. No. 1,304,383; May 20; v. 262; p. 421.
 Shade rollers, Automatic stop for window. O. E. Edstrom. No. 1,303,182; May 6; v. 262; p. 134.
 Shaft-bearing. C. W. Starker. No. 1,303,408; May 13; v. 262; p. 203.
 Shaft-bearing indicator. G. D. Pogue. No. 1,303,887; May 13; v. 262; p. 192.
 Shaft, Chain and ventilating. J. D. Sloan. No. 1,303,405; May 13; v. 262; p. 202.
 Shaft-coupling, Flexible. W. R. Fox. No. 1,304,757; May 27; v. 262; p. 531.
 Shaft-coupling, Flexible. W. R. Fox. No. 1,304,758; May 27; v. 262; p. 531.
 Shaft-coupling, Flexible. W. R. Fox. No. 1,304,759; May 27; v. 262; p. 532.
 Shaft-feeding device. J. W. Hyatt. No. 1,305,112; May 27; v. 262; p. 597.
 Shaft-hanger. J. L. Sparling. No. 1,304,401; May 20; v. 262; p. 425.
 Shaft hanger, Gyrratory. H. H. Stephens. No. 1,302,872; May 6; v. 262; p. 75.
 Shaft-operating device. G. G. Floyd. No. 1,304,967; May 27; v. 262; p. 551.
 Shaft spanner-wrench, Spline. C. P. Brockway. No. 1,303,157; May 6; v. 262; p. 130.
 Shark-skins, Shrinking. W. Brackmann. No. 1,304,256; May 20; v. 262; p. 397.
 Sharpener, Drill. J. Ditson. No. 1,304,459; May 20; v. 262; p. 437.
 Sharpening and gumming device, Gin-saw. J. J. Smith. No. 1,304,614; May 27; v. 262; p. 604.
 Shearing mechanism. V. E. Edwards. No. 1,304,034; May 20; v. 262; p. 355.
 Shears, Lubricating device for. T. S. Crane. No. 1,303,463; May 13; v. 262; p. 212.
 Sheet construction, Trussed. J. O. Madison. No. 1,302,822; May 6; v. 262; p. 65.
 Sheet-delivering device. E. P. Jennings, Jr. No. 1,303,326; May 13; v. 262; p. 188.
 Sheet-delivery mechanism. M. A. Drolleour. No. 1,303,040; May 6; v. 262; p. 107.
 Sheet-delivery mechanism. M. A. Drolleour. No. 1,303,041; May 6; v. 262; p. 107.
 Sheet-feeder, Pneumatic. C. E. Christophel. No. 1,304,262; May 20; v. 262; p. 398.
 Sheet feeding and controlling apparatus. B. F. Upham. No. 1,305,181; May 27; v. 262; p. 610.
 Sheet-feeding mechanism. J. F. Petty. No. 1,303,592; May 13; v. 262; p. 236.
 Sheet-metal belt-anchor. J. E. Ogden. No. 1,305,000; May 27; v. 262; p. 576.
 Sheet-metal container. C. H. Draper. No. 1,303,175; May 6; v. 262; p. 133.
 Sheet-metal wheel and the like and making same. A. Benson. No. 1,303,236; May 13; v. 262; p. 173.

Shell, Illuminating. A. G. Bergman. No. 1,305,187; May 27; v. 262; p. 612.
 Shell or similar body, Explosive. F. M. Hale. No. 1,303,197; May 6; v. 262; p. 137.
 Shell, Shot. J. S. Gravely. No. 1,304,962; May 27; v. 262; p. 509.
 Shell, Shot. A. C. Jewett. No. 1,305,113; May 27; v. 262; p. 598.
 Shell, Shot. A. C. Jewett. No. 1,305,114; May 27; v. 262; p. 598.
 Shell, Shot. A. C. Jewett. No. 1,305,115; May 27; v. 262; p. 598.
 Shells, Means for handling. J. F. Schott. No. 1,302,861; May 6; v. 262; p. 73.
 Shellac and making same, Liquid. T. H. Dugan. No. 1,306,782; May 13; v. 262; p. 371.
 Shelving, Metal. A. C. Terrell. No. 1,302,882; May 6; v. 262; p. 77.
 Shelving-rack. J. Marchlinski. No. 1,303,094; May 6; v. 262; p. 117.
 Shield, Elbow. R. P. Grau. No. 1,304,558; May 27; v. 262; p. 494.
 Shield, Expansion. J. Kennedy. No. 1,304,887; May 27; v. 262; p. 555.
 Shield for troops, Convertible. C. L. Clark. No. 1,304,641; May 27; v. 262; p. 491.
 Shield, Pressed-metal expansion. J. Kennedy. No. 1,304,885; May 27; v. 262; p. 555.
 Shield, Wind. A. C. Pratt. No. 1,302,969; May 6; v. 262; p. 93.
 Ship-fender. T. Fowlin. No. 1,303,959; May 20; v. 262; p. 342.
 Ship-form, Floating. J. A. Lynch. No. 1,302,570; May 6; v. 262; p. 17.
 Ship propulsion. W. L. R. Emmet. No. 1,304,287; May 20; v. 262; p. 402.
 Ship propulsion. W. L. R. Emmet. No. 1,304,288; May 20; v. 262; p. 403.
 Ship propulsion, Electric. H. M. Hobart. No. 1,304,181; May 20; v. 262; p. 362.
 Ship propulsion, Electric system of. E. F. W. Alexander. No. 1,304,240; May 20; v. 262; p. 393.
 Ship propulsion, Electric system of. W. L. R. Emmet. No. 1,304,290; May 20; v. 262; p. 403.
 Ship propulsion, Geared-turbine installation for. C. A. Parsons. No. 1,302,962; May 6; v. 262; p. 92.
 Ship-propulsion system. W. L. R. Emmet. No. 1,304,289; May 20; v. 262; p. 403.
 Ship, Reinforced-concrete. G. C. and R. E. Newton. No. 1,303,369; May 13; v. 262; p. 196.
 Ships afloat, Method of and means for maintaining. O. Johnson. No. 1,303,910; May 20; v. 262; p. 333.
 Ships, Construction of the hulls of concrete. J. H. Holmgren. No. 1,303,607; May 13; v. 262; p. 250.
 Shirts, Neckband for. W. S. Tothill. No. 1,304,921; May 27; v. 262; p. 501.
 Shock-absorber. S. G. Conkling. No. 1,305,005; May 27; v. 262; p. 599.
 Shock-absorber. L. R. Dudley. No. 1,304,950; May 27; v. 262; p. 567.
 Shock-absorber. E. Fuller. No. 1,303,816; May 13; v. 262; p. 278.
 Shock-absorber. A. Heldrich. No. 1,304,311; May 20; v. 262; p. 407.
 Shock-absorber. H. Lutz. No. 1,303,343; May 13; v. 262; p. 191.
 Shock-absorber. J. F. O'Connor. No. 1,303,949; May 20; v. 262; p. 340.
 Shock-absorber. F. Patee. No. 1,305,004; May 27; v. 262; p. 577.
 Shock-absorber. J. J. Rhine. No. 1,303,725; May 13; v. 262; p. 260.
 Shock-absorber. T. Sloper. No. 1,304,818; May 27; v. 262; p. 543.
 Shock-absorbing mechanism. W. A. Geiger. No. 1,303,288; May 13; v. 262; p. 182.
 Shock-absorbing mechanism. J. F. O'Connor. No. 1,303,380; May 13; v. 262; p. 195.
 Shock-absorbing mechanism, High-capacity friction. G. Q. Lewis. No. 1,303,338; May 13; v. 262; p. 190.
 Shock-absorbing mechanism, Friction. J. F. O'Connor. No. 1,303,375; May 13; v. 262; p. 197.
 Shock-absorbing mechanism, Friction. J. F. O'Connor. No. 1,303,379; May 13; v. 262; p. 198.
 Shock-absorbing mechanism, High-capacity friction. J. F. O'Connor. No. 1,303,377; May 13; v. 262; p. 197.
 Shock-neutralizing device. C. H. Billingshurst. No. 1,302,769; May 6; v. 262; p. 52.
 Shoe. S. Barber. No. 1,304,646; May 27; v. 262; p. 510.
 Shoe and making shoe. J. K. Thimble. No. 1,302,994; May 6; v. 262; p. 98.
 Shoe-nail-reclaiming machine. R. H. Lawson. No. 1,303,334; May 13; v. 262; p. 190.
 Shoe-polishing machine. G. Bousola. No. 1,304,447; May 20; v. 262; p. 434.
 Shoe-protector. J. J. Farmer. No. 1,304,593; May 27; v. 262; p. 600.
 Shoe-sole-leveling machine. P. J. McGrath. No. 1,304,078; May 20; v. 262; p. 363.
 Shoes, Art of setting fastening means in. H. G. McMurray. No. 1,302,942; May 6; v. 262; p. 83.
 Shoes, Locking-key for brake. E. Huber. No. 1,304,040; May 20; v. 262; p. 358.

Shoes, Manufacture of. J. H. Connor. No. 1,302,995; May 6; v. 262; p. 98.
 Shoes, Manufacturing. G. E. Greeley. No. 1,304,476; May 20; v. 262; p. 440.
 Shoes, Substitute material for making box-toes for. A. C. Denning. No. 1,303,262; May 13; v. 262; p. 177.
 Shoepack. J. S. Donovan. No. 1,303,037; May 6; v. 262; p. 106.
 Shooting-galleries, Machine-gun for. W. F. Mangels. No. 1,305,702; May 13; v. 262; p. 256.
 Shot-firing device, Portable. D. C. Gentry. No. 1,304,306; May 20; v. 262; p. 400.
 Shoulder-brace and abdominal support, Combined. E. Karlin. No. 1,303,330; May 13; v. 262; p. 189.
 Shovel: See—
 Mechanical-stoker shovel.
 Shoveling-machine. F. M. Hewitt. No. 1,304,683; May 27; v. 262; p. 518.
 Shower-bath, Portable. F. I. S. Hynek. No. 1,302,559; May 6; v. 262; p. 15.
 Shrapnel-shells, Making. W. D. Rice. No. 1,303,727; May 13; v. 262; p. 361.
 Sickle-puller. S. D. Kussell. No. 1,302,595; May 6; v. 262; p. 21.
 Sifter, Ash. W. R. Klurad. No. 1,305,223; May 27; v. 262; p. 619.
 Sign, Illuminated. A. Herz. No. 1,303,556; May 13; v. 262; p. 290.
 Signs, Finishing or surfacing. C. A. Divine. No. 1,304,749; May 27; v. 262; p. 530.
 Signal: See—
 Automatic signal. Reflecting-signal.
 Automobile-signal. Switch-signal.
 Railway-signal. Warning-signal.
 Railway-crossing signal.
 Signaling attachment to trains. L. A. Jones and J. W. Clement. No. 1,302,904; May 6; v. 262; p. 61.
 Signaling device. C. H. Boardman. No. 1,304,998; May 27; v. 262; p. 564.
 Signaling device. C. B. Harlow. No. 1,304,908; May 27; v. 262; p. 570.
 Signaling device, Electric. W. M. Horton. No. 1,303,901; May 20; v. 262; p. 331.
 Signaling device, Railway and like mechanical. D. B. Miller. No. 1,303,707; May 13; v. 262; p. 257.
 Signaling instrument. L. B. Salt. No. 1,302,715; May 6; v. 262; p. 44.
 Signaling system, Radio. J. H. Rogers. No. 1,303,780; May 13; v. 262; p. 261.
 Signaling system, Wireless. J. H. Rogers. No. 1,303,729; May 13; v. 262; p. 261.
 Silk waste for spinning into yarn, Treating artificial. W. R. D. Hall. No. 1,303,301; May 13; v. 262; p. 184.
 Silo. H. E. Baker. No. 1,304,521; May 20; v. 262; p. 449.
 Sine-bar fixture. E. J. Bryant. No. 1,303,633; May 13; v. 262; p. 248.
 Single-trigger device. G. H. Giddings. No. 1,302,910; May 6; v. 262; p. 82.
 Sinks, Splash-guard for kitchen. B. Henning. No. 1,302,635; May 6; v. 262; p. 33.
 Skelp, Dressing. J. W. Latahau. No. 1,303,925; May 20; v. 262; p. 335.
 Skins, Bridge or bar for unhairing fur. F. M. Wegner. No. 1,304,637; May 27; v. 262; p. 509.
 Skirt-supporter. E. J. Maher. No. 1,304,340; May 20; v. 262; p. 412.
 Skiving-machine, Blank-feeding mechanism for. J. H. Pope. No. 1,303,295; May 27; v. 262; p. 421.
 Slat-remover. J. H. Abel. No. 1,303,225; May 13; v. 262; p. 171.
 Sled attachment. L. Leicht. No. 1,304,231; May 20; v. 262; p. 411.
 Sleeve-pattern and producing same. M. P. Hardin. No. 1,303,477; May 13; v. 262; p. 216.
 Sleigh and sled, Hand. T. E. Brien. No. 1,302,632; May 13; v. 262; p. 243.
 Sleigh, Tri-runner. A. E. Cowan. No. 1,303,637; May 13; v. 262; p. 244.
 Slicer and peeler, Fruit and vegetable. W. L. McLean. No. 1,304,079; May 20; v. 262; p. 363.
 Slicing apparatus. B. Riebel. No. 1,302,892; May 6; v. 262; p. 20.
 Sliding doors, Hanger for. J. H. Stewart. No. 1,305,021; May 27; v. 262; p. 580.
 Slings, Arm. B. M. Dugge. No. 1,304,153; May 20; v. 262; p. 377.
 Sluice. C. Gallmart. No. 1,303,295; May 13; v. 262; p. 183.
 Small-arm. J. Del Greco. No. 1,303,887; May 20; v. 262; p. 323.
 Smoke apparatus. T. S. Wilkinson. No. 1,303,749; May 13; v. 262; p. 265.
 Smoke-generator. A. C. Legg. No. 1,302,662; May 6; v. 262; p. 38.
 Smoke-house. O. P. Ned. No. 1,302,982; May 6; v. 262; p. 90.
 Smoking-pipe. E. R. Grace. No. 1,304,475; May 20; v. 262; p. 440.
 Snap-fastener. V. H. Ogden. No. 1,305,223; May 27; v. 262; p. 621.
 Snap-fastener springs, Forming and assembling. A. J. Lewis. No. 1,305,182; May 27; v. 262; p. 601.

Sodium and potassium salts, Separating. C. G. Leonis. No. 1,302,937; May 6; v. 262; p. 87.
 Soil, Apparatus for the treatment of. J. R. C. August. No. 1,303,150; May 6; v. 262; p. 129.
 Soil cultivation. M. H. Hart. No. 1,302,543; May 6; v. 262; p. 12.
 Soil preparer and cultivator. T. M. Weston. No. 1,304,838; May 27; v. 262; p. 546.
 Soil, Treatment of. J. R. C. August. No. 1,303,149; May 6; v. 262; p. 128.
 Soldering device, Electric. F. A. Costello. No. 1,304,545; May 27; v. 262; p. 492.
 Soldering-iron. R. C. Parent. No. 1,303,716; May 13; v. 262; p. 259.
 Sole-guard, Detachable. F. E. Seale. No. 1,302,721; May 6; v. 262; p. 45.
 Solid substances from liquids, Method of and means for the centrifugal separation of. J. Hughes, W. O. Travis, and R. O. Sturgeon. No. 1,303,203; May 6; v. 262; p. 138.
 Solutions, Separating soluble bodies from mixed. C. L. Well. No. 1,304,004; May 20; v. 262; p. 350.
 Sound-locator. J. A. Rayder. No. 1,305,237; May 27; v. 262; p. 621.
 Sound-reproducing machine. F. Clrelli. No. 1,302,900; May 6; v. 262; p. 81.
 Spade or shovel, Ditching. H. I. Eaton and C. R. Simpson. No. 1,305,079; May 27; v. 262; p. 591.
 Spark-advancing coupling, Automatic. C. F. Henderson. No. 1,304,768; May 27; v. 262; p. 533.
 Spark-arrester. C. A. and E. A. Renner. No. 1,303,393; May 13; v. 262; p. 200.
 Spark-coil. J. F. Cavanaugh. No. 1,303,162; May 6; v. 262; p. 131.
 Spark-intensifier. H. James. No. 1,303,325; May 13; v. 262; p. 188.
 Spark-plug. F. L. Dyer. No. 1,304,462; May 20; v. 262; p. 437.
 Spark-plug. M. Mallory. No. 1,304,341; May 20; v. 262; p. 413.
 Spark-plug. F. Robinson. No. 1,303,965; May 20; v. 262; p. 343.
 Spectacle-temple. E. R. Durgin. No. 1,304,168; May 20; v. 262; p. 379.
 Speed-regulator. W. P. McNeel. No. 1,302,821; May 6; v. 262; p. 64.
 Speed-transformer. M. M. Goldberg. No. 1,303,291; May 13; v. 262; p. 182.
 Speed transmission, Variable. R. L. Dickinson. No. 1,302,775; May 6; v. 262; p. 55.
 Spindle machine, High-speed. T. H. Dessez. No. 1,304,278; May 20; v. 262; p. 401.
 Spindle machine, Multiple. E. J. Gagnon. No. 1,304,173; May 20; v. 262; p. 380.
 Spindle-supporting member. W. F. Zimmermann. No. 1,304,648; May 27; v. 262; p. 510.
 Spinning, Imitation-mohair yarn. W. R. D. Hall. No. 1,303,302; May 13; v. 262; p. 184.
 Spinning-machine, Means for stopping the delivery of roving in. P. Sharp. No. 1,304,610; May 27; v. 262; p. 508.
 Spinning-mules, Ease-up motion for the tension-fallers of. J. Davidson. No. 1,304,664; May 27; v. 262; p. 514.
 Spinning or winding machine. H. A. Leonard. No. 1,304,698; May 27; v. 262; p. 556.
 Spinning-rolls, Calendaring-machine for. S. J. McCaughin and E. W. Ballard. No. 1,304,582; May 27; v. 262; p. 499.
 Splitter and jack, Riving. S. Henry and R. O. Ralston. No. 1,303,060; May 6; v. 262; p. 110.
 Spoon-handle. L. E. Freitag. No. 1,302,784; May 6; v. 262; p. 87.
 Spoon-holder. R. Thornton. No. 1,304,628; May 27; v. 262; p. 507.
 Spraying or atomizing apparatus. H. E. Sturcke. No. 1,303,987; May 20; v. 262; p. 247.
 Spraying system. C. G. Throop. No. 1,305,180; May 27; v. 262; p. 610.
 Spring: See—
 Tire-spring.
 Wheel-spring.
 Spring-bed construction. R. W. Schwab. No. 1,303,909; May 20; v. 262; p. 344.
 Spring boot and oiler. G. B. Price. No. 1,304,366; May 20; v. 262; p. 418.
 Spring-clamp, Adjustable. H. C. Hillin. No. 1,303,557; May 13; v. 262; p. 230.
 Spring-hinge, Detachable. G. N. Barcus. No. 1,304,009; May 20; v. 262; p. 351.
 Spring-seat. L. M. Reed. No. 1,303,962; May 20; v. 262; p. 342.
 Spring-wheel. A. Kajanus. No. 1,303,829; May 13; v. 262; p. 189.
 Springs, Shock-absorber for vehicle suspension. E. V. Hartford. No. 1,304,970; May 27; v. 262; p. 570.
 Sprinklers, Fusible link for automatic. O. B. Lewis. No. 1,304,332; May 20; v. 262; p. 411.
 Sprinklers, Regulating device for road. G. Schlatter. No. 1,304,384; May 20; v. 262; p. 421.
 Square. A. Blauvelt. No. 1,303,846; May 20; v. 262; p. 321.
 Stage-machinery. J. Bell-Bancho. No. 1,304,649; May 27; v. 262; p. 511.

Stair-form, Interlocking. N. Bots. No. 1,304,533; May 27; v. 262; p. 490.
 Stair-tread bracket. W. E. Irving. No. 1,304,056; May 20; v. 262; p. 360.
 Stamp-rolling machine. J. N. Tribbles and R. H. Parker. No. 1,302,735; May 6; v. 262; p. 48.
 Stamping machine, Can. J. Dowson and T. Yamada. No. 1,303,042; May 6; v. 262; p. 107.
 Stand: See—
 Flat-iron stand. Motor-cycle stand.
 Folding stand. Storage and display stand.
 Lamp-stand. Switch-stand.
 Standa. tables, &c. Caster-locking mechanism for. O. A. Shilbe and O. Dieball. No. 1,304,711; May 27; v. 262; p. 523.
 Starting and stopping mechanism. Machine. J. A. Thomas. No. 1,304,524; May 27; v. 262; p. 544.
 Starting-switch, Centrifugal. J. B. Hansell. No. 1,305,094; May 27; v. 262; p. 594.
 Station-indicator. C. Kerckhoff. No. 1,303,830; May 13; v. 262; p. 280.
 Stay. E. F. Gallaudet. No. 1,303,052; May 6; v. 262; p. 109.
 Steam-boller. E. R. Morrison. No. 1,304,998; May 27; v. 262; p. 576.
 Steam-boller. T. T. Parker. No. 1,303,718; May 13; v. 262; p. 259.
 Steam-boller. J. C. Sherry. No. 1,304,392; May 20; v. 262; p. 423.
 Steam-engine. J. L. Edwards. No. 1,304,864; May 27; v. 262; p. 531.
 Steam-heating. J. A. Serrell. No. 1,304,106; May 20; v. 262; p. 368.
 Steam-trap. J. O. Hammell. No. 1,304,562; May 27; v. 262; p. 495.
 Steam-trap. J. O. Hammell. No. 1,304,563; May 27; v. 262; p. 495.
 Steel. Manufacture of. C. Dear. No. 1,304,946; May 27; v. 262; p. 568.
 Steel. Manufacture of. C. Dear. No. 1,304,947; May 27; v. 262; p. 568.
 Steel. Manufacture of. C. Dear. No. 1,304,948; May 27; v. 262; p. 568.
 Steering device. S. Giocetto. No. 1,303,289; May 13; v. 262; p. 182.
 Steering mechanism. Stop-arm for. G. E. Fries and J. D. Wiltshire. No. 1,304,300; May 20; v. 262; p. 405.
 Steering-post button attachment. E. D. Ferrell. No. 1,304,188; May 6; v. 262; p. 125.
 Stencil-sheet. E. Thomas. No. 1,304,120; May 20; v. 262; p. 371.
 Sticky material, Machine for winding up strips of. R. McClenathan. No. 1,303,821; May 13; v. 262; p. 279.
 Stills and removing coke therefrom. Operating. C. B. Burger. No. 1,302,761; May 6; v. 262; p. 61.
 Stirrer. M. M. Zellera. No. 1,303,142; May 6; v. 262; p. 157.
 Stockings, Manufacturing. J. E. Quinn. No. 1,303,593; May 13; v. 262; p. 236.
 Stone-grather. C. E. Chase and O. E. Hutchings. No. 1,304,156; May 20; v. 262; p. 377.
 Stop-motion. R. Wolf. No. 1,305,045; May 27; v. 262; p. 586.
 Stopper: See—
 Leak-stopper.
 Stopper for bottom-pour ladles. J. M. English. No. 1,303,848; May 13; v. 262; p. 228.
 Storage and display stand. C. W. Michling, Jr. No. 1,303,185; May 6; v. 262; p. 134.
 Storage batteries, Ventilation of. L. H. Flanders. No. 1,302,648; May 6; v. 262; p. 32.
 Storage battery. T. Spencer. No. 1,303,518; May 13; v. 262; p. 222.
 Storage-battery accessories. Stand for. H. B. Montgomery. No. 1,302,095; May 6; v. 262; p. 41.
 Storage-battery connector. C. W. Haselett. No. 1,303,811; May 13; v. 262; p. 185.
 Storage-battery grid. L. B. Halls. No. 1,303,478; May 13; v. 262; p. 215.
 Storage building, Vehicle. M. C. Smith. No. 1,303,978; May 20; v. 262; p. 346.
 Storage structure. F. M. Davis. No. 1,303,862; May 20; v. 262; p. 324.
 Stove-pollin. C. Devlin. No. 1,304,163; May 20; v. 262; p. 379.
 Stovepipe holder and brace. H. A. Bailey. No. 1,304,726; May 27; v. 262; p. 525.
 Straight-lift elevators. Automatic ejector for. H. J. Buck. No. 1,302,631; May 6; v. 262; p. 28.
 Strainer. E. F. Johnson. No. 1,304,050; May 20; v. 262; p. 360.
 Strainer. F. and T. Wiehl. No. 1,303,438; May 13; v. 262; p. 208.
 Strainer-holder, Extension. I. A. Green. No. 1,304,762; May 27; v. 262; p. 532.
 Strand fabric, Making. M. A. Marquette. No. 1,304,694; May 27; v. 262; p. 520.
 Strap: See—
 Picker-strap.
 Straw-fishing composition. H. Milanoff. No. 1,305,146; May 27; v. 262; p. 604.
 Street-car indicator. F. Achmotat. No. 1,302,405; May 6; v. 262; p. 4.

Stretcher. J. P. Kenyon. No. 1,303,915; May 20; v. 262; p. 334.
 Stretcher. N. and F. Whitesel. No. 1,304,006; May 20; v. 262; p. 350.
 Strip-coring device. J. D. McLaurin. No. 1,304,693; May 27; v. 262; p. 519.
 Stropping element. G. G. Floyd. No. 1,304,933; May 27; v. 262; p. 567.
 Structure and block therefor. Ventilated. J. D. Jones. No. 1,302,680; May 6; v. 262; p. 85.
 Structure and making same. Reinforced. G. A. Schick, Jr. No. 1,304,811; May 27; v. 262; p. 541.
 Structure formed of materials having different coefficients of expansion. G. I. Leonard. No. 1,304,993; May 27; v. 262; p. 575.
 Stuffing-box. J. M. Kern. No. 1,304,680; May 27; v. 262; p. 519.
 Stylus-guiding device. H. Horn. No. 1,303,900; May 20; v. 262; p. 351.
 Sublimation apparatus. R. W. Kluchansky. No. 1,304,972; May 27; v. 262; p. 497.
 Submarine artillery. K. Dougan. No. 1,303,306; May 13; v. 262; p. 178.
 Submarine, Small. T. W. Selge. No. 1,304,617; May 27; v. 262; p. 505.
 Submarine salvage operations. Machine for. A. J. Bergeron. No. 1,304,012; May 20; v. 262; p. 251.
 Suction-cleaner. J. B. Kirby. No. 1,302,929; May 6; v. 262; p. 80.
 Sugar. Juices or syrups. Purifying. P. L. Wooster. No. 1,304,438; May 20; v. 262; p. 433.
 Sulfur-oxidizing process and apparatus therefor. A. G. McIntyre. No. 1,303,848; May 13; v. 262; p. 192.
 Sunken handle, Removable. O. M. Otta. No. 1,304,700; May 27; v. 262; p. 521.
 Superheater-tubes. Expanding. E. H. Foster. No. 1,304,964; May 27; v. 262; p. 567.
 Superheater unit. F. N. Poignaud. No. 1,304,091; May 20; v. 262; p. 366.
 Support, Light. T. Sholey. No. 1,302,981; May 6; v. 262; p. 95.
 Supporting-jack, Automatic. C. H. Land, Jr. No. 1,303,922; May 20; v. 262; p. 335.
 Surgical appliance. C. F. Abernathy. No. 1,302,751; May 6; v. 262; p. 51.
 Surgical bandage. B. W. Janzen. No. 1,303,908; May 20; v. 262; p. 332.
 Surgical instrument. R. H. Wappler. No. 1,303,135; May 6; v. 262; p. 126.
 Suspender. D. F. Wise. No. 1,302,615; May 6; v. 262; p. 26.
 Sweat-band protector. C. E. Snyder. No. 1,304,215; May 20; v. 262; p. 368.
 Sweeper, Pneumatic carpet. V. J. Johnson and E. G. Thorpe. No. 1,303,818; May 13; v. 262; p. 178.
 Swimming device. F. L. Sanfranski. No. 1,304,919; May 27; v. 262; p. 561.
 Swing. J. A. Eberle. No. 1,304,951; May 27; v. 262; p. 567.
 Swing-chair, Folding. A. F. Bailly. No. 1,303,012; May 6; v. 262; p. 102.
 Switch: See—
 Coin-controlled switch. Electrical switch.
 Cross-bar line switch. Knife-blade switch.
 Electric switch. Push-button switch.
 Electric bracing-switch. Safety-switch.
 Switch. F. Buchanan. No. 1,304,655; May 27; v. 262; p. 512.
 Switch, Automatic reversing. H. K. Sandell. No. 1,303,018; May 27; v. 262; p. 579.
 Switch-box. A. Fernandez. No. 1,304,467; May 20; v. 262; p. 438.
 Switch for electric firing devices. J. W. Powers. No. 1,302,968; May 6; v. 262; p. 93.
 Switch for motor-vehicle signaling devices. P. W. Vanderhoff. No. 1,303,423; May 13; v. 262; p. 205.
 Switch-handle. C. D. Platt. No. 1,305,158; May 27; v. 262; p. 606.
 Switch-handles, Lock for. A. K. Sutherland. No. 1,305,178; May 27; v. 262; p. 610.
 Switch-rod. A. R. Cilne. No. 1,303,105; May 6; v. 262; p. 131.
 Switch-signal. J. Craigmyle. No. 1,303,170; May 6; v. 262; p. 132.
 Switch-stand. N. E. Salaich. No. 1,303,967; May 20; v. 262; p. 343.
 Switchboard apparatus. B. G. Lamme. No. 1,305,126; May 27; v. 262; p. 600.
 Switching means. W. F. K. Goreschowski. No. 1,302,837; May 6; v. 262; p. 11.
 Swivel-joint. D. O'Brien. No. 1,303,714; May 13; v. 262; p. 258.
 Syringe, Uterine. T. Imalsumi. No. 1,304,054; May 20; v. 262; p. 350.
 Table: See—
 Card-table. Extension-table.
 Circular-saw table. Folding table.
 Drawing-table.
 Table-chair, Folding. E. L. Purcell. No. 1,304,368; May 20; v. 262; p. 419.
 Table, Mark-up. E. A. Clepp. No. 1,305,082; May 27; v. 262; p. 588.
 Tabulating-machine, Automatic. R. N. Williams. No. 1,302,610; May 6; v. 262; p. 23.

Tag and checking device. G. E. Blaylock. No. 1,304,150; May 20; v. 262; p. 376.
 Tag, Indicating. P. G. Underwood. No. 1,304,417; May 20; v. 262; p. 428.
 Talking-machine. A. J. Swing. No. 1,304,404; May 20; v. 262; p. 426.
 Talking-machine. J. J. Wood. No. 1,304,233; May 20; v. 262; p. 391.
 Talking-machine. J. J. Wood. No. 1,304,234; May 20; v. 262; p. 392.
 Talking-machine attachment. R. R. Knudell, A. H. Ogden, and F. S. Elliott. No. 1,303,502; May 13; v. 262; p. 230.
 Talking-machine stop mechanism. L. Y. Squibb. No. 1,304,125; May 6; v. 262; p. 123.
 Tamping machine, Core. J. Graves. No. 1,304,559; May 27; v. 262; p. 494.
 Tank: See—
 Liquid-fuel tank. Photographic-film-developing tank.
 Tank for holding corrosive substances. L. H. Underwood. No. 1,303,421; May 13; v. 262; p. 205.
 Tanks, Safety device for high-pressure gas. W. F. Bredenkamp. No. 1,303,248; May 13; v. 262; p. 178.
 Tap, Collapsing. C. J. Knapp. No. 1,304,574; May 27; v. 262; p. 497.
 Tape attachment. M. H. Ballou. No. 1,303,756; May 13; v. 262; p. 268.
 Target. T. Struthers. No. 1,305,022; May 27; v. 262; p. 580.
 Telegraph, Printing. C. L. and H. L. Krum. No. 1,305,225; May 27; v. 262; p. 519.
 Telegraph, Sending-machine. W. C. Conad. No. 1,304,625; May 20; v. 262; p. 354.
 Telegraph-sounder. T. J. Murphy. No. 1,304,358; May 20; v. 262; p. 416.
 Telegraph system. G. C. Cummings. No. 1,303,036; May 6; v. 262; p. 108.
 Telegraph transmitter, Wireless. C. S. Franklin. No. 1,304,868; May 27; v. 262; p. 552.
 Telephone attachment. G. Dorsey. No. 1,304,461; May 20; v. 262; p. 437.
 Telephone attachment. E. Granaull. No. 1,304,306; May 20; v. 262; p. 406.
 Telephone-exchange system. H. P. Clausen and C. L. Goodrum. No. 1,302,767; May 6; v. 262; p. 54.
 Telephone-exchange system. C. W. Keckler. No. 1,302,806; May 6; v. 262; p. 62.
 Telephone-exchange system. C. W. Keckler. No. 1,302,806; May 6; v. 262; p. 62.
 Telephone-exchange system. R. S. Wilber. No. 1,303,001; May 6; v. 262; p. 109.
 Telephone-exchange system. J. L. Wright. No. 1,303,838; May 13; v. 262; p. 235.
 Telephone-exchange system, Automatic. A. E. Lundell. No. 1,304,335; May 20; v. 262; p. 412.
 Telephone-exchange trunking system. F. Lubberger. No. 1,304,070; May 20; v. 262; p. 363.
 Telephone-lines paralleling power-lines. Telephone protective apparatus for. R. W. Osborne. No. 1,303,883; May 13; v. 262; p. 198.
 Telephone-receiver holder. K. C. Townsend. No. 1,304,718; May 27; v. 262; p. 534.
 Telephone system. G. Grabe. No. 1,303,855; May 13; v. 262; p. 248.
 Telephone system. T. G. Martin. No. 1,303,987; May 20; v. 262; p. 338.
 Telephone system. A. J. Ray. No. 1,304,369; May 20; v. 262; p. 419.
 Telephone system, Automatic. W. T. Powell. No. 1,303,958; May 20; v. 262; p. 341.
 Telephone system, Machine-switching. A. E. Haguc. No. 1,303,056; May 6; v. 262; p. 110.
 Telephone systems, Connecting-circuit for. R. L. Quass. No. 1,303,560; May 20; v. 262; p. 342.
 Telephone systems, Controlling apparatus for wireless. D. O. McCaa. No. 1,304,185; May 20; v. 262; p. 383.
 Telephone systems, Individual-switch mechanism for automatic. A. E. Keith. No. 1,304,324; May 20; v. 262; p. 410.
 Telephones, Attachment for desk. W. L. Haymond. No. 1,303,805; May 13; v. 262; p. 184.
 Telephones, Auxiliary device for the etching of arch-shaped Wallaston wires for the heat-conductors of thermic. E. A. van Lynden. No. 1,303,240; May 27; v. 262; p. 622.
 Telescope spray-guard. S. A. de Normanville. No. 1,304,548; May 27; v. 262; p. 493.
 Temperature-indicator. N. H. Suren. No. 1,303,989; May 20; v. 262; p. 347.
 Teoson device. D. Locke. No. 1,302,486; May 13; v. 262; p. 217.
 Tent-stake. E. Jackson. No. 1,304,779; May 27; v. 262; p. 535.
 Towing machine, Angle and lead. H. E. Harris. No. 1,303,198; May 6; v. 262; p. 137.
 Textile apparatus. H. D. Colman. No. 1,304,061; May 27; v. 262; p. 518.
 Textile-machine, Stop-motion for. J. Higginson. No. 1,303,624; May 13; v. 262; p. 349.
 Thermostatic shower-head. L. B. Yelzer. No. 1,303,140; May 6; v. 262; p. 128.
 Thermostatic control device. L. R. Temple. No. 1,304,922; May 27; v. 262; p. 548.

Thermostatic control means for motors. L. Cammen. No. 1,303,768; May 13; v. 262; p. 209.
 Thread-protecting device. J. Schirra. No. 1,303,402; May 13; v. 262; p. 202.
 Thread-spinning mechanism. E. L. Bloom. No. 1,302,626; May 6; v. 262; p. 27.
 Threshing-machine attachment. J. T. Smith. No. 1,302,867; May 6; v. 262; p. 74.
 Threshing-machine cylinder. A. M. Mason. No. 1,302,573; May 6; v. 262; p. 17.
 Threshing-machine cylinder. A. M. Mason. No. 1,302,574; May 6; v. 262; p. 18.
 Ticket-holder. C. N. Barton. No. 1,302,624; May 6; v. 262; p. 27.
 Ticket-issuing machine. R. H. Helsel. No. 1,304,977; May 27; v. 262; p. 572.
 Ticket-issuing mechanism. R. H. Helsel. No. 1,304,976; May 27; v. 262; p. 572.
 Ticket-transfer. W. R. Biddle. No. 1,302,758; May 6; v. 262; p. 52.
 Ticket-vender. J. W. Field. No. 1,303,278; May 13; v. 262; p. 180.
 Tide-motor. J. E. Wright. No. 1,304,238; May 20; v. 262; p. 392.
 Tile, Building. A. O. Thomas. No. 1,302,728; May 6; v. 262; p. 47.
 Tile, Roofing. L. N. Brown. No. 1,303,022; May 6; v. 262; p. 104.
 Time-recorder, Workman's. A. L. Schm. No. 1,304,618; May 27; v. 262; p. 505.
 Timer, distributor, and induction-coil apparatus, Combination. J. H. Lehman. (Reissue.) No. 14,646; May 13; v. 262; p. 283.
 Timer-distributor mechanism. E. J. Tomlinson. No. 1,303,523; May 13; v. 262; p. 224.
 Tinning-machine. H. S. Thomas, W. R. Davies, and R. B. Thomas. No. 1,304,408; May 20; v. 262; p. 426.
 Tipping furnace, Regenerative. A. M. Aubert. No. 1,304,725; May 27; v. 262; p. 525.
 Tire. W. J. Vincent. No. 1,303,995; May 20; v. 262; p. 348.
 Tire. H. L. von Trott. No. 1,303,998; May 20; v. 262; p. 349.
 Tire and rim tool. E. S. Belland. No. 1,302,501; May 6; v. 262; p. 20.
 Tire-armor. A. E. Jennings. No. 1,304,057; May 20; v. 262; p. 380.
 Tire, Automobile-wheel. F. M. Wegner. No. 1,302,741; May 6; v. 262; p. 49.
 Tire-building machines, Stock-rack for. C. Kuentzel. No. 1,304,492; May 20; v. 262; p. 442.
 Tire-carrier. O. Mitchell. No. 1,304,096; May 27; v. 262; p. 520.
 Tire-core. D. A. Clark and C. E. Lowe. No. 1,303,286; May 13; v. 262; p. 178.
 Tire-expander. C. Reeder. No. 1,303,497; May 13; v. 262; p. 219.
 Tire flange, Machine for making pneumatic. E. G. Hulme. No. 1,302,660; May 6; v. 262; p. 34.
 Tire grooving and finishing machine. R. H. Kerton. No. 1,304,465; May 20; v. 262; p. 442.
 Tire or rim carrier. H. Kaplan. No. 1,305,220; May 27; v. 262; p. 618.
 Tire, Pneumatic. W. de Rooy. No. 1,303,865; May 20; v. 262; p. 325.
 Tire, Pneumatic. I. Greenberg. No. 1,304,177; May 20; v. 262; p. 391.
 Tire-protector device. A. W. Hayward. No. 1,305,101; May 27; v. 262; p. 595.
 Tire-rack, Floating. C. P. Pond. No. 1,304,902; May 27; v. 262; p. 558.
 Tire, Resilient. U. S. Robinson. No. 1,302,974; May 6; v. 262; p. 94.
 Tire, Resilient wheel. C. P. O'Brien. No. 1,304,801; May 27; v. 262; p. 559.
 Tire, Spring. F. L. Murdock. No. 1,303,366; May 13; v. 262; p. 195.
 Tire-tool. M. H. Tuttle. No. 1,302,734; May 6; v. 262; p. 48.
 Tire-valve, Auxiliary. T. J. Stephens. No. 1,304,116; May 20; v. 262; p. 370.
 Tire-valve, Dust-cap for. J. T. Ward. No. 1,304,424; May 20; v. 262; p. 480.
 Tire, Vehicle. A. L. Cole. No. 1,305,196; May 27; v. 262; p. 614.
 Tire, Vehicle. W. E. Cook. No. 1,304,742; May 27; v. 262; p. 628.
 Tires, Air-pressure regulator for pneumatic. G. W. Haskins and E. H. Kellogg. No. 1,303,898; May 20; v. 262; p. 330.
 Tires, Method of vulcanizing. F. T. Roberts. No. 1,304,909; May 27; v. 262; p. 559.
 Tires, Non-puncturable ring for pneumatic. F. J. Shifka. No. 1,304,517; May 27; v. 262; p. 543.
 Tires, Puncture-proof lining for pneumatic. W. H. Fritchett. No. 1,302,970; May 6; v. 262; p. 93.
 Tobacco-clipper. J. D. Stauffer. No. 1,304,917; May 27; v. 262; p. 561.
 Tobacco, Denarcotizing. H. Brinkhaus. No. 1,304,539; May 27; v. 262; p. 491.
 Toilet partition. C. A. Betz. No. 1,304,013; May 20; v. 262; p. 352.
 Toilet-transfer. Child's. M. E. Ream. No. 1,304,095; May 20; v. 262; p. 366.

Toilet-seat cover, Sanitary. F. R. Quackenbush. No. 1,304,511; May 20; v. 262; p. 447.
 Tone-modifier. H. E. White. No. 1,304,005; May 20; v. 262; p. 350.
 Tool. W. F. Cannon. No. 1,302,788; May 13; v. 262; p. 272.
 Tool. T. McCray. No. 1,303,090; May 6; v. 262; p. 116.
 Tool. W. H. Wilson. No. 1,303,439; May 13; v. 262; p. 208.
 Tool, Decorating. J. Moacini. No. 1,304,795; May 27; v. 262; p. 538.
 Tool-driver. L. S. Starrett. No. 1,304,714; May 27; v. 262; p. 523.
 Tool for securing connecting parts of battery-plates. I. M. Noble and W. E. Gosling. No. 1,302,690; May 6; v. 262; p. 41.
 Tool, Ground-working. F. O. Miner. No. 1,303,570; May 13; v. 262; p. 252.
 Tool-holder. P. H. Johnson. No. 1,303,205; May 6; v. 262; p. 138.
 Tool-holder. T. O. Martin. No. 1,304,998; May 27; v. 262; p. 557.
 Tool, Wire-tie-forming. F. Steinkoenig. No. 1,304,020; May 27; v. 262; p. 506.
 Tooth, Artificial. T. F. Glenn. No. 1,303,881; May 20; v. 262; p. 328.
 Tooth-band. J. E. Johnson. No. 1,304,881; May 27; v. 262; p. 554.
 Torch. C. J. Nyquist. No. 1,304,198; May 20; v. 262; p. 385.
 Torch, Cutting. M. K. Dunham. No. 1,303,178; May 6; v. 262; p. 133.
 Torpedo, Aerial. T. J. Kinser. No. 1,305,120; May 27; v. 262; p. 590.
 Torpedo, Automatically-controlled. W. J. Murdock. No. 1,303,108; May 6; v. 262; p. 119.
 Torpedo, Automobile. H. H. Bouson. No. 1,304,235; May 20; v. 262; p. 304.
 Torpedo, Automobile. W. Dieter. No. 1,303,038; May 6; v. 262; p. 100.
 Torpedo, Automobile. W. Dieter. No. 1,303,039; May 6; v. 262; p. 107.
 Torpedo, Automobile. W. Dieter. No. 1,303,044; May 6; v. 262; p. 107.
 Torpedo guard or shield. M. E. Theodore. No. 1,303,522; May 13; v. 262; p. 224.
 Torpedo, Land. G. A. Parker. No. 1,303,717; May 13; v. 262; p. 250.
 Torpedo-launching apparatus for flying-machines. F. A. Wondra. No. 1,302,747; May 6; v. 262; p. 50.
 Torpedo, Track. G. B. Jackson. No. 1,304,678; May 13; v. 262; p. 251.
 Torpedo. Wireless-controlled flying. C. H. Hill. No. 1,303,314; May 20; v. 262; p. 407.
 Torpedoes, Making track. H. W. Kelly. No. 1,304,487; May 20; v. 262; p. 442.
 Towel cabinet, Individual. H. A. Ammann. No. 1,302,753; May 6; v. 262; p. 51.
 Towel holder and dispenser. A. B. Peterson. No. 1,304,595; May 27; v. 262; p. 501.
 Towing device. W. P. Muncy. No. 1,303,104; May 6; v. 262; p. 110.
 Toy. E. P. Carper and L. S. Patterson. No. 1,303,461; May 13; v. 262; p. 212.
 Toy. E. Fritz. No. 1,303,767; May 13; v. 262; p. 272.
 Toy aeroplane. P. E. Young. No. 1,304,189; May 20; v. 262; p. 374.
 Toy building construction. A. C. Gilbert. No. 1,302,652; May 6; v. 262; p. 32.
 Toy. Cannon and moving-target. E. Mehage. No. 1,305,232; May 27; v. 262; p. 620.
 Toy horse. C. L. Johnson. No. 1,304,985; May 27; v. 262; p. 573.
 Toy house. S. S. Gilbert. No. 1,302,785; May 6; v. 262; p. 57.
 Toy, Mechanical. F. F. Kolarik. No. 1,303,224; May 27; v. 262; p. 619.
 Toy, Mechanical. E. Sabina. No. 1,302,857; May 6; v. 262; p. 72.
 Toy, Mechanical. L. M. Mooradian. No. 1,302,006; May 6; v. 262; p. 41.
 Toy railway. F. J. Hummel. No. 1,303,668; May 13; v. 262; p. 260.
 Toy. Sand. M. Cortopassi. No. 1,304,456; May 20; v. 262; p. 494.
 Toy, Sounding wheeled. C. E. Dodson. No. 1,302,776; May 6; v. 262; p. 56.
 Toy, Wheelbarrow. J. Alena. No. 1,304,141; May 20; v. 262; p. 374.
 Trace-carrier. F. D. Craig. No. 1,304,743; May 27; v. 262; p. 528.
 Track construction. J. P. Scartaria. No. 1,302,077; May 6; v. 262; p. 95.
 Track system. F. C. Weber. No. 1,303,835; May 13; v. 262; p. 281.
 Tracks, Connection for overhead. M. R. Mojer. No. 1,304,354; May 20; v. 262; p. 416.
 Tracks, Grouser for endless-chain. E. F. Norrell. No. 1,304,357; May 20; v. 262; p. 416.
 Traction-engine. W. Turnbull. No. 1,304,410; May 20; v. 262; p. 428.
 Traction-spur for motor-vehicle wheels. W. Vlasak. No. 1,302,737; May 6; v. 262; p. 48.
 Traction-wheel. L. W. Melcher. No. 1,305,229; May 27; v. 262; p. 620.
 Tractor. E. T. Daniels. No. 1,302,638; May 6; v. 262; p. 30.
 Tractor. N. Nelson. No. 1,305,231; May 27; v. 262; p. 620.
 Tractor. W. E. Van Dorn. No. 1,302,607; May 6; v. 262; p. 23.
 Tractor and gang-plow, Combined. T. S. Harris. No. 1,305,099; May 27; v. 262; p. 595.
 Tractor-coupling. J. Irmeler, Jr. No. 1,304,055; May 20; v. 262; p. 350.
 Tractor non-skid member and lug. C. O. Robinet. No. 1,304,375; May 20; v. 262; p. 420.
 Tractor transmission device. M. T. Crellin. No. 1,302,760; May 6; v. 262; p. 54.
 Tractors, Draw-bar hitch for. H. J. Schulte. No. 1,303,504; May 13; v. 262; p. 220.
 Tractors, Mowing attachment for. E. W. Sillman. No. 1,303,006; May 13; v. 262; p. 239.
 Train-control apparatus, Automatic. W. H. Biddle. No. 1,303,031; May 13; v. 262; p. 248.
 Train control, Automatic. J. Johnson. No. 1,304,778; May 27; v. 262; p. 585.
 Train control, Automatic. C. W. Wilson. No. 1,304,042; May 27; v. 262; p. 509.
 Train-control system. J. E. Anderson. No. 1,303,227; May 13; v. 262; p. 171.
 Train-controlling means, Automatic. M. Well. No. 1,304,833; May 27; v. 262; p. 545.
 Train device, Automatic safety. C. J. Krog. No. 1,303,506; May 13; v. 262; p. 278.
 Train-line, Emergency angle-coupling for broken. J. C. Venable. No. 1,304,126; May 20; v. 262; p. 372.
 Trains in motion, Apparatus for controlling railway. E. C. Irving. No. 1,304,775; May 27; v. 262; p. 534.
 Transformer. L. H. Burham. No. 1,304,451; May 20; v. 262; p. 435.
 Transformer. E. R. Johannesen. No. 1,304,184; May 20; v. 262; p. 383.
 Translating material. M. Sims. No. 1,303,604; May 13; v. 262; p. 285.
 Transmission. J. J. Campodonico. No. 1,302,764; May 6; v. 262; p. 53.
 Transmission. L. C. Germalin. No. 1,302,769; May 13; v. 262; p. 272.
 Transmission mechanism. A. E. Johnson. No. 1,304,484; May 20; v. 262; p. 441.
 Transmission mechanism. W. O. Miller. No. 1,304,346; May 20; v. 262; p. 414.
 Trap. See. Lifting-trap.
 Animal-trap. Steam-trap.
 Trap-net. F. D. Barnes. No. 1,304,845; May 27; v. 262; p. 548.
 Trap, Steam. H. S. Nicholson and W. C. Belawinger. No. 1,302,833; May 6; v. 262; p. 67.
 Tray or the like. A. Montan. No. 1,305,148; May 27; v. 262; p. 604.
 Tray set, Desk. F. L. G. Straubel. No. 1,303,935; May 20; v. 262; p. 347.
 Treating multiply fabrics, Folding device for. D. D. Macpherson. No. 1,305,141; May 27; v. 262; p. 602.
 Tree-felling machine. R. Lagus. No. 1,302,932; May 6; v. 262; p. 86.
 Trench warfare, System of. J. J. Duffe. No. 1,302,904; May 6; v. 262; p. 81.
 Trolley. A. L. Tidyman. No. 1,303,416; May 13; v. 262; p. 204.
 Tripper. P. Pressure safety. E. Hammarstrom. No. 1,304,965; May 27; v. 262; p. 590.
 Trivet. C. J. Tate. No. 1,304,408; May 20; v. 262; p. 426.
 Trolley-hanger. J. Leisnering. No. 1,303,088; May 13; v. 262; p. 254.
 Trolley-wheel. F. T. Elwell. No. 1,304,285; May 20; v. 262; p. 402.
 Trolling device. R. N. Howerton. No. 1,304,983; May 27; v. 262; p. 578.
 Trousers-supporter and the like, Men's. G. Decker. No. 1,305,073; May 27; v. 262; p. 590.
 Truck. M. P. Holmes. No. 1,302,925; May 6; v. 262; p. 85.
 Truck. W. N. Kelly. No. 1,303,480; May 13; v. 262; p. 216.
 Truck-brake. A. G. Stephenson. No. 1,303,608; May 13; v. 262; p. 259.
 Truck, Chair. J. Gomez. No. 1,304,077; May 27; v. 262; p. 516.
 Truck-coupling. H. de Haeseler. No. 1,304,276; May 20; v. 262; p. 400.
 Truck, Elevating. C. F. Schultis. No. 1,303,001; May 13; v. 262; p. 238.
 Truck mechanism, Tractor. W. O. Miller. No. 1,304,347; May 20; v. 262; p. 414.
 Truck mechanism, Tractor. H. C. White. No. 1,304,428; May 20; v. 262; p. 430.
 Truck, Motor. N. Eddy. No. 1,305,171; May 27; v. 262; p. 608.
 Truck, Trailer. A. R. Cadman. No. 1,304,261; May 20; v. 262; p. 397.
 Truck-wheel impeller. K. Bloom. No. 1,303,534; May 13; v. 262; p. 226.
 Trucks, Means for automatically aligning car. J. P. O'Connor. No. 1,304,665; May 20; v. 262; p. 364.

Trunk-track. C. R. Stevenson. No. 1,303,983; May 20; v. 262; p. 344.
 Trunk, Wardrobe. H. H. Dyke. No. 1,303,641; May 13; v. 262; p. 345.
 Tube. See. Inner tube.
 Tube, Clam. J. M. Brown. No. 1,303,249; May 13; v. 262; p. 178.
 Tube-drawing bench, Seamless. E. C. Sevigay. No. 1,302,599; May 6; v. 262; p. 22.
 Tubes, Means for cutting the supply of air to torpedoes. W. H. Weddington and A. Taylor. No. 1,304,423; May 20; v. 262; p. 420.
 Tubes, Means for supporting electrodes in lamp. O. Durbin. No. 1,304,252; May 20; v. 262; p. 401.
 Turbine. J. L. Moore. No. 1,304,181; May 20; v. 262; p. 384.
 Turbine-blade attachment. A. J. Aldis. No. 1,303,604; May 6; v. 262; p. 169.
 Turbine installation for ship propulsion. C. A. Parsons. R. J. Walker, S. S. Cook, and R. A. Simon. No. 1,303,585; May 13; v. 262; p. 235.
 Turbine plant, Condensing steam. K. Baumann. No. 1,304,144; May 20; v. 262; p. 375.
 Turning-machine. H. Hastings. No. 1,303,199; May 6; v. 262; p. 137.
 Type peeling-machine, Tilting. F. J. Couch and W. F. Weber. No. 1,302,257; May 13; v. 262; p. 178.
 Type-writer. C. W. Barnaby. No. 1,302,982; May 6; v. 262; p. 79.
 Type-writer type-cleaner. J. P. Wilson. No. 1,302,746; May 6; v. 262; p. 50.
 Type-writer, Ribbon-rotating attachment for. R. E. Pullen. No. 1,304,367; May 20; v. 262; p. 419.
 Type-writing and computing machine, Combined. A. A. Johnson. No. 1,304,570; May 27; v. 262; p. 496.
 Type-writing and computing machine, Combined. A. A. Johnson. No. 1,304,776; May 27; v. 262; p. 536.
 Type-writing machine. G. G. Goring. No. 1,305,001; May 27; v. 262; p. 592.
 Type-writing machine. H. R. Hess and L. C. Myers. No. 1,304,682; May 27; v. 262; p. 517.
 Type-writing machine. A. G. F. Korowski. No. 1,302,566; May 6; v. 262; p. 16.
 Type-writing machine. A. G. F. Korowski. No. 1,302,676; May 6; v. 262; p. 37.
 Type-writing machine. J. A. B. Smith. No. 1,304,213; May 20; v. 262; p. 364.
 Type-writing machine. C. E. Yaw. No. 1,302,621; May 6; v. 262; p. 29.
 Type-writing-machine line indicator and signal. E. E. Darr. No. 1,304,458; May 20; v. 262; p. 484.
 Type-writing machine, Card-holder for. C. Gabrielson. No. 1,303,570; May 20; v. 262; p. 327.
 Typographical machine. D. S. Kennedy. No. 1,304,689; May 27; v. 262; p. 519.
 Typographical machine. J. R. Rogers. No. 1,304,769; May 27; v. 262; p. 522.
 Umbrella, Folding. O. W. Bott. No. 1,304,016; May 20; v. 262; p. 382.
 Uncalcined material prior to its entry into the kiln, Apparatus for preheating. H. McCole and W. C. Stevenson. No. 1,303,668; May 6; v. 262; p. 116.
 Underrammer. C. L. Dunham. No. 1,304,167; May 20; v. 262; p. 379.
 Universal joint. F. W. Peters. No. 1,304,901; May 27; v. 262; p. 589.
 Universal joint, Compound. A. L. Reayna. No. 1,304,168; May 20; v. 262; p. 397.
 Unloading or discharging device. H. J. Craymer. No. 1,304,676; May 20; v. 262; p. 354.
 Upper-pulling mechanism. T. H. Seely. No. 1,305,218; May 27; v. 262; p. 618.
 Urinal. G. F. Duffey. No. 1,304,752; May 27; v. 262; p. 539.
 Urinal-chest combination-range. Ventilated. N. Frost. No. 1,303,646; May 13; v. 262; p. 244.
 Vacuum-cleaner collecting-bar. F. J. Wagner. No. 1,302,998; May 6; v. 262; p. 76.
 Vacuum feed system, Filter-can and intake for. C. L. Stebbins. No. 1,302,725; May 6; v. 262; p. 43.
 Valve. O. F. Adams. No. 1,302,752; May 6; v. 262; p. 51.
 Valve. S. R. Arnold. No. 1,304,939; May 27; v. 262; p. 543.
 Valve. H. G. Balthasar. No. 1,302,901; May 6; v. 262; p. 79.
 Valve. O. M. Jones. No. 1,303,901; May 13; v. 262; p. 378.
 Valve. H. E. La Bour and G. A. Grassy, Jr. No. 1,302,567; May 6; v. 262; p. 18.
 Valve. W. B. Walker. No. 1,304,519; May 20; v. 262; p. 446.
 Valve. C. F. Wallace and M. F. Tierman. No. 1,305,183; May 27; v. 262; p. 611.
 Valve and oil-burner, Combination. L. C. Franck. No. 1,304,289; May 20; v. 262; p. 404.
 Valve, Exhausted. F. Teichman. No. 1,305,026; May 27; v. 262; p. 561.
 Valve, Fluid-pressure. G. R. Thompson. No. 1,304,460; May 20; v. 262; p. 426.
 Valve, Fluid-back. H. S. Williamson. No. 1,304,482; May 20; v. 262; p. 481.
 Valve for air-brake systems and attachment therefor. Triple. J. R. Snyder. No. 1,302,988; May 6; v. 262; p. 87.
 Valve for flush-trains. T. J. Gannon. No. 1,304,993; May 20; v. 262; p. 608.
 Valve for gas-engine manifolds, Automatic air. A. C. Hagall. No. 1,304,817; May 13; v. 262; p. 278.
 Valve for gas-heating systems. N. W. Park. No. 1,302,241; May 6; v. 262; p. 69.
 Valve for locomotives, Automatic fountain. E. N. Yeomans. No. 1,302,749; May 6; v. 262; p. 50.
 Valve for refrigerating systems. C. R. Weston. No. 1,302,948; May 6; v. 262; p. 89.
 Valve for torpedoes, Starting. W. Dieter. No. 1,303,045; May 6; v. 262; p. 103.
 Valve Gate. O. L. Whitman. No. 1,304,229; May 20; v. 262; p. 391.
 Valve-gear. P. Emden. No. 1,304,286; May 20; v. 262; p. 402.
 Valve-gear for internal-combustion engines. A. L. F. Wattel. No. 1,303,748; May 13; v. 262; p. 265.
 Valve-grinding tool. W. De Vaul. No. 1,305,200; May 27; v. 262; p. 615.
 Valve-lifter, Folding. I. Rosenberg. No. 1,302,975; May 6; v. 262; p. 94.
 Valve-lock. M. J. Langton. No. 1,302,933; May 6; v. 262; p. 84.
 Valve Locking. F. L. Pearson. No. 1,304,508; May 20; v. 262; p. 448.
 Valve mechanism for gas-engines. H. G. Blumberg. No. 1,304,735; May 27; v. 262; p. 527.
 Valve mechanism for steam-intensifiers. C. L. Taylor. No. 1,302,981; May 6; v. 262; p. 77.
 Valve mechanism, Frost-proof. F. Haas. No. 1,303,472; May 13; v. 262; p. 214.
 Valve, Mixing. R. D. Bradford. No. 1,303,762; May 13; v. 262; p. 268.
 Valve, Recirculating. A. Rosch. No. 1,304,100; May 20; v. 262; p. 367.
 Valve, Safety gas. S. B. Britton. No. 1,303,150; May 6; v. 262; p. 136.
 Valve seating, Hydraulic. H. Crowe. No. 1,303,035; May 6; v. 262; p. 104.
 Valve, Siphon back. F. F. McCaffrey. No. 1,302,820; May 6; v. 262; p. 64.
 Valve, Steam-engine. C. V. Grimm. No. 1,303,055; May 6; v. 262; p. 109.
 Valve, Stop. R. S. O'Neill. No. 1,302,990; May 6; v. 262; p. 87.
 Valve, Thermostatic. S. Lippert. No. 1,302,938; May 6; v. 262; p. 87.
 Valve, Throttle. O. W. Young. No. 1,304,724; May 27; v. 262; p. 525.
 Valve, Triple. F. Y. Dibble. No. 1,303,268; May 13; v. 262; p. 171.
 Valve, Triple. J. R. Snyder. No. 1,302,984; May 6; v. 262; p. 86.
 Valve, Triple. J. R. Snyder. No. 1,302,985; May 6; v. 262; p. 86.
 Valve, Well-backset. E. H. Taylor. No. 1,304,218; May 20; v. 262; p. 389.
 Valves and the like, Spring for exhaust. G. T. Huber. No. 1,302,556; May 6; v. 262; p. 16.
 Valves, Automatic controller, Air-brake emergency. G. F. Van Meter. No. 1,303,743; May 13; v. 262; p. 244.
 Valves, Casting for cylindrical distributing. H. O. Wilkinson. No. 1,304,520; May 20; v. 262; p. 449.
 Valves in certain determined intervals of time, Means for opening and closing. G. Dallen. No. 1,304,180; May 20; v. 262; p. 378.
 Valves, Mechanism for operating flush. A. R. Gilmore. No. 1,302,913; May 6; v. 262; p. 83.
 Valves of pneumatic tires, Dust-cap for. W. P. Hammond. No. 1,302,792; May 6; v. 262; p. 83.
 Vapor-burner. W. C. Coleman. No. 1,303,463; May 13; v. 262; p. 212.
 Vegetable-cutting apparatus. W. W. Tuck. No. 1,303,617; May 13; v. 262; p. 241.
 Vegetable, Machine for preparing. E. J. Vaudreuil. No. 1,304,719; May 27; v. 262; p. 524.
 Vehicle. E. W. Clark. No. 1,303,554; May 20; v. 262; p. 323.
 Vehicle-bedlin, Cushioning mechanism for. J. Hoffmann. No. 1,304,942; May 27; v. 262; p. 573.
 Vehicle-body. G. E. Goddard. No. 1,305,089; May 27; v. 262; p. 582.
 Vehicle-body. H. Puff. No. 1,305,162; May 27; v. 262; p. 607.
 Vehicle-body construction and upholstery therefor. S. S. Bond. No. 1,302,535; May 13; v. 262; p. 228.
 Vehicle-body, Convertible. W. V. Richter. No. 1,304,202; May 20; v. 262; p. 394.
 Vehicle bonnet, Motor. A. Loomis. No. 1,305,187; May 27; v. 262; p. 602.
 Vehicle-brake, Emergency. F. Graf. No. 1,303,563; May 13; v. 262; p. 229.
 Vehicle-coupling. J. W. Marshall and C. G. Clement. No. 1,304,695; May 27; v. 262; p. 520.
 Vehicle, Guide and bracket construction, Motor. G. E. Goddard. No. 1,305,089; May 27; v. 262; p. 592.
 Vehicle front axle and bolster construction. J. W. Coburn. No. 1,302,684; May 6; v. 262; p. 29.
 262 O. G.—vi

Vehicle hopple, Motor. J. J. McDade and F. P. Donnelly. No. 1,304,785; May 27; v. 262; p. 536.
 Vehicle license-tag. L. A. Ward and W. D. Chase. No. 1,303,834; May 13; v. 262; p. 251.
 Vehicle, Motor. H. D. Church. No. 1,305,061; May 27; v. 262; p. 588.
 Vehicle, Motor. M. P. Haupt. No. 1,302,545; May 6; v. 262; p. 12.
 Vehicle, Motor. A. Loomis. No. 1,305,136; May 27; v. 262; p. 601.
 Vehicle, Motor. M. Tibbetta. No. 1,305,029; May 27; v. 262; p. 582.
 Vehicle, Motor. M. Tibbetta. No. 1,305,030; May 27; v. 262; p. 582.
 Vehicle, Motor-propelled. J. Hearttigan. No. 1,304,310; May 20; v. 262; p. 407.
 Vehicle-seat. A. L. Lewis. No. 1,304,072; May 20; v. 262; p. 362.
 Vehicle-seat attachment. W. A. De Long, Jr. No. 1,303,043; May 6; v. 262; p. 107.
 Vehicle, Self-propelled. C. L. Heyerman. No. 1,305,105; May 27; v. 262; p. 590.
 Vehicle-signal. F. Baker. No. 1,302,756; May 6; v. 262; p. 52.
 Vehicle-trains, Means for controlling. J. H. Lock. No. 1,302,696; May 6; v. 262; p. 39.
 Vehicle-wheel. J. P. Copland. No. 1,304,944; May 27; v. 262; p. 560.
 Vehicle-wheel. T. C. Dobbins. No. 1,304,165; May 20; v. 262; p. 379.
 Vehicle-wheel Road. A. C. Wright and W. Duken. No. 1,303,139; May 6; v. 262; p. 126.
 Vehicles and brake mechanism therefor, Means for applying power to tandem-coupled. O. A. Maxwell. No. 1,305,228; May 27; v. 262; p. 620.
 Vehicles, Axle and wheel for. A. J. Robertson. No. 1,302,856; May 6; v. 262; p. 72.
 Vehicles, Direction-signal for. C. Fredriksen. No. 1,304,172; May 20; v. 262; p. 380.
 Vehicles, Direction-signaling mechanism for motor. P. W. Vanderhoff. No. 1,303,422; May 13; v. 262; p. 205.
 Vehicles, Four-wheel drive for motor. G. W. Wilkin and J. P. Kee. No. 1,304,640; May 27; v. 262; p. 500.
 Vehicles, Front-wheel drive mechanism for motor. F. L. Freeman. No. 1,303,285; May 13; v. 262; p. 181.
 Vehicles, Gear-shifting means for motor-driven. L. E. Fowler. No. 1,304,555; May 27; v. 262; p. 567.
 Vehicles, Mud-guard for motor. F. Lorimer. No. 1,303,567; May 13; v. 262; p. 231.
 Vehicles, Shock-absorber for. J. F. O'Connor. No. 1,303,950; May 20; v. 262; p. 340.
 Vehicles, Skid attachment for. W. F. Beach. No. 1,303,388; May 13; v. 262; p. 199.
 Vehicles, Spring-wheel for. A. Wickstrom and C. A. Borgstrom. No. 1,304,007; May 20; v. 262; p. 360.
 Vehicles using chain tracks, Stabilizing and steering gear for. P. W. Robson and F. J. Bretherton. No. 1,303,322; May 13; v. 262; p. 278.
 Vehicles, Variable-speed transmission for motor. W. D. Dunbar. No. 1,305,077; May 27; v. 262; p. 591.
 Vending apparatus. R. A. Tribble. No. 1,305,033; May 27; v. 262; p. 582.
 Vending machines, Attachment for liquid. G. A. Brown. No. 1,303,158; May 6; v. 262; p. 130.
 Ventilating and heating apparatus. C. E. Shadall. No. 1,303,974; May 20; v. 262; p. 345.
 Ventilating apparatus. A. R. Klein. No. 1,303,210; May 6; v. 262; p. 139.
 Ventilating system. F. C. Stowell. No. 1,303,410; May 13; v. 262; p. 203.
 Ventilator. J. W. Kanaky. No. 1,303,502; May 13; v. 262; p. 278.
 Vessel, Heating. E. C. Sullivan and W. C. Taylor. No. 1,304,022; May 27; v. 262; p. 508.
 Vessels, Closure for containing. B. W. Rivers. No. 1,304,098; May 20; v. 262; p. 367.
 Vest and belt attachment, Combined. M. H. Schiller. No. 1,304,382; May 20; v. 262; p. 421.
 Vibrator, Medical. W. H. Woolverton. No. 1,302,620; May 6; v. 262; p. 26.
 Violin. E. E. Dunham. No. 1,303,466; May 13; v. 262; p. 213.
 Violin-bridge plate. E. L. Yeakey. No. 1,304,341; May 27; v. 262; p. 547.
 Vice, Machine. J. R. Long. No. 1,303,093; May 13; v. 262; p. 254.
 Volatile matter, Apparatus for treating material containing condensable. C. O. Hoover. No. 1,305,109; May 27; v. 262; p. 597.
 Voltage-regulator. A. F. Moray. No. 1,303,900; May 13; v. 262; p. 184.
 Voting-machine. B. W. Gaddis. No. 1,304,555; May 27; v. 262; p. 494.
 Voting-machine, Keyboard mechanism for. S. Lee. No. 1,304,550; May 27; v. 262; p. 493.
 Voting-machine, Primary-election mechanism for. S. Lee. No. 1,305,124; May 27; v. 262; p. 601.
 Voting-machine, Register-reading scale for. S. Lee. No. 1,304,551; May 27; v. 262; p. 493.
 Waters, cakes, and the like, Machine for depositing sections on. F. G. Salerna. No. 1,303,566; May 13; v. 262; p. 237.
 Wall and wall-tile. D. B. Bodine. No. 1,304,051; May 27; v. 262; p. 511.

Wall-bond. A. O. Thomas. No. 1,302,727; May 6; v. 262; p. 47.
 Wall construction and channel-brick therefor. J. P. B. Fluke. No. 1,304,552; May 27; v. 262; p. 493.
 Wall-structure, Concealed fastening for. A. J. Wales. No. 1,304,834; May 27; v. 262; p. 545.
 Warning-signal. J. M. Wiltmer. No. 1,302,618; May 6; v. 262; p. 36.
 Warp-replenishing machine. H. F. Hathaway and C. Lea. No. 1,304,575; May 27; v. 262; p. 553.
 Warp-replenishing mechanism. C. E. Blair. No. 1,304,546; May 27; v. 262; p. 548.
 Washboard. E. L. Sutter. No. 1,302,991; May 6; v. 262; p. 92.
 Washer. See—
 Milk-can washer.
 Washing-machine. W. G. Gibbins. No. 1,304,470; May 20; v. 262; p. 439.
 Washing-machine. J. F. Gubbins. No. 1,303,294; May 13; v. 262; p. 162.
 Watch-crystal. L. E. F. Wachter. No. 1,304,421; May 20; v. 262; p. 429.
 Watch. Wrist. F. G. Gruen. No. 1,303,338; May 20; v. 262; p. 329.
 Water-closet. See—
 Flushing apparatus. A. E. Hornby. No. 1,304,462; May 20; v. 262; p. 441.
 Water-closet lid. M. M. Lust. No. 1,304,336; May 20; v. 262; p. 412.
 Water-column, Railway. E. E. Johnson. No. 1,304,777; May 27; v. 262; p. 535.
 Water control, System of automatic. E. G. Jay, Jr. No. 1,302,628; May 6; v. 262; p. 85.
 Water-gate, Recording. J. C. Stevens. No. 1,303,126; May 6; v. 262; p. 124.
 Water-heater. O. G. Goreau. No. 1,303,054; May 6; v. 262; p. 100.
 Water-heater. H. J. Hughes. No. 1,305,110; May 27; v. 262; p. 597.
 Water-heaters, Automatic means for controlling gas-supply to gas-heated. J. Lowe. No. 1,303,929; May 20; v. 262; p. 334.
 Water-hoist conveyor, Self-adjustable. J. W. Emerson. No. 1,304,465; May 20; v. 262; p. 435.
 Water-motor. J. Havlina. No. 1,304,972; May 27; v. 262; p. 571.
 Water-motor machine, Current. M. A. Ellis. No. 1,304,284; May 20; v. 262; p. 402.
 Water, Purifying. H. Kriegerheim. No. 1,305,123; May 27; v. 262; p. 599.
 Water-softening apparatus. C. L. Kanskott. No. 1,303,079; May 13; v. 262; p. 252.
 Water-supply system. T. R. Arnold. No. 1,304,529; May 27; v. 262; p. 489.
 Water-waste control. A. C. Cogswell. No. 1,304,157; May 20; v. 262; p. 377.
 Waterproof roofing material, Ac. and making same. J. P. Elliott. No. 1,305,061; May 27; v. 262; p. 592.
 Wave-meter. D. F. Donie. No. 1,305,302; May 27; v. 262; p. 615.
 Wave-motor. G. Heckerman. No. 1,303,897; May 20; v. 262; p. 331.
 Weaver. C. H. Patterson. No. 1,303,587; May 13; v. 262; p. 235.
 Weatherproof building. A. E. Griffiths. No. 1,302,789; May 6; v. 262; p. 58.
 Weaving machine, Mat. J. H. Stansfeld. No. 1,304,216; May 20; v. 262; p. 388.
 Web, Apparatus for cutting and removing blanks from moving. W. J. Kent. No. 1,303,690; May 13; v. 262; p. 252.
 Welding. J. Harris. No. 1,303,692; May 20; v. 262; p. 329.
 Welding apparatus, Electric seam. L. G. Palmer. No. 1,304,708; May 27; v. 262; p. 521.
 Welding device, Electric seam. W. A. Patschelder. No. 1,304,604; May 27; v. 262; p. 501.
 Welding, Electric. O. A. Kenyon. No. 1,303,061; May 13; v. 262; p. 253.
 Welding-electrode. T. E. Jr. and J. B. Murray. No. 1,303,575; May 13; v. 262; p. 233.
 Welding-electrode. J. M. Wood. No. 1,304,227; May 20; v. 262; p. 390.
 Welding-machine. R. E. Wagner. No. 1,305,030; May 27; v. 262; p. 584.
 Welding machine, Multiple spot. O. H. Jobaki. No. 1,303,906; May 20; v. 262; p. 312.
 Welding, Series arc. O. A. Kenyon. No. 1,303,461; May 13; v. 262; p. 216.
 Welding-tool. E. Baker. No. 1,303,230; May 13; v. 262; p. 172.
 Welding transformer, Electric. A. F. Rietzel. No. 1,303,964; May 20; v. 262; p. 343.
 Well-packer. P. H. Mack. No. 1,303,091; May 6; v. 262; p. 118.
 Well-separator. O. A. Layna. No. 1,302,915; May 6; v. 262; p. 63.
 Well-separators, Forming. O. A. Layna. No. 1,304,498; May 20; v. 262; p. 443.
 Wells, Pumping-jack for oil. B. Moore and G. O. Stansbury. No. 1,304,190; May 20; v. 262; p. 384.
 Wheel. See—
 Band-wheel.
 Cast-wheel.
 Detachable wheel.
 Ditch-wheel.
 Traction-wheel.
 Trolley-wheel.
 Vehicle-wheel.

Wheel. J. J. Miller. No. 1,303,101; May 6; v. 262; p. 118.
 Wheel. L. H. Furman. No. 1,303,530; May 13; v. 262; p. 235.
 Wheel. L. H. Furman. No. 1,303,530; May 13; v. 262; p. 235.
 Wheel. G. Walther. No. 1,304,180; May 20; v. 262; p. 372.
 Wheel-assembly machine. J. T. Gardner. No. 1,304,676; May 27; v. 262; p. 516.
 Wheel attachment. G. L. Harvey. No. 1,304,478; May 20; v. 262; p. 440.
 Wheel-chair. G. H. and A. O. Maulden. No. 1,304,790; May 27; v. 262; p. 537.
 Wheel-dishing machine. M. Davis. No. 1,304,547; May 27; v. 262; p. 402.
 Wheel lock, Steering. T. D. Stanley. No. 1,304,516; May 20; v. 262; p. 448.
 Wheel-locking device. E. P. Lager. No. 1,303,081; May 6; v. 262; p. 38.
 Wheel-rim attachment. F. Hickman. No. 1,304,578; May 27; v. 262; p. 553.
 Wheel, Spring. A. H. Parent. No. 1,302,940; May 6; v. 262; p. 60.
 Wheel-tracks, Manufacturing. T. G. Dade. No. 1,303,350; May 20; v. 262; p. 324.
 Wheels, Construction of solid. L. Rouanet. No. 1,303,501; May 13; v. 262; p. 339.
 Wheels, Floating device for vehicle steering. E. F. Hoban. No. 1,304,047; May 20; v. 262; p. 358.
 Wheels, Locking device for steering. H. C. Miller. No. 1,303,354; May 13; v. 262; p. 193.
 White leather-board and making. A. L. Clapp. No. 1,303,113; May 6; v. 262; p. 7.
 Wind-child construction. H. Neuman. No. 1,302,953; May 6; v. 262; p. 90.
 Wind-chimney, Clean-rinsed and glass-enclosed attachment for. M. Hamburger. No. 1,304,766; May 27; v. 262; p. 523.
 Winding mechanism. C. T. Henderson. No. 1,304,565; May 27; v. 262; p. 495.
 Window. A. R. Kussman. No. 1,303,381; May 13; v. 262; p. 189.
 Window. F. A. Winslow. No. 1,303,782; May 13; v. 262; p. 364.
 Window and door, Casement. L. B. Shelton. No. 1,304,611; May 27; v. 262; p. 504.
 Window attachment. F. R. Hawn. No. 1,304,479; May 20; v. 262; p. 446.
 Window-cleanser. E. A. Browning. No. 1,304,736; May 27; v. 262; p. 537.
 Window construction. E. R. Kilmer. No. 1,303,119; May 27; v. 262; p. 389.
 Window, Curtain. F. O. Kaeppler. No. 1,304,322; May 20; v. 262; p. 406.
 Window, Displacement, Changeable. P. Kilmowicz. No. 1,304,121; May 27; v. 262; p. 399.
 Window-regulator. F. J. Todd. No. 1,304,335; May 27; v. 262; p. 544.
 Window-sash, Metal. A. E. Bondie. No. 1,303,119; May 6; v. 262; p. 121.
 Window, Screened. B. Blackburn. No. 1,303,454; May 13; v. 262; p. 211.
 Window-shade, Adjustable. W. L. Amstalden. No. 1,302,491; May 6; v. 262; p. 3.
 Window-shade bracket. P. F. Fatum. No. 1,303,781; May 6; v. 262; p. 56.
 Window-shade hollow slat. C. Joseph. No. 1,303,675; May 13; v. 262; p. 232.

Window-shade structure and ventilator therefor. G. E. Leese. No. 1,303,081; May 6; v. 262; p. 114.
 Window ventilator and screen. P. L. Hedberg. No. 1,304,767; May 27; v. 262; p. 533.
 Windows, Ventilated glass-setting for. G. C. Hoster. No. 1,303,062; May 6; v. 262; p. 111.
 Wire, Apparatus for treating link mesh made from solder-cord. R. H. Derkley. No. 1,305,052; May 27; v. 262; p. 583.
 Wire cables, ropes, and other bearing-surfaces, Composition for protecting. R. J. Keith. No. 1,305,222; May 27; v. 262; p. 619.
 Wire-coating machine. F. S. Kochendorfer and H. Blount. No. 1,303,070; May 6; v. 262; p. 112.
 Wire-fence tightener. R. E. Robbins. No. 1,304,808; May 27; v. 262; p. 540.
 Wire-forming machine. J. S. Kepler. No. 1,304,780; May 27; v. 262; p. 535.
 Wire frame. J. J. Williams. No. 1,302,888; May 6; v. 262; p. 78.
 Wire-stretcher. A. Johnson. No. 1,303,087; May 6; v. 262; p. 111.
 Wire-stretcher. F. Wayman. No. 1,304,330; May 27; v. 262; p. 545.
 Wires, Insulating-coupling for fence. J. L. Martin. No. 1,304,342; May 20; v. 262; p. 413.
 Wireless distribution systems, Antenna for. F. C. Hewitt. No. 1,305,104; May 27; v. 262; p. 596.
 Wireless-signalling receiving instrument. A. Artom. No. 1,303,625; May 13; v. 262; p. 242.
 Wood pavement. H. G. Jennison. No. 1,302,560; May 6; v. 262; p. 15.
 Wood-planing machine. W. N. Sawyer. No. 1,302,717; May 6; v. 262; p. 45.
 Wood-scrapping machine and the like. W. N. Sawyer. No. 1,302,718; May 6; v. 262; p. 45.
 Woodworking-machines, Hopper-feed for. A. E. Folsom. No. 1,302,649; May 6; v. 262; p. 32.
 Woven pile fabric. J. Coley. No. 1,305,066; May 27; v. 262; p. 589.
 Wrapper-blanks for boxes or packages, Machine for gumming. J. S. Stokes. No. 1,302,374; May 6; v. 262; p. 74.
 Wrench. See—
 Alligator-wrench.
 Double-speed wrench.
 Wrench. W. Holmes. No. 1,303,093; May 13; v. 262; p. 250.
 Wrench. F. A. Moore. No. 1,303,709; May 13; v. 262; p. 253.
 Wrench. J. P. Nikonen. No. 1,302,634; May 6; v. 262; p. 67.
 Wrench. G. Richard. No. 1,303,595; May 13; v. 262; p. 227.
 Wrench. L. O. Wright. No. 1,302,748; May 6; v. 262; p. 50.
 Writing and facilitating such writing, Device for. C. Hunselmann. No. 1,303,304; May 13; v. 262; p. 164.
 Writing-implement holder. J. W. Ferree. No. 1,304,171; May 20; v. 262; p. 360.
 Yarn-reclaiming machine. H. E. Fish. No. 1,302,906; May 6; v. 262; p. 82.
 Yarn-tension device. L. T. Houghton. No. 1,303,302; May 6; v. 262; p. 138.
 Yarn-tension device. L. T. Houghton. No. 1,303,320; May 13; v. 262; p. 187.
 Yoke, Cow. A. L. Sedbrook. No. 1,304,388; May 20; v. 262; p. 423.
 Zither, Keyed. C. H. Marx. No. 1,304,997; May 27; v. 262; p. 576.

ALPHABETICAL LIST OF DESIGNS.

Article of manufacture. M. Bauman. No. 53,351; May 27; v. 262; p. 622.
 Article of manufacture. K. A. Kelly. No. 53,370; May 27; v. 262; p. 624.
 Article of manufacture. J. S. Post. No. 53,317; May 13; v. 262; p. 220.
 Automobile-body. W. J. P. Moore. No. 53,339-40; May 20; v. 262; pp. 452-4.
 Automobile-body. J. W. Sheridan. No. 53,300; May 27; v. 262; p. 623.
 Automobile-radiator ornament. J. H. Keadig. No. 53,371; May 27; v. 262; p. 623.
 Automobile-trimming and the like. F. E. Greene. No. 53,350; May 13; v. 262; p. 257.
 Autotrailer. C. A. Babin. No. 53,329; May 20; v. 262; p. 451.
 Autotruck, Electric-welding. W. E. Symons. No. 53,335; May 27; v. 262; p. 629.
 Badge. F. Glanham. No. 53,397; May 13; v. 262; p. 363.
 Badge. L. Markovitz. No. 53,311; May 13; v. 262; p. 363.
 Badge. O. D. May and J. H. Malone. No. 53,312; May 13; v. 262; p. 363.
 Badge or button. L. D. Lewis and J. R. Sheppard. No. 53,321-3; May 13; v. 262; p. 369.
 Bag frame, Hand. G. Montreal. No. 53,375; May 6; v. 262; p. 144.

Banner, flag, pennant, sign, Ac. L. A. Ames. No. 53,281; May 13; v. 262; p. 254.
 Basket, Clothes. J. Swagden. No. 53,323; May 13; v. 262; p. 250.
 Book-calendar, or similar article. M. Spiegel. No. 53,362; May 27; v. 262; p. 623.
 Bottle. W. E. Leach. No. 53,337; May 20; v. 262; p. 453.
 Bottle. H. Vaughn. No. 53,324; May 13; v. 262; p. 290.
 Box for electrical-conductor conduits, Corner and twist. H. G. Knoderer and C. E. Hubbard. No. 53,271; May 6; v. 262; p. 144.
 Button. C. J. Rauch. No. 53,376; May 27; v. 262; p. 627.
 Button. W. F. Bondy. No. 53,344-5; May 20; v. 262; pp. 454-5.
 Button, badge, pin, Ac. W. Holstein. No. 53,269; May 6; v. 262; p. 143.
 Button, League. G. H. Griffith. No. 53,365; May 27; v. 262; p. 623.
 Button or emblem. G. E. Wheat. No. 53,326; May 13; v. 262; p. 291.
 Cabinet, Phonograph. A. L. Fitch. No. 53,362; May 27; v. 262; p. 621.
 Card-ruler, Loose-leaf pad. F. A. Weeks. No. 53,346; May 20; v. 262; p. 455.
 Can or similar receptacle, Sifter-top. M. H. Connor. No. 53,330; May 20; v. 262; p. 452.

- Candelabrum. S. H. Leavenworth. No. 53,307-8; May 13; v. 202; p. 283.
 Cap, Peak. K. Carewell. No. 53,308; May 13; v. 202; p. 285.
 Cigarette-holder. J. E. Hill. No. 53,307; May 6; v. 202; p. 143.
 Cigarette-paper case. T. J. Kamm. No. 53,307; May 27; v. 202; p. 626.
 Conduit-clamp or similar article. H. W. Plaster. No. 53,376; May 6; v. 202; p. 145.
 Container. W. Ryser. No. 53,319; May 13; v. 202; p. 290.
 Dental plate, individual. J. G. Hollingsworth. No. 53,309; May 27; v. 202; p. 626.
 Dish or similar article. E. J. Ridgway. No. 53,379; May 27; v. 202; p. 628.
 Display device. F. W. Everett. No. 53,361; May 27; v. 202; p. 625.
 Display-stand. A. Vericel. No. 53,387; May 27; v. 202; p. 629.
 Display-stand. H. A. Wolshi and G. Hajewski. No. 53,390; May 27; v. 202; p. 630.
 Electric-light receptacle. T. O'Donnell. No. 53,375; May 27; v. 202; p. 627.
 Electric-welding truck, portable. W. E. Symons. No. 53,384; May 27; v. 202; p. 629.
 Electrical-conductor conduits, bushing-base for fittings for. C. R. Hubbard and H. G. Knoderer. No. 53,333; May 20; v. 202; p. 452.
 Electrical-conductor conduits, internal-elbow base for fittings for. C. R. Hubbard and H. G. Knoderer. No. 53,334; May 20; v. 202; p. 452.
 Electrical-conductor conduits, internal-elbow cap for fittings for. C. R. Hubbard and H. G. Knoderer. No. 53,335; May 20; v. 202; p. 453.
 Electrical-conductor conduits, reducing-bushing base for fittings for. C. R. Hubbard and H. G. Knoderer. No. 53,332; May 20; v. 202; p. 452.
 Emblem, brooch, ring-top, etc. J. H. Swift. No. 53,398; May 27; v. 202; p. 629.
 Engine-manifold for internal-combustion motors. J. W. Hooser. No. 53,399; May 6; v. 202; p. 143.
 Flag. H. Creange. No. 53,393; May 13; v. 202; p. 294.
 Flag. F. A. Waterhouse. No. 53,325; May 13; v. 202; p. 291.
 Flag or banner. E. W. Keller. No. 53,395-9; May 27; v. 202; p. 626.
 Flag or emblem. R. W. Mirabito. No. 53,374; May 27; v. 202; p. 627.
 Flag, pennant, sign, etc. A. Gramlich. No. 53,396; May 13; v. 202; p. 294.
 Garment, Outer. N. V. Armstrong. No. 53,399; May 27; v. 202; p. 623.
 Goblet or similar article. F. Schneider. No. 53,319; May 13; v. 202; p. 290.
 Handle. F. H. Greene. No. 53,399; May 13; v. 202; p. 291.
 Hood for motor-vehicles, Engine. A. P. Masury. No. 53,373; May 27; v. 202; p. 627.
 Hose-supporter, continuous-web men's. C. L. Meyer. No. 53,315; May 13; v. 202; p. 290.
 Kettle, Berlin. W. Luttrichhaus. No. 53,399; May 13; v. 202; p. 290.
 Lace, Cotton. G. H. Clarke. No. 53,399; May 13; v. 202; p. 291.
 Lamp. E. A. Laurent. No. 53,399; May 13; v. 202; p. 292.
 Lamp or similar article, Panel for a. A. S. Macdonald and J. Muller. No. 53,310; May 13; v. 202; p. 292.
 Lamp-shade. A. Boehringer. No. 53,393; May 13; v. 202; p. 294.
 Lamp-shade. W. C. Coleman. No. 53,396; May 6; v. 202; p. 142.
 Light-globe. F. M. Walker. No. 53,399; May 27; v. 202; p. 629.
 Lighting-fixture. H. C. Adam. No. 53,395; May 6; v. 202; p. 143.
 Lighting-fixture bowl. H. C. Adam. No. 53,399; May 13; v. 202; p. 293.
 Lighting-fixture bowl. R. Neuder. No. 53,342; May 20; v. 202; p. 484.
 Lighting-fixture bowl-hack. L. R. Wellman. No. 53,347; May 20; v. 202; p. 485.
 Lighting-fixture shade. R. Neuder. No. 53,341; May 20; v. 202; p. 484.
 Lock-casing. C. Kemp. No. 53,394; May 13; v. 202; p. 297.
 Mirror, racetrack, and watch-lighter, Combination. H. J. Armstrong. No. 53,323; May 13; v. 202; p. 294.
 Musical-instrument case. F. Ziemerth. No. 53,327; May 13; v. 202; p. 291.
 Paper, Decorative. G. H. Shropshire. No. 53,399; May 13; v. 202; p. 294.
 Pedestal. A. Boehringer. No. 53,394; May 13; v. 202; p. 294.
 Pin, badge, charm, or article of similar nature. G. Clay. No. 53,399; May 13; v. 202; p. 294.
 Plate for a base-supporter, Supporting. C. J. Hansen. No. 53,392; May 13; v. 202; p. 297.
 Plate or similar article. C. Klink. No. 53,396; May 13; v. 202; p. 297.
 Powder-container. E. Hoffman. No. 53,396; May 13; v. 202; p. 297.
 Pump-casing. E. P. Larch. No. 53,399; May 20; v. 202; p. 453.
 Rail-tie. J. R. Bridgewater. No. 53,393; May 27; v. 202; p. 624.
 Rubber heel. W. H. Chveta. No. 53,399; May 27; v. 202; p. 625.
 Schooler's companion and puzzle, Combined. A. Elk. No. 53,391; May 27; v. 202; p. 628.
 Service-pin. C. E. Smith. No. 53,391; May 27; v. 202; p. 628.
 Shaving and dressing stand. L. Goodman. No. 53,399; May 27; v. 202; p. 625.
 Sifter-top ash or similar receptacle. M. H. Connor. No. 53,399; May 27; v. 202; p. 625.
 Sign, Printed. J. H. Dunning. No. 53,395-7; May 13; v. 202; p. 294-5.
 Sign, Printed. J. H. Dunning. No. 53,395-8; May 27; v. 202; p. 625.
 Sign, Printed. A. Elsie. No. 53,394-5; May 13; v. 202; p. 294.
 Sign, Printed. W. G. Keith. No. 53,377-8; May 27; v. 202; p. 627-8.
 Spoon, fork, or similar article. J. E. Frazer. No. 53,399; May 13; v. 202; p. 298.
 Spoon, fork, or similar article. F. Schwinn. No. 53,397; May 6; v. 202; p. 145.
 Statuette. E. H. Allen. No. 53,399; May 27; v. 202; p. 623.
 Tablet, plate, frame, or the like, Record. E. F. Thompson. No. 53,391; May 13; v. 202; p. 297.
 Tachometer-casing. J. W. Jones. No. 53,379; May 6; v. 202; p. 144.
 Textile fabric. A. J. Grahn. No. 53,394; May 27; v. 202; p. 628.
 Tire. E. H. Cooper. No. 53,392; May 13; v. 202; p. 295.
 Tire. J. Brunna. No. 53,378; May 6; v. 202; p. 143.
 Tire, Automobile. W. O'Neil. No. 53,316; May 13; v. 202; p. 292.
 Tire, Non-skid. C. B. Klopferline. No. 53,373; May 27; v. 202; p. 627.
 Tire, Pneumatic. M. L. Wiscor. No. 53,379; May 6; v. 202; p. 146.
 Tire, Rubber. J. G. Gates. No. 53,391; May 20; v. 202; p. 482.
 Tobacco-can. J. A. Thomas. No. 53,399; May 27; v. 202; p. 629.
 Tobacco-can. W. J. McNamara. No. 53,314; May 13; v. 202; p. 296.
 Tool, Combination. E. D. Brace. No. 53,393; May 27; v. 202; p. 623.
 Toy. H. G. Runne. No. 53,343; May 20; v. 202; p. 484.
 Toy vehicle. E. L. Cole. No. 53,391; May 13; v. 202; p. 295.
 Tray, dish, plate, etc. H. E. Nock and G. F. Parter. No. 53,315; May 13; v. 202; p. 296.
 Valve casing and handle, Radiator. J. F. Brightman. No. 53,329; May 20; v. 202; p. 481.
 Vehicle-body. J. Wade. No. 53,398; May 27; v. 202; p. 629.
 Vending-machine. G. E. Messinger. No. 53,372-4; May 6; v. 202; p. 144.
 Wind-shield cleaner. J. F. White. No. 53,348; May 20; v. 202; p. 486.

ALPHABETICAL LIST OF TRADE-MARKS.

- Alimentary paste products. Navarino & French Importing & Mfg. Co. No. 125,361; May 13; v. 202; p. 310.
 Antiseptic. Spiroclon Corporation. No. 125,397; May 13; v. 202; p. 310.
 Antiseptic, disinfectant, germicide. H. Romagnolo. No. 125,394; May 20; v. 202; p. 476.
 Apparel and furnishings, Wearing. Robert Reis & Co. No. 125,397; May 20; v. 202; p. 477.
 Ash-tray. C. M. Drinkwater. No. 125,419; May 20; v. 202; p. 474.
 Awl, Stix, Beer & Fuller Dry Goods Co. No. 125,398; May 13; v. 202; p. 310.
 Axes, saws, hammers, etc. Dixon Tool Co. No. 125,418; May 20; v. 202; p. 474.
 Bearing-balls. Steel. Metal Specialty Mfg. Co. No. 125,409; May 20; v. 202; p. 475.
 Beds, Folding. Moore Manufacturing Company. No. 125,378; May 27; v. 202; p. 643.
 Bedspreads. Leonard Henry Company. No. 125,347; May 13; v. 202; p. 309.
 Belts, Woven machinery. Russell Mfg. Co. No. 125,393; May 13; v. 202; p. 310.
 Beverages, Certain non-alcoholic. Arbutus Beverage Company. No. 125,393; May 13; v. 202; p. 309.
 Beverages made from the juice of grapes or other fruits. Garrett and Company. No. 125,429-30; May 20; v. 202; p. 474.

- Bicycles and tricycles. Auto-Ped Company of America. No. 125,395; May 20; v. 202; p. 473.
 Bicycles, motor, of wind and water proof material. A. Nathan. No. 125,391; May 6; v. 202; p. 140.
 Boiler feed-water controllers. Bacon. G. W. Sutton. No. 125,399; May 20; v. 202; p. 477.
 Boots and shoes. Huntington Shoe and Leather Co. No. 125,393; May 6; v. 202; p. 103.
 Boots and shoes. Thompson Shoe Company. No. 125,349; May 20; v. 202; p. 475.
 Boots and shoes for men and women. Leather. Willis & Alwood. No. 125,393; May 6; v. 202; p. 103.
 Boots and shoes. Leather. The Charles E. Lynch Shoe Mfg. Co. No. 125,393; May 6; v. 202; p. 103.
 Boots and shoes. Leather. Leonard & Barrows. No. 125,409; May 20; v. 202; p. 475.
 Brans and steel products. Certain named welded. Copper Clad Steel Co. No. 125,411; May 20; v. 202; p. 474.
 Bread. Federal System of Baking Company. No. 125,395; May 13; v. 202; p. 309.
 Bread. C. R. Roberts. No. 125,392; May 27; v. 202; p. 643.
 Bread. Ward Baking Company. No. 125,371; May 13; v. 202; p. 310.
 Brooms and steel products. Certain named welded. Copper Clad Steel Co. No. 125,410; May 20; v. 202; p. 474.
 Brushes. The Colwell Company. No. 125,399; May 27; v. 202; p. 643.
 Brushes. E. D. Cuttine. No. 125,393; May 27; v. 202; p. 643.
 Building compounds. George Becker Company. No. 125,399; May 20; v. 202; p. 476.
 Butter. Griffin Creamery, Ice & Produce Co. No. 125,399; May 13; v. 202; p. 309.
 Butter, Creamery. H. A. Gerdhamer. No. 125,399; May 13; v. 202; p. 309.
 Calendars for calendar machine records. F. F. Bloomh. No. 125,399; May 27; v. 202; p. 644.
 Canned apricots and peaches. San Fernando Canning Co. No. 125,393-4; May 27; v. 202; p. 644.
 Canned food. Mantion Packing Co. No. 125,405; May 20; v. 202; p. 475.
 Canned peaches. United Canneries of California. No. 125,392-5; May 27; v. 202; p. 644.
 Canned salmon. American Fisheries Co. No. 125,393; May 27; v. 202; p. 643.
 Canned salmon. Deep Sea Salmon Company. No. 125,394-5; May 27; v. 202; p. 643.
 Canned salmon. Fishermen's Canning Corporation. No. 125,425; May 20; v. 202; p. 474.
 Canned salmon. Marine Products Company. No. 125,409; May 20; v. 202; p. 475.
 Canned sardines. Nielsen & Kittle Canning Co. No. 125,409-1; May 20; v. 202; p. 476.
 Canned sardines and mackerel. Nielsen & Kittle Canning Co. No. 125,402; May 20; v. 202; p. 476.
 Canned sardines and tuna fish. K. Horden Co. No. 125,409-2; May 20; v. 202; p. 475.
 Canned tomatoes. J. J. Reilly. No. 125,399; May 20; v. 202; p. 476.
 Canned tuna fish and sardines. Southern California Fish Co. No. 125,399; May 20; v. 202; p. 477.
 Canned vegetables. L. P. Harwood. No. 125,378; May 27; v. 202; p. 645.
 Canned vegetables. Tamm Packing Co. No. 125,399; May 20; v. 202; p. 477.
 Canned vegetables. Certain named. Lange Canning Co. No. 125,378; May 27; v. 202; p. 645.
 Canning machinery and canners' supplies. Henninger & Ayco Mfg. Co. No. 125,404; May 20; v. 202; p. 475.
 Candy. G. S. Ball. No. 125,399; May 13; v. 202; p. 309.
 Candy. Quimby & Cheney. No. 125,397; May 6; v. 202; p. 105.
 Candy. Quimby & Cheney. No. 125,399; May 13; v. 202; p. 310.
 Canvas and duck and canvas and duck in the piece. Bunde & Evans Co. No. 125,393; May 20; v. 202; p. 477.
 Capsules, Headache and nerve-pain. T. F. Monaghan. No. 125,478; May 20; v. 202; p. 476.
 Cardboard. Thomas Paper Company. No. 125,399; May 20; v. 202; p. 478.
 Carbons. C. A. Seefgen. No. 125,393; May 20; v. 202; p. 477.
 Check-writing machine. Hall-Walker Company. No. 125,406; May 20; v. 202; p. 474.
 Cheese. Bacon Brand. No. 125,394; May 13; v. 202; p. 309.
 Chemicals or mixtures thereof. Certain named. The Permutt Company. No. 125,394; May 6; v. 202; p. 105.
 Cigarettes. France American Cigarette & Tobacco Company. No. 125,427; May 20; v. 202; p. 474.
 Cigars. General Cigar Co. No. 125,431; May 20; v. 202; p. 474.
 Cigars. General Cigar Co. No. 125,371; May 27; v. 202; p. 645.
 Cigars. Morris D. Neumann & Company. No. 125,435; May 20; v. 202; p. 475.
 Cigars. E. Pepper & Co. No. 125,399; May 27; v. 202; p. 645.
 Cleaning and polishing cream for ivory and silver. Frutten Brothers. No. 125,391; May 20; v. 202; p. 474.
 Cleaning and polishing powder for metal and glassware. M. R. Sheber. No. 125,399; May 13; v. 202; p. 130.
 Clocks and watches. Birmingham Hardware Company. No. 125,377; May 20; v. 202; p. 477.
 Clothing. Certain named. Alexander Prepper Co. No. 125,391; May 27; v. 202; p. 643.
 Clothing. Certain named. R. Breier. No. 125,397; May 20; v. 202; p. 473.
 Clothing. Certain named. Butler Brothers. No. 125,400; May 20; v. 202; p. 473.
 Clothing. Certain named. Tree Company. No. 125,317; May 6; v. 202; p. 103.
 Clothing. Ladies' and misses' certain named. J. A. Mical, Inc. No. 125,472; May 20; v. 202; p. 475.
 Cloths, Cleaning and polishing. J. C. O. Hiltenthaler. No. 125,312; May 20; v. 202; p. 477.
 Cloths, glass and kitchen, towel, etc. Scrub and dish. Mummans & Stuebe. No. 125,432; May 20; v. 202; p. 476.
 Coats, suits, dresses, skirts, Women's. Marquette Cloak & Suit Co. No. 125,399; May 6; v. 202; p. 103.
 Coconut-butter. Kasia Company. No. 125,374; May 27; v. 202; p. 645.
 Coffee. Driscoll-Wright Company. No. 125,399; May 27; v. 202; p. 643.
 Coffee. Hans, Baruch & Co. No. 125,399; May 13; v. 202; p. 309.
 Coffee. Stearns-Barret Co. No. 125,328; May 20; v. 202; p. 477.
 Confection. L. P. Larsen, Jr. Company. No. 125,375; May 27; v. 202; p. 643.
 Cornmeal, barley and corn flour. Lawrenceburg Roller Mills Co. No. 125,346; May 13; v. 202; p. 309.
 Cornmeal. Aurora Cornet Company. No. 125,399; May 20; v. 202; p. 473.
 Cotton piece goods. American Bleached Goods Company. No. 125,399; May 20; v. 202; p. 473.
 Cotton piece goods. M. C. D. Borden & Sons. No. 125,327; May 13; v. 202; p. 309.
 Cotton piece goods. Converse & Company. No. 125,409; May 20; v. 202; p. 474.
 Cotton piece goods. H. H. Hayward & Co. No. 125,440-3; May 20; v. 202; p. 475.
 Cotton piece goods. O. H. Hink. No. 125,342; May 13; v. 202; p. 309.
 Cotton piece goods. Lancaster Mills. No. 125,345; May 13; v. 202; p. 309.
 Cotton piece goods. Lancaster Mills. No. 125,459; May 20; v. 202; p. 476.
 Cotton piece goods. P. Linck Co. No. 125,462; May 20; v. 202; p. 476.
 Cotton piece goods. Neum, Henslein & Co. No. 125,480-9; May 20; v. 202; p. 476.
 Cotton piece goods. Neckage Mills. No. 125,393; May 13; v. 202; p. 310.
 Cotton piece goods. Pacific Mills. No. 125,474; May 20; v. 202; p. 476.
 Cotton piece goods. Pepperell Manufacturing Company. No. 125,399; May 13; v. 202; p. 310.
 Cotton piece goods. R. A. Sullivan. No. 125,531-2; May 20; v. 202; p. 477.
 Cream. Toilet. Howard Bros. Chem. Co. No. 125,481; May 20; v. 202; p. 476.
 Creams, face lotion and powder, rouge, Cold and massage. Helianthus Beautifier Company. No. 125,420; May 20; v. 202; p. 474.
 Cutlery. Certain named. Shapleigh Hardware Company. No. 125,319; May 20; v. 202; p. 477.
 Cutlery, machinery, and tools, and parts thereof. Certain named. A. Baldwin & Co. No. 125,566; May 27; v. 202; p. 643.
 Cutlery, machinery, etc. Certain named. Goddard & Goddard Company. No. 125,432; May 20; v. 202; p. 474.
 Duplicating. C. E. Hansen. No. 125,438; May 20; v. 202; p. 474.
 Dyeing preparations. W. E. Steele. No. 125,315; May 6; v. 202; p. 106.
 Dextrinized product used as a substitute, in part, for sugar. Stein, Hall & Co. No. 125,316; May 6; v. 202; p. 106.
 Dips, Cattle, sheep, and horse. Baird & McGuire. No. 125,397; May 20; v. 202; p. 473.
 Dolls. M. S. Wingert. No. 125,391; May 27; v. 202; p. 644.
 Drapery and decorative fabrics. Marshall Field & Company. No. 125,407; May 20; v. 202; p. 475.
 Dresses, hats, skirts, coats, Ladies' and children's. M. E. Sanborn. No. 125,399; May 6; v. 202; p. 105.
 Drills, High-speed twist. National Device and Drill Company. No. 125,483; May 20; v. 202; p. 476.
 Duck, Cotton. Mount Vernon-Woodberry Mills. No. 125,490-1; May 20; v. 202; p. 476.
 Dyes. Eusebius Brothers. No. 125,422; May 20; v. 202; p. 474.
 Dyestuffs. Jennings & Company. No. 125,454-5; May 20; v. 202; p. 475.
 Effervescent granular. J. Di Santo. No. 125,333; May 13; v. 202; p. 309.
 Egg substitute. Sunbeam Products Co. No. 125,399; May 13; v. 202; p. 310.

Emulsion for infancians, Ac. O. Floren. No. 125,570; May 27; v. 262; p. 642.
Enamelled metal ware. National Enamelling & Stamping Co. No. 125,464; May 20; v. 262; p. 476.
Enamelled ware for household use. Certain named. Columbian Enamelling & Stamping Company. No. 125,467; May 20; v. 262; p. 474.
Extract white-pine compound. J. L. Hopkins & Company. No. 125,448; May 20; v. 262; p. 478.
Eyewash. Opticians Co. No. 125,465; May 20; v. 262; p. 476.
Fabrics, Dress. Royal Embroidery Works, Naday & Fietcher. No. 125,514; May 20; v. 262; p. 477.
Fancy goods, Ac. Certain named. Arbata Webbing Company. No. 125,562; May 20; v. 262; p. 478.
Feed, Dairy. Fisher Flouring Mills Company. No. 125,568; May 27; v. 262; p. 643.
Feed, Limestone-rock chickens. Rockfield Products Company. No. 125,563; May 13; v. 262; p. 310.
Feeds, Poultry and stock. Simmons & Norris. No. 125,566; May 13; v. 262; p. 310.
Fence-posts and fences, Metal. The Thiele & Baker Manufacturing Company. No. 125,569; May 27; v. 262; p. 644.
Fence-posts, Metallic. Chicago Steel Post Company. No. 125,561; May 27; v. 262; p. 643.
Fertilizer. William B. Tugman Co. No. 125,560; May 27; v. 262; p. 644.
Fertilizing-cartridge. A. J. Averell. No. 125,566; May 20; v. 262; p. 478.
Fish. Davis Bros. Fisheries. No. 125,567; May 6; v. 262; p. 165.
Fish. Davis Bros. Fisheries. No. 125,562; May 13; v. 262; p. 309.
Flannels in the piece. James N. Williamson & Sons Co. No. 125,560; May 20; v. 262; p. 478.
Flour, Wheat. The Commercial Milling Co. No. 125,562; May 27; v. 262; p. 643.
Flour, Wheat. Goers Flour Mills Co. No. 125,572; May 27; v. 262; p. 643.
Flour, Wheat. Lewiston Milling Co. No. 125,548; May 13; v. 262; p. 309.
Flour, Wheat. W. F. Tanner-Green & Company. No. 125,570; May 13; v. 262; p. 310.
Flour, Wheat. Texas Star Flour Mills. No. 125,538; May 20; v. 262; p. 478.
Flour, Wheat. Washburn Crosby Co. No. 125,567-600; May 27; v. 262; p. 644.
Flours, Wheat and rye. Hecker-Jones-Jewell Milling Company. No. 125,541; May 13; v. 262; p. 309.
Food-preparing presses. Silver & Co. No. 125,521; May 20; v. 262; p. 477.
Foodstuffs, Stock. International Stock Food Co. No. 125,453; May 20; v. 262; p. 475.
Foods and ingredients of foods, Certain named. Stevenson & Howell. No. 125,530; May 20; v. 262; p. 477.
Foot-cover, Certain named. M. Bloverren. No. 125,595; May 20; v. 262; p. 473.
Foot deformities, Appliances for correcting. Wizard Foot Appliance Company. No. 125,520; May 6; v. 262; p. 166.
Foot-powder. MacMillan Chemical Co. No. 125,550; May 13; v. 262; p. 310.
Furnace-pipes, Tin. P. Meyer & Bro. Co. No. 125,553; May 13; v. 262; p. 310.
Furniture and upholstery, Certain named. O. W. Richardson & Company. No. 125,511; May 20; v. 262; p. 477.
Garments, Certain named women's. William Hollins & Company. No. 125,446-7; May 20; v. 262; p. 475.
Garments, Ladies' and misses' outer. J. A. Migel, Inc. No. 125,470; May 20; v. 262; p. 475.
Grape-juice. Concord Grape Juice Company. No. 125,566; May 6; v. 262; p. 165.
Grindstone-disks, oilstones, Ac. Shapleigh Hardware Company. No. 125,519; May 20; v. 262; p. 477.
Hair-cutters and safety-rasors. Combination. T. Yeomann. No. 125,543; May 20; v. 262; p. 478.
Hair-plum. Hump Hair Plu Mfg. Co. No. 125,451; May 20; v. 262; p. 475.
Hair-tonic. M. M. Wood. No. 125,551; May 20; v. 262; p. 478.
Hama, bacon, shoulders. Swift and Company. No. 125,534; May 20; v. 262; p. 477.
Hats, Ladies' trimmed. Odette Hat Company. No. 125,502; May 6; v. 262; p. 165.
Hats, Men's. Knox Hat Company. No. 125,458; May 20; v. 262; p. 475.
Hosiery. Butler Brothers. No. 125,565; May 6; v. 262; p. 165.
Hosiery. Gutterman, Rosenfeld & Company. No. 125,434; May 20; v. 262; p. 474.
Hosiery. Keet & Rountree Dry Goods Co. No. 125,595; May 6; v. 262; p. 166.
Hosiery. Rogers Foot Company. No. 125,513; May 20; v. 262; p. 477.
Hosiery. G. & A. Wile. No. 125,519; May 6; v. 262; p. 166.
Hosiery and underwear. Moje-Schey Co. No. 125,476; May 20; v. 262; p. 478.
Insect-destroying composition. Commercial Chemical Co. No. 125,529; May 13; v. 262; p. 309.
Insecticide. Valdosta Chemical Company. No. 125,566; May 27; v. 262; p. 644.

Journal, Trade. Atlas Publishing Co. No. 125,504; May 6; v. 262; p. 166.
Journals, Monthly. Petroleum Publishing Company. No. 125,498; May 20; v. 262; p. 476.
Jute, hemp, hair, and wool piece goods, Ac. Derryvale Linc Co. No. 125,417; May 20; v. 262; p. 474.
Kits, Tourist. H. Schaefer & Sons. No. 125,515; May 20; v. 262; p. 477.
Kitt shirts, sweaters, slippers, openers. D. W. Shayer & Co. No. 125,511; May 20; v. 262; p. 164.
Lamp-lenses. Corning Glass Works. No. 125,412; May 20; v. 262; p. 474.
Leather and shoe dressing. C. A. Egan. No. 125,570; May 13; v. 262; p. 310.
Lithographs. Dr. Johnston Medicine Co. No. 125,504; May 6; v. 262; p. 165.
Magazines, Monthly. The Standard Parts Company. No. 125,514; May 6; v. 262; p. 166.
Magazines, Monthly. Vanity Fair Publishing Co. No. 125,541; May 20; v. 262; p. 478.
Massage vibrators, Electric. The Fitzgerald Mfg. Company. No. 125,509; May 27; v. 262; p. 643.
Medicinal preparation for nerves and blood. F. P. Quinones. No. 125,503; May 20; v. 262; p. 476.
Medicinal preparations. A. Brown Medical Company. No. 125,524; May 13; v. 262; p. 309.
Medicine for rheumatism and a blood-purifier. C. F. Kindler. No. 125,467; May 20; v. 262; p. 478.
Medicine for rheumatism, catarrh, and gonorrhea. W. J. Wejch. No. 125,552; May 20; v. 262; p. 478.
Medicines and pharmaceutical preparations, Certain named. American Brothage Company. No. 125,561; May 20; v. 262; p. 478.
Milling-machines. Fine Tree Milling Machine Co. No. 125,500; May 20; v. 262; p. 476.
Milling and grinding machines, Metal-working. The Bristol Machine Tool Co. No. 125,508; May 20; v. 262; p. 478.
Mirrors. The Acme Specialty Manufacturing Company. No. 125,504; May 27; v. 262; p. 644.
Neckwear. Keet & Rountree Dry Goods Co. No. 125,596; May 6; v. 262; p. 166.
Newspapers, Section. Star Company. No. 125,527; May 20; v. 262; p. 477.
Newspaper, Ac. section or department. W. W. Funge, Jr. No. 125,588; May 6; v. 262; p. 166.
Newspaper, Monthly. The Standard Parts Company. No. 125,513; May 6; v. 262; p. 166.
Oatmeal and rolled oats, Steam-cooked. H-O Company. No. 125,543; May 13; v. 262; p. 309.
Obstetrical packages. The Woodruff Company. No. 125,602; May 27; v. 262; p. 644.
Oil, Cane olive. J. Llopis Falciera. No. 125,497; May 20; v. 262; p. 470.
Oil, Edible. Microchemicals Bros. No. 125,564; May 13; v. 262; p. 310.
Oils for use in the manufacture of perfumes, Ac. Stevenson and Howell Co. No. 125,567; May 27; v. 262; p. 644.
Ointment. George Mortimer & Company. No. 125,500; May 6; v. 262; p. 165.
Ointment. Yalovich Bros. Drug Co. No. 125,608; May 27; v. 262; p. 644.
Ointment for pimples, eruptions, Ac. G. E. Gratton. No. 125,589; May 6; v. 262; p. 165.
Ointment or salve for skin diseases. J. Nikitaa. No. 125,488; May 20; v. 262; p. 476.
Oleomargarine. Wisconsin Butterine Co. No. 125,576; May 13; v. 262; p. 310.
Onions, Fresh. Sawyer & Day. No. 125,565; May 27; v. 262; p. 644.
Oranges, Fresh. A. C. Terwilliger. No. 125,596; May 27; v. 262; p. 644.
Overalls and work-shirts. Zinnmeister Co. No. 125,545; May 20; v. 262; p. 478.
Overcoatings and cuttings. Secco knit linings. Jamps J. Regan Mfg. Co. No. 125,506; May 20; v. 262; p. 476.
Oxygen, Electrolytic. The Bardett (Oxygen) Company. No. 125,500; May 20; v. 262; p. 473.
Packing for piston-rods, Ac. J. H. Taylor. No. 125,537; May 20; v. 262; p. 477.
Paints, Marine. American Marine Paint Company. No. 125,521; May 13; v. 262; p. 309.
Paints, varnishes, colors, Ac. Hamard Lead Works. No. 125,540; May 13; v. 262; p. 309.
Palliative for venereal diseases and a tissue-builder. O. Floren. No. 125,456; May 20; v. 262; p. 474.
Pamphlets and coupons. Allen and Black. No. 125,579; May 20; v. 262; p. 473.
Paper, Mill-heads, Ac. Writing. M. Harris. No. 125,490; May 20; v. 262; p. 478.
Paper, Carbon. Remington Typewriter Company. No. 125,500; May 20; v. 262; p. 477.
Paper, Printing. E. D. Warren Company. No. 125,574-5; May 13; v. 262; p. 310.
Paper, Printing. E. D. Warren Company. No. 125,548; May 20; v. 262; p. 478.
Paper, Wall. Becker Smith & Page. No. 125,592; May 20; v. 262; p. 478.
Peasut-bar. W. C. Omea. No. 125,426; May 20; v. 262; p. 474.
Peasut-butter. Marston and Martin. No. 125,551; May 13; v. 262; p. 310.

Pencil leads. Mechanical. The Wahl Company. No. 125,547; May 20; v. 262; p. 478.
Pena, Fountain. Adams, Cushing & Foster. No. 125,578; May 20; v. 262; p. 478.
Perfume. J. L. Grossmith. No. 125,590; May 6; v. 262; p. 166.
Perfumes, toilet waters, face-powders, sachets. Southland Perfume Company. No. 125,528; May 20; v. 262; p. 477.
Perfumery. Landberg Company. No. 125,540; May 13; v. 262; p. 310.
Periodical, Quarterly. Moline Flow Company. No. 125,477; May 20; v. 262; p. 476.
Periodicals, Semi-monthly. Contracting Publishing Corporation. No. 125,423; May 20; v. 262; p. 474.
Petroleum products. C. H. Shappell. No. 125,564; May 13; v. 262; p. 310.
Pharmaceutical preparations for toilet use. Certain named. E. Banks. No. 125,589; May 20; v. 262; p. 473.
Pianos and piano-players. Pease Piano Co. No. 125,557; May 13; v. 262; p. 310.
Pianos and player-pianos. C. E. Bellak. No. 125,594; May 20; v. 262; p. 478.
Pina, fobs, Ac. Service, scarf, bar, and brooch. Eisenstadt Manufacturing Company. No. 125,421; May 20; v. 262; p. 474.
Piston-rings. Automotive Specialties Co. No. 125,525; May 13; v. 262; p. 309.
Player-piano tone-controlling attachment. Soloette Co. No. 125,534; May 20; v. 262; p. 477.
Powder, Talcum. F. N. Lewis. No. 125,461; May 20; v. 262; p. 476.
Preparation for eczema, dermatitis for skin diseases. Woodruff. Barker Chemical Company. No. 125,591; May 20; v. 262; p. 478.
Preparation for promoting growth of the hair. M. Perria. No. 125,556; May 13; v. 262; p. 310.
Preparation for purifying gasoline and increasing its efficiency. Sealer Distributing Company. No. 125,516; May 20; v. 262; p. 477.
Preparation for treatment of coal-ashes. C. E. Fessenden. No. 125,424; May 20; v. 262; p. 474.
Preparation for treatment of the hair and scalp. P. E. Meadows. No. 125,552; May 13; v. 262; p. 310.
Preparation for use as a boiler-scale cleaner and preventive. Metekia Co. No. 125,577; May 27; v. 262; p. 643.
Publication, Semi-monthly. Vogue Company. No. 125,542; May 20; v. 262; p. 476.
Publications, Periodical. C. H. Pugh. No. 125,506; May 6; v. 262; p. 165.
Pumps, hydraulic presses, Air, Ac. Chicago Apparatus Company. No. 125,405; May 20; v. 262; p. 473.
Putties, Plaster. William T. Baker Inc. No. 125,564-5; May 27; v. 262; p. 644.
Receptacles, Certain named. J. D. Hollingshead Co. No. 125,445; May 20; v. 262; p. 475.
Registers, Autographic. J. F. Brady. No. 125,596; May 20; v. 262; p. 473.
Registers or directories, Social. F. W. Dau. No. 125,415; May 20; v. 262; p. 474.
Ribbon pieces. E. C. Taft. No. 125,535; May 20; v. 262; p. 477.
Rubber boots, shoes, and overshoes, rubber-soled canvas shoes. Hood Rubber Company. No. 125,592; May 6; v. 262; p. 165.
Rubber heels for shoes. F. Wharton. No. 125,549; May 20; v. 262; p. 478.
Rubber heels for shoes. C. W. Winkler. No. 125,518; May 6; v. 262; p. 166.
Salts, Effervescent and laxative. McCormick & Co. No. 125,464; May 20; v. 262; p. 475.
Salts, Smelling. Crown Perfumery Company. No. 125,521; May 13; v. 262; p. 309.
Salve for certain named complaints. The Broncho Co. No. 125,559; May 27; v. 262; p. 643.
Salve for piles, burns, sores, Ac. J. Bens & Co. No. 125,510; May 20; v. 262; p. 477.
Salves for cuts, burns, Ac. H. E. Burton. No. 125,559; May 27; v. 262; p. 643.
Scratchers, Back. Celluloid Company. No. 125,529; May 13; v. 262; p. 309.
Seed, Vegetable. C. C. Baha. No. 125,590; May 13; v. 262; p. 310.

Shirt-waists, Ladies'. W. J. Ball. No. 125,588; May 20; v. 262; p. 473.
Silicate of soda. Gramelli Chemical Company. No. 125,423; May 20; v. 262; p. 474.
Silk and cotton goods in the piece. J. A. Migel, Inc. No. 125,469; May 20; v. 262; p. 475.
Silk and cotton goods in the piece. J. A. Migel, Inc. No. 125,471; May 20; v. 262; p. 475.
Silk and silk-mixtures fabrics. Cheney Brothers. Nos. 125,403-4; May 20; v. 262; p. 473.
Silk fabrics. Cheney Brothers. Nos. 125,401-2; May 20; v. 262; p. 473.
Silk in the piece. Broad. J. A. Migel, Inc. No. 125,473; May 20; v. 262; p. 476.
Snap and placket fasteners. Federal Snap Fastener Corporation. No. 125,423; May 20; v. 262; p. 474.
Soap. Lantz Bros. & Co. No. 125,597; May 6; v. 262; p. 165.
Sodium cyanid. Nitrogen Products Company. No. 125,579; May 27; v. 262; p. 643.
Sodium silicate. Philadelphia Quarts Company. No. 125,490; May 20; v. 262; p. 476.
Steel. Crucible Steel Company of America. Nos. 125,413-14; May 20; v. 262; p. 474.
Strawberries, blackberries, cherries, Ac. Fresh. Quark Fruit Growers' Association. No. 125,496; May 20; v. 262; p. 476.
Suits, Men's outer. J. T. Hollenbach. No. 125,591; May 6; v. 262; p. 165.
Syringes and metallic washers for the same. A. Handman. No. 125,587; May 27; v. 262; p. 644.
Syrup, raspberry jelly, Ac. Pancake. Fargo Food Products Co. No. 125,567; May 27; v. 262; p. 643.
Talc and mica. Powdered. Northwestern Chemical Co. No. 125,494; May 20; v. 262; p. 476.
Talking-machines, phonographs, gramophones, Ac. Sonora Phonograph Corporation. No. 125,512; May 6; v. 262; p. 166.
Textile fabrics. W. E. Grace & Co. No. 125,537; May 13; v. 262; p. 309.
Threads and yarns, Certain named. Priscilla Publishing Co. No. 125,502; May 20; v. 262; p. 476.
Tires. Containers for packaging rubber. E. J. Young. No. 125,544; May 20; v. 262; p. 478.
Tobacco products. Minnesota Tobacco Company. No. 125,475; May 20; v. 262; p. 476.
Tomatoes, Fresh. F. W. Coppernuth & Co. No. 125,530; May 13; v. 262; p. 309.
Toilets and blood-purifier. Paramount Drug Co. No. 125,503; May 6; v. 262; p. 165.
Toilets, Eliminating. American Pharmaceutical Co. No. 125,522; May 13; v. 262; p. 309.
Towels, table linen, covers, and napkins. G. F. Simmon. No. 125,522; May 20; v. 262; p. 477.
Toy, Wooden. The Toy Tinkers. No. 125,591; May 27; v. 262; p. 644.
Type-writing machines. Remington Typewriter Company. No. 125,508; May 20; v. 262; p. 477.
Underwear. Keith-O'Brien Company. No. 125,486; May 20; v. 262; p. 475.
Union-suits, Cotton. Charles E. Shedaker & Sons. No. 125,510; May 6; v. 262; p. 166.
Union-suits, Women's athletic. Charles E. Shedaker & Sons. No. 125,520; May 20; v. 262; p. 477.
Ventilators, Rotary. Kain and Auger Company. No. 125,544; May 13; v. 262; p. 309.
Vices. C. & J. Hampton. No. 125,487; May 20; v. 262; p. 474.
Waists, skirts, and dresses, cotton-vellu waists and dresses. Silk. E. A. Robertson Co. No. 125,508; May 6; v. 262; p. 165.
Washing-powder. G. Morrison. No. 125,479; May 20; v. 262; p. 476.
Watch-glasses. Associated Industries of Japan. No. 125,583; May 20; v. 262; p. 475.
Water and soft drinks, Table. Clysamic Spring Co. No. 125,406; May 20; v. 262; p. 478.
Whisky, Scotch. A. K. Bell. No. 125,593; May 20; v. 262; p. 473.
Wire fencing, gauze, netting, Ac. Barbee Wire & Iron Works. No. 125,590; May 20; v. 262; p. 473.
Yarns and thread spun from jute. C. C. Davis. No. 125,410; May 20; v. 262; p. 474.
Yeast. F. L. Haley. No. 125,485; May 20; v. 262; p. 474.

ALPHABETICAL LIST OF LABELS.

- "A Pure Soft Beverage." (For a Non-Intoxicating Beverage.) S. Liebmans' Sons, Inc. No. 21,249; May 20; v. 262; p. 479.
- "Absorbine, Jr. The Antiseptic Liniment." (For Absorbine, Jr. Liniment.) W. F. Young, Inc. No. 21,277; May 20; v. 262; p. 479.
- "Baby Bunting's Castile Soap." (For Castile Soap.) The Carlton Co. No. 21,237; May 20; v. 262; p. 479.
- "Baker's Coconut." (For Package-Coconut.) The Franklin Baker Company. No. 21,245; May 20; v. 262; p. 479.
- "Beach's 'All Leather' Pocket-Books, 'Best for Your Money.'" (For Pocket-Books.) The Beach Leather Company. No. 21,238; May 20; v. 262; p. 479.
- "Big Bite Chocolate." (For Chocolate Candy.) Curtiss Candy Co. No. 21,231; May 13; v. 262; p. 311.
- "Blue Label Pease & Ford's Brer Rabbit Brand." (For Pure Country-Made Ribbon-Cane Syrup.) Pease & Ford, Ltd. No. 21,255; May 20; v. 262; p. 479.
- "Bone Dry Gen-U-Wine (Genuine)." (For a Soft Drink.) S. R. Cook. No. 21,278; May 27; v. 262; p. 644.
- "Bread Wrapper." (For Bread.) E. Friesch. No. 21,246; May 20; v. 262; p. 479.
- "Chocolate Fruit." (For Chocolate Candy.) Curtiss Candy Co. No. 21,225; May 13; v. 262; p. 311.
- "Coat of Arms Brand." (For Canned Salmon.) Northwestern Fisheries Co. No. 21,253; May 20; v. 262; p. 479.
- "Cold Seal." (For a Non-Intoxicating Beverage.) The Ohio Beverage Company. No. 21,256; May 20; v. 262; p. 479.
- "Curtiss Peanut Bar." (For Peanut Candy.) Curtiss Candy Co. No. 21,233; May 13; v. 262; p. 311.
- "Eagle and Crescent." (For Brooms and Mops.) Crescent Broom Company, Inc. No. 21,239; May 20; v. 262; p. 479.
- "Economy." (For a Detergent Washing Compound.) Fitzpatrick Bros. No. 21,243; May 20; v. 262; p. 479.
- "Etter's Gottle Remedy." (For Gottle Remedy.) C. E. Etter. No. 21,241; May 20; v. 262; p. 479.
- "Garden Gate." (For Toilet Water.) Whitcomb Chemical Company. No. 21,276; May 20; v. 262; p. 479.
- "Germosol." (For Antiseptic Germicide and Deodorant.) M. Reimann. No. 21,240; May 20; v. 262; p. 479.
- "Harmony Snap Fastener Dispersal Dressing Discolor." (For Snap-Fasteners.) Federal Snap Fastener Corporation. No. 21,242; May 20; v. 262; p. 479.
- "Honey Comb Chip." (For Honey Comb Chip Candy.) Curtiss Candy Co. No. 21,227; May 13; v. 262; p. 311.
- "Indian Sage O Hair Grower." (For Indian Sage O Hair-Grower.) Madam M. L. Griffin. No. 21,248; May 20; v. 262; p. 479.
- "Jack-O-Lantern." (For Chocolate Fruit Slice Candy.) Curtiss Candy Co. No. 21,228; May 13; v. 262; p. 311.
- "Jolly Jacks Peanut Bar." (For Chocolate Candy.) Curtiss Candy Co. No. 21,234; May 13; v. 262; p. 311.
- "Kandy Kake." (For Candy.) Curtiss Candy Co. No. 21,226; May 13; v. 262; p. 311.
- "Madonna." (For Wrist-Rosary.) Eisenstadt Mfg. Co. No. 21,240; May 20; v. 262; p. 479.
- "Maple Crest." (For Butter.) H. B. Bates. No. 21,235; May 20; v. 262; p. 479.
- "Maple Nut Bar." (For Nut-Bar Candy.) Curtiss Candy Co. No. 21,230; May 13; v. 262; p. 311.
- "Marsh-O-Nut Dipp." (For Candy.) Curtiss Candy Co. No. 21,232; May 13; v. 262; p. 311.
- "May-O-Rell." (For Cornets.) Lucette Cornet Co. No. 21,247; May 20; v. 262; p. 479.
- "Millionaire Harry." (For Cigars.) H. H. Savel. No. 21,273; May 20; v. 262; p. 479.
- "Money Back." (For Tube, Casing and Tube Patches.) Money-Back Laboratories, Inc. No. 21,251; May 20; v. 262; p. 479.
- "Mother Hubbard Bread." (For Bread.) Robertson Paper Company. No. 21,261; May 20; v. 262; p. 479.
- "Native Son." (For Grapes.) L. Ruscon. No. 21,263; May 20; v. 262; p. 479.
- "Our Pride." (For Grapes.) L. Ruscon. No. 21,264; May 20; v. 262; p. 479.
- "Package Elect." (For Boxes Containing Candy.) Milwaukee Paper Box Company. No. 21,260; May 20; v. 262; p. 479.
- "Peerless." (For Canned Salmon.) Northwestern Fisheries Co. No. 21,232; May 20; v. 262; p. 479.
- "Polar Bar." (For Candy-Bar.) Curtiss Candy Co. No. 21,229; May 13; v. 262; p. 311.
- "Purisol." (For Soaps.) Purisol Products Corporation. No. 21,250; May 20; v. 262; p. 479.
- "Quail." (For Fresh Peas.) Cook & McKenna. No. 21,258; May 20; v. 262; p. 479.
- "Rom-baw Polish The Big Idea." (For a Polish for Dressing Varnished Surfaces.) Rom-baw Chemical Co., Inc. No. 21,243; May 20; v. 262; p. 479.
- "Russian Maid." (For Wheat-Flour.) Smith & Nettle Company, Inc. No. 21,272; May 20; v. 262; p. 479.
- "Russian Style Fruit Extruder." (For Candy.) The Russian Candy Company. Nos. 21,266-70; May 20; v. 262; p. 479.
- "Servicel." (For Roofing and other Building Materials.) A. C. Fischer. No. 21,244; May 20; v. 262; p. 479.
- "Signode System." (For Reinforcing-Steel.) Signode System, Inc. No. 21,271; May 20; v. 262; p. 479.
- "Sun." \$5,400,000 Quality. (For Nut and Fruit Bars.) The Nut House Incorporated. No. 21,256; May 20; v. 262; p. 479.
- "The Chief Nut." (For Nut and Fruit Bars.) The Nut House Incorporated. No. 21,254; May 20; v. 262; p. 479.
- "The Ottumwa Clear O. K." (For Cigars.) Pallister Bros. No. 21,257; May 20; v. 262; p. 479.
- "Touraine." (For Candy.) The Touraine Company. No. 21,274; May 20; v. 262; p. 479.
- "Touraine Chocolates Boston Made." (For Candy.) The Touraine Company. No. 21,275; May 20; v. 262; p. 479.
- "V." (For Cigars.) L. Ruscon. No. 21,265; May 20; v. 262; p. 479.

lxxxviii

ALPHABETICAL LIST OF PRINTS.

- "Above All." (For Kirk's Flake Soap.) James S. Kirk & Company. No. 5,094; May 20; v. 262; p. 480.
- "Ball Bearings." (For Ball-Bearings.) The New Departure Manufacturing Company. No. 5,102; May 20; v. 262; p. 480.
- "California Fruits." (For Fruit.) Penryn Fruit Co. No. 5,103; May 20; v. 262; p. 480.
- "Council Meats, A Meat Market On Your Pantry Shelf." (For Canned Meat.) Indian Packing Company. No. 5,094; May 20; v. 262; p. 480.
- "Council Meats From the Wisconsin Country to You." (For Canned Meat.) Indian Packing Company. No. 5,095; May 20; v. 262; p. 480.
- "Dixie Diamond Coal." (For Coal.) Chicago Coal & Mining Company. No. 5,092; May 20; v. 262; p. 480.
- "From Childhood to Old Age—Dr. Swett's Root Beer." (For Root-Beer.) The Dr. Swett Root Beer Company. No. 5,093; May 20; v. 262; p. 480.
- "Just Like New-Again!" (For Kirk's Flake Soap.) James S. Kirk & Company. No. 5,100; May 20; v. 262; p. 480.
- "License Plate Holder." (For License-Plate Holders.) Alfa Specialty Co. No. 5,099; May 20; v. 262; p. 480.
- "Loved by Children." (For Kirk's Jap Rose Soap.) James S. Kirk & Company. No. 5,098; May 20; v. 262; p. 480.
- "Radium Lighted Dials." (For Watch and Clock Dials.) Travelight Mfg. Co. No. 5,105; May 20; v. 262; p. 480.
- "Shu-Rain." (For Wind-Shields of Automobiles.) The Mar-Ed National Auto Supply Co. No. 5,101; May 20; v. 262; p. 480.
- "Spot Slide." (For Garment-Spotter.) J. F. Benedict. No. 5,106; May 20; v. 262; p. 480.
- "The Canteen That 'Sure Comes Clean.'" (For Athletic Underwear.) The B. V. D. Company. No. 5,001; May 20; v. 262; p. 480.
- "The Doughboy's Return." (For Athletic Underwear.) The B. V. D. Company. No. 5,090; May 20; v. 262; p. 480.
- "The Home Triality." (For Electric Washing, Sweeper, and Ironing Machine.) F. C. Silberhorn. No. 5,104; May 20; v. 262; p. 480.
- "Why Buy New Blankets?" (For Kirk's Flake White Soap.) James S. Kirk & Company. No. 5,099; May 20; v. 262; p. 480.
- "You'll Like It." (For Kirk's Jap Rose Soap.) James S. Kirk & Company. No. 5,097; May 20; v. 262; p. 480.

DISCLAIMER.

Telephone-exchange system. C. M. Goodrum. No. 1,275,016; date of patent Aug. 6, 1918; disclaimer filed May 10, 1919; v. 262; p. 319.

lxxxix

MAY, 1919.

NOTE.—First number—class, second number—subclass, third number—patent number.

1- 14: 1,304,930	12- 2: 1,305,215	31- 30: 1,304,700	2- 23: 1,302,887	20- 100: 1,302,464	30- 1: 1,303,077
2- 35: 1,303,887	14: 1,303,887	31: 1,303,300	1,303,022	1,303,080	10: 1,303,710
3- 35: 1,304,315	20: 1,303,887	31: 1,303,887	1,303,916	1,303,877	20: 1,303,877
4- 41: 1,304,021	30: 1,304,070	31: 1,304,000	1,304,007	104.1: 1,304,444	37: 1,302,405
5- 61: 1,303,002	34: 1,304,472	31: 1,304,113	1,304,081	1,303,885	2: 1,303,885
70: 1,303,233	60: 1,303,230	42: 1,303,310	34: 1,302,455	104: 1,302,702	2: 1,303,702
72: 1,303,212	77: 1,303,081	42: 1,303,010	1,303,404	174: 1,302,288	30: 1,303,081
74: 1,303,264	84: 1,303,080	42: 1,303,000	1,303,404	182: 1,302,405	11: 1,304,180
76: 1,303,264	104: 1,303,080	42: 1,303,230	1,302,770	30- 1: 1,302,336	10: 1,304,180
81: 1,303,087	140: 1,303,080	42: 1,303,000	1,304,180	1,302,336	20: 1,304,417
91: 1,303,300	1,303,085	42: 1,302,742	1,304,000	1,303,072	33: 1,304,300
92: 1,304,170	1,304,070	42: 1,303,000	1,304,180	12: 1,303,000	63: 1,303,804
104: 1,303,700	1,303,080	42: 1,303,185	1,304,180	1,303,072	67: 1,303,704
105: 1,303,000	1,303,080	42: 1,304,042	1,303,172	13: 1,304,774	72: 1,303,000
106: 1,303,000	1,303,080	42: 1,304,077	1,303,405	17: 1,302,336	126: 1,303,000
107: 1,303,700	1,303,085	42: 1,303,000	1,303,885	31- 44: 1,302,002	1,303,000
108: 1,303,000	1,303,080	42: 1,303,180	1,303,007	1,303,131	130: 1,303,000
110: 1,303,300	1,303,080	42: 1,304,044	1,304,180	92: 1,304,300	132: 1,304,370
122: 1,303,047	1,303,080	42: 1,304,044	1,304,180	4: 1,303,228	1,304,000
123: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,303,000	140: 1,304,000
140: 1,303,047	1,303,080	42: 1,304,044	1,304,180	9: 1,303,000	145.3: 1,304,357
142: 1,303,047	1,303,080	42: 1,304,044	1,304,180	10: 1,303,000	146: 1,304,357
144: 1,303,047	1,303,080	42: 1,304,044	1,304,180	12: 1,302,000	7: 1,304,700
146: 1,303,047	1,303,080	42: 1,304,044	1,304,180	18: 1,304,721	12: 1,302,000
148: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	20: 1,304,071
150: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
152: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
154: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
156: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
158: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
160: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
162: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
164: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
166: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
168: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
170: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
172: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
174: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
176: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
178: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
180: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
182: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
184: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
186: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
188: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
190: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
192: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
194: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
196: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
198: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
200: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
202: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
204: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
206: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
208: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
210: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
212: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
214: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
216: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
218: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
220: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
222: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
224: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
226: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
228: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
230: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
232: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
234: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
236: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
238: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
240: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
242: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
244: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
246: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
248: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
250: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
252: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
254: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
256: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
258: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
260: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
262: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
264: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
266: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
268: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
270: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
272: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
274: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
276: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
278: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
280: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
282: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
284: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
286: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
288: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
290: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
292: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
294: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
296: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
298: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
300: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
302: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
304: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
306: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
308: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
310: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
312: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
314: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
316: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
318: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
320: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
322: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
324: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
326: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
328: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
330: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
332: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
334: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
336: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
338: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
340: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
342: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
344: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
346: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
348: 1,303,047	1,303,080	42: 1,304,044	1,304,180	1,304,722	1,304,071
350: 1,303					

CLASSIFICATION OF PATENTS.

40	1,304,434	56	112: 1,302,298	70	1: 1,304,882	74	40: 1,304,288	84	44: 1,304,841	92	34: 1,304,094
41	1,304,435	57	113: 1,302,299	71	13: 1,302,681	75	41: 1,304,289	85	45: 1,304,842	93	35: 1,304,095
42	1,304,436	58	114: 1,302,300	72	14: 1,302,682	76	42: 1,304,290	86	46: 1,304,843	94	36: 1,304,096
43	1,304,437	59	115: 1,302,301	73	15: 1,302,683	77	43: 1,304,291	87	47: 1,304,844	95	37: 1,304,097
44	1,304,438	60	116: 1,302,302	74	16: 1,302,684	78	44: 1,304,292	88	48: 1,304,845	96	38: 1,304,098
45	1,304,439	61	117: 1,302,303	75	17: 1,302,685	79	45: 1,304,293	89	49: 1,304,846	97	39: 1,304,099
46	1,304,440	62	118: 1,302,304	76	18: 1,302,686	80	46: 1,304,294	90	50: 1,304,847	98	40: 1,304,100
47	1,304,441	63	119: 1,302,305	77	19: 1,302,687	81	47: 1,304,295	91	51: 1,304,848	99	41: 1,304,101
48	1,304,442	64	120: 1,302,306	78	20: 1,302,688	82	48: 1,304,296	92	52: 1,304,849	100	42: 1,304,102
49	1,304,443	65	121: 1,302,307	79	21: 1,302,689	83	49: 1,304,297	93	53: 1,304,850		
50	1,304,444	66	122: 1,302,308	80	22: 1,302,690	84	50: 1,304,298	94	54: 1,304,851		
51	1,304,445	67	123: 1,302,309	81	23: 1,302,691	85	51: 1,304,299	95	55: 1,304,852		
52	1,304,446	68	124: 1,302,310	82	24: 1,302,692	86	52: 1,304,300	96	56: 1,304,853		
53	1,304,447	69	125: 1,302,311	83	25: 1,302,693	87	53: 1,304,301	97	57: 1,304,854		
54	1,304,448	70	126: 1,302,312	84	26: 1,302,694	88	54: 1,304,302	98	58: 1,304,855		
55	1,304,449	71	127: 1,302,313	85	27: 1,302,695	89	55: 1,304,303	99	59: 1,304,856		
56	1,304,450	72	128: 1,302,314	86	28: 1,302,696	90	56: 1,304,304		60: 1,304,857		
57	1,304,451	73	129: 1,302,315	87	29: 1,302,697	91	57: 1,304,305		61: 1,304,858		
58	1,304,452	74	130: 1,302,316	88	30: 1,302,698	92	58: 1,304,306		62: 1,304,859		
59	1,304,453	75	131: 1,302,317	89	31: 1,302,699	93	59: 1,304,307		63: 1,304,860		
60	1,304,454	76	132: 1,302,318	90	32: 1,302,700	94	60: 1,304,308		64: 1,304,861		
61	1,304,455	77	133: 1,302,319	91	33: 1,302,701	95	61: 1,304,309		65: 1,304,862		
62	1,304,456	78	134: 1,302,320	92	34: 1,302,702	96	62: 1,304,310		66: 1,304,863		
63	1,304,457	79	135: 1,302,321	93	35: 1,302,703	97	63: 1,304,311		67: 1,304,864		
64	1,304,458	80	136: 1,302,322	94	36: 1,302,704	98	64: 1,304,312		68: 1,304,865		
65	1,304,459	81	137: 1,302,323	95	37: 1,302,705	99	65: 1,304,313		69: 1,304,866		
66	1,304,460	82	138: 1,302,324	96	38: 1,302,706		66: 1,304,314		70: 1,304,867		
67	1,304,461	83	139: 1,302,325	97	39: 1,302,707		67: 1,304,315		71: 1,304,868		
68	1,304,462	84	140: 1,302,326	98	40: 1,302,708		68: 1,304,316		72: 1,304,869		
69	1,304,463	85	141: 1,302,327	99	41: 1,302,709		69: 1,304,317		73: 1,304,870		
70	1,304,464	86	142: 1,302,328		42: 1,302,710		70: 1,304,318		74: 1,304,871		
71	1,304,465	87	143: 1,302,329		43: 1,302,711		71: 1,304,319		75: 1,304,872		
72	1,304,466	88	144: 1,302,330		44: 1,302,712		72: 1,304,320		76: 1,304,873		
73	1,304,467	89	145: 1,302,331		45: 1,302,713		73: 1,304,321		77: 1,304,874		
74	1,304,468	90	146: 1,302,332		46: 1,302,714		74: 1,304,322		78: 1,304,875		
75	1,304,469	91	147: 1,302,333		47: 1,302,715		75: 1,304,323		79: 1,304,876		
76	1,304,470	92	148: 1,302,334		48: 1,302,716		76: 1,304,324		80: 1,304,877		
77	1,304,471	93	149: 1,302,335		49: 1,302,717		77: 1,304,325		81: 1,304,878		
78	1,304,472	94	150: 1,302,336		50: 1,302,718		78: 1,304,326		82: 1,304,879		
79	1,304,473	95	151: 1,302,337		51: 1,302,719		79: 1,304,327		83: 1,304,880		
80	1,304,474	96	152: 1,302,338		52: 1,302,720		80: 1,304,328		84: 1,304,881		
81	1,304,475	97	153: 1,302,339		53: 1,302,721		81: 1,304,329		85: 1,304,882		
82	1,304,476	98	154: 1,302,340		54: 1,302,722		82: 1,304,330		86: 1,304,883		
83	1,304,477	99	155: 1,302,341		55: 1,302,723		83: 1,304,331		87: 1,304,884		
84	1,304,478		156: 1,302,342		56: 1,302,724		84: 1,304,332		88: 1,304,885		
85	1,304,479		157: 1,302,343		57: 1,302,725		85: 1,304,333		89: 1,304,886		
86	1,304,480		158: 1,302,344		58: 1,302,726		86: 1,304,334		90: 1,304,887		
87	1,304,481		159: 1,302,345		59: 1,302,727		87: 1,304,335		91: 1,304,888		
88	1,304,482		160: 1,302,346		60: 1,302,728		88: 1,304,336		92: 1,304,889		
89	1,304,483		161: 1,302,347		61: 1,302,729		89: 1,304,337		93: 1,304,890		
90	1,304,484		162: 1,302,348		62: 1,302,730		90: 1,304,338		94: 1,304,891		
91	1,304,485		163: 1,302,349		63: 1,302,731		91: 1,304,339		95: 1,304,892		
92	1,304,486		164: 1,302,350		64: 1,302,732		92: 1,304,340		96: 1,304,893		
93	1,304,487		165: 1,302,351		65: 1,302,733		93: 1,304,341		97: 1,304,894		
94	1,304,488		166: 1,302,352		66: 1,302,734		94: 1,304,342		98: 1,304,895		
95	1,304,489		167: 1,302,353		67: 1,302,735		95: 1,304,343		99: 1,304,896		
96	1,304,490		168: 1,302,354		68: 1,302,736		96: 1,304,344		100: 1,304,897		
97	1,304,491		169: 1,302,355		69: 1,302,737		97: 1,304,345				
98	1,304,492		170: 1,302,356		70: 1,302,738		98: 1,304,346				
99	1,304,493		171: 1,302,357		71: 1,302,739		99: 1,304,347				
100	1,304,494		172: 1,302,358		72: 1,302,740		100: 1,304,348				

CLASSIFICATION OF PATENTS.

100-	30:	1,304,090	110-	30:	1,304,090	120-	30:	1,304,090	130-	30:	1,304,090	140-	30:	1,304,090	150-	30:	1,304,090	160-	30:	1,304,090	170-	30:	1,304,090	180-	30:	1,304,090	190-	30:	1,304,090
101-	30:	1,304,091	111-	30:	1,304,091	121-	30:	1,304,091	131-	30:	1,304,091	141-	30:	1,304,091	151-	30:	1,304,091	161-	30:	1,304,091	171-	30:	1,304,091	181-	30:	1,304,091	191-	30:	1,304,091
102-	30:	1,304,092	112-	30:	1,304,092	122-	30:	1,304,092	132-	30:	1,304,092	142-	30:	1,304,092	152-	30:	1,304,092	162-	30:	1,304,092	172-	30:	1,304,092	182-	30:	1,304,092	192-	30:	1,304,092
103-	30:	1,304,093	113-	30:	1,304,093	123-	30:	1,304,093	133-	30:	1,304,093	143-	30:	1,304,093	153-	30:	1,304,093	163-	30:	1,304,093	173-	30:	1,304,093	183-	30:	1,304,093	193-	30:	1,304,093
104-	30:	1,304,094	114-	30:	1,304,094	124-	30:	1,304,094	134-	30:	1,304,094	144-	30:	1,304,094	154-	30:	1,304,094	164-	30:	1,304,094	174-	30:	1,304,094	184-	30:	1,304,094	194-	30:	1,304,094
105-	30:	1,304,095	115-	30:	1,304,095	125-	30:	1,304,095	135-	30:	1,304,095	145-	30:	1,304,095	155-	30:	1,304,095	165-	30:	1,304,095	175-	30:	1,304,095	185-	30:	1,304,095	195-	30:	1,304,095
106-	30:	1,304,096	116-	30:	1,304,096	126-	30:	1,304,096	136-	30:	1,304,096	146-	30:	1,304,096	156-	30:	1,304,096	166-	30:	1,304,096	176-	30:	1,304,096	186-	30:	1,304,096	196-	30:	1,304,096
107-	30:	1,304,097	117-	30:	1,304,097	127-	30:	1,304,097	137-	30:	1,304,097	147-	30:	1,304,097	157-	30:	1,304,097	167-	30:	1,304,097	177-	30:	1,304,097	187-	30:	1,304,097	197-	30:	1,304,097
108-	30:	1,304,098	118-	30:	1,304,098	128-	30:	1,304,098	138-	30:	1,304,098	148-	30:	1,304,098	158-	30:	1,304,098	168-	30:	1,304,098	178-	30:	1,304,098	188-	30:	1,304,098	198-	30:	1,304,098
109-	30:	1,304,099	119-	30:	1,304,099	129-	30:	1,304,099	139-	30:	1,304,099	149-	30:	1,304,099	159-	30:	1,304,099	169-	30:	1,304,099	179-	30:	1,304,099	189-	30:	1,304,099	199-	30:	1,304,099
110-	30:	1,304,100	120-	30:	1,304,100	130-	30:	1,304,100	140-	30:	1,304,100	150-	30:	1,304,100	160-	30:	1,304,100	170-	30:	1,304,100	180-	30:	1,304,100	190-	30:	1,304,100	200-	30:	1,304,100
111-	30:	1,304,101	121-	30:	1,304,101	131-	30:	1,304,101	141-	30:	1,304,101	151-	30:	1,304,101	161-	30:	1,304,101	171-	30:	1,304,101	181-	30:	1,304,101	191-	30:	1,304,101	201-	30:	1,304,101
112-	30:	1,304,102	122-	30:	1,304,102	132-	30:	1,304,102	142-	30:	1,304,102	152-	30:	1,304,102	162-	30:	1,304,102	172-	30:	1,304,102	182-	30:	1,304,102	192-	30:	1,304,102	202-	30:	1,304,102
113-	30:	1,304,103	123-	30:	1,304,103	133-	30:	1,304,103	143-	30:	1,304,103	153-	30:	1,304,103	163-	30:	1,304,103	173-	30:	1,304,103	183-	30:	1,304,103	193-	30:	1,304,103	203-	30:	1,304,103
114-	30:	1,304,104	124-	30:	1,304,104	134-	30:	1,304,104	144-	30:	1,304,104	154-	30:	1,304,104	164-	30:	1,304,104	174-	30:	1,304,104	184-	30:	1,304,104	194-	30:	1,304,104	204-	30:	1,304,104
115-	30:	1,304,105	125-	30:	1,304,105	135-	30:	1,304,105	145-	30:	1,304,105	155-	30:	1,304,105	165-	30:	1,304,105	175-	30:	1,304,105	185-	30:	1,304,105	195-	30:	1,304,105	205-	30:	1,304,105
116-	30:	1,304,106	126-	30:	1,304,106	136-	30:	1,304,106	146-	30:	1,304,106	156-	30:	1,304,106	166-	30:	1,304,106	176-	30:	1,304,106	186-	30:	1,304,106	196-	30:	1,304,106	206-	30:	1,304,106
117-	30:	1,304,107	127-	30:	1,304,107	137-	30:	1,304,107	147-	30:	1,304,107	157-	30:	1,304,107	167-	30:	1,304,107	177-	30:	1,304,107	187-	30:	1,304,107	197-	30:	1,304,107	207-	30:	1,304,107
118-	30:	1,304,108	128-	30:	1,304,108	138-	30:	1,304,108	148-	30:	1,304,108	158-	30:	1,304,108	168-	30:	1,304,108	178-	30:	1,304,108	188-	30:	1,304,108	198-	30:	1,304,108	208-	30:	1,304,108
119-	30:	1,304,109	129-	30:	1,304,109	139-	30:	1,304,109	149-	30:	1,304,109	159-	30:	1,304,109	169-	30:	1,304,109	179-	30:	1,304,109	189-	30:	1,304,109	199-	30:	1,304,109	209-	30:	1,304,109
120-	30:	1,304,110	130-	30:	1,304,110	140-	30:	1,304,110	150-	30:	1,304,110	160-	30:	1,304,110	170-	30:	1,304,110	180-	30:	1,304,110	190-	30:	1,304,110	200-	30:	1,304,110	210-	30:	1,304,110
121-	30:	1,304,111	131-	30:	1,304,111	141-	30:	1,304,111	151-	30:	1,304,111	161-	30:	1,304,111	171-	30:	1,304,111	181-	30:	1,304,111	191-	30:	1,304,111	201-	30:	1,304,111	211-	30:	1,304,111
122-	30:	1,304,112	132-	30:	1,304,112	142-	30:	1,304,112	152-	30:	1,304,112	162-	30:	1,304,112	172-	30:	1,304,112	182-	30:	1,304,112	192-	30:	1,304,112	202-	30:	1,304,112	212-	30:	1,304,112
123-	30:	1,304,113	133-	30:	1,304,113	143-	30:	1,304,113	153-	30:	1,304,113	163-	30:	1,304,113	173-	30:	1,304,113	183-	30:	1,304,113	193-	30:	1,304,113	203-	30:	1,304,113	213-	30:	1,304,113
124-	30:	1,304,114	134-	30:	1,304,114	144-	30:	1,304,114	154-	30:	1,304,114	164-	30:	1,304,114	174-	30:	1,304,114	184-	30:	1,304,114	194-	30:	1,304,114	204-	30:	1,304,114	214-	30:	1,304,114
125-	30:	1,304,115	135-	30:	1,304,115	145-	30:	1,304,115	155-	30:	1,304,115	165-	30:	1,304,115	175-	30:	1,304,115	185-	30:	1,304,115	195-	30:	1,304,115	205-	30:	1,304,115	215-	30:	1,304,115
126-	30:	1,304,116	136-	30:	1,304,116	146-	30:	1,304,116	156-	30:	1,304,116	166-	30:	1,304,116	176-	30:	1,304,116	186-	30:	1,304,116	196-	30:	1,304,116	206-	30:	1,304,116	216-	30:	1,304,116
127-	30:	1,304,117	137-	30:	1,304,117	147-	30:	1,304,117	157-	30:	1,304,117	167-	30:	1,304,117	177-	30:	1,304,117	187-	30:	1,304,117	197-	30:	1,304,117	207-	30:	1,304,117	217-	30:	1,304,117
128-	30:	1,304,118	138-	30:	1,304,118	148-	30:	1,304,118	158-	30:	1,304,118	168-	30:	1,304,118	178-	30:	1,304,118	188-	30:	1,304,118	198-	30:	1,304,118	208-	30:	1,304,118	218-	30:	1,304,118
129-	30:	1,304,119	139-	30:	1,304,119	149-	30:	1,304,119	159-	30:	1,304,119	169-	30:	1,304,119	179-	30:	1,304,119	189-	30:	1,304,119	199-	30:	1,304,119	209-	30:	1,304,119	219-	30:	1,304,119
130-	30:	1,304,120	140-	30:	1,304,120	150-	30:	1,304,120	160-	30:	1,304,120	170-	30:	1,304,120	180-	30:	1,304,120	190-	30:	1,304,120	200-	30:	1,304,120	210-	30:	1,304,120	220-	30:	1,304,120
131-	30:	1,304,121	141-	30:	1,304,121	151-	30:	1,304,121	161-	30:	1,304,121	171-	30:	1,304,121	181-	30:	1,304,121	191-	30:	1,304,121	201-	30:	1,304,121	211-	30:	1,304,121	221-	30:	1,304,121
132-	30:	1,304,122	142-	30:	1,304,122	152-	30:	1,304,122	162-	30:	1,304,122	172-	30:	1,304,122	182-	30:	1,304,122	192-	30:	1,304,122	202-	30:	1,304,122	212-	30:	1,304,122	222-	30:	1,304,122
133-	30:	1,304,123	143-	30:	1,304,123	153-	30:	1,304,123	163-	30:	1,304,123	173-	30:	1,304,123	183-	30:	1,304,123	193-	30:	1,304,123	203-	30:	1,304,123	213-	30:	1,304,123	223-	30:	1,304,123
134-	30:	1,304,124	144-	30:	1,304,124	154-	30:	1,304,124	164-	30:	1,304,124	174-	30:	1,304,124	184-	30:	1,304,124	194-	30:	1,304,124	204-	30:	1,304,124	214-	30:	1,304,124	224-	30:	1,304,124
135-	30:	1,304,125	145-	30:	1,304,125	155-	30:	1,304,125	165-	30:	1,304,125	175-	30:	1,304,125	185-	30:	1,304,125	195-	30:	1,304,125	205-	30:	1,304,125	215-	30:	1,304,125	225-	30:	1,304,125
136-	30:	1,304,126	146-	30:	1,304,126	156-	30:	1,304,126	166-	30:	1,304,126	176-	30:	1,304,126	186-	30:	1,304,126	196-	30:	1,304,126	206-	30:	1,304,126	216-	30:	1,304,126	226-	30:	1,304,126
137-	30:	1,304,127	147-	30:	1,304,127	157-	30:	1,304,127	167-	30:	1,304,127	177-	30:	1,304,127	187-	30:	1,304,127	197-	30:	1,304,127	207-	30:	1,304,127	217-	30:	1,304,127	227-	30:	1,304,127
138-	30:	1,304,128	148-	30:	1,304,128	158-	30:	1,304,128	168-	30:	1,304,128	178-	30:	1,304,128	188-	30:	1,304,128	198-	30:	1,304,128	208-	30:	1,304,128	218-	30:	1,304,128	228-	30:	1,304,128
139-	30:	1,304,129	149-	30:	1,304,129	159-	30:	1,304,129	169-	30:	1,304,129	179-	30:	1,304,129	189-	30:	1,304,129	199-	30:	1,304,129	209-	30:	1,304,129	219-	30:	1,304,129	229-	30:	1,304,129
140-	30:	1,304,130	150-	30:	1,304,130	160-	30:	1,304,130	170-	30:	1,304,130	180-	30:	1,304,130	190-	30:	1,304,130	200-	30:	1,304,130	210-	30:	1,304,130	220-	30:	1,304,130	230-	30:	1,304,130
141-	30:	1,304,131	151-	30:	1,304,131	161-	30:	1,304,131	171-	30:	1,304,131	181-	30:	1,304,131	191-	30:	1,304,131	201-	30:	1,304,131	211-	30:	1,304,131	221-	30:	1,304,131	231-	30:	1,304,131
142-	30:	1,304,132	1																										

CLASSIFICATION OF PATENTS.

170-	7:	1,302,889	175-	241:	1,304,267	184-	59:	1,304,238	204-	1:	1,305,213	212-	67:	1,304,261	224-	0.5:	1,304,000	
120:	1,304,264			1,304,451		90:	1,304,560		4:	1,302,889		1,304,276		1,304,276		2:	1,302,789	
142:	1,304,941		244:	1,302,945		22:	1,302,511		5:	1,302,924		1,304,285		1,304,285		3:	1,302,714	
150:	1,304,108		246:	1,302,088		44:	1,302,889			1,302,571		1,304,293		1,304,293		4:	1,302,687	
34:	1,302,241			1,302,188		157-	1:	1,302,978	214-	7:	1,302,889		1,304,300		20:	1,302,687		
	1,302,242			1,302,189		20:	1,304,970			1,302,226		17:	1,304,283					
	1,302,243		176-	100:	1,304,760	20:	1,304,970			1,302,219		21:	1,304,283		22:	1,302,687		
	1,302,244		116:	1,304,760		47:	1,302,557		9:	1,304,766		22:	1,304,283		23:	1,302,687		
95:	1,302,457		121:	1,302,688		80:	1,304,766		20:	1,302,448		23:	1,304,283		24:	1,302,687		
97:	1,302,261		124:	1,302,765		78:	1,304,771			1,302,211		24:	1,304,283		25:	1,302,687		
	1,302,262		177-	7:	1,302,400	80:	1,302,001			1,302,453		25:	1,304,283		26:	1,302,687		
110:	1,302,237			1,302,301		85:	1,302,797			1,302,478		26:	1,304,283		27:	1,302,687		
	1,302,132			1,302,302		90:	1,302,085			1,302,513		27:	1,304,283		28:	1,302,687		
200:	1,302,088		25:	1,304,022		4:	1,302,949			1,302,162		28:	1,304,283		29:	1,302,687		
228:	1,304,089		214:	1,302,180		6:	1,302,949			1,302,162		29:	1,304,283		30:	1,302,687		
234:	1,304,084		227:	1,302,618		9:	1,302,949			1,302,162		30:	1,304,283		31:	1,302,687		
239:	1,302,081			1,302,172		15:	1,302,949			1,302,162		31:	1,304,283		32:	1,302,687		
261:	1,302,484		238:	1,304,572			1,302,988			1,302,162		32:	1,304,283		33:	1,302,687		
	1,302,776		251:	1,302,688			1,302,172		27:	1,302,172		33:	1,304,283		34:	1,302,687		
242:	1,302,000		26:	1,302,226			1,302,172			1,302,172		34:	1,304,283		35:	1,302,687		
270:	1,302,227		32:	1,302,688			1,302,172			1,302,172		35:	1,304,283		36:	1,302,687		
312:	1,302,543		70:	1,302,688			1,302,172			1,302,172		36:	1,304,283		37:	1,302,687		
320:	1,302,688		82:	1,304,025			1,302,172			1,302,172		37:	1,304,283		38:	1,302,687		
313:	1,304,022		98:	1,304,254			1,302,172			1,302,172		38:	1,304,283		39:	1,302,687		
315:	1,302,081		115:	1,302,715			1,302,172			1,302,172		39:	1,304,283		40:	1,302,687		
	1,302,070		170-	9:	1,302,846		70:	1,302,075			1,302,172		40:	1,304,283		41:	1,302,687	
172-	8:	1,304,181		18:	1,302,767		18:	1,302,685			1,302,172		41:	1,304,283		42:	1,302,687	
	1,304,240			1,302,767			1,302,685			1,302,172		42:	1,304,283		43:	1,302,687		
	1,304,288			1,302,685			1,302,134			1,302,172		43:	1,304,283		44:	1,302,687		
	1,304,298			1,302,685			1,304,135			1,302,172		44:	1,304,283		45:	1,302,687		
	1,304,260			1,304,070			1,304,136			1,302,172		45:	1,304,283		46:	1,302,687		
26:	1,304,229		27:	1,302,428		100-	29:	1,302,772			1,302,172		46:	1,304,283		47:	1,302,687	
170:	1,302,307			1,302,427			34:	1,302,682			1,302,172		47:	1,304,283		48:	1,302,687	
	1,302,308			1,302,428			35:	1,302,013			1,302,172		48:	1,304,283		49:	1,302,687	
	1,302,310			1,302,429			36:	1,304,561			1,302,172		49:	1,304,283		50:	1,302,687	
	1,304,178			1,304,259			37:	1,304,044			1,302,172		50:	1,304,283		51:	1,302,687	
	1,304,229			1,304,611			38:	1,304,044			1,302,172		51:	1,304,283		52:	1,302,687	
	1,302,044		27.5:	1,302,094			43:	1,304,044			1,302,172		52:	1,304,283		53:	1,302,687	
237:	1,302,015		73:	1,302,808			44:	1,304,583			1,302,172		53:	1,304,283		54:	1,302,687	
260:	1,302,261			1,302,001			45:	1,304,583			1,302,172		54:	1,304,283		55:	1,302,687	
	1,302,319		81:	1,302,351			46:	1,304,583			1,302,172		55:	1,304,283		56:	1,302,687	
	1,304,289		99:	1,302,505			47:	1,302,752			1,302,172		56:	1,304,283		57:	1,302,687	
	1,302,191		108:	1,302,183		100-	73:	1,302,113			1,302,172		57:	1,304,283		58:	1,302,687	
274:	1,304,288		101:	1,302,240			12:	1,304,279			1,302,172		58:	1,304,283		59:	1,302,687	
276:	1,304,957		157:	1,304,718			26:	1,304,266			1,302,172		59:	1,304,283		60:	1,302,687	
	1,304,068		182:	1,302,887		101-	41:	1,302,088			1,302,172		60:	1,304,283		61:	1,302,687	
	1,302,149			1,304,308		102-	1:	1,302,088			1,302,172		61:	1,304,283		62:	1,302,687	
280:	1,302,011		189:	1,304,481			5:	1,302,926			1,302,172		62:	1,304,283		63:	1,302,687	
289:	1,302,047		1:	1,302,088			10:	1,302,688			1,302,172		63:	1,304,283		64:	1,302,687	
	1,302,094		5:	1,302,764			16:	1,302,688			1,302,172		64:	1,304,283		65:	1,302,687	
293:	1,304,344		7:	1,302,645			17:	1,302,688			1,302,172		65:	1,304,283		66:	1,302,687	
278:	1,304,047		9:	1,302,717		100-	1:	1,302,688			1,302,172		66:	1,304,283		67:	1,302,687	
311:	1,304,230			1,304,347			8:	1,302,681			1,302,172		67:	1,304,283		68:	1,302,687	
	1,304,298		10:	1,302,688			10:	1,304,497			1,302,172		68:	1,304,283		69:	1,302,687	
	1,304,489		11:	1,302,688			16:	1,304,765			1,302,172		69:	1,304,283		70:	1,302,687	
314:	1,302,188		14:	1,302,688			16:	1,304,644			1,302,172		70:	1,304,283		71:	1,302,687	
316:	1,302,788			1,302,688			46:	1,302,682			1,302,172		71:	1,304,283		72:	1,302,687	
318:	1,302,294		16:	1,302,688			56:	1,304,674			1,302,172		72:	1,304,283		73:	1,302,687	
324:	1,302,088		17:	1,302,766			58:	1,304,694			1,302,172		73:	1,304,283		74:	1,302,687	
328:	1,302,088			1,304,346		104-	6:	1,302,419			1,302,172		74:	1,304,283		75:	1,302,687	
	1,304,075		21:	1,302,697		105-	10:	1,304,974			1,302,172		75:	1,304,283		76:	1,302,687	
344:	1,302,084		30:	1,302,171			1:	1,302,560			1,302,172		76:	1,304,283		77:	1,302,687	
354:	1,302,787		32:	1,302,171			1:	1,302,561			1,302,172		77:	1,304,283		78:	1,302,687	
360:	1,302,089		33:	1,302,688			29:	1,302,549			1,302,172		78:	1,304,283		79:	1,302,687	
364:	1,304,347		48:	1,302,255		100-	1:	1,304,211			1,302,172		79:	1,304,283		80:	1,302,687	
	1,304,342			1,302,001			2:	1,302,089			1,302,172		80:	1,304,283		81:	1,302,687	
175-	31:	1,302,388		1,302,105			4:	1,302,761			1,302,172		81:	1,304,283		82:	1,302,687	
	1,302,626			1,302,088				1,304,312			1,302,172		82:	1,304,283		83:	1,302,687	
189:	1,302,140		82:	1,302,088			5:	1,302,382			1,302,172		83:	1,304,283		84:	1,302,687	
	1,302,236		84:	1,302,260			25:	1,302,382			1,302,172		84:	1,304,283		85:	1,302,687	
273:	1,304,084			1,302,231				1,304,134			1,302,172		85:	1,304,283		86:	1,302,687	
279:	1,304,388		64:	1,302,391				1,304,125			1,302,172		86:	1,304,283		87:	1,302,687	
281:	1,304,088		68:	1,302,391				1,304,125			1,302,172		87:	1,304,283		88:	1,302,687	
	1,302,085		24:	1,302,237		107-	6.4:	1,302,686			1,302,172		88:	1,304,283		89:	1,302,687	
282:	1,302,681		37:	1,302,238				1,302,682			1,302,172		89:	1,304,283		90:	1,302,687	
	1,302,181			1,302,081			37:	1,302,681			1,302,172		90:	1,304,283		91:	1,302,687	
	1,304,284			1,304,006			68:	1,302,682			1,302,172		91:	1,304,283		92:	1,302,687	
	1,304,065		142-	12:	1,304,612			1,302,763			1,302,172		92:	1,304,283		93:	1,302,687	
	1,304,025		15:	1,302,372				1,304,082			1,302,172		93:	1,304,283		94:	1,302,687	
	1,302,162		180-	28:	1,302,716			1,304,041			1,302,172		94:	1,304,283		95:	1,302,687	
283:	1,302,788			1,304,284			79:	1,304,513			1,302,172		95:	1,304,283		96:	1,302,687	
	1,302,188		31:	1,304														

340- 61: 1, 304, 265	244- 25: 1, 302, 095	348- 33: 1, 302, 345	354- 67: 1, 302, 057	362- 30: 1, 304, 239	374- 34: 1, 302, 020
62: 1, 304, 081	26: 1, 302, 174	34: 1, 302, 347	68: 1, 304, 095	31: 1, 302, 643	35: 1, 302, 513
63: 1, 304, 081	27: 1, 302, 047	41: 1, 302, 095	69: 1, 304, 095	32: 1, 302, 643	36: 1, 302, 074
64: 1, 304, 081	28: 1, 302, 047	42: 1, 302, 095	70: 1, 304, 095	33: 1, 302, 643	37: 1, 302, 074
65: 1, 304, 081	29: 1, 302, 047	43: 1, 302, 095	71: 1, 304, 095	34: 1, 302, 643	38: 1, 302, 074
66: 1, 304, 081	30: 1, 302, 047	44: 1, 302, 095	72: 1, 304, 095	35: 1, 302, 643	39: 1, 302, 074
67: 1, 304, 081	31: 1, 302, 047	45: 1, 302, 095	73: 1, 304, 095	36: 1, 302, 643	40: 1, 302, 074
68: 1, 304, 081	32: 1, 302, 047	46: 1, 302, 095	74: 1, 304, 095	37: 1, 302, 643	41: 1, 302, 074
69: 1, 304, 081	33: 1, 302, 047	47: 1, 302, 095	75: 1, 304, 095	38: 1, 302, 643	42: 1, 302, 074
70: 1, 304, 081	34: 1, 302, 047	48: 1, 302, 095	76: 1, 304, 095	39: 1, 302, 643	43: 1, 302, 074
71: 1, 304, 081	35: 1, 302, 047	49: 1, 302, 095	77: 1, 304, 095	40: 1, 302, 643	44: 1, 302, 074
72: 1, 304, 081	36: 1, 302, 047	50: 1, 302, 095	78: 1, 304, 095	41: 1, 302, 643	45: 1, 302, 074
73: 1, 304, 081	37: 1, 302, 047	51: 1, 302, 095	79: 1, 304, 095	42: 1, 302, 643	46: 1, 302, 074
74: 1, 304, 081	38: 1, 302, 047	52: 1, 302, 095	80: 1, 304, 095	43: 1, 302, 643	47: 1, 302, 074
75: 1, 304, 081	39: 1, 302, 047	53: 1, 302, 095	81: 1, 304, 095	44: 1, 302, 643	48: 1, 302, 074
76: 1, 304, 081	40: 1, 302, 047	54: 1, 302, 095	82: 1, 304, 095	45: 1, 302, 643	49: 1, 302, 074
77: 1, 304, 081	41: 1, 302, 047	55: 1, 302, 095	83: 1, 304, 095	46: 1, 302, 643	50: 1, 302, 074
78: 1, 304, 081	42: 1, 302, 047	56: 1, 302, 095	84: 1, 304, 095	47: 1, 302, 643	51: 1, 302, 074
79: 1, 304, 081	43: 1, 302, 047	57: 1, 302, 095	85: 1, 304, 095	48: 1, 302, 643	52: 1, 302, 074
80: 1, 304, 081	44: 1, 302, 047	58: 1, 302, 095	86: 1, 304, 095	49: 1, 302, 643	53: 1, 302, 074
81: 1, 304, 081	45: 1, 302, 047	59: 1, 302, 095	87: 1, 304, 095	50: 1, 302, 643	54: 1, 302, 074
82: 1, 304, 081	46: 1, 302, 047	60: 1, 302, 095	88: 1, 304, 095	51: 1, 302, 643	55: 1, 302, 074
83: 1, 304, 081	47: 1, 302, 047	61: 1, 302, 095	89: 1, 304, 095	52: 1, 302, 643	56: 1, 302, 074
84: 1, 304, 081	48: 1, 302, 047	62: 1, 302, 095	90: 1, 304, 095	53: 1, 302, 643	57: 1, 302, 074
85: 1, 304, 081	49: 1, 302, 047	63: 1, 302, 095	91: 1, 304, 095	54: 1, 302, 643	58: 1, 302, 074
86: 1, 304, 081	50: 1, 302, 047	64: 1, 302, 095	92: 1, 304, 095	55: 1, 302, 643	59: 1, 302, 074
87: 1, 304, 081	51: 1, 302, 047	65: 1, 302, 095	93: 1, 304, 095	56: 1, 302, 643	60: 1, 302, 074
88: 1, 304, 081	52: 1, 302, 047	66: 1, 302, 095	94: 1, 304, 095	57: 1, 302, 643	61: 1, 302, 074
89: 1, 304, 081	53: 1, 302, 047	67: 1, 302, 095	95: 1, 304, 095	58: 1, 302, 643	62: 1, 302, 074
90: 1, 304, 081	54: 1, 302, 047	68: 1, 302, 095	96: 1, 304, 095	59: 1, 302, 643	63: 1, 302, 074
91: 1, 304, 081	55: 1, 302, 047	69: 1, 302, 095	97: 1, 304, 095	60: 1, 302, 643	64: 1, 302, 074
92: 1, 304, 081	56: 1, 302, 047	70: 1, 302, 095	98: 1, 304, 095	61: 1, 302, 643	65: 1, 302, 074
93: 1, 304, 081	57: 1, 302, 047	71: 1, 302, 095	99: 1, 304, 095	62: 1, 302, 643	66: 1, 302, 074
94: 1, 304, 081	58: 1, 302, 047	72: 1, 302, 095	100: 1, 304, 095	63: 1, 302, 643	67: 1, 302, 074
95: 1, 304, 081	59: 1, 302, 047	73: 1, 302, 095		64: 1, 302, 643	68: 1, 302, 074
96: 1, 304, 081	60: 1, 302, 047	74: 1, 302, 095		65: 1, 302, 643	69: 1, 302, 074
97: 1, 304, 081	61: 1, 302, 047	75: 1, 302, 095		66: 1, 302, 643	70: 1, 302, 074
98: 1, 304, 081	62: 1, 302, 047	76: 1, 302, 095		67: 1, 302, 643	71: 1, 302, 074
99: 1, 304, 081	63: 1, 302, 047	77: 1, 302, 095		68: 1, 302, 643	72: 1, 302, 074
100: 1, 304, 081	64: 1, 302, 047	78: 1, 302, 095		69: 1, 302, 643	73: 1, 302, 074
101: 1, 304, 081	65: 1, 302, 047	79: 1, 302, 095		70: 1, 302, 643	74: 1, 302, 074
102: 1, 304, 081	66: 1, 302, 047	80: 1, 302, 095		71: 1, 302, 643	75: 1, 302, 074
103: 1, 304, 081	67: 1, 302, 047	81: 1, 302, 095		72: 1, 302, 643	76: 1, 302, 074
104: 1, 304, 081	68: 1, 302, 047	82: 1, 302, 095		73: 1, 302, 643	77: 1, 302, 074
105: 1, 304, 081	69: 1, 302, 047	83: 1, 302, 095		74: 1, 302, 643	78: 1, 302, 074
106: 1, 304, 081	70: 1, 302, 047	84: 1, 302, 095		75: 1, 302, 643	79: 1, 302, 074
107: 1, 304, 081	71: 1, 302, 047	85: 1, 302, 095		76: 1, 302, 643	80: 1, 302, 074
108: 1, 304, 081	72: 1, 302, 047	86: 1, 302, 095		77: 1, 302, 643	81: 1, 302, 074
109: 1, 304, 081	73: 1, 302, 047	87: 1, 302, 095		78: 1, 302, 643	82: 1, 302, 074
110: 1, 304, 081	74: 1, 302, 047	88: 1, 302, 095		79: 1, 302, 643	83: 1, 302, 074
111: 1, 304, 081	75: 1, 302, 047	89: 1, 302, 095		80: 1, 302, 643	84: 1, 302, 074
112: 1, 304, 081	76: 1, 302, 047	90: 1, 302, 095		81: 1, 302, 643	85: 1, 302, 074
113: 1, 304, 081	77: 1, 302, 047	91: 1, 302, 095		82: 1, 302, 643	86: 1, 302, 074
114: 1, 304, 081	78: 1, 302, 047	92: 1, 302, 095		83: 1, 302, 643	87: 1, 302, 074
115: 1, 304, 081	79: 1, 302, 047	93: 1, 302, 095		84: 1, 302, 643	88: 1, 302, 074
116: 1, 304, 081	80: 1, 302, 047	94: 1, 302, 095		85: 1, 302, 643	89: 1, 302, 074
117: 1, 304, 081	81: 1, 302, 047	95: 1, 302, 095		86: 1, 302, 643	90: 1, 302, 074
118: 1, 304, 081	82: 1, 302, 047	96: 1, 302, 095		87: 1, 302, 643	91: 1, 302, 074
119: 1, 304, 081	83: 1, 302, 047	97: 1, 302, 095		88: 1, 302, 643	92: 1, 302, 074
120: 1, 304, 081	84: 1, 302, 047	98: 1, 302, 095		89: 1, 302, 643	93: 1, 302, 074
121: 1, 304, 081	85: 1, 302, 047	99: 1, 302, 095		90: 1, 302, 643	94: 1, 302, 074
122: 1, 304, 081	86: 1, 302, 047	100: 1, 302, 095		91: 1, 302, 643	95: 1, 302, 074
123: 1, 304, 081	87: 1, 302, 047			92: 1, 302, 643	96: 1, 302, 074
124: 1, 304, 081	88: 1, 302, 047			93: 1, 302, 643	97: 1, 302, 074
125: 1, 304, 081	89: 1, 302, 047			94: 1, 302, 643	98: 1, 302, 074
126: 1, 304, 081	90: 1, 302, 047			95: 1, 302, 643	99: 1, 302, 074
127: 1, 304, 081	91: 1, 302, 047			96: 1, 302, 643	100: 1, 302, 074
128: 1, 304, 081	92: 1, 302, 047			97: 1, 302, 643	
129: 1, 304, 081	93: 1, 302, 047			98: 1, 302, 643	
130: 1, 304, 081	94: 1, 302, 047			99: 1, 302, 643	
131: 1, 304, 081	95: 1, 302, 047			100: 1, 302, 643	
132: 1, 304, 081	96: 1, 302, 047				
133: 1, 304, 081	97: 1, 302, 047				
134: 1, 304, 081	98: 1, 302, 047				
135: 1, 304, 081	99: 1, 302, 047				
136: 1, 304, 081	100: 1, 302, 047				
137: 1, 304, 081					
138: 1, 304, 081					
139: 1, 304, 081					
140: 1, 304, 081					
141: 1, 304, 081					
142: 1, 304, 081					
143: 1, 304, 081					
144: 1, 304, 081					
145: 1, 304, 081					
146: 1, 304, 081					
147: 1, 304, 081					
148: 1, 304, 081					
149: 1, 304, 081					
150: 1, 304, 081					
151: 1, 304, 081					
152: 1, 304, 081					
153: 1, 304, 081					
154: 1, 304, 081					
155: 1, 304, 081					
156: 1, 304, 081					
157: 1, 304, 081					
158: 1, 304, 081					
159: 1, 304, 081					
160: 1, 304, 081					
161: 1, 304, 081					
162: 1, 304, 081					
163: 1, 304, 081					
164: 1, 304, 081					
165: 1, 304, 081					
166: 1, 304, 081					
167: 1, 304, 081					
168: 1, 304, 081					
169: 1, 304, 081					
170: 1, 304, 081					
171: 1, 304, 081					
172: 1, 304, 081					
173: 1, 304, 081					
174: 1, 304, 081					
175: 1, 304, 081					
176: 1, 304, 081					
177: 1, 304, 081					
178: 1, 304, 081					
179: 1, 304, 081					
180: 1, 304, 081					
181: 1, 304, 081					
182: 1, 304, 081					
183: 1, 304, 081					
184: 1, 304, 081					
185: 1, 304, 081					
186: 1, 304, 081					
187: 1, 304, 081					
188: 1, 304, 081					
189: 1, 304, 081					
190: 1, 304, 081					
191: 1, 304, 081					
192: 1, 304, 081					
193: 1, 304, 081					
194: 1, 304, 081					
195: 1, 304, 081					
196: 1, 304, 081					
197: 1, 304, 081					
198: 1, 304, 081					
199: 1, 304, 081					
200: 1, 304, 081					
201: 1, 304, 081					
202: 1, 304, 081					
203: 1, 304, 081					
204: 1, 304, 081					
205: 1, 304, 081					
206: 1, 304, 081					
207: 1, 304, 081					
208: 1, 304, 081					
209: 1, 304, 081					
210: 1, 304, 081					
211: 1, 304, 081					
212: 1, 304, 081					
213: 1, 304, 081					
214: 1, 304, 081					
215: 1, 304, 081					
216: 1, 304, 081					
217: 1, 304, 081					
218: 1, 304, 081					
219: 1, 304, 081					
220: 1, 304, 081					
221: 1, 304, 081					
222: 1, 304, 081					
223: 1, 304, 081					
224: 1, 304, 081					
225: 1, 304, 081					

OFFICIAL GAZETTE

OF THE



UNITED STATES PATENT OFFICE

PUBLIC
LIBRARY
HARVARD

VOLUME CCLXIII.

JUNE,

1919.

WASHINGTON
GOVERNMENT PRINTING OFFICE
1919

ERRATA.

1,307,787, page 560, in heading, assignment, assignee, State of incorporation, for "Pennsylvania" read
Delaware.
 1,307,788, page 573, in heading, strike out assignment and insert assignor, by mesne assignments, to S. K. F.
Ball Bearing Company, Hartford, Conn., a Corporation of Connecticut.
 Vol. 263.

CONTENTS.

PATENTS AND DESIGNS GRANTED, JUNE 3, 10, 17, 24.....	Page.
TRADE-MARKS PUBLISHED AND REGISTERED, JUNE 3, 10, 17, 24.....	3, 173, 337, 489
LABELS AND PRINTS REGISTERED, JUNE 3, 10, 17, 24.....	147, 311, 465, 617
DECISIONS OF THE COMMISSIONER OF PATENTS, JUNE 3, 10, 17, 24.....	480
INDEX TO THE DECISIONS OF THE COMMISSIONER OF PATENTS.....	165, 329, 481, 633
ALPHABETICAL LIST OF PATENTERS AND INVENTORS.....	630

ANNOUNCEMENTS.

ADDRESS OF APPLICANT—	Page.
Rule 33.....	487
ADVERSE DECISIONS IN INTERFERENCE—	
Hedins, 1,304,928.....	334
Hutton, 1,139,122.....	334
Lynch, 1,211,951.....	335
Snyder, 1,254,060.....	1
Teple, 1,271,961.....	334
Turner, 1,200,454.....	487
Williams, 1,270,064.....	487
APPLICATIONS—	
Condition of pending.....	2, 172, 336, 488
CLASSIFICATION OF INVENTIONS—	
Changes in—Order 2,495.....	334
Order 2,494.....	334
Order 2,496.....	334
Order 2,497.....	638
COURT OF APPEALS OF THE DISTRICT OF COLUMBIA—	
Amendment of Rule VIII.....	485
Appeal, authority of Commissioner of Patents to extend time for filing transcript.....	334
FOREIGN TRADE-MARK LAWS—	
Paraguay—amendment.....	638
INTERFERENCE NOTICES—	
Diana Company.....	1, 171
Michener & Co., J. H.....	171, 335, 487
Pease, Joseph Grant.....	171, 335, 487
Rival Saw Manufacturing Company of New Jersey.....	1, 171, 335
PATENT OFFICE PUBLICATIONS—	
Where sold.....	487
PATENTS—	
Date of delivery—Rule 100.....	1
List of adjudicated.....	1, 333, 335, 627
Printed copies, price of.....	487
TRADING WITH THE ENEMY ACT—	
List of applications for licenses under enemy-controlled patents.....	334
WAR SAVINGS STAMPS—	
Notice relative to buying.....	1, 171

Sept. 11, 1919

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 263—No. 1.

TUESDAY, JUNE 3, 1919.

Price—\$5 per year.

(PUBLISHED JUNE 3, 1919.)

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page
ISSUE OF JUNE 3, 1919.....	1
INTERFERENCE NOTICES.....	1
ADVERSE DECISIONS IN INTERFERENCE.....	1
ADJUDICATED PATENTS.....	1
DELIVERY OF PATENT.....	1
APPLICATIONS UNDER EXAMINATION.....	2
PATENTS GRANTED.....	3
DESIGNS.....	163
TRADE-MARKS—REGISTRATION APPLIED FOR.....	167
TRADE-MARK REGISTRATIONS GRANTED.....	167
TRADE-MARK REGISTRATIONS RENEWED.....	164
DECISIONS OF THE U. S. COURTS—	
Liquid Carbonic Co. et al. v. Gilchrist Co.....	165
Willard et al. v. Union Tool Co.....	167

Issue of June 3, 1919.

Patents.....	743—No. 1,305,242 to No. 1,305,264, inclusive.
Designs.....	13—No. 53,392 to No. 53,404, inclusive.
Trade-Marks.....	111—No. 124,006 to No. 124,115, inclusive.
Total.....	567

Don't try to argue with Benjamin Franklin.
He said:
*"He that waits upon fortune is never sure
of a dinner. The way to wealth depends
upon industry and frugality."*
Just buy another W. S. S.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 24, 1919.

Diana Company, their assigns or legal representatives,
take notice:

An interference having been declared by this Office between the application of The A. Strassburger Company, Inc., of 925 Fifth Avenue, Pittsburgh, Pa., for registration of a trademark and trade-mark registered December 28, 1911, No. 64,604, to Diana Company, of 321 East Seventy-ninth Street, New York, N. Y., and a notice of such declaration sent by registered mail to said Diana Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Diana Company, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE,
Washington, D. C., May 24, 1919.

Rival Saw Manufacturing Company of New Jersey, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Wilgo Astrup, of Copenhagen, No. 16 Nerregade, Denmark, for registration of a trademark and trade-mark registered May 9, 1909, No. 32,857, to Rival Saw Manufacturing Company of New Jersey, of Camden, N. J., and a notice of such declaration sent by registered mail to said Rival Saw Manufacturing Company of New Jersey at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Rival Saw Manufacturing Company of New Jersey, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

Adverse Decisions in Interference.

PATENT No. 1,254,080.

On April 28, 1918, a decision was rendered that Frederick T. Snyder was not the first inventor of the subject-matter covered by claims 3, 4, 6, 8, 9, 14, 15, 17, 19, 26, 27, and 28 of his Patent No. 1,254,080, subject, "Electrode-holders," and no appeal having been taken within the time allowed such decision has become final.

ADJUDICATED PATENTS.

(U. S. C. C. A. N. Y.) The Burchenal patent, No. 1,135,351, for a homogeneous lardlike food product consisting of incompletely-hydrogenized vegetable oil or cotton-seed oil, Held valid and infringed. *Procter & Gamble Co. v. Berlin Mills Co.*, 256 Fed. Rep., 23.

(U. S. C. C. A. N. Y.) The Weber patents, Nos. 748,206 and 916,812, for electric-lamp sockets, Held infringed. *Weber Electric Co. v. Cutler-Hammer Mfg. Co.*, 256 Fed. Rep., 81.

Delivery of Patent.

RULE 169. The patent will be delivered or mailed on the day of its date to the attorney of record, if there be one; or, if the attorney so request, to the patentee or assignee of an interest therein; or, if there be no attorney, to the patentee or to the assignee of the entire interest, if he so request.

12945

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 30, 1919.

Item No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting other action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Planting; Sowing; Unloaders; Trees, Plants, and Flowers.	Apr. 11	Apr. 8	309
120	2. Bee Culture; Carriages, Shades, and Screens; Dairy; Paper Files and Sanders; Medicines; Pneumatics; Preserving; Prisms; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Jan. 3	Feb. 13	387
175	3. Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Forming; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Apr. 4	Dec. 17	105
204	4. Conveyors; Elevators; Excavating; Hoisting; Material or Article Handling; Pneumatic Dispatch; Picking and Picking Implements; Railway Mail Delivery; Store-Servicing; Traveling Boats.	Jan. 16	Apr. 20	200
167	5. Book-Making; Books, Strips and Leaves; Harvesters; Jewelry; Manufacturing; Music; Printed Matter; Tying Cards or Strands.	Mar. 6	Jan. 10	173
310	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Casting Compositions; Plastic Compositions; Substance Preparation.	Feb. 6	Mar. 18	230
312	7. Educational Apparatus; Games and Toys; Optics; Velocipedes.	Apr. 3	Apr. 24	273
121	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Mar. 24	Apr. 10	190
221	9. Air and Gas Pumps; Hydraulic Motors; Injectors and Ejectors; Motors; Fluid; Motors, Fluid-Current; Pumps.	Jan. 9	Apr. 1	200
205	10. Carriages and Wagons; Motor Vehicles.	Feb. 21	Apr. 17	580
164	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Kyelet, and Rivet Setting; Harness; Leather Manufacture; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Mar. 17	May 7	241
222	12. Journal-Bears, Pulleys, and Shafts; Machine Elements.	Dec. 17	Dec. 2	976
209	13. Ammunition and Explosive Charge Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Driven, Banded, and Screw-Threaded Fasteners; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Jan. 2	Apr. 10	678
220	14. Compound Tools; Cutting and Punching Sheets and Bars; Furriers; Metal-Bending; Packaging Liquids; Sheet-Metal Ware, Making; Tools; Wire Fabric and Structure; Wire-Working.	Mar. 10	Mar. 7	179
208	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabric and Analogous Manufacture; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Jan. 13	Mar. 6	514
112	16. Radiant Energy; Telegraphy; Telephony.	Jan. 4	Jan. 3	646
207	17. Label Fastening and Paper Handling; Ornamentation; Paper Manufacture; Printing; Type Casting; Sheet Material Ascending or Folding; Sheet Feeding or Delivering; Type Setting.	Mar. 20	Apr. 23	204
220	18. Fluid-Pressure Regulators; Liquid Heaters and Vaporizers; Power Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Jan. 24	Apr. 2	512
206	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels.	Mar. 15	Mar. 13	273
170	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Saws; Underlaths.	Apr. 10	May 2	248
313	21. Bells and Gongs; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Rib; Spinning; Weaving; Winding and Reeling.	Nov. 5	Feb. 15	303
202	22. Aerostatics; Firearms; Ordnance.	Feb. 3	Apr. 17	275
217	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Mar. 24	Apr. 14	265
144	24. Apparel; Apparel Apparatus; Garment Supporters; Sewing-Machines.	Sept. 20	Jan. 21	481
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separators.	Apr. 17	Apr. 14	181
105	26. Electricity; Conversion; Motive Power; Prime Mover and Dynamo Plants.	Nov. 6	Jan. 8	611
216	27. Brushing and Polishing; Grinding and Polishing; Laundry; Washing Apparatus.	Mar. 20	Apr. 1	614
203	28. Internal-Combustion Engines.	Jan. 20	Mar. 4	536
167	29. Boring and Drilling; Chucks or Sockets; Coopering; Fire-Engines; Ladders; Rod Joints or Couplings; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Jan. 2	Mar. 1	614
123	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 5	May 13	200
173	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Bins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Gums; Sugar and Salt.	Feb. 17	Feb. 18	813
270	32. Gas and Liquid Contact Apparatus; Heat Exchange; Refrigeration.	Dec. 2	Mar. 10	640
70	33. Bridges; Hydraulic and Earth Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving; Roads and Pavements; Roofs.	Jan. 23	Feb. 14	282
304	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Switches and Signals; Railway Ties and Fasteners; Railway Wheels and Axles; Truck-Benders; Vehicle-Fenders.	Jan. 20	Mar. 19	276
67	35. Buckles, Buttons, Crops, Etc.; Card, Feature, and Sign Exhibiting; Signals; Tolls.	Apr. 22	May 1	281
201	36. Drivers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring.	Apr. 3	Apr. 14	547
197	37. Electric Lamps; Electricity; Circuit Makers and Breakers; Electricity; General Applications.	Jan. 27	Feb. 21	647
278	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Mining; Quarrying, and Ice-Harvesting; Stationery; Stone-Working; Wells.	Apr. 10	Apr. 21	130
220	39. Joint Packings; Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Valved Pipe Joints or Couplings; Valves; Water Distribution.	Dec. 26	Dec. 7	312
275	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Packages and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Mar. 21	Mar. 24	276
120	41. Railway Draft Appliances; Roadster Tires and Wheels.	Feb. 17	Mar. 8	340
114	42. Electricity; Conductors; Electricity-Transmission to Vehicles; Electricity; Conductors; Electric Signaling.	Feb. 1	Jan. 22	481
200	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity; Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Mar. 31	Mar. 14	111
200	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Boats; Ships.	Mar. 5	Apr. 16	90
270	45. Clutches; Lubrication; Motors; Railway Brakes.	Mar. 3	Apr. 15	200

Oldest new case, Sept. 30, oldest amended, Dec. 2

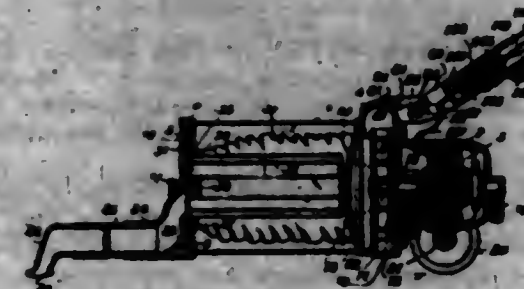
Total number of applications awaiting action..... 10,004

100	TRADE-MARKS, DESIGNS, LABELS AND PRINTS			
	Trade-Marks.....	Apr. 16	May 8	1285
	Designs.....	Apr. 3	Apr. 20	536
	Labels and Prints.....	May 5	May 12	120

PATENTS

GRANTED JUNE 3, 1919.

1,305,242. PNEUMATIC CLEANER. GEORGE W. ALLEN, Boston, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Original application filed Oct. 13, 1913, Serial No. 794,941. Divided and this application filed Oct. 26, 1914. Serial No. 848,670. 1 Claim. (Cl. 15-60.)



A vacuum cleaner having a fan mounted to turn upon a horizontal axis, a fan-casing provided with an axial intake opening, a motor for actuating the fan, a dust conduit having one end communicating with the intake opening of the fan and the other end having a forwardly-projecting socket offset below the intake opening of the fan-casing, wheels for supporting the rear end of the cleaner, a suction-nipple for supporting the front end of the cleaner, and a rigid tubular extension member having its opposite ends formed to provide an air-tight extension member having its opposite ends formed to provide an air-tight fit between the socket and the member and between the member and the suction nipple, said extension tubular member being adapted to rigidly support the nozzle against lateral and fore-and-aft displacement in extended position to permit the cleaner to clean under low articles of furniture, the tubular extension member being readily disconnectible from the socket and from the nozzle, and the end of the nozzle which engages the tubular extension member being formed to fit the socket so that the nozzle may be mounted directly upon the cleaner-body.

1,305,243. MOUNTING TRACTORS UPON THEIR STEERING-AXLES AND STRENGTHENING SUCH AXLES. HERBERT AUSTIN, Bromsgrove, England. Filed Mar. 20, 1919. Serial No. 285,295. 3 Claims. (Cl. 21-102.)



1. The combination, in a tractor, of a steering axle, a pin which projects from the middle of the axle, a sleeve within which the pin is housed and within which it is capable of turning about its axis, said sleeve being pivotally connected at its end which is remote from the axle with the tractor frame, and a spring interposed between the tractor frame and the free end of the sleeve, substantially as set forth.

1,305,244. PRESERVATION OF CITRUS-FRUIT JUICES. RAYMOND F. BACON, Pittsburgh, Pa., assignor to Newmont Company, New York, N. Y., a Corporation of Maine. Filed Oct. 20, 1918, Serial No. 128,785. Renewed Oct. 29, 1918. Serial No. 260,170. 9 Claims. (Cl. 90-9.)

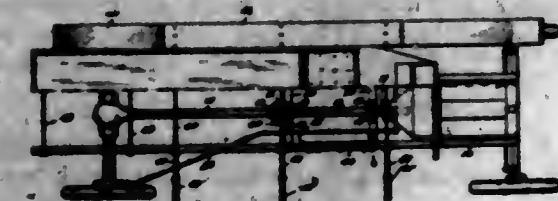
7. In the preservation of citrus fruit juices, the method of preparing them for bottling, which comprises deoxidizing the juices, treating the juices with sulfur dioxide and permitting them to stand until the organisms present are destroyed, and then distilling off the sulfur dioxide with the aid of a non-oxidizing gas passed through the juices; substantially as described.

1,305,245. DEVICE FOR DISPLAYING PHOTOGRAPHS OR THE LIKE. EMILE BARTHELEMY, Chalon-sur-Saône, France. Filed Dec. 22, 1917. Serial No. 208,458. 1 Claim. (Cl. 120-84.)



A device for displaying photographs or the like comprising the combination of a medallion or frame adapted to contain a photograph or photographs with a sheath cut away at its lower end to form a series of spring tongues, and also cut between said tongues and said frame to form a series of claws acting in combination with said tongues to grip the penholder or the like.

1,305,246. MOTOR-VEHICLE. RALPH J. BEAUCHEMIN, Laconia, N. H. Filed Feb. 8, 1918. Serial No. 77,071. 14 Claims. (Cl. 180-16.)



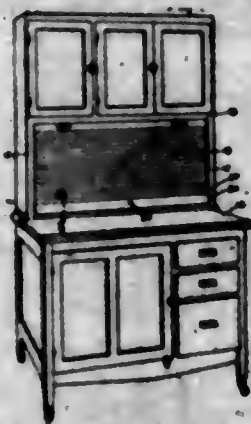
6. In a motor vehicle, the combination with the channelled side-bars of the frame, of a transversely disposed supporting-member, a housing having a pair of oppositely extended lugs thereon fastened to said supporting-member; an extension-shaft arranged in said housing, and a pair of spaced shafts operatively connected to each other by said extension-shaft.

1,305,247. MANUFACTURE OF ELECTRIC CABLES. CHARLES JAMES BEAVER, Hale, and HARVEST ALEXANDER CLAREMONT, High Legh, England. Filed Nov. 27, 1918. Serial No. 204,377. 2 Claims. (Cl. 173-264.)



1. A circular or approximately circular electric cable consisting of two conductors, insulation between such conductors composed of flexible insulating material in an elastic and compressible condition in the form of a strip not thicker than necessary to secure the required elasticity and compressibility and efficient insulation, and an exterior insulation composed of elastic material in the form of two strips respectively folded half around the cable and the edges of the three strips of rubber or other material caused to adhere and become autogenous by pressure with the conductors spiraled around one another substantially as described.

1,305,248. KITCHEN-CABINET. HENRY W. BURTRAM, Frankfort, Ind. Filed Sept. 10, 1918. Serial No. 253,414. 10 Claims. (Cl. 45-16.)



1. A cabinet having a substantially vertically disposed compartment with side walls having upwardly extending grooves therein, a flexible door adapted to fit and operate in said grooves and movable upwardly to closing position and downwardly while being opened, means movably mounted in connection with the cabinet in position to support the flexible door when said door is elevated and hide the flexible door when said door is down in opened position and releasable means for locking the door supporting means in open position.

1,305,249. ATTACHMENT FOR WRENCHES. OLLIE H. BUCK, Kokomo, Ind. Filed Jan. 24, 1918. Serial No. 272,922. 3 Claims. (Cl. 81-60.)



1. The combination with a wrench structure having a ratcheting portion and a socket having a hollow stem extending therethrough, of a crank structure including a shank adapted to enter the stem of the socket, said shank having a lateral bore extending part way therethrough,

a friction ball in said bore, means for forcing the friction ball outwardly against the wall of the hollow stem of said socket and means for limiting the outward movement of the ball in its bore.

1,305,250. MANUFACTURE OF DRY CELLS. CHARLES F. BURGESS, Madison, Wis., assignor to Burgess Battery Company, Madison, Wis., a Corporation of Wisconsin. Filed Oct. 20, 1917. Serial No. 197,553. 5 Claims. (Cl. 204-29.)

2. The method which consists in roasting a manganese oxide ore to convert some of its manganese dioxide to a lower oxide, treating the roasted ore with a dilute mineral acid to dissolve out said lower oxide and leave a porous residue of relatively pure manganese dioxide and intimately mixing said residue with a suitable carbonaceous material to form a depolarizing mix suitable for use in dry cells.

1,305,251. MANUFACTURE OF DRY CELLS. CHARLES F. BURGESS, Madison, Wis., assignor to Burgess Battery Company, Madison, Wis., a Corporation of Wisconsin. Filed Oct. 20, 1917. Serial No. 197,554. 6 Claims. (Cl. 204-29.)

1. The method which consists in treating a manganese oxide ore with a solvent more active thereon than the sal ammoniac-zinc chloride electrolyte commonly employed in dry cells, thereby to dissolve out impurities of the ore, and intimately mixing the purified residue with carbonaceous material to form a depolarizing mix for dry cells.

1,305,252. MANUFACTURE OF DRY CELLS. CHARLES F. BURGESS, Madison, Wis., assignor to Burgess Battery Company, Madison, Wis., a Corporation of Wisconsin. Filed Oct. 20, 1917. Serial No. 197,555. 6 Claims. (Cl. 204-38.)

3. The method of regenerating the partially desiccated depolarizing mix of a worn out dry cell, which consists in washing the mix to remove the electrolyte, treating with dilute mineral acid to dissolve out the lower oxide and render the dioxide porous, then washing and drying the purified mixture, substantially as described.

1,305,253. HEMMER FOR SEWING-MACHINES. JOHN E. CHALMAN, Chicago, Ill. Filed Aug. 3, 1917. Serial No. 184,269. 7 Claims. (Cl. 270-88.)



1. A folder for sewing machines for stitching circular hems, said folder having spaced walls forming a hem folding recess, said walls being shaped so as to be free from projecting portions extending between the hem and the body of the material and crowding the stitching line, whereby the initial stitched portion of the hem may pass through the folder for the completing of the circular hem.

1,305,254. ACETYLENE-GENERATOR. CLAUD J. CLAYTON and GUY J. CLAYTON, Owatonna, Minn. Filed June 27, 1917. Serial No. 177,202. 7 Claims. (Cl. 48-38.)

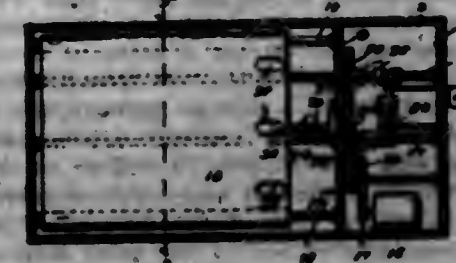
1. An acetylene gas generator comprising a tank adapted to contain a supply of water, a carbid hopper therein, a gas bell encircling said hopper, the top of said hopper and said bell having oppositely arranged openings therein, sleeves mounted on said hopper and said bell re-

spectively and encircling said openings and arranged to telescope with the rise and fall of the gas bell, said hopper sleeve being seated against the top of the bell and



said bell sleeve being seated against the top of the hopper when the bell is in its lowered position, thereby sealing the bell against the escape of gas or the entrance of air therein.

1,305,255. INDICATOR. WILLIAM A. DORRIS and JOSEPH B. FRISH, O'Fallon, Mo. Filed Mar. 19, 1915. Serial No. 15,511. 1 Claim. (Cl. 40-53.)



An indicator comprising, a casing; a pair of parallel shafts mounted within the casing; permanently meshing gear wheels rotatably mounted on said shafts; an indicator cloth arranged on said shafts; means permanently connected with one of said gear wheels for winding said indicator cloth on said shaft; clutch elements arranged on said shafts and having connections with said gears; a lever having connection with said clutch elements; a coil spring connected with said lever and adapted for normally retaining one of said clutch elements in an inoperative position; and means for throwing the other clutch element in an operative position.

1,305,256. TOBACCO-CAN. RICHARD DRAKE, Racine, Wis., assignor to The American Manufacturers Sales Company, a Corporation of Wisconsin. Filed May 22, 1915. Serial No. 29,884. 7 Claims. (Cl. 206-41.)



4. The combination of a protective outer container having substantially parallel sides, whereby its cross

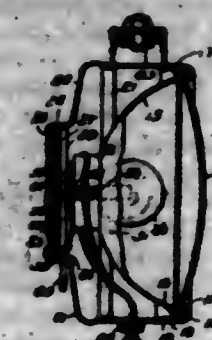
section is substantially uniform throughout its length, and an inner package longitudinally slidable within said container, said container being provided, intermediate its ends, with a member normally lying substantially in the plane of one of the sides of said container and readily bendable inwardly into a self-retaining position to normally form a stop to arrest longitudinal movement of said package within said container, said member being accessible for bending purposes from the exterior of the package.

1,305,257. CHUCK. JAMES C. DUFFENB, Rahway, N. J. Filed Nov. 2, 1917. Serial No. 199,935. 18 Claims. (Cl. 270-74.)



1. In a chuck, the combination of a socket having a seat in its inner wall; a collet removably fitted in said socket and having a bore to receive the tool shank and also having an opening in register with said seat; and a shearing member mounted in the collet and projecting at one end through said opening into said seat, to transmit the normal rotary movement of the socket to the collet, but adapted to break when subjected to excessive pressure so as to uncouple the collet from the socket; said seat having a flared inlet for directing said shearing member end thereinto during the insertion of the collet in said socket.

1,305,258. LAMP. THOMAS I. DUFFY, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Jan. 18, 1917. Serial No. 142,402. 21 Claims. (Cl. 240-41.)



1. A lamp comprising a shell open at its back and provided at its front with a lens supporting flange, a lens fitted against said flange, a glazing ring encircling the lens and engaging the shell wall, a reflector within the casing and bearing at its front end against said glazing ring, interlocking connections between the reflector and shell to prevent rotation of the latter on its axis, a back plate detachably fitted to the shell and means between said back plate and reflector acting to press the latter forwardly against the glazing ring.

1,305,259. UNIVERSAL JOINT. NORMAN G. DUNKINSON, York, Pa. Filed Nov. 4, 1915. Serial No. 59,650. 5 Claims. (Cl. 64-91.)

1. In a universal joint, the combination of two shafts connected together by ball and socket members each having the following instrumentalities; said socket member having two parts, divided in a plane transverse to said shafts, shouldered and bolted together to prevent whipping and having a plurality of recesses circumferentially arranged on the inner surfaces at the juncture of said parts; said ball member having an integral sleeve with a

polygonal bore extending from end to end, and a shaft having a polygonal shaped end adapted for reciprocation with the bore forming a slidable connection, said ball



having a plurality of longitudinal grooves circumferentially arranged thereon, and circular members carried by said grooves and recesses for driving purposes.

1,305,260. COMPRESSED-AIR VALVE AND GAGE. LUCIEN T. EARNHART, Indianapolis, Ind., assignor to Safety First Devices Company, Indianapolis, Ind., a Corporation. Filed May 6, 1916. Serial No. 95,838. 3 Claims. (Cl. 152-12.)



1. The combination of an air valve stem having a reduced air passage through the inner part thereof and the remaining portion thereof having a chamber therein, a valve member having a valve rod reciprocable in said chamber in the valve stem and provided with a needle valve on the lower end for closing the reduced passage through said valve stem, said rod having an air passage longitudinally through it for the admission of air and having laterally extending discharge passageways extending from side to side of said rod, a piston on said valve rod above said lateral discharge of the passageways through the valve rod so that the air pressure in the inner end of the chamber in the valve stem will tend to force said piston and valve rod outward and unseat the valve and admit air through the reduced passage in the valve stem, and means for reseating said valve rod and positively holding the valve in its closed position.

1,305,261. COMPRESSED-AIR VALVE AND GAGE. CHAUNCEY B. EARNHART, Indianapolis, Ind., assignor to Safety First Devices Company, Indianapolis, Ind., a Corporation of Indiana. Filed May 8, 1916. Serial No. 96,119. 8 Claims. (Cl. 152-12.)



1. The combination of an air valve stem, with an air passage therethrough, a movable valve structure for closing

ing the outer end of said air passage, said valve structure having an air opening with a terminal between its ends, a piston carried by said valve structure and positioned above said terminal for causing said valve structure to open when air is entered in the passage way between the passage closing end and the piston, and a dust cap adapted to screw on said valve stem and engage and positively hold said valve in closed position.

1,305,262. COMPRESSED-AIR VALVE AND GAGE. CHAUNCEY B. EARNHART, Indianapolis, Ind., assignor to Safety First Devices Company, Indianapolis, Ind., a Corporation. Filed May 11, 1916. Serial No. 96,742. 10 Claims. (Cl. 152-12.)



7. The combination of an air valve stem with an air passage therethrough and a reduced outer end on said stem, an outer member having a valve at the inner end thereof for opening and closing the passage through the valve stem and having a passage through the outer portion thereof which opens laterally before reaching the valve end of said member, conical wedges on the reduced ends of the valve stem and said outer member outward beyond the discharge end of the passage of said outer member, sleeves on the end of the valve stem and outer member respectively and having tapering seats surrounding said wedges, an elastic impervious tube secured at its ends to said valve stem and outer member by being clamped between said wedges and tapering seats and so as to wholly inclose the reduced portion of said outer member and valve, and a spiral spring surrounding said tube and secured at its ends to said sleeves and tending to hold the valve closed.

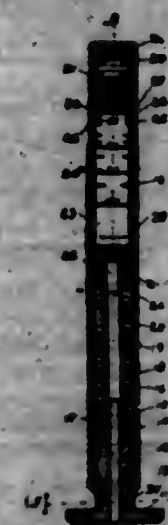
1,305,263. PRESSURE-INDICATING AIR-VALVE. CHAUNCEY B. EARNHART, Indianapolis, Ind., assignor to Safety First Devices Company, Indianapolis, Ind., a Corporation. Filed July 24, 1916. Serial No. 110,907. 9 Claims. (Cl. 152-12.)



1. An air valve for pneumatic tires, tanks or other receptacles for air under pressure including a stationary

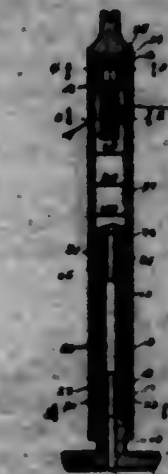
tubular member, a member longitudinally and yieldingly movable in said stationary member and always directly subject to the influence of the air pressure in said tire, tank or other receptacle and having pressure indications thereon to indicate the pressure of the air, and a needle valve integral with the movable member adapted to engage and close communication through the stationary member, said two members being formed so that the inner member can have no turning or angular movement within the other member.

1,305,264. VALVE FOR PNEUMATIC TIRES. CHAUNCEY B. EARNHART, Indianapolis, Ind., assignor to Safety-First Devices Company, Indianapolis, Ind., a Corporation. Filed July 9, 1917. Serial No. 179,466. 7 Claims. (Cl. 152-12.)



1. An air valve for receptacles for fluid under pressure including a stationary member, a member the inner surface of which is circular in cross section and having the opening in its outer end restricted and substantially oval shaped longitudinally and yieldingly movable in said stationary member under the influence of the air pressure in said receptacle, said movable member being substantially oval shaped in cross section to fit the opening in the outer end of the stationary member, and pressure indications thereon to indicate the pressure of the fluid, and a circular collar on the lower portion of said movable member for forming a shoulder adapted to engage and be stopped by the oval opening of said stationary member when forced to its upper extremity.

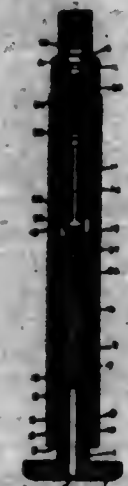
1,305,265. PRESSURE-INDICATING VALVE. CHAUNCEY B. EARNHART, Indianapolis, Ind., assignor to Safety First Devices Company, Indianapolis, Ind., a Corporation. Filed Aug. 24, 1917. Serial No. 188,006. 6 Claims. (Cl. 152-12.)



1. Valve mechanism for pneumatic tires and the like, including a valve stem externally threaded, a sleeve there-

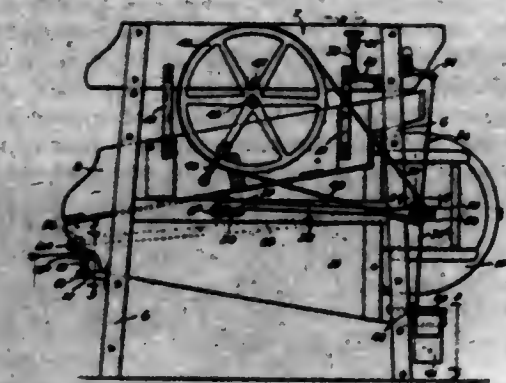
on, a valve-carrying gage member in said sleeve, a rubber tube connecting the valve-carrying member and the stem, a metal union projecting into the valve stem and the adjacent end of the rubber tube and having a shoulder enlargement over which the end of the rubber tube is stretched and between which and the valve stem the end of the rubber tube is pinched to make an air tight connection, and means surrounding the rubber tube and said enlargement of the metal union for forcing said shoulder and metal union toward the valve stem.

1,305,266. AIR-VALVE STRUCTURE. CHAUNCEY B. EARNHART, Indianapolis, Ind., assignor to Safety First Devices Company, Indianapolis, Ind., a Corporation of Indiana. Filed July 26, 1918. Serial No. 246,875. 7 Claims. (Cl. 152-12.)



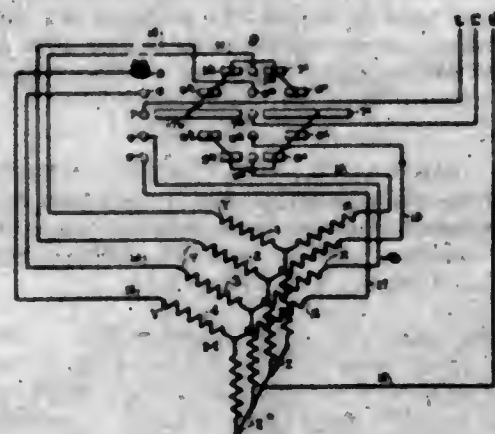
1. In a valve structure, the combination with a valve stem having a bore therethrough, a seat at the inner end of the valve stem, and a sleeve attached to the valve stem, of a plunger slidably mounted in the sleeve, an inwardly extending stem on said plunger, said latter stem having a transverse port, and the plunger having a bore communicating therewith, a band loosely surrounding the plunger stem, a tensioning device having one of its ends secured to said valve stem and the opposite end to said band, and means on the plunger stem for expanding said tensioning device when the plunger is moved outwardly.

1,305,267. GRAIN-SIEVE. NELS G. EK, Minneapolis, Minn., assignor to Foston-Carpenter Company, St. Paul, Minn., a Corporation of Minnesota. Filed Sept. 29, 1917. Serial No. 193,940. 2 Claims. (Cl. 180-15.)



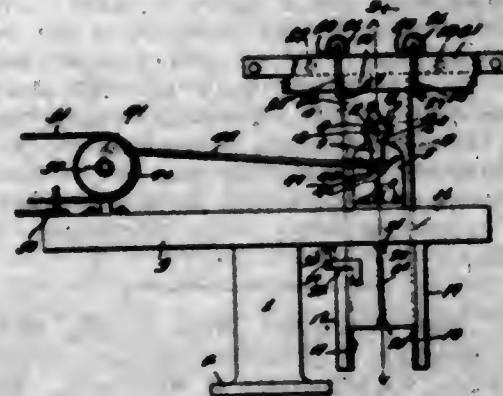
1. In a fanning mill, the combination with a fan having a shaft with a crank head at one end, of a vibratory shoe-equipped shoe, a vibratory feed device, a vibratory discharge trough, a pitman connected to said crank and to said shoe, and two connecting rods pivoted to the head of said pitman at points offset from the axis of the pivotal connection between said crank and pitman head, the one being connected to said feed device and the other to said trough, whereby said shoe, feed device and trough are vibrated from the single crank carried by the fan shaft.

1,305,268. CIRCUIT-CONTROLLER. CLARENCE T. EVANS, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Apr. 15, 1916. Serial No. 91,360. 9 Claims. (Cl. 172-179.)



1. In a controller for an alternating current motor having a plurality of polyphase windings, in combination, a plurality of sets of stationary contacts, certain of each set for connection to the motor windings and others of each set for connection to a polyphase supply circuit and a contact drum having a plurality of sets of segments to co-operate with said contacts for commutation and phase reversal of the motor windings, the sets of commutating segments being identical.

1,305,269. MORTISING-MACHINE. JOHN W. EVIL-ALLEN, Iantha, Mo. Filed Feb. 2, 1917. Serial No. 146,139. 2 Claims. (Cl. 144-90.)

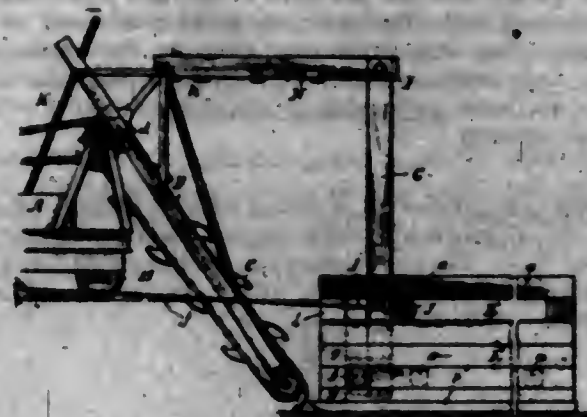


1. In a mortising machine, a bed frame having a guide, a carriage reciprocating in said guide and having a work holder at its upper end, said work holder comprising a timber holding member extending transversely of the upper end of the carriage and provided with lugs to penetrate the piece of timber to be held, said timber holding member having upwardly extending arms, a pair of screws mounted in said arms and having at their forward portions downwardly right angle extending parts terminating in inwardly extending lugs, and means threaded on the screws to draw the right angle extending parts and lugs against the forward and underface portions respectively of the piece of timber, whereby the first lugs are held in penetrating contact with the timber.

1,305,270. BANK-SUPPORT. MORRIS FARRAR, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Aug. 22, 1917. Serial No. 187,712. 11 Claims. (Cl. 37-24.)

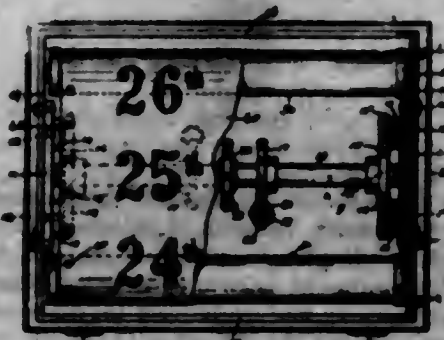
8. In combination with a trenching machine, a pair of side walls adapted to bear against the opposite sides of the trench, shoes to support the side walls on the bottom of the trench, a member extending transversely to connect together the front ends of said walls, an upright member having its lower end portion supported by said

transverse member, flexible draft connections extending rearward from the trenching machine, means to impose the pull of said flexible connections on said upright member at a point above said transverse member, a longi-



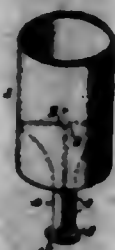
tudinal member extending forward from the upper end of said upright member, and a support on the trenching machine for the forward end of said longitudinal member, said transverse member being disposed adjacent to said shoes.

1,305,271. STREET-INDICATING DEVICE. EDWARD P. FOLLETT, Duluth, Minn. Filed Aug. 11, 1917. Serial No. 185,787. 5 Claims. (Cl. 40-90.)



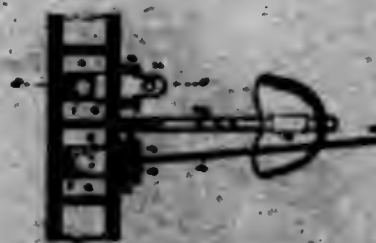
5. The combination with a street-indicator of the character described comprising a pair of vertically spaced rollers having an indicating film cooperatively wound thereabout, a shaft intermediate of the rollers, means upon the shaft and engageable with the film for operating the latter and means for operating the shaft, of a disk fixed to the shaft and having a plurality of notches in the peripheral edge thereof and a spring controlled roller engageable with the notches for holding the disk yieldably by such engagement substantially as described.

1,305,272. AIR-VALVE FOR CARBURETERS. JULIUS L. FRITZ, Fairview, Pa., assignor to Ernest Hayward Fairbanks, Merchantville, N. J. Filed Oct. 22, 1917. Serial No. 197,949. 4 Claims. (Cl. 261-62.)



1. As an improved article of manufacture the herein described air valve for carbureters for internal combustion engines, comprising a hollow, open-ended shell, and a baffle plate of less diameter than the diameter of said shell supported from said shell at a point below the latter and provided with a centrally located mixture balancing port extending therethrough.

1,305,273. GRAIN-DRILL HOPPER. MARTIN J. FARR, Mitchell, Neb. Filed Dec. 12, 1917. Serial No. 204,777. 1 Claim. (Cl. 193-45.)



A grain drill hopper having a discharge opening in its bottom, a slide plate movable on the bottom of the hopper to control the flow through said opening and having an extension projecting out through one side wall of the hopper and provided with an aperture for the engagement of a hooked end of an operating rod adapted to be manipulated by hand for opening and closing a number of similar slide plates, and flanges projecting outwardly from said wall of the hopper at opposite sides of said extension and extending upwardly to receive said hooked end of the rod therebetween and guide it downwardly to the aperture of said extension.

1,305,274. DIE-PRESS. KARL GAMMEL, Cleveland, Ohio, assignor to The Cleveland Macaroni Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 11, 1914. Serial No. 884,228. Renewed Sept. 14, 1917. Serial No. 191,499. 5 Claims. (Cl. 107-14.)



2. In a die press for forming edible pastes, the combination with a cylinder having a die plate adjacent one end thereof and a reciprocating plunger adapted to force the paste from said cylinder through said die plate, said plunger having a loose fit therein and provided with a head, of a soft metal and continuous packing ring demountably fixed in position on said head with a portion thereof fixed relative to said head and another portion designed to be distorted by the pressure on the paste into frictional tight engagement with the wall of said cylinder.

1,305,275. BUTTON-FORM. BERTHA M. GUN, Kelowna, British Columbia, Canada. Filed Nov. 1, 1918. Serial No. 200,693. 3 Claims. (Cl. 24-112.)



1. A separable button form comprising a cupped front member whose rear edge is cylindrical and provided with

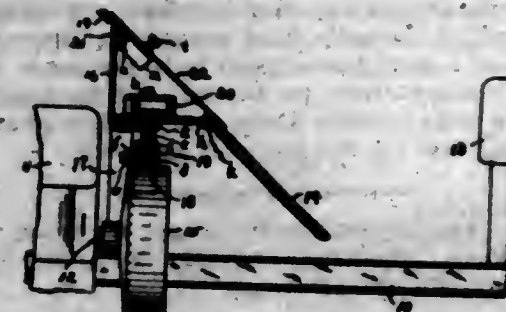
inwardly projecting lugs, a fabric covering this member and turned inward under its edge, a ring fitting within said edge and provided with notches receiving said lugs, a rear member engaging the rear edge of the front member and ring, and a screw connection between said front and rear members.

1,305,276. FURNITURE-CASTER. JAMES GIBSON, Chicago, Ill., assignor of one-half to Lewis Schiller, St. Louis, Mo. Filed Nov. 11, 1918. Serial No. 262,043. 2 Claims. (Cl. 16-151.)



2. In an anti-friction ball bearing furniture caster, the combination with the body or shell having a concavity, and with a large single ball, and smaller anti-friction balls within the concavity bearing on the upper surface of the large ball and with a removable cap having an upwardly-extended flange provided with screw threads upon its outer surface, and having a groove upon the inner side of said flange, and notches leading to said groove, of an anti-friction ring supported by said cap within said groove, and lugs upon said ring adapted to enter said notches and groove, said shell having screw threads adapted to receive the screw threads on the flange on said cap.

1,305,277. LOCKING MEANS FOR MOTOR-VEHICLES. JAMES E. GOODWILL, Omaha, Neb. Filed Sept. 28, 1918. Serial No. 256,010. 4 Claims. (Cl. 180-82.)

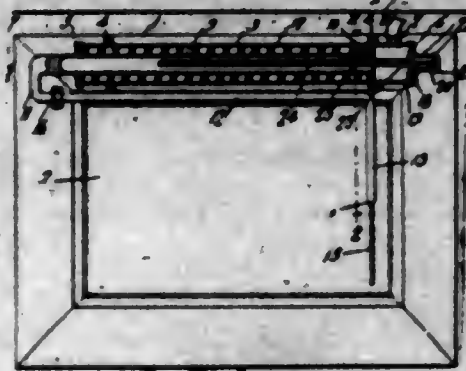


1. In a locking means for a vehicle having an engine shaft and a fly wheel, a receptacle provided with a lid and having an interiorly threaded part disposed in stationary spaced relation with reference to the periphery of the fly wheel, a brake-shoe, a bolt engaging the brake-shoe and the threaded part of the receptacle and projecting within the latter, control-devices within the receptacle for rotating the bolt for moving the brake-shoe into engagement with the periphery of the fly wheel, and means for securing the lid in locked relation with the receptacle.

1,305,278. WINDOW-CLEANER. WALTER C. GRAHAM, Hampton, Va. Filed Mar. 7, 1919. Serial No. 281,116. 3 Claims. (Cl. 15-60.)

1. A window cleaner embodying a cylinder having a pressure fluid inlet, and a pressure fluid outlet at one end, and a plunger slidable through the other end of the

cylinder, a swab connected to the plunger, a valve for normally closing the pressure fluid outlet, spring means



for returning the plunger, and means for opening said valve when the plunger is advanced a predetermined distance.

1,305,279. EJECTING MECHANISM FOR CORE-MAKING MACHINES. JOHN GRAYES, Madison, Wis., assignor to French Battery & Carbon Co., Madison, Wis., a Corporation of Wisconsin. Filed Jan. 25, 1919. Serial No. 273,184. 10 Claims. (Cl. 22-10.)



1. In mechanism of the class described, a reciprocable tamping tool, a normally fixed plunger in line with the tamping tool, a mold for material to be tamped so located that said plunger forms its bottom, and mechanism for moving the mold member along said plunger away from the tamping tool, for the purposes set forth.

1,305,280. TRACTION-BELT. JOHN E. GROSS, Walla Walla, Wash. Filed July 17, 1918. Serial No. 245,297. 3 Claims. (Cl. 21-150.)

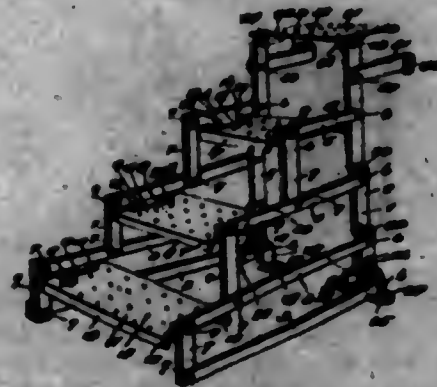


1. A traction belt composed of a flexible cable helically wound with the convolutions laid side by side, and top and bottom cross members between which the cable is clamped laid in the manner stated.

1,305,281. FOLDABLE STEPS OR STEP-LADDER. WILLIAM A. B. HALL, Muscatine, Iowa. Filed Oct. 31, 1918. Serial No. 260,477. 4 Claims. (Cl. 227-18.)

1. In a series of collapsible steps, the combination with a pair of parallel uprights, of a series of bars of varied

lengths pivoted to the uprights whereby they may extend horizontally outwardly in superimposed positions, or extend substantially perpendicular, a series of vertical



bars pivotally connecting between the first bars, and a series of tread plates fixed between the first bars, and a tread plate pivotally mounted between the upper ends of the uprights.

1,305,282. HEAD OR TAIL LIGHT FOR AUTOMOBILES. ISAAC NEWTON HEARTILL, Austin, Tex. Filed Jan. 6, 1917. Serial No. 140,957. 5 Claims. (Cl. 40-182.)



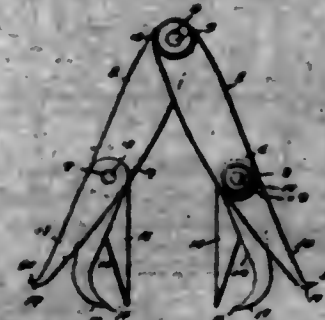
1. A direction indicating head or tail light, comprising a body portion with a series of cup-like receptacles projecting therefrom, holding means for electric lamp bulbs at the base portions of the cup-like receptacles, glass cover members individual to and mounted in the ends of the cup-like receptacles remote from the body portion, and a reflector in each cup-like receptacle lodged between and directly engaged and clamped by the glass member and the base portion of the cup.

1,305,283. FILE HANDLE OR HOLDER. OSCAR L. HUCKMANN, St. Charles, Mo. Filed Dec. 18, 1918. Serial No. 267,275. 4 Claims. (Cl. 29-80.)



1. In a file handle or holder, the combination with a frame provided with forward and rear depending arms, the lower end of the forward arm having a notch to be engaged by the file blade, of a vice having separable jaws and being detachably connected to the lower end of the rear arm, the lower end of the rear arm having an enlargement rectangular in cross section, the upper end of the jaws of the vice having L-shaped recesses to engage said enlargement to hold the vice rigid with relation to the arms, the lower ends of said jaws having means for engaging the shank of the file blade to clamp the file firmly.

1,305,284. FOLDING INSIDE AND OUTSIDE CALLIPERS AND COMPASSES. ISAAC O'R. HOWITT, Berkeley Springs, W. Va. Filed Mar. 8, 1918. Serial No. 221,154. 1 Claim. (Cl. 32-140.)



In a combination tool, a pair of members, means for pivotally uniting corresponding ends of said members, whereby they are foldable in either direction, said pivoting means comprising a double headed pin, washers adjacent the outer faces of the pivotally united ends of said members, and in which the heads of the pin are counter-sunk, a spacing member on the pin between said members for holding the same spaced, the adjacent faces of the other disconnected ends of said members having double headed pins, and inside and outside calliper members and a compass element pivotally mounted on said headed pins, whereby they are foldable between the pivotally united members.

1,305,285. ADJUSTABLE FIXTURE FOR ELECTRIC LAMPS. CHARLES A. HINDELL, Troy, N. Y. Filed Dec. 12, 1914. Serial No. 876,840. 5 Claims. (Cl. 248-2.)

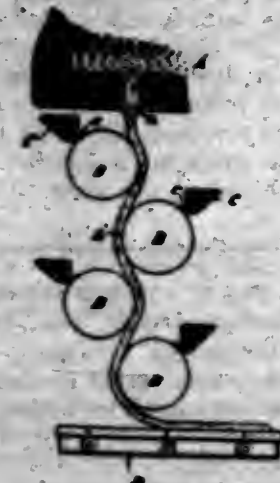


5. An electric lamp-fixture comprising in combination a bracket having a substantially U-shaped base forming an open pipe-bearing with divergent walls, one branch of said base having screw-mechanism engageable with a pipe inserted in said open bearing, said bracket having an apertured clamping-member extending from the other branch of said base, another clamping-member complementary to said first-mentioned clamping-member, a screw-bolt for drawing said clamping-members together, and a pair of clamping-disks embraced between said clamping-members and provided in their neighboring faces with complementary grooves forming a seat for a lamp-supporting-arm.

1,305,286. PROCESS OF MANUFACTURING SHEET-GLASS. EMMET HOPKINSON, East Orange, N. J. Filed May 18, 1914. Serial No. 839,235. 6 Claims. (Cl. 40-87.)

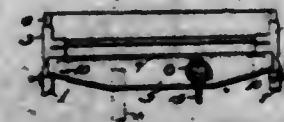
1. The method of making sheet glass by causing a stream of molten glass to flow from a source of supply free from any contacting surface and then causing it to

travel in a sinuous path and thereby effecting surface formation on both sides, the concave surfaces being in



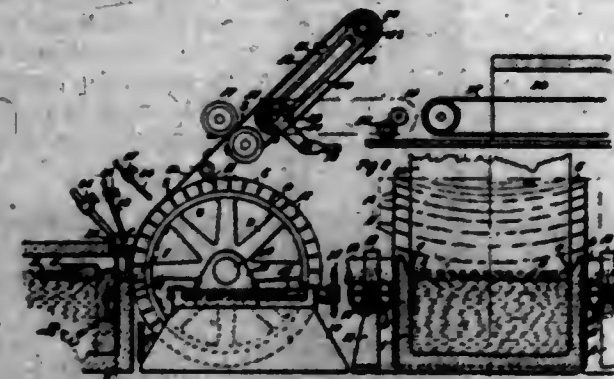
contact with forming devices and the convex surfaces being free during said travel.

1,305,287. INSTRUMENT-BOARD. DONALD F. JOHNSTON, Toronto, Ontario, Canada, assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Apr. 15, 1918. Serial No. 228,547. 4 Claims. (Cl. 180-90.)



1. In combination with a vehicle body having a cowl with a depending edge extending transversely of the body and side sills in a plane below said edge, an instrument board wedged in place with its upper edge engaging the cowl edge and with its end portions lodged upon the sills.

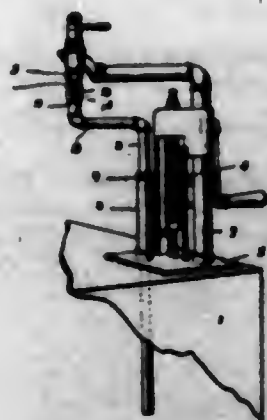
1,305,288. PROCESS AND APPARATUS FOR DRAWING SHEET-GLASS. JULIAN H. KENDIS, Pittsburgh, Pa. Filed July 19, 1916. Serial No. 110,096. 26 Claims. (Cl. 40-3.)



1. The herein described process of making sheet glass which consists in drawing a plastic sheet of glass directly from the surface of a body of molten glass upwardly, while plastic, over a smooth supporting surface that will not mar the glass, inclined from the perpendicular so as to support the glass in sheet form substantially from the point of emergence from the body of glass to a remote point, in moving the supporting surface which is in contact with the glass with respect to the glass while the glass is being drawn, and in permitting the glass to cool.

16. In combination with a machine for drawing sheet glass having a tank for containing molten glass and a means for drawing glass directly from the surface thereof, a continuously turning roll provided with a surface that will not mar the glass and disposed so as to support the plastic glass in sheet form as it is being drawn substantially from the point of emergence of the sheet from the molten glass to a remote point, the surface of the roll in contact with the glass being adapted to be moved with respect to the surface of the glass in contact with the roll.

1,305,289. FLUID-DISPENSING APPARATUS. CHARLES W. KINCAID, Dallas, Tex., assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass., a Corporation of Massachusetts. Filed Nov. 11, 1918. Serial No. 261,944. 3 Claims. (Cl. 221-72.)



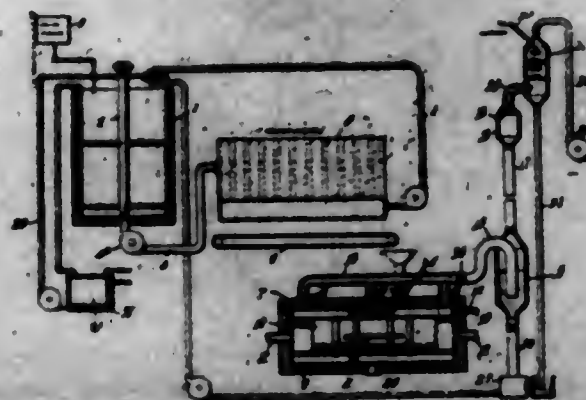
1. In combination with a reservoir and a dispensing faucet, a means for catching the drip from the faucet and conveying the drip to the reservoir, said means supported to swing by gravity under the faucet to inclose the same when the receiving vessel is withdrawn from the faucet.

1,305,290. PUMP. WILL T. KRAUSS, Dinuba, Calif. Filed May 10, 1918. Serial No. 233,730. 6 Claims. (Cl. 252-100.)



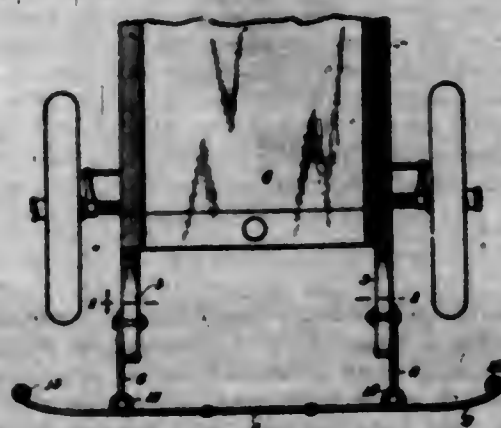
1. The combination with a well casing, of a cylinder of substantially equal diameter to the casing, a plate disposed in said cylinder and of smaller diameter than the cylinder to thereby leave a discharge outlet about the edge of the said plate, a rotary impeller mounted beneath said plate and within the cylinder and an intake collar carried by the impeller and journaled centrally in the bottom of said cylinder.

1,305,291. METHOD OF MANUFACTURING DEXTRINE, GUMS, AND MODIFIED STARCHES. ADOLPH W. H. LENDERS, Cedar Rapids, Iowa, assignor to Douglas Company, Cedar Rapids, Iowa, a Corporation of Delaware. Filed July 5, 1917. Serial No. 178,733. 31 Claims. (Cl. 127-23.)



12. The method of manufacturing a starch product of the class specified which consists in producing a homogeneous mixture of starch, acid and water, the latter in volume sufficient to make the mixture substantially liquid, reducing the liquid content of the mixture by pressing, and subjecting the material while moist but in a relatively solid state, to heat in a vacuum and first drawing off the vapors as formed to maintain the vacuum, and thereafter breaking the vacuum and allowing the vapors to remain in contact with the material while continuing the application of heat.

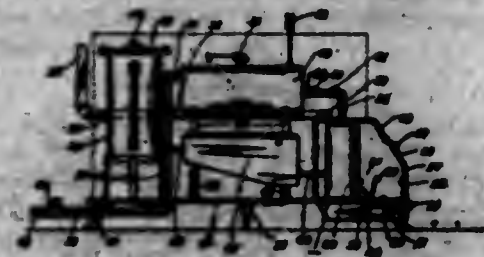
1,305,292. BUMPER FOR AUTOMOBILES. GEORGE F. LOWE, New York, N. Y. Filed Sept. 5, 1918. Serial No. 118,466. 8 Claims. (Cl. 293-55.)



3. The combination with a vehicle, two spaced apart pivot pins, of a bumper engaging said pins and comprising two rods disposed parallel to each other and positioned close together with the rods looped about each pivot pin and extending in opposite directions therebeyond.

1,305,293. HEATER. MINALY LUTNEY, Detroit, Mich. Filed Mar. 9, 1918. Serial No. 221,430. Renewed Apr. 4, 1919. Serial No. 287,035. 1 Claim. (Cl. 122-4.) In a heater, the combination with a furnace having vertical tubular boilers therein, of a plurality of grate bars below said boilers, and extending toward the front

of said furnace, a second plurality of grate bars hingedly engaged at the ends of said stationary grate bars, and



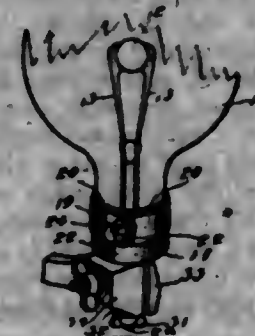
means for operating said hinged grate bars in order to force the fuel against said boilers, or to align the same in the plane of said stationary grate bars.

1,305,294. BUILDING-TILE. DAVID MCINTYRE, Cleveland, Ohio, assignor to M. and M. Concrete and Machinery Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 18, 1917. Serial No. 143,027. 4 Claims. (Cl. 73-41.)



1. A hollow tile formed with continuous air spaces extending from top to bottom and having its walls formed with vertical ribs and with arches joining said ribs into pairs.

1,305,295. INCANDESCENT ELECTRIC LAMP. CLARENCE H. MCKAY, Reading, Mass. Filed Jan. 2, 1918. Serial No. 209,901. 4 Claims. (Cl. 176-40.)



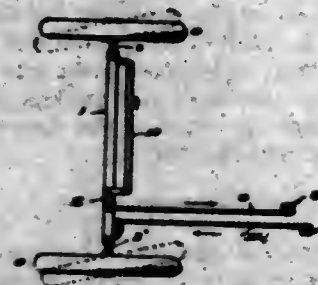
1. An incandescent electric lamp comprising an incandescent member and formed to overlap decending member of thin sheet material having parallel sides, separately formed leading-in members adapted to and exert clamping pressure on edge portions of the opposite sides thereof, and a bulb inclosing said members.

1,305,296. PROCESS OF RENDERING OBJECTS LESS VISIBLE AGAINST BACKGROUNDS. WILLIAM ANDREW MACKAY, Coytesville, N. J., assignor of one-half to Joseph O. Fisher, Lewiston, Me. Filed Sept. 4, 1917. Serial No. 180,543. 7 Claims. (Cl. 114-15.)



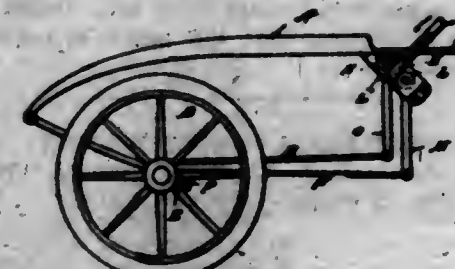
1. The process of decreasing the visibility of a ship at sea which consists in painting the outline of a body of water on said ship, and in patches of color as proportioned as to shade and area as to reflect into the eye rays of light closely simulating those reflected by said water, substantially as described.

1,305,297. STEERING-GEAR. JOSEPH E. MARCEAU, Fairbury, Ill. Filed June 19, 1918. Serial No. 240,521. 2 Claims. (Cl. 21-190.)



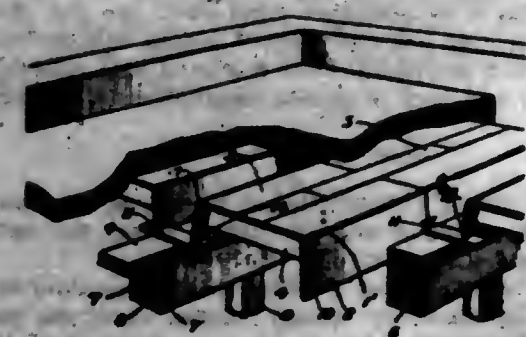
1. In combination with an axle, a pair of ground wheels including their knuckles mounted independently of one another, a steering column including a worm, and a worm-wheel at substantially diametrically opposite sides of the worm in engagement with it, each worm wheel including an arm, of a separate element operatively connecting each of the arms with one of said knuckles, said knuckles being otherwise free and independent of one another.

1,305,298. STEERING-GEAR. JOSEPH E. MARCEAU, Fairbury, Ill. Filed Sept. 22, 1916. Serial No. 121,642. Renewed Aug. 5, 1918. Serial No. 248,497. 2 Claims. (Cl. 21-190.)



1. In a steering gear for horseless vehicles, a pair of road wheels, a steering arm for each wheel, a rod connecting the arms, and a steering column and its worm located at one side of the vehicle, a pair of worm wheels engaging the worm at opposite sides, an arm depending from each worm wheel, a rod connected to each of said depending arms, both rods extending forward to and one of them having attachment with one of the steering arms, a bell-crank, means operatively connecting one arm of the same with one of the steering arms, the other rod having connection with the other arm of the said bell-crank, the parts being arranged whereby opposite directions of movement of the rods will transmit the same direction of movement to the wheels.

1,305,299. DOME FOR CONCRETE STRUCTURES. EDWARD C. MARQUA, Kansas City, Mo. Filed Jan. 11, 1918. Serial No. 211,415. 4 Claims. (Cl. 25-131.5.)



3. The combination with parallel supporting beams, of domes arranged in abutting alignment between said beams, each of said domes having substantially vertical

side walls adjacent to the beams and provided at their respective ends with notches registering with corresponding notches in the abutting end of the next succeeding dome, plates resting upon the beams and having their respective longitudinal edges engaging aligning notches in adjacent domes, the plates being provided with angular slots adjacent to their respective ends and keys comprising angles engaging the slots and having their respective edges bearing against the sides of the domes to lock the domes to the supporting plates.

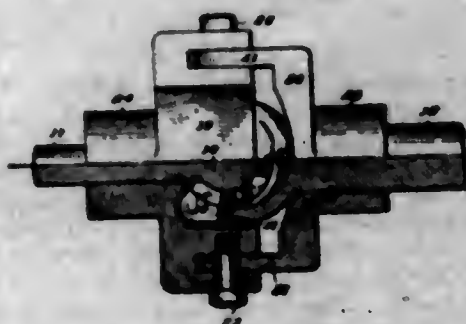
1,305,300. ALUMINUM ALLOY. ARCHIBALD O. MASON, Chicago, Ill. Filed July 1, 1918. Serial No. 242,832. 2 Claims. (Cl. 75-1.)

1. An alloy of aluminum, copper, and zinc, substantially in the proportions of 91 per cent. aluminum, 6 per cent. copper, and 2 per cent. zinc.

1,305,301. PROCESS OF SYNTHETICALLY PRODUCING TROPIC ACID. EMIL MÜLLER, Basel, Switzerland, assignor to The Hoffmann-La Roche Chemical Works, New York, N. Y., a Corporation of New York. Filed Dec. 16, 1916. Serial No. 187,299. 3 Claims. (Cl. 23-24.)

1. In the method of making tropic acid synthetically, the steps which consist in treating an oxymethylenebenzylacetic acid alkyl ester with a reducing substance whereby a tropic acid ester is produced and then reacting with a saponifying agent upon such tropic acid ester under such conditions that the latter is converted into tropic acid.

1,305,302. UNIVERSAL DRIVING-JOINT. JAMES V. MUNSON, Portland, N. Y. Filed June 28, 1917. Serial No. 177,478. 1 Claim. (Cl. 74-103.)

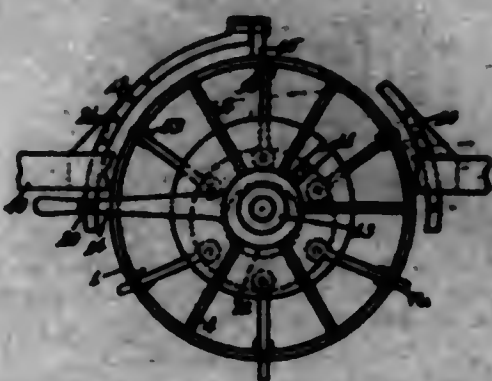


A universal joint comprising a shaft having a substantially hemispherical socket member rigid on one end thereof, said socket member being provided with recesses in the outer face thereof, radial inwardly projecting screws threaded through the sides of said socket member adjacent the open end of the latter, locking screws within said recesses to retain the inwardly projecting screws in position, anti-friction rollers journaled upon said inwardly projecting screws within the socket member, and a second shaft having a ball member rigid upon one end thereof, said ball member being positioned within said socket and provided with peripheral slots receiving said rollers, said slots being arranged in planes longitudinally of said second shaft.

1,305,303. TRACTOR-WHEEL. VICTOR E. NELSON, Detroit, Mich. Filed Oct. 10, 1917. Serial No. 197,418. 3 Claims. (Cl. 21-210.)

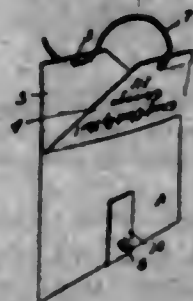
1. In a tractor wheel, a wheel rim having slots in substantially equidistantly spaced relation about the periphery, radially positioned blades reciprocable in the slots, a hub to which the rim is secured, the hub consisting of two parts in spaced relation secured together, an eccentric band between the hub members to which the blades are

attached, an eccentric positioned within the rim having a hub on which the wheel hub may ride, and means for



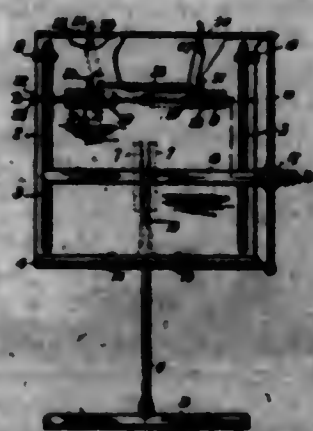
turning the hub to vary the relative position of the eccentric about the center of rotation of the wheel.

1,305,304. ENVELOP. JOHN O'BRIEN, St. Paul, Minn. Filed Dec. 3, 1917. Serial No. 305,032. 1 Claim. (Cl. 229-72.)



In an envelop comprising a rectangular pocket member having two flat sides and an opening along one edge, said sides extending beyond the opening to form a closure flap on either side thereof, said closure flaps being foldable collectively in either direction over said open end against the outer sides of said pocket member, each of the flaps having an opening near its outer edge, the flaps being arranged one over the other when so folded as to bring said openings into registering relation, a button on each of said sides, and a cord attached to one of said flaps and strung through the opening of the other flap and to be tied to one of said buttons to hold the flaps closed.

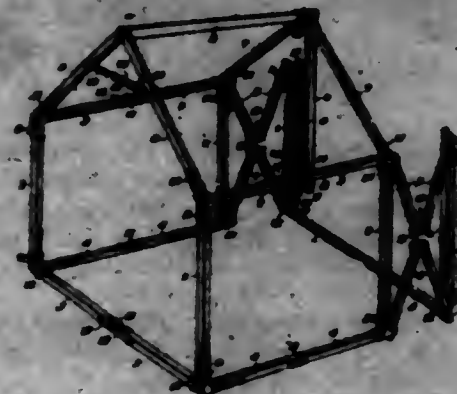
1,305,305. COPY-HOLDER. VIRGINIA PITTS, Denver, Colo. Filed Apr. 12, 1918. Serial No. 228,103. 14 Claims. (Cl. 120-23.)



1. A copy-holder comprising a book-support, a pair of cooperative spring-urged clamping-members adapted to frictionally engage the opposite edges of a book placed

upon said support, and a second pair of spring-urged clamping-members cooperating with the others and adapted to hold the upturned leaves of a book placed between the first-mentioned members, by frictionally engaging the opposite edges thereof.

1,305,306. FOLDING FRAME FOR PORTABLE BUILDINGS. MARTIN RASMUSSEN, Racine, Wis., assignor to Gold Medal Camp Furniture Manufacturing Co., Racine, Wis., a Corporation of Wisconsin. Filed Dec. 24, 1914. Serial No. 870,008. 11 Claims. (Cl. 123-4.)



1. In a folding frame for portable buildings the combination with posts, of sills and plates each composed of sections pivotally connected with each other and with the ends of the posts and adapted to fold between and parallel with the posts and to unfold at right angles thereto.

4. In a folding frame for portable buildings the combination with posts, of plates and side sills each composed of two sections pivotally connected with each other and with said posts adjacent to the ends thereof, and sills pivoted at the ends to the side sills adjacent to the posts and composed of sections pivotally connected with each other, and rafters pivotally connected at their lower ends with the upper ends of the posts and adapted to fold inwardly parallel therewith and with the folded plate and sill sections.

6. In a folding frame for portable buildings the combination with posts, of folding plates and side sills pivotally connected with the posts adjacent to their ends and each composed of two sections pivotally connected with each other, folding end sills pivotally connected with the side sills adjacent to the posts at the corners of the frame and each composed of two sections pivotally connected with each other, rafters pivotally connected at their lower ends with the upper ends of the posts and adapted to fold parallel therewith and with the folded plate and sill sections, leaving a longitudinal opening, and a folding ridge pole adapted to be detachably fastened to the upper ends of the rafters at opposite ends of the frame and when detached and folded to be inserted in the opening left between the other folded frame members.

8. In a folding frame for portable buildings the combination with posts, of folding plates and sills pivotally connected with the posts adjacent to their ends and each composed of pivotally connected sections, and rafters pivotally connected at their lower ends with the upper ends of the posts and adapted to fold parallel therewith and with the folded plate and sill sections.

11. In a folding frame for portable buildings the combination with posts, of folding plates and sills pivotally connected with the posts and each composed of two sections, and double box hinges pivotally connecting the plate and sill sections and each provided with two cross pins and a stop between the pins for catching said sections to fold evenly.

1,305,307. WOMAN'S WORKING-GARMENT. MAY H. HINEANS, New York, N. Y. Filed Aug. 8, 1918. Serial No. 248,205. 3 Claims. (Cl. 3-145.)

1. In an improved garment for women, the combination of an inner garment and an outer garment, the latter

having a skirt portion and portions extending from the top of the skirt in front and back and over the shoulders, said top portions being narrower than the inner garment



and said front top portion having its lateral edges adapted to be detachably connected to said inner garment at points approximately on a line with the arm-pits and supported from the shoulders of the wearer.

1,305,308. ELECTRIC PLUG AND SOCKET. FREDERICK W. RICHTER, St. Louis, Mo. Filed Apr. 12, 1917. Serial No. 161,462. 1 Claim. (Cl. 173-358.)



The combination with a casing comprising a pair of sections semi-cylindrical in cross section, the lower portions of the adjacent faces of said sections having semi-cylindrical recesses forming a chamber, said casing being constructed of non-conducting material, of a porcelain member corresponding to and fitting said chamber, a locking connection between the porcelain member and the wall of the chamber, a metallic socket threaded in the porcelain member, a porcelain plate in the upper end of the member, and provided with an electrical conducting pin, said casing having a handle portion provided with a longitudinally extending bore to receive electrical conducting wires, electrical conducting wires in said bore, one connected to the conducting pin, and the other to the metallic socket of the porcelain member, and a pair of bands surrounding the two sections of the casing separately connecting them together.

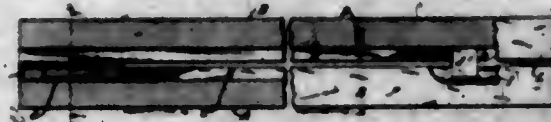
1,305,309. ORNAMENTAL HAIR-COMB. ERNEST BAILEY BOLLASON, Sydney, New South Wales, Australia. Filed July 29, 1915. Serial No. 42,508. 2 Claims. (Cl. 132-22.)



2. A hair pin constructed of a single length of resilient material and comprising a pair of straight parallel legs or prongs and a connecting bend, a single leg

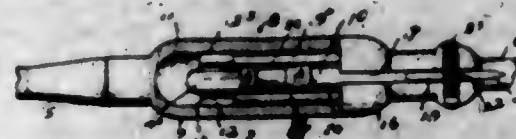
or prong only of the hair pin being provided with an exteriorly arranged return bend adapted to engage the hair to retain the hair pin therein and arranged to be disengaged by a rotative movement of the hair pin to release the latter readily without breaking the hair.

1,305,310. EXTENSION-TABLE SLIDE. ALBERT P. SCHLOERS, Milwaukee, Wis., assignor of one-third to August H. Hammetter and one-third to William L. Pfefferkorn, Milwaukee, Wis. Filed Mar. 10, 1915. Serial No. 15,434. 5 Claims. (Cl. 45-115.)



1. An extension table slide having a pair of grooves in one side thereof, and a rib separating said grooves, said grooves being rectangular in cross section and having oblique extensions at their outer lower corners, comprising auxiliary grooves, a second slide having projections slidably bearing against said rib, and oblique interlocking rib flanges on said projections disposed in said auxiliary grooves.

1,305,311. SUCKER-ROD OR PULL-ROD COUPLING. WARD J. SHELTON and CHARLES H. ALLEN, Electra, Tex. Filed June 1, 1917. Serial No. 172,312. 2 Claims. (Cl. 287-104.)



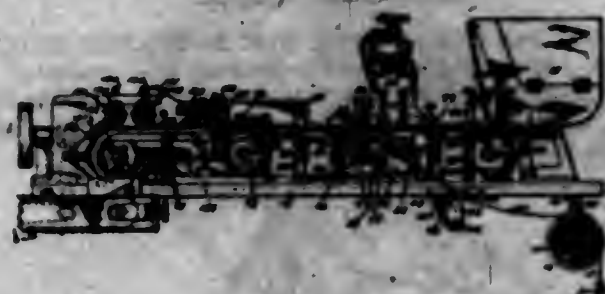
1. A coupling for sucker rods or pull rods, comprising a member having a longitudinal bore and having on the inner face thereof, a series of spaced circumferencing lugs providing communicating longitudinal and transverse slots, another member adapted to enter said bore and provided with a series of peripheral spaced circumferencing lugs slidable first into the longitudinal slots and then into the transverse slots, a sleeve on the second member to abut the first member and conform thereto, said sleeve having spaced longitudinal locking fingers to fit in the longitudinal slots when the lugs are in alignment longitudinally, a guide rib on the second member and having a notch therein, said sleeve being split longitudinally to receive the guide rib therein, and a split ring retained on the sleeve to move into the notch to retain the sleeve on the second member.

1,305,312. LANDING DEVICE FOR AEROPLANES. MORRIS SIKIRICA, Fort Barrancas, Fla. Filed Feb. 13, 1918. Serial No. 216,862. 4 Claims. (Cl. 244-2.)



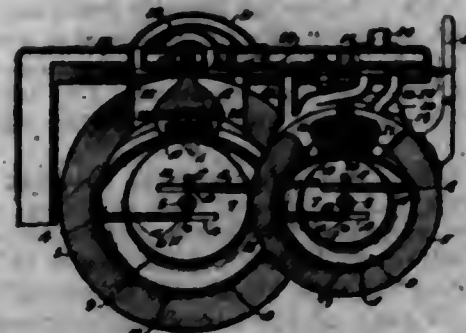
1. In combination with an aeroplane body, a landing device therefor comprising a wheeled frame, said frame including a bar, a guide member on the body in which the bar slides, above the guides being bifurcated and having a connecting member, a spring fastened to the connecting member and to the body, and said spring functioning to normally maintain the bifurcated portion in engagement with the guide member and to act as a cushion during landing of the body.

1,305,313. CIGARETTE-TIPPING MACHINE. ELLERSON D. SMITH, Brooklyn, N. Y., assignor to American Machine & Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 9, 1918. Serial No. 210,908. 54 Claims. (Cl. 131-39.)



1. In a cigarette tipping machine, the combination with means for spacing and supporting a plurality of cigarettes, of means for applying an adhesive strip of tip material to the plurality of cigarettes, and means for thereafter severing said strip between the cigarettes.

1,305,314. ROTARY ENGINE. JOHN BOLLARZO, Fort Richmond, N. Y. Filed Apr. 4, 1919. Serial No. 287,530. 9 Claims. (Cl. 121-66.)



1. In a rotary engine, the combination of a casing, a rotary element journaled in said casing and provided with an annular chamber, an abutment disposed within said chamber and supported by the casing, a sliding piston carried by the rotary element and extendable out into the annular chamber, and a web on the casing provided with a track at opposite sides of the abutment extending from the outer periphery of the annular chamber beneath the abutment for depressing the sliding piston to cause the same to pass beneath the abutment in the revolution of the rotary element.

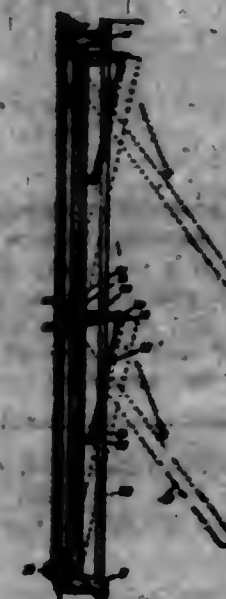
1,305,315. TIRE-DEFLATING INDICATOR. ALBERT L. STAHL, Memphis, Tenn. Filed Mar. 30, 1918. Serial No. 225,745. 5 Claims. (Cl. 177-311.)



2. A tire deflation indicator comprising means contacting with the rim of a tire and adapted to move inwardly on the reduction of pressure in said tire, means connected with said aforementioned means to be forced

upwardly by the upward movement of said first mentioned means, a plurality of electrical circuits, a source of electrical energy in said circuits, a contacting shoe adapted to be forced inwardly by the upward movement of said second mentioned means to thereby successively close the said circuits, indicators in said circuits and operated successively as the circuits are energized.

1,305,316. VERTICALLY SLIDING OR SWINGING SASH-WINDOW. FRANCIS HAYMER BROWN, Sydney, New South Wales, Australia. Filed May 31, 1917. Serial No. 171,800. 2 Claims. (Cl. 20-42.)



2. A vertically sliding and swinging sash window comprising a plurality of sashes severally pivotally connected at their upper corners to a pair of slippers adapted to run in vertical grooves in the frame stile, and each independently suspended centrally at either side by a pair of pivot-end links which respectively depend from fixed pivots positioned about the sash top levels and substantially outward therefrom.

1,305,317. FILTER. EMMETT J. SWEETLAND, Montclair, N. J., assignor, by mesne assignments, to United Filters Corporation, a Corporation of Delaware. Filed June 24, 1916. Serial No. 106,763. 27 Claims. (Cl. 210-13.)



1. In a filter, a casing having an open end, a removable head for the open end of the casing, a series of spaced and substantially parallel filter leaves carried by the head and normally extending longitudinally through the casing, means for supporting the casing on an axis trans-

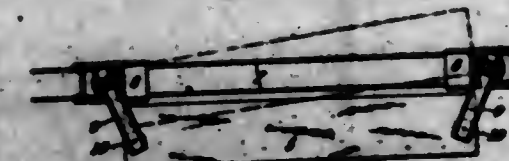
verse to the casing and filter leaves, and means for rotating the casing about the said axis during the filtering operation.

1,305,318. RECORD CARD OR SHEET. WALTER B. TEMPLETON, Chicago, Ill. Filed Mar. 18, 1918. Serial No. 222,123. 4 Claims. (Cl. 120-16.5.)



1. A record system, comprising a plurality of record cards or sheets each of uniform length and width and having a white field for the entry thereon of matter to be indexed or recorded, and the several cards or sheets having border lines or bands extending the full length of an edge thereof and printed in different colors on different sheets or different groups of sheets respectively.

1,305,319. MACHINERY OR APPARATUS FOR HANDLING, MANIPULATING, OR TRANSPORTING STEEL AND LIKE METAL PLATES. THOMAS THOMSON, Scunthorpe, England. Filed Mar. 1, 1919. Serial No. 280,107. 7 Claims. (Cl. 214-1.)



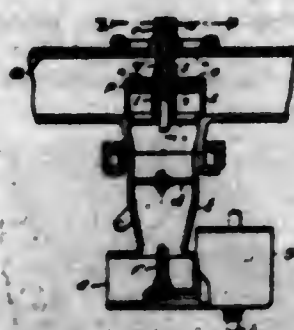
1. In apparatus for manipulating plates, in combination, machinery for operating on such plates, a supporting bed for such plates adjacent to such machinery, embodying a plurality of plate-engaging-rolling elements arranged to permit free movement of each plate thereon in any direction substantially parallel with the plane of the plate, a movable carriage provided with a magnet supporting jib projecting therefrom, a plate-shifting electro-magnet carried by said jib and adapted to be brought into plate shifting relation to the top surface of the plate on said bed for positioning the plate with respect to said machinery and shifting the plate to and from the same, means for moving the electro-magnet independently of the movements of said carriage.

7. Means for manipulating plates, embodying a pair of manually-controlled independently-movable carriages, a way along which both carriages are movable separately in either direction and simultaneously in either direction, each carriage provided with and carrying an electro-magnet adapted to overhang the plate to be manipulated, and manually-controlled means for independently moving said magnets with respect to their said carriages and with respect to each other to cooperate in laterally turning or twisting and positioning an elongated plate, substantially as described.

1,305,320. GOVERNING APPARATUS. FRANCIS B. TICH, Detroit, Mich. Filed Oct. 23, 1916. Serial No. 127,908. Renewed Oct. 10, 1918. Serial No. 287,071. 11 Claims. (Cl. 167-168.)

1. In a carburetor for internal combustion engines, in combination with the engine intake passage having a main air inlet, a valve for controlling said inlet having

a chamber; a piston carried fixedly with respect to the seat of said valve in the opening and closing movement of the latter, said valve having a head between which



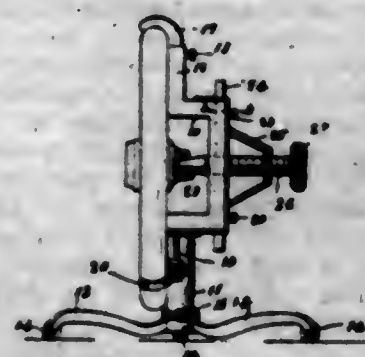
and the piston an air space is inclosed which is enlarged and reduced by the opening and closing movement of the valve; means of atmospheric inlet into said chamber and means for regulating such inlet.

1,805,321. VISE. HAROLD A. TOOKER, Boston, N. Mass. Filed Aug. 7, 1918. Serial No. 248,745. 3 Claims. (Cl. 81-41.)



2. In combination with a support, vertically spaced hooks connected to the support, a plate carried by and between the hooks, a socket secured to the plate intermediate of its ends, a horizontal rod rotatably mounted in the socket and having an opening in the outer end thereof, a vertical rod passing through the opening in the horizontal rod, and a vise carried by the vertical rod.

1,805,322. WHEEL-PULLER. DAVID LEMON TOWLER, Newark, N. J. Filed May 22, 1918. Serial No. 236,900. 4 Claims. (Cl. 20-65.)



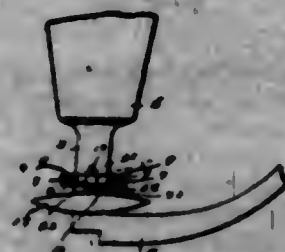
1. A wheel puller comprising, a body portion; adjustable arms carried by the body portion and adapted to engage the periphery of the wheel; a plate slidably arranged within the body portion; a screw carried by the plate and having threaded engagement therewith and adapted to engage the end of an axle; and means to hold the plate in a set position.

1,805,323. CUTTER FOR PERFORATING MUSIC-SHEETS. BASTOLOME VINCARI, Mexico, Mexico. Filed Mar. 18, 1918. Serial No. 222,570. 10 Claims. (Cl. 104-118.)



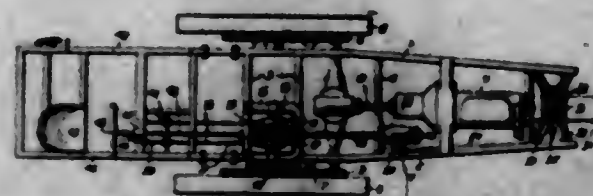
1. A music sheet perforating apparatus, comprising a set of independently-operable cutters movable into and out of position to pierce the sheet and held stationary while occupying such position so as to cut out narrow tongues in the sheet and curl them outward; and means operative to shear off said tongues at their bases as the sheet passes beyond the punches.

1,805,324. DEPTH-GAGE FOR CORN-PLANTERS. FRANK VOTSCKA, Fort Atkinson, Iowa. Filed Feb. 26, 1919. Serial No. 279,230. 3 Claims. (Cl. 97-14.)



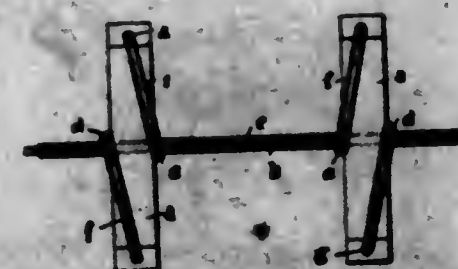
1. A depth gage for planter runners comprising brackets vertically adjustably secured to the runner, the outer ends of said brackets being provided with downwardly extending shafts, disks rotatably mounted on said shafts and adapted to engage the ground.

1,805,325. POWER AND HAND STEERING MECHANISM FOR TRACTORS. FRED WINDENSCHEID, Detroit, Mich. Filed Aug. 17, 1917. Serial No. 190,003. 2 Claims. (Cl. 180-69.)



1. In a three-wheel tractor, the combination of a main frame, a power plant, a front steering truck, wheels co-operating with said front steering truck in supporting said main frame, and driven from said power plant, a worm and gear adapted for steering said front truck from said driven wheels, a longitudinal shaft for operating said worm, treadle actuated clutch adapted for controlling the operation of said worm shaft from said driven wheels, and hand operated shaft above said worm shaft and connected thereto and adapted for actuating said worm and gear independent of said treadle and said wheels.

1,805,326. METHOD OF AND MEANS FOR HOLDING NOTES, BILLS, AND OTHER PAPER MONEY. FRANK JEFFERSON WINDOWNON, South Kensington, London, England. Filed Dec. 19, 1918. Serial No. 267,470. 3 Claims. (Cl. 24-17.)

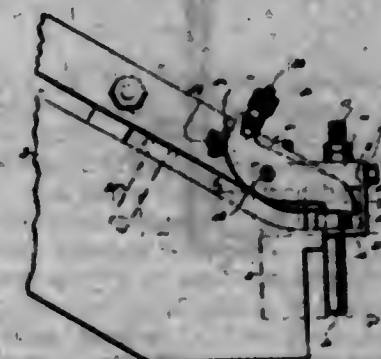


3. A device for batching, holding or storing notes or bills of different denominations, comprising a table, cross rods disposed at each side of said table, supports or brackets for the cross rods carried on a base plate to enable the table to be placed either side up, elastic means for securing the cross rods against the table to hold inserted notes or bills and to enable the table to be depressed to permit of the insertion or removal of a note or bill substantially as described.

1,805,327. METHOD OF TREATING SILICIOUS ORES. GEORGE H. WILSON, Durbin, Utah. Filed Feb. 7, 1918. Serial No. 216,901. 5 Claims. (Cl. 75-17.)

2. The method of treating metal bearing silicious ores which consists in adding to the mixture of ore and a chlorine compound, a mineral containing an alkaline earth metal, in order to secure a furnace mixture that will not clinker or become sticky at the temperature of volatilization of the metal content of the ore.

1,805,328. ANGLE-GUARD. RICHARD LESTER WILCOX, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed Mar. 12, 1917. Serial No. 154,828. 5 Claims. (Cl. 10-105.)

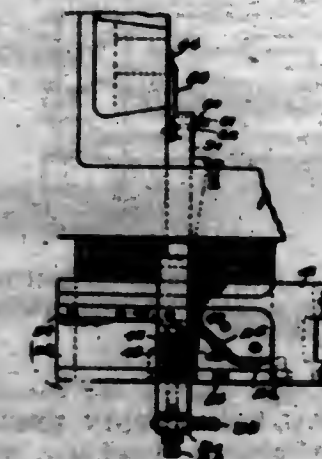


1. In combination with an angular runway of the type set forth, a pair of means having space therebetween and associated with the respective straight sides of the runway for preventing upward movement of the blanks during movement of the latter in straight lines, and means to prevent tilting movement of the blanks arranged in said space between said pair of means and adjacent the angle of the runway, to guide the blank in its movement through said angle.

1,805,329. FEED MECHANISM. RICHARD LESTER WILCOX, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed Mar. 17, 1917. Serial No. 155,553. 31 Claims. (Cl. 10-105.)

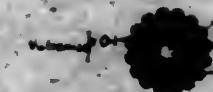
1. In mechanism of the character described, the combination with a feed member; of an operating member, having movement in a path at an angle to said feed member,

each of said members being slidably mounted; means connected with one of said members and having engagement with the other of said members for imparting movement



to said feed member; and means for varying the relative position of said engaging means, whereby movement of said feed member may be discontinued.

1,805,330. ROLLER. FRANKLIN H. WOLVER and WILLIAM J. PRICH, Chicago, Ill., assignors to Ideal Roller Company, Chicago, Ill., a Corporation of Delaware. Filed Aug. 3, 1918. Serial No. 248,183. 6 Claims. (Cl. 91-67.5.)



1. A homogeneous roller made from vulcanized oil.
2. A roller made from vulcanized oil with a roughened, corrugated, or fluted surface.

1,805,331. RUST-PREVENTING COATING. GERALD H. ALLEN and WILLIAM H. ALLEN, Detroit, Mich.; said Gerald H. Allen assignor to said WILLIAM H. ALLEN. Filed Feb. 20, 1918. Serial No. 218,364. 4 Claims. (Cl. 134-50.)

2. A coating for protecting surfaces of iron and steel comprising casein and barium phosphate.

1,805,332. SAFETY-RAZOR. BUTLER AMES, Lowell, Mass. Filed Aug. 16, 1917. Serial No. 180,501. 19 Claims. (Cl. 30-12.)



2. A safety razor comprising a blade, a guard, a handle, and means for mounting the guard upon the handle, said means being adjustable to shift the guard transversely without shifting the blade.

1,805,333. TRAP. JOHN SEYMEN ANDERSON, Marble Township, Lincoln county, Minn. Filed Mar. 7, 1916. Serial No. 82,000. 1 Claim. (Cl. 43-24.)

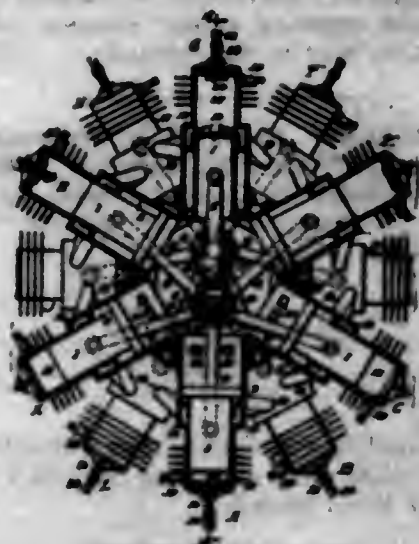
A trap having a cylindrical body made up of two pressed sheet metal semi-cylindrical sections and having integral hinge lugs at one edge and integral perforated lugs at both ends, combined with a hinge pin connecting the said hinge lugs, approximately semi-circular pivot rods

passed through the end lugs of said sections and inwardly spring pressed barbs pivotally connected to said end lugs by said pivot rods, the said semi-cylindrical sec-



tions having means for detachably connecting their normally free edges and openings through which a trapped animal may be shot.

1,305,334. INTERNAL-COMBUSTION ENGINE. STANLEY B. ARNOLD, Chicago, Ill. Filed Mar. 23, 1918. Serial No. 225,220. 5 Claims. (Cl. 123-44.)



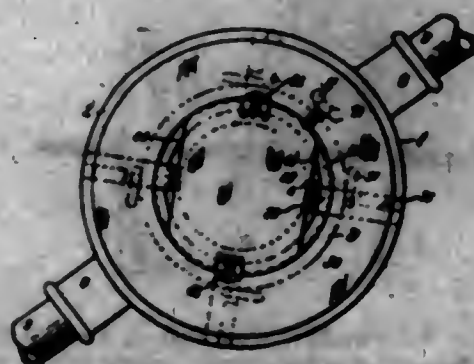
1. An internal combustion engine including a shaft having two relatively offset cranks; two sets of cylinders with their pistons which are distributed around the crank shaft, the pistons of one set being in operative connection with one crank and the pistons of the other set being in operative connection with the other crank, the cylinders of each set alternating with the cylinders of the other set to form a composite series of cylinders, each cylinder having a pumping chamber and an explosion chamber, the pumping chamber of each cylinder of each set being in communication with the explosion chamber in a succeeding cylinder in the other set; and means for establishing and breaking such communication.

1,305,335. TOY PISTOL. CHARLES A. BAILLY, Cromwell, Conn. Filed Oct. 2, 1918. Serial No. 256,525. 9 Claims. (Cl. 42-57.)



6. A toy pistol embodying a frame open on one side, walls projecting from the open side of said frame to form a magazine chamber for a roll of ammunition open on one side of the frame, a plate slidably mounted on said walls to partially close said chamber, a hammer carried by said plate, an anvil to receive blows of the hammer, and means for driving the plate forward.

1,305,336. DIE-STOCK. ALAN H. BAUM, Cleveland Heights, Ohio, assignor to The Borden Company, Warren, Ohio, a Corporation of Ohio. Filed Mar. 8, 1917. Serial No. 168,368. 4 Claims. (Cl. 10-136.5.)



1. The combination of a rotary frame having radial housings, each with two side walls, a front wall and a rear wall, chasers having cutters for tapered threads at their inner ends and having out-away portions to provide transverse shoulders, said chasers occupying the radial housings, wedges extending through openings in the front and rear walls of the housing and lying along the inner face of one of the side walls of the housing and having their inner edge inclined according to the taper of the thread and engaging said shoulders, a transverse plate to which the tapered ends of the wedges are secured, and means carried by said plate for abutting the end of the pipe to be threaded.

1,305,337. TIRE-TOOL. JULIUS ROSENTHAL, Watertown, S. D., assignor of one-half to Thorwald Bjornlin, Madison, Minn. Filed Mar. 13, 1918. Serial No. 223,100. 1 Claim. (Cl. 187-6.)



A tire tool comprising a lever having a fixed arm with a rim-engaging hook at its free end, a fixed tire-engaging shoulder on the lever, an arm pivoted to the lever and having a supplemental tire-engaging heel or shoulder, and a stop for positioning the supplemental heel or shoulder with respect to the fixed arm.

1,305,338. DOOR-BOLT. HAROLD BATA, Grand Rapids, Mich., assignor to National Brass Co., Grand Rapids, Mich., a Corporation of Michigan. Filed Nov. 14, 1918. Serial No. 262,390. 3 Claims. (Cl. 10-64.)

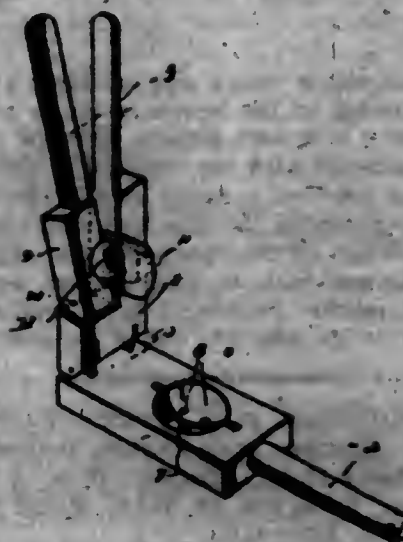
1. A door bolt comprising an elongated housing open at one end and provided with opposed openings there-through at a point between the ends of the housing, a bolt located in the housing comprising an outer end adapted to be moved to project beyond the end of the housing and with an extension extending into the housing, said extension having a longitudinal slot therein, a member pivotally connected at its lower end to the extension and located at its lower portion in the slot, the

pivotal point of connection being substantially midway in the length of the slot, said member having an opening therethrough adapted to be placed in alignment with the openings in the housing, and an operating member in



serted through the openings in the housing and in said member and adapted to be turned in opposite directions to move the bolt in opposite directions, substantially as described.

1,305,339. LEMON AND LIME SQUEEZER. JACK R. BOLTON and JOHN D. WILLIAMS, Sulphur Springs, and FELIX L. DRAUVE, Greenville, Tex. Filed Oct. 16, 1918. Serial No. 258,423. 6 Claims. (Cl. 100-41.)



1. A device of the character specified, comprising a pair of plates hinged together at one end to fold one upon the other or into a position at approximately a right angle with respect to each other, each having at the free end a grip, one plate having a squeezing recess in its inner face provided with openings and with a diametrical slot extending through the plate, the other plate being divided longitudinally at approximately its central line to form a movable portion hinged to the body portion of the plate, the body portion of the plate carrying a blade adapted to engage and enter the slot, and squeezing protuberances on each side of the blade, one of said protuberances being secured to the movable portion of the blade, and the said portion being mounted to swing away from the other plate to permit the portions of the cut fruit to squeeze simultaneously or in succession.

6. In a device of the character specified, a plate upon which the lime or lemon is adapted to rest, a second plate cooperating with the first plate and having a blade for halving the lemon or lime and having squeezing protuberances on opposite sides of the blade, one of the protuberances being movable with respect to the other to permit half the lemon or lime to be squeezed.

1,305,340. METHOD AND MEANS FOR PROPELLING CRAFT NAVIGATING FLUID MEDIUM. LOUIS G. BARNES, Los Angeles, Cal. Filed Aug. 3, 1917. Serial No. 164,362. 14 Claims. (Cl. 244-10.)

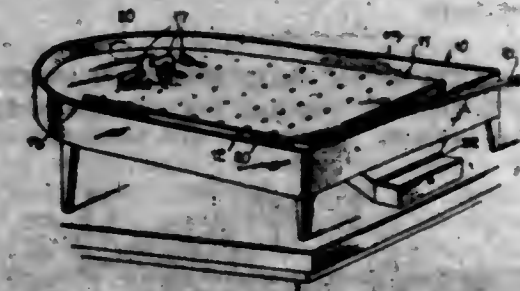
2. A propulsive device for craft navigating a fluid medium, consisting of a propulsion-tube rigidly attached

to the craft and open at its rear or trailing end, means for continuously supplying a combustible fluid to said



tube, and means for initially igniting said combustible fluid in said tube.

1,305,341. GAME APPARATUS. KUN SUKO CHUNG, Honolulu, Hawaii. Filed Feb. 10, 1919. Serial No. 276,114. 3 Claims. (Cl. 46-61.)



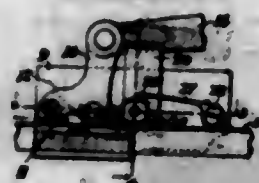
1. A game apparatus of the character described comprising a board having a side wall, a plurality of supporting members mounted upon the board and each of said supporting members having an upwardly extending, perforated portion, said perforated portion extending transversely to the length of the board, figures adapted to be disposed on said board and having supporting wires angularly bent at their ends for insertion in the perforations of the supporting members and being detachable from the supporting members, and a ball adapted to be projected against said figures.

1,305,342. FEEDING DEVICE FOR STAY-APPLYING MACHINES. HENRY DE SMITH, Rochester, N. Y., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed July 24, 1918. Serial No. 110,984. 2 Claims. (Cl. 273.)



1. In a machine of the character specified, the combination with stay-strip applying means, of feeding means for feeding predetermined lengths of a continuous stay-strip to said applying means, comprising a reciprocating carrier movable in a direction lengthwise of the strip, an upper gripping member pivoted to the carrier, a lower gripping member pivoted to the carrier in advance of the pivot of the first mentioned member, the gripping portion of the lower gripping member being in advance of the pivot point of said member and a pin connection between said gripping members, said connection being to the rear of the pivot of the lower gripping member, whereby movement imparted to one of the gripping members will cause the movement of the other.

1,305,343. FEEDING DEVICE FOR STAY-APPLYING MACHINES. HENRY DE SMITH, Rochester, N. Y., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 5, 1916. Serial No. 113,264. 1 Claim. (Cl. 273.)



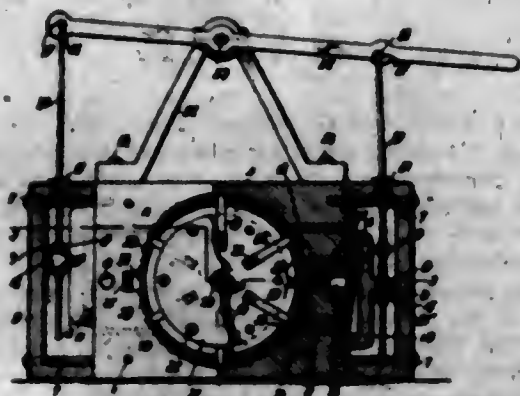
In a machine of the class described, strip feeding means comprising a guide-plate, a carrier mounted for reciprocation on said guide-plate and supporting a pair of co-operating gripping members, means holding the carrier in frictional engagement with a braking surface on the guide-plate, said means comprising an adjusting screw for varying the friction between the carrier and co-operating braking surface, and a spring member for locking said screw in adjusted position, said spring member and the adjusting screw being provided one with a series of notches and the other with a detent engaging in said notches, for the purpose set forth.

1,305,344. AUTOMATIC BALE-FORMING COMPRESS. ANDREW T. DUDLEY, Houston, Tex. Filed Feb. 1, 1917. Serial No. 145,949. 18 Claims. (Cl. 100-20.)



1. The combination with a compress chamber of a plunger arranged to reciprocate continuously therein during the operation of the machine, a plunger driving mechanism, a wire twister on one side of the chamber, a needle pivoted upon the opposite side thereof and provided to carry a securing wire across said chamber and into engagement with said twister while the plunger is in operation, a feeder provided to deliver material into said chamber, said feeder being in operative connection with and driven from the plunger driving mechanism, and means actuated by the material moving through said chamber and temporarily disconnecting said feeder from its driving mechanism and operatively connecting said twister and needle with said mechanism.

1,305,345. REVERSIBLE ROTARY STEAM-ENGINE. WILLIAM J. DUNFEE, North Lewisburg, Ohio. Filed May 17, 1916. Serial No. 98,178. 1 Claim. (Cl. 121-74.)



In a rotary engine, the combination with a casing containing the rotor and having steam chests at opposite

sides thereof, the casing having inlet and exhaust ports and passage ways from said chests to the rotor housing, and vertically movable valves in said chests: of a rock lever pivotally supported between its ends on said casing, stuffing boxes in the top of the latter and opening into said valve chests, and rods pivoted at their upper ends to said lever and extending through said stuffing boxes and connected with said valves, their lower ends being of such length as to strike the bottom of the casing and limit the descent of the valves in their chests, and their points of attachment to the rock lever, being such that the rods are flexed slightly where they pass through said stuffing boxes by the movement of said lever to either extreme position.

1,305,346. SAFETY DEVICE FOR HAMMERLESS GUNS. RAY C. EVANS, North River, Va. Filed May 9, 1917. Serial No. 167,582. 2 Claims. (Cl. 72-70.)



1. The combination with a gun including a stock and a safety lock carried by the breech casing, a rod connected with the safety lock and slidable through the stock, a butt plate connected with the rear end of the rod and resiliently urged outward, a flange around the edge of said plate slidably receiving the gun butt, and conical teeth on one end portion of the flange and the adjacent corner portion of the gun butt, to hold the gun butt and butt plate against relative movement upon application of oblique pressure to the adjacent end of the plate.

1,305,347. MUFFLER FOR INTERNAL-COMBUSTION ENGINES. STEPHEN IVAN FUKS, Detroit, Mich., assignor to Essex Motors, Detroit, Mich., a Corporation of Michigan. Filed Feb. 23, 1918. Serial No. 218,650. 2 Claims. (Cl. 121-116.)

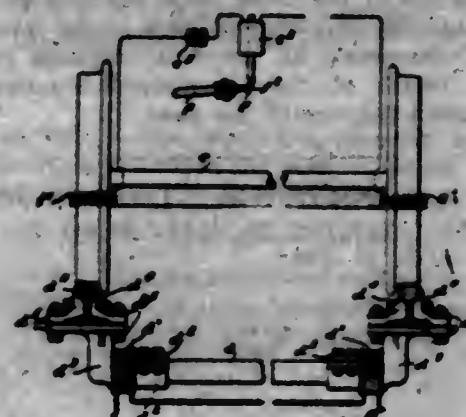


1. The improved muffler for internal combustion engines, comprising a frusto-conical shell section, a cylindrical shell section, a second frusto-conical shell section, said parts arranged with the large ends of the frusto-conical sections abutting the ends of the cylindrical section, a conical partition within the said shell sections the apex pointing toward the inlet end of the muffler and a second partition of conical shape and having its small end pointing in the direction of the inlet end of the muffler, said partitions being perforated the perforations in the partition which lies nearer the exhaust end of the muffler being nearer the inlet end of the muffler than are the perforations in the partition which is nearer the inlet end of the muffler.

1,305,348. SYSTEM OF AUTOMATIC TRAIN CONTROL. GEORGE P. FENNIGAN, Wilton-on-James, Va. Filed Oct. 10, 1911. Serial No. 635,921. Renewed Jan. 11, 1919. Serial No. 270,783. 33 Claims. (Cl. 244-55.)

19. The combination with a plurality of block sections each comprising a normally closed track circuit, of a vehicle adapted to pass over said block sections, a closed vehicle circuit, a translating device in said vehicle circuit

responsive to electro-motive force induced therein, a permanent magnet disposed in advance of the entrance to each block section, and a coil on the magnetic circuit of



said magnet controlled by the track circuit of the block section in advance and normally opposing said permanent magnet.

1,305,349. PERCUSSION ROCK-DRILL. JAMES FLETCHER, Newnes, New South Wales, Australia. Filed Mar. 30, 1916. Serial No. 87,664. 3 Claims. (Cl. 121-11.)

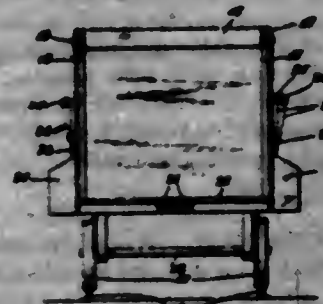


1. In a device of the character described, the combination of a valve casing, a cylinder connected to said casing, said cylinder having a series of by-pass openings through its wall and also having a passage therein leading from the forward portion of said cylinder to said casing, there being a by-pass intermediate the ends of said passage between the latter and the interior of the cylinder, a valve mounted for manipulation in said by-pass, and a rotary valve having a series of angularly disposed ports a plurality of which is adapted to simultaneously align with a plurality of the by-pass openings in the cylinder wall.

1,305,350. EXTRACTION OF MOLYBDENUM. TORMOO ERIKSSON FÖRLÄNN, Haugesund, Norway. Filed Apr. 5, 1918. Serial No. 226,904. 1 Claim. (Cl. 204-19.)

The process of producing molybdenum metal from molybdenum chloride which consists in electrolyzing a fused salt mixture comprising chloride of molybdenum, sodium and aluminum.

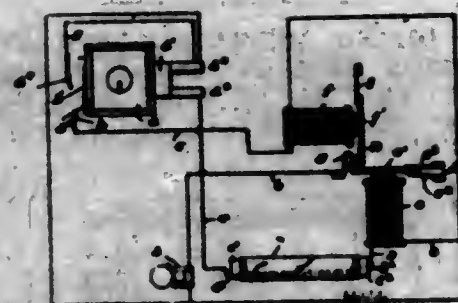
1,302,351. FREIGHT-CAR. STANISLAW GANDER, Uniontown, Pa. Filed Jan. 25, 1919. Serial No. 273,997. 2 Claims. (Cl. 108-244.)



1. A freight car comprising a rectangular frame, and a truck upon which said frame is mounted, of side walls

hingedly engaged at their upper edges to the longitudinal elements of said side frame, openings formed centrally near the lower edge of said side walls, shutter plates normally covering said openings, means for raising said shutter plates and a casing adapted to direct material passing outward of the opening in a downward direction.

1,305,352. AUTOMOBILE-THEFT-DETECTOR MEANS. TRAVILLA C. GETTELL, Philadelphia, Pa. Filed Feb. 26, 1917. Serial No. 150,904. Renewed Mar. 20, 1919. Serial No. 283,883. 3 Claims. (Cl. 177-314.)



2. An automobile theft detecting means, including a manually operable switch, two circuits selectively controlled by said switch, one of said circuits having a mercury governed switch responsive to movements of the vehicle, an electromagnet in said last named circuit, an alarm and circuit therefor, a closing member forming part of the alarm circuit and operated to circuit closing position in the energization of said electromagnet, means for holding the member in circuit closing position following and independently of the electromagnet, and electro responsive means arranged in the other of the said two circuits for operating said holding means to release position.

1,305,353. CLAMP. CHARLES LARSEN OLSEN, Jardsbide, Norv. Filed Oct. 2, 1918. Serial No. 256,367. 5 Claims. (Cl. 288-96.)

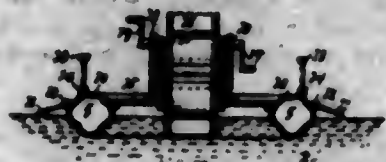


1. A device of the class described comprising a pair of swinging members between which a drill is adapted to be positioned, the inner end portions of said levers constituting gripping cams, a stirrup, flexible members connecting the stirrup and the opposite end portions of the levers, and an inwardly directed shank carried by the stirrup.

1,305,354. UNSINKABLE LIFE-BOAT. BARNET GOLD MAX, New York, N. Y. Filed Apr. 19, 1918. Serial No. 229,523. 2 Claims. (Cl. 9-3.)

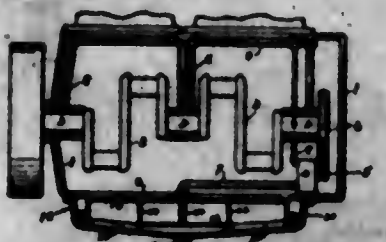
1. A life boat comprising an elliptic tubular member shaped to form a continuous hull, the said member hav-

ing curved sides and bottom with shallow contiguous walls to equalize the member in the water, said member



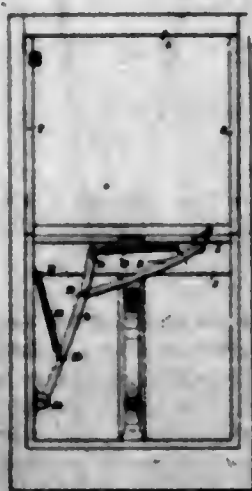
including a flat top to serve as a seat, and a deck supported on the inner curved sides of the member.

1,305,355. OILING MECHANISM FOR INTERNAL COMBUSTION ENGINES. EDWARD J. GULICK, Elkhart, Ind. Filed Jan. 25, 1919. Serial No. 278,144. 15 Claims. (Cl. 184-6.)



7. In a device of the class described and in combination with the crank-case of an internal combustion engine, an oil reservoir carried by said crank-case and in communication with the interior thereof; a box-like member disposed within said reservoir and having its bottom wall spaced from and above the floor of said reservoir, the space below said box constituting a settling chamber, said box-like member being provided with screened inlet openings in its bottom wall and at opposite ends thereof; a sump in communication with said settling chamber and arranged below the bottom wall of said box-like member and between said inlet openings; a suction pipe within said box-like member and having its suction orifice disposed adjacent the box bottom wall and intermediate said inlet openings; means for pumping oil from said box-like member through said suction pipe; and means for draining said sump and oil reservoir.

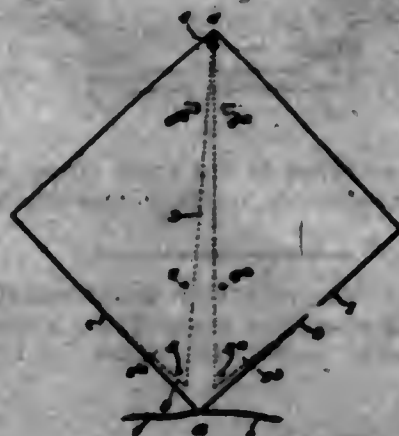
1,305,356. BALANCE DEVICE FOR MOTOR-CAR-DOOR LATCH. GEORGES HAANAGRE, Neuilly-sur-Seine, France. Filed Jan. 8, 1914. Serial No. 811,026. 2 Claims. (Cl. 16-114.)



2. A window frame, a sash slidable therein, a toggle joint structure to overcome the downward action of gravity on the sash and to support the latter under tension, comprising two levers pivoted together, the outer end of the upper lever being hinged to the bottom of the

sash, and the outer extremity of the lower lever being hinged to the frame, a spring extending in a sidewise direction between the upper portions of said levers, and another spring extending downward from the frame to the outer portion of the lower lever, whereby the depression of the sash at first distends one of the springs, and the further depression of the sash distends the other spring, the length of the first-distended spring meanwhile remaining practically the same.

1,305,357. HAT-PROTECTOR. LOUIS W. HACKNEY, Glencoe, Ill. Filed Oct. 24, 1918. Serial No. 259,531. 6 Claims. (Cl. 2-108.)



2. A hat protector comprising two superposed substantially rectangular pieces of waterproof paper, cloth or the like, said pieces being joined at their edges except for a short distance in each direction from one corner, and one of said pieces having a slit extending from the said corner to the diagonally opposite corner.

1,305,358. TOILET APPARATUS. CLARENCE H. HANCOCK, Toledo, Ohio, assignor of one-half to Maria A. Duquette, Toledo, Ohio. Filed July 25, 1912. Serial No. 711,597. Renewed Oct. 23, 1918. Serial No. 289,452. 10 Claims. (Cl. 137-155.)



4. In a device of the class described, a hollow spindle, a conduit communicating with said spindle, a sleeve journaled upon said spindle and adapted to receive a rose and revolvable with relation to said spindle, and reducing gearing between said spindle and sleeve.

1,305,359. TURNBUCKLE. CARL HINDRICHMAN, Philadelphia, Pa. Filed Aug. 10, 1918. Serial No. 249,343. 2 Claims. (Cl. 181-2.)

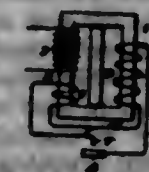
1. In a turnbuckle the combination with a screw rod and a connecting element having the screw threaded thereto, said connecting element including a squared por-

tion, of a head on the screw rod and having a squared shank, and a squared sleeve mounted to slide on the



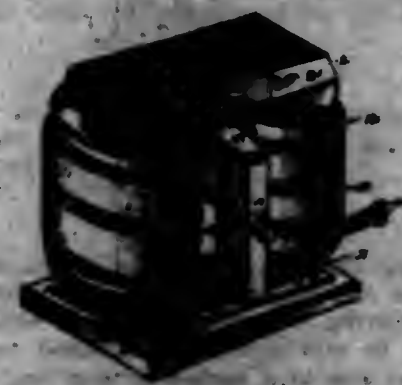
squared portion of the connecting element, and movable to extend over and around the squared shank of the head to lock said head relative to said connecting element.

1,305,360. ALTERNATING-CURRENT WELDING-TRANSFORMER. CLAUDE JOSEPH HOLSLAG, Peekskill, N. Y. Filed Oct. 24, 1917. Serial No. 198,252. 9 Claims. (Cl. 219-12.)



1. Apparatus utilizing alternating current for metallic arc welding, cutting and repairing including a polyphase transformer having a plurality of magnetizable core units, each core unit having a primary winding on one leg thereof, a secondary arranged in two sections, one on that part of the core with the primary and the other on a part of the core remote from the primary and first section, said secondary windings of each core unit adapted to be connected in series and to welding, cutting or repairing electrodes.

1,305,361. ALTERNATING-CURRENT WELDING-TRANSFORMER. CLAUDE J. HOLSLAG, Peekskill, N. Y. Filed Jan. 14, 1918. Serial No. 211,831. 18 Claims. (Cl. 219-12.)



1. Apparatus utilizing alternating current for metallic arc welding, cutting and repairing including a transformer having a magnetizable core with primary and secondary windings thereon, a part of the secondary being associated with the primary, while the balance of the secondary is located on the core remote from the primary and said first part, whereby the magnetic flux is directed in paths to meet varying conditions of the welding, cutting and repairing operations.

1,305,362. METHOD OF ELECTRIC-ARC WELDING, CUTTING, AND REPAIRING. CLAUDE J. HOLSLAG, Peekskill, N. Y. Filed Apr. 29, 1918. Serial No. 281,051. 14 Claims. (Cl. 219-6.)

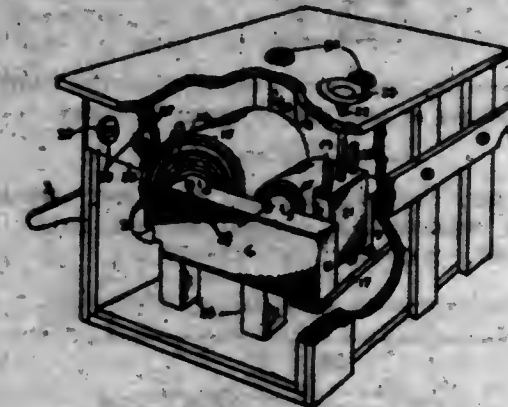
1. The method of welding, cutting and repairing by electric current wherein the metal to be welded, cut or repaired constitutes an electrode and the welding, cutting or repairing metal constitutes an opposite electrode, consisting in transforming an alternating current so that when the transformed current is passed through the said

electrodes on drawing an arc, the effective E. M. F. across the arc passes suddenly from a prolonged maxi-



mum value of one polarity to a prolonged maximum value of another polarity, whereby the arc is stabilized and sustained during welding, cutting or repairing.

1,305,363. ALTERNATING-CURRENT METALLIC-ARC CUTTING AND WELDING APPARATUS. CLAUDE J. HOLSLAG, Peekskill, N. Y. Filed Sept. 21, 1918. Serial No. 255,977. 27 Claims. (Cl. 219-13.)



1. Apparatus for metallic arc cutting and welding including a transformer having a closed circuit core, a primary winding on one leg of the core, a secondary winding having a main portion thereof intermingled with the primary winding and an auxiliary portion on another leg of the core and a flux controller exterior to the legs of the core.

1,305,364. MASK FOR USE IN ARC-WELDING OR ALLIED WORK. CLAUDE J. HOLSLAG, South Orange, N. J. Filed Oct. 21, 1918. Serial No. 259,039. 8 Claims. (Cl. 2-117.)



1. A mask for use in arc welding or allied work having, top, front and side portions with a bridge across the back joining the side portions, said top portion extending from one side portion to the other completely covering the opening therebetween and forming a rigid protecting cover over the user's head, but leaving for the user's head an opening extending below said bridge between the side portions and means carried by the front portion through which the arc may be observed without injury to the user.

1,305,365. PRESSURE-REGULATING DEVICE. FRANK H. HOPKINS, Somerville, Mass., assignor to American Steam Gauge & Valve Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Sept. 13, 1918. Serial No. 50,538. 11 Claims. (Cl. 108-92.)

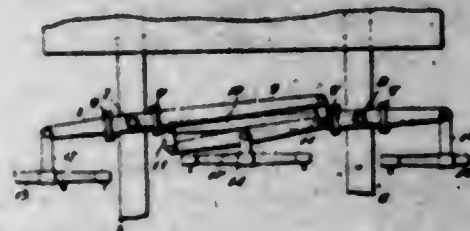
7. A pressure regulating apparatus comprising a valve, a pressure controlled governor for shifting said valve to

enlarge or restrict the passage controlled thereby, and a pressure controlled device additional to and separate from



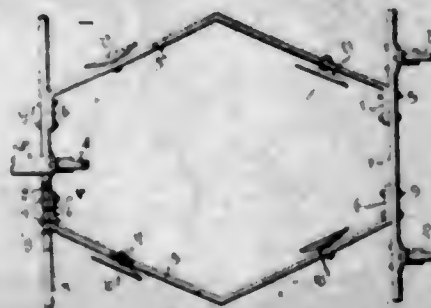
said governor for closing the valve when the controlling pressure becomes of less than a given intensity.

1,305,366. THREE-HORSE EVENER. GROSS D. HOUSTON, Rushville, Ill. Filed Apr. 29, 1918. Serial No. 231,907. 2 Claims. (Cl. 21-76.)



1. A three horse evener comprising two levers pivotally mounted to swing in horizontal planes and with their inner arms overlapping, swingle-trees connected to the outer ends of said levers, a bar movable conjointly with and relatively to the inner arms of said levers and pivotally connected therewith, and a swingle-tree pivotally connected to said bar medially thereof.

1,305,367. PLOW. CHARLEY S. JACKSON, Sabinal, Tex. Filed June 16, 1917, Serial No. 175,133. Renewed Oct. 28, 1918. Serial No. 200,008. 1 Claim. (Cl. 97-34.)



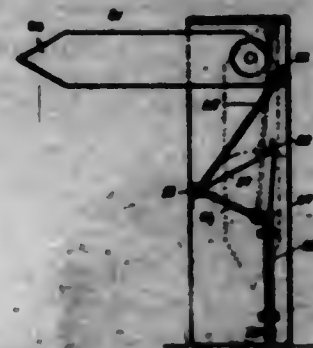
A device of the character described comprising a rear transverse beam, a forward transverse beam, reversible side beams interposed between said transverse beams, each of said side beams being substantially V-shaped in form and having their end portions detachably engaged with the front and rear transverse beams whereby the same may be reversed, and a rotatable ground working member carried by each of the side beams at opposite sides of the apex thereof and at points substantially in alignment longitudinally of the device, the axis of rotation of each of said ground working members being at right angles to the adjacent portion of the beam, one of said ground working members being positioned outwardly of the side beam, and a second member being positioned inwardly of the side beam.

1,305,368. BED-SEAT. IVAN JAKLICH, Gary, Ind. Filed Nov. 18, 1918. Serial No. 262,075. 1 Claim. (Cl. 5-41.)



In mechanism of the class described, hook devices adapted for application to one rail of a bed, a seat hinged to the hook devices, leg mechanism pivotally connected to the under side of said seat and movable between a position at right angles to said seat and a position parallel thereto, latch mechanism for detachably connecting the leg mechanism to said seat in the latter position, a connection device in approximately the center of the under side of the seat, a spring mechanism attached at one end to said connection device and provided at its other end with a hook adapted for detachable engagement with the opposite bed rail, all of the parts being arranged and disposed substantially as shown and described, for the purposes set forth.

1,305,369. AUTOMOBILE-SIGNAL. ABRAHAM JOYTRION, Los Angeles, Calif. Filed Nov. 9, 1918. Serial No. 261,908. 2 Claims. (Cl. 116-31.)

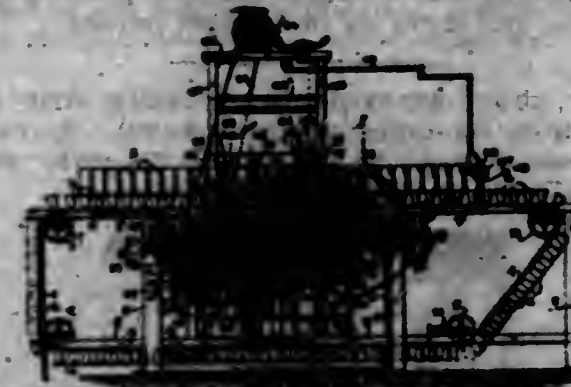


1. A signaling device comprising a standard, a signal arm having one end pivotally attached to said standard, a coil spring having one end attached to said standard and the other to said signal arm adapted to yieldably hold said signal arm in a horizontal position, a connecting rod pivotally attached at its upper end to said signal arm, a link having one end pivotally attached to the lower end of said connecting rod and the other pivotally attached to said standard, the pivoted ends of said connecting rod and said link forming a toggle joint, and means for actuating and holding said toggle joint against the action of said spring whereby said signal arm is brought to an exposed horizontal position or a concealed vertical position within said standard.

1,305,370. BOTTLE-WASHING MACHINE. JAMES A. JOHNSON, Richmond, Va. Filed Oct. 20, 1917. Serial No. 197,008. 7 Claims. (Cl. 141-7.)

1. A bottle washing machine including an endless bottle carrier moving uninterruptedly in one direction, a plurality of bottle engaging devices mounted for movement into or out of the path of movement of the carrier, means for reciprocating the bottle engaging devices parallel to the plane of movement of the carrier, and means for reciprocating the devices toward or from the carrier, comprising a member operatively connected to the device

and having a face extending in the direction of movement of the carrier, and a roller moving in a circular



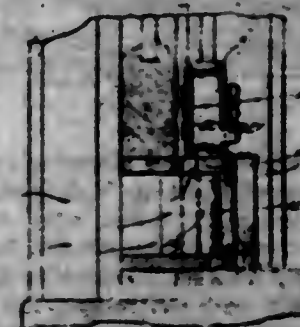
path in the same plane as said member and engaging the face thereof to raise and lower the member, said member being longitudinal with the bottle engaging devices.

1,305,371. POWER-TRANSMISSION MECHANISM. SINCLAIR J. JOHNSON, Montclair, N. J.; Sarah Johnson, executrix of the will of said Sinclair J. Johnson, deceased, assignor of one-half to Walter C. Shultz, Montclair, N. J. Filed Apr. 20, 1918. Serial No. 92,442. 6 Claims. (Cl. 74-34.)



1. In a power transmission mechanism, the combination of a cylinder having a pair of internal gears, a shaft journaled in said cylinder, a gear rotatable with and slidable on the shaft adapted to be thrown into and fixed to the shaft, and an idler pinion adapted to be thrown into mesh with said latter gear and the other internal gear, substantially as and for the purpose specified.

1,305,372. JEOLIAN HARP. CYRUS KIRCHING, Chicago, Ill. Filed Aug. 22, 1918. Serial No. 250,908. 6 Claims. (Cl. 84-14.)



1. In combination, a window ventilator comprising a body portion, an opening therein through which the air is admitted, and a musical instrument mounted on said body portion in operative relationship to said opening and adapted to be operated by the air passing through said opening.

1,305,373. LOOM FOR WEAVING PILE FABRICS. OSWEN KOEN, Paterson, N. J., assignor to Dr. Ernest Cadogan and Olav Borg, Paterson, N. J. Filed Jan. 9, 1919. Serial No. 270,900. 5 Claims. (Cl. 130-62.)

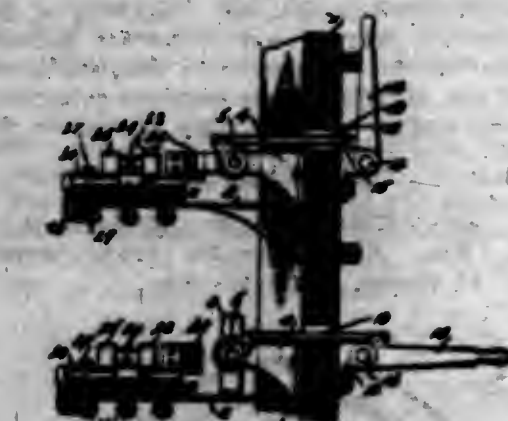
1. A pile weaving loom including, in combination, instrumentalities to support and advance the warp longitudinally in a given plane, attenuated relatively fixed filling supports having free ends projecting in the direc-

tion of advance of the warp and arranged in a series which extends transversely of the warp and each in another plane, means to form a succession of ground sheds in the warp and at times also decussate some of the



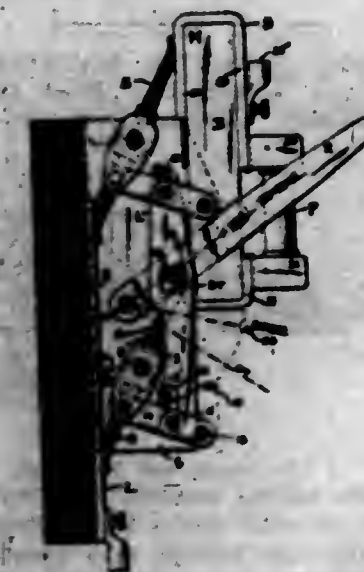
warp threads with respect to said filling supports and form therewith pile sheds, and means to pass filling through the ground sheds at the side of said supports corresponding to said first plane and also through the pile sheds at the opposite side of said supports.

1,305,374. SWITCHBOARD. HUBERT F. KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed May 19, 1913. Serial No. 768,415. 18 Claims. (Cl. 175-298.)



18. In a switchboard, a base, a conductor mounted upon the said base, a stationary contact member mounted at the same side of the base at a distance from said conductor and in a plane coincident with the plane of the conductor, a switch member pivotally supported intermediate its ends for operation in said plane to make electrical connection between the conductor and the contact member, and a link-and-lever mechanism for actuating the said switch member.

1,305,375. MOTOR-STARTING SWITCH. HUBERT F. KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Feb. 18, 1916. Serial No. 79,007. 13 Claims. (Cl. 200-2.)



1. A switch mechanism combining two shiftable switch blades; two toggles, one for holding each blade in a simi-

lar position; springs normally urging the blades into another position; and a device for breaking said toggles in succession to render said springs serially effective.

1,305,376. SWITCHBOARD MECHANISM. HUNTER KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Continuation in part of application Serial No. 841,176, filed May 27, 1914. This application filed June 16, 1917. Serial No. 175,190. 10 Claims. (Cl. 175-292.)



2. A switch board mechanism comprising a movable switch member, a pair of spaced contact members between which the switch member is adapted directly to bridge, and one of said contact members comprising one terminal of a unitary standard fuse element of the cartridge type.

1,305,377. ANTISKID DEVICE. WILLIAM H. KRUG, Oshkosh, Wis. Filed May 30, 1918. Serial No. 235,435. 11 Claims. (Cl. 182-14.)



4. The combination with an anti-skid chain of means for securing one end of said chain to a wheel, comprising a plate having a keyhole opening, the slot of said opening being inclined from one face to the other face of said plate, and a coupling member co-acting with said keyhole slot to secure the end of said chain to said plate.

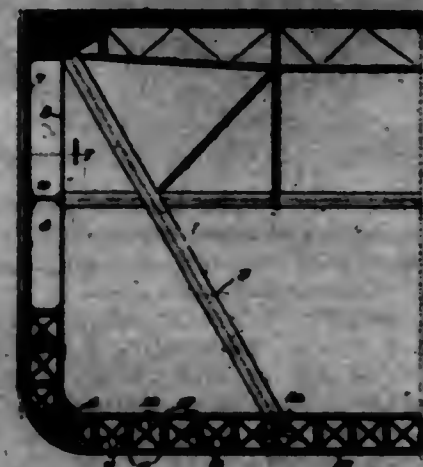
1,305,378. JOINT-TRIMMING MACHINE. JULES G. LAURENTE, Lake Arthur, La. Filed Feb. 14, 1918. Serial No. 276,940. 4 Claims. (Cl. 144-119.)



1. A device of the character specified, comprising a supporting plate having handles, and having near one side edge and at each end a longitudinally extending opening, a guide disk held in each opening, each disk being eccentrically mounted, and being adjustable angularly for the purpose specified, said plate having at the said side edge an upwardly extending guard, and a

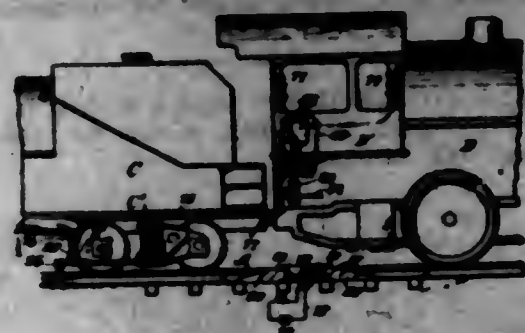
cutting wheel journaled on the plate and having its upper edge within the guard, said wheel being adapted for connection with a suitable source of power to drive the same, and having its cutting face outward.

1,305,379. REINFORCED-CONCRETE SHIP AND METHOD OF CONSTRUCTING SAME. RALPH R. LAYLEN, Chicago, Ill. Filed May 31, 1918. Serial No. 237,534. 13 Claims. (Cl. 114-65.)



1. In a reinforced concrete ship, a hull having sides and a bottom, the bottom comprising spaced apart reinforced concrete shells, concrete intercostals connecting said shells, and double diagonals of metal rods connecting the diagonally opposite edges of said intercostals whereby said bottom will be of double diagonal Pratt truss construction to accommodate all possible stresses set up therein.

1,305,380. AUTOMATIC TRAIN SIGNAL AND STOP. WALTER S. LEVIN, San Francisco, Calif., assignor to The National Safety Appliance Company, San Francisco, Calif., a Corporation of California. Filed Apr. 24, 1918. Serial No. 22,587. 11 Claims. (Cl. 246-68.)

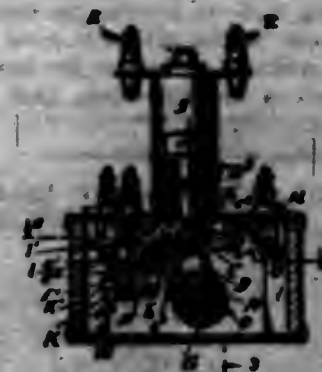


2. In a train signaling and stopping apparatus, a magnet secured to the road bed, an induction magnet carried by the train, a normally closed relay connected to the induction magnet, a separate circuit for said relay, a stopping device and an audible signal, a magnet connected to the relay circuit and controlling the stopping device and the audible signal, said parts being operated when the road bed magnet is energized and while the induction magnet is passing through the field of the road bed magnet to produce a current of greater strength than the normal current of the separate relay circuit, a visual signal, and means controlled by the stopping device magnet for operating the visual signal.

1,305,381. RELAY. WALTER S. LEVIN, San Francisco, Calif., assignor to The National Safety Appliance Company, San Francisco, Calif., a Corporation of California. Filed May 8, 1918. Serial No. 26,906. 6 Claims. (Cl. 175-381.)

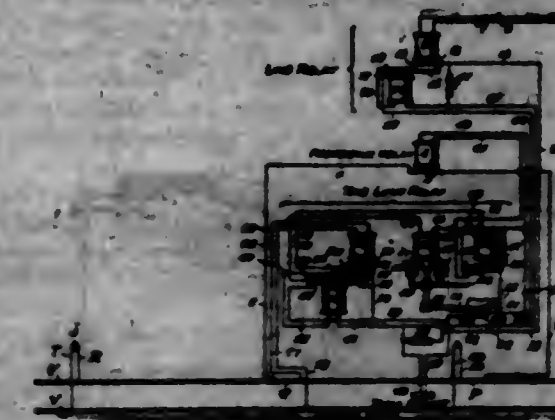
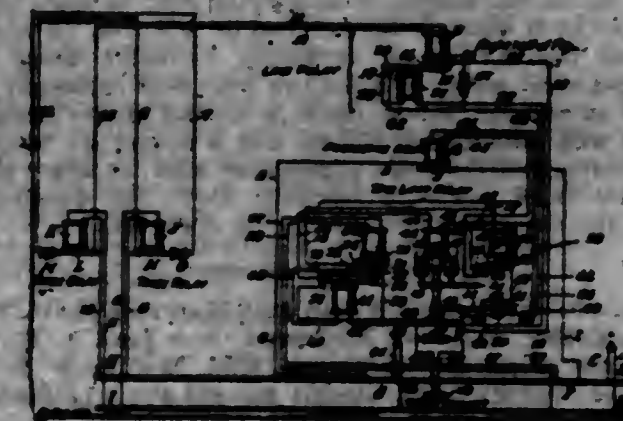
1. In a device of the class described, an electro-magnet having a pole piece with a projection connected thereto, an armature to be attracted by the pole piece, another

armature to be separately and independently attracted by the said projection, a contact arm connected to each armature, front and rear contacts against which the arm contact in one position or the other, a second magnet, and a circuit connecting said second magnet and the arm



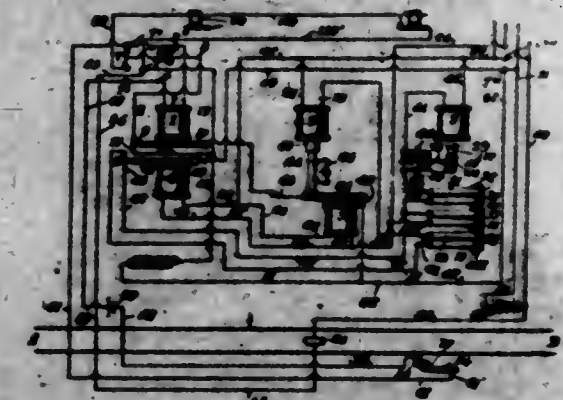
connected to the second mentioned armature, said circuit being opened when the first magnet is energized and closed when the said first magnet is deenergized, whereby the second magnet is energized and holds the arm connected to the first armature in contact with the back contact.

1,305,382. AUTOMATIC BLOCK-SIGNAL SYSTEM. WALTER S. LEVIN, San Francisco, Calif., assignor to The National Safety Appliance Company, San Francisco, Calif., a Corporation of California. Filed June 30, 1918. Serial No. 37,142. 10 Claims. (Cl. 246-54.)



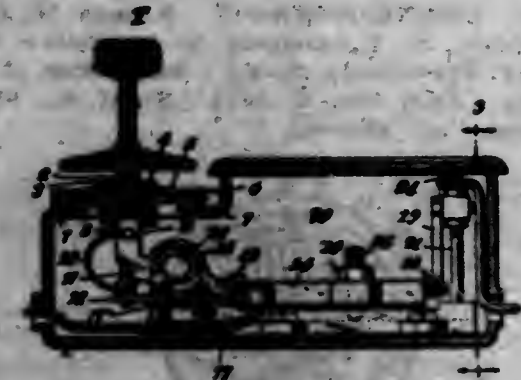
3. In a device of the class specified, an insulated section of track, a time limit relay and a track magnet, a protective relay controlling a circuit shunted around said section, means for energizing said protective relay included in circuit with the time limit relay, and the track magnet, and means for deenergizing said protective relay upon the breaking or failure of action of any portion of the controlling circuit.

1,305,383. AUTOMATIC BLOCK-SIGNAL SYSTEM. WALTER S. LEVIN, San Francisco, Calif., assignor to The National Safety Appliance Company, San Francisco, Calif., a Corporation of California. Filed Apr. 24, 1917. Serial No. 144,184. 24 Claims. (Cl. 246-80.)



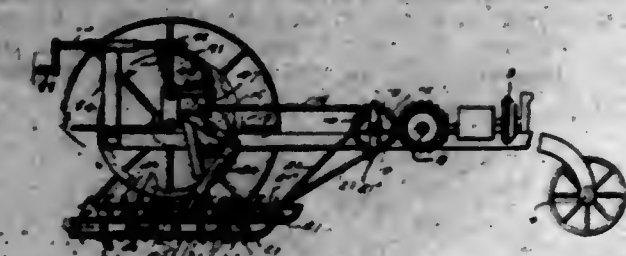
19. In an automatic signal system, a track magnet, means operated by the train for energizing said track magnet, a time limit relay for deenergizing said track magnet, said track magnet also being adapted to be energized even though the time limit relay is deenergized.

1,305,384. TRACK-OPERATED DEVICE FOR AUTOMATIC BLOCK-SIGNAL SYSTEM. WALTER S. LEVIN, San Francisco, Calif., assignor to The National Safety Appliance Company, San Francisco, Calif., a Corporation of California. Filed Apr. 24, 1917. Serial No. 144,185. 6 Claims. (Cl. 246-381.)



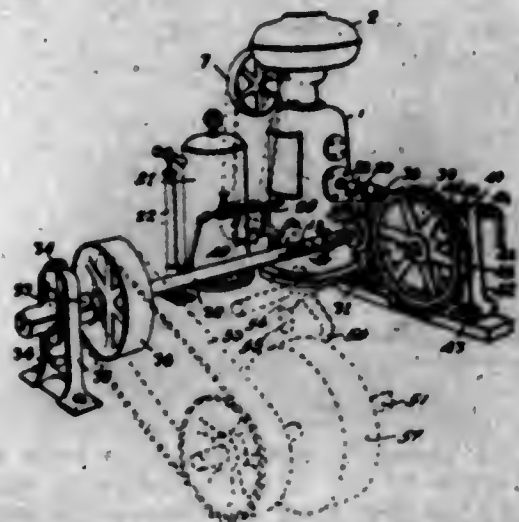
1. In a track device for an automatic train signal system, the combination with the rail, of a lever mechanically connected therewith, an electrical contact normally engaged by the lever at one end thereof, and an electric circuit connected to said contact and to the end of said lever remote from said contact, the said lever normally forming a portion of said circuit.

1,305,385. TRACTOR. OSCAR LADON, New Brighton, Pa. Filed May 8, 1918. Serial No. 233,291. 4 Claims. (Cl. 180-8.)



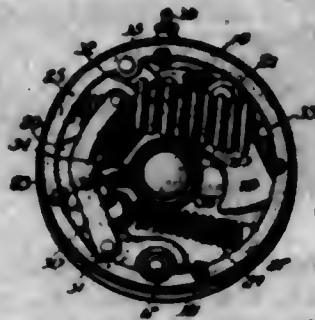
1. In a tractor, a plurality of traction shoes, a forward and a rear crank shaft, connecting rods connecting the crank portions of the forward crank shaft to said traction shoes near their forward ends, and yieldable connecting rods connecting the crank portions of said rear crank shaft and said traction shoes between their ends.

1,305,386. SPEED-CONTROLLING MECHANISM. NATHANIEL LOMBARD, Worcester, Mass., assignor to Holyoke Machine Company, Worcester, Mass., a Corporation of Massachusetts. Filed Sept. 20, 1915. Serial No. 51,672. 8 Claims. (Cl. 74-85.)



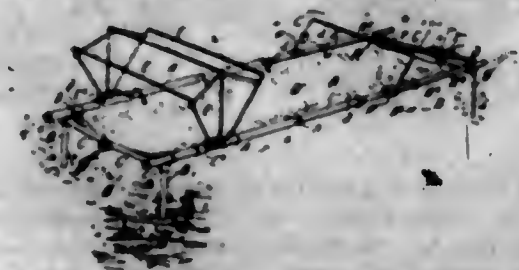
1. In apparatus of the character described, the combination with a gate controlling member of a water wheel, of an actuating means therefor normally held out of operative position, and means responsive to an increase only in the speed of said wheel for moving said actuating means into operative position whereby the position assumed by said gate controlling member in response to its actuation is unchanged by the ensuing reduction in speed of said wheel.

1,305,387. ENGINE-GOVERNOR. NATHAN M. LOWEN, Schenectady, N. Y., assignor to Locomotive Stoker Company, Schenectady, N. Y., a Corporation of Pennsylvania. Filed Feb. 6, 1914. Serial No. 316,925. 31 Claims. (Cl. 204-3.)



4. In an engine governor, in combination, a rotatable shaft, a pair of weights pivotally carried by the shaft and movable radially with reference thereto, means for opposing the centrifugal action of the weights, and supplemental means connected to a moving part of the governing mechanism other than the weights for augmenting the opposing means as the weights move outward.

1,305,388. COMBINED FIELD-COT AND SURGICAL STRETCHER AND MILITARY KNAPSACK. ADOLFO LUBIA, Chicago, Ill. Filed Feb. 3, 1915. Serial No. 6,375. Renewed Oct. 18, 1918. Serial No. 259,757. 4 Claims. (Cl. 21-80.)



1. A stretcher and cot frame having side bars in telescoping sections, a plurality of hook members loosely dis-

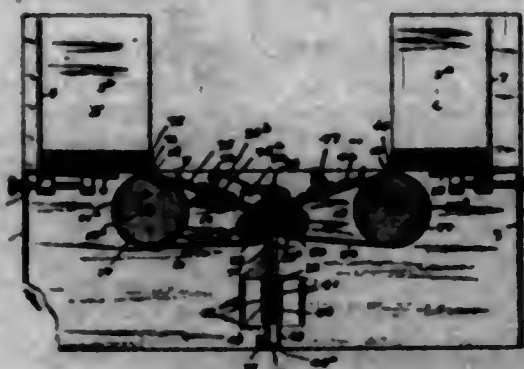
posed thereon, and a canvas between the side bars having a plurality of side openings engageable by said hooks and spaced apart suitable distances, whereby the ends of the canvas may be alternately lapped upon one another and upon its central portion to form a pouch or knapsack attached to the frame when the sections of the said side bars are telescoped, and with the openings in alignment through the several folds to receive the said hooks in the folded position, each of the said side bars having a plurality of sections whereby to reduce the length thereof in telescoped position to approximately that of the folded canvas knapsack.

1,305,389. VENTILATOR. CLAUD P. LYLE, Atlanta, Ga. Filed Apr. 17, 1918. Serial No. 329,004. 3 Claims. (Cl. 98-3.)



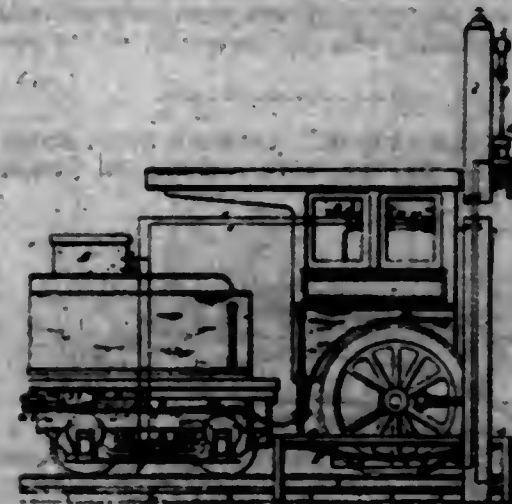
3. The combination with a lower, vertical ventilating pipe having an external stiffening ring near its upper end, of a series of spaced rollers carried by said ring, an upper aligning pipe having an outwardly extending flange of doubled sheet metal with the two webs bent oppositely to form an annular hollow track in rib-and-groove engagement with said spaced rollers, and a second set of corresponding rollers in like engagement with the upper side of said track and each vertically above and connected with the corresponding roller of the lower set.

1,305,390. APPARATUS FOR ENVELOPING MAILING-MATTER. FLORENCE MCCARTHY, New York, N. Y., assignor of one-half to Jerome Wile, New York, N. Y. Filed Mar. 11, 1918. Serial No. 321,614. 14 Claims. (Cl. 93-4.)



1. An apparatus for use in positioning an envelop flap which apparatus comprises a longitudinally extending guide member and a longitudinally extending tapering horn having a longitudinally extending slot in the wall portion thereof, which horn is so arranged relatively to the guide member and is so shaped that by moving an envelop along the guide member with the flap portion of the envelop extending into the horn the flap of the envelop will be tucked into the envelop.

1,305,391. SAFETY DEVICE TO COMPEL PROPER OBSERVANCE OF RAILROAD-SIGNALS. JOSEPH BRYAN MARTIN, Philadelphia, Pa. Filed Apr. 24, 1917. Serial No. 164,278. 28 Claims. (Cl. 244-185.)



23. In a device of the character described, in combination with a moving train, a semaphore, an electric switch operated by the action thereof, an electric circuit controlled by said switch, one lead thereof connected to the truck on which the train moves, an element composed of alternate sections of conducting and non-conducting materials yieldably disposed adjacent to the track, the other lead thereof connected with each of the said conductor sections, electrically actuated recording registers adapted to be operated by said circuit and variously located, electrically actuated alarms adapted to be operated by said circuit and variously located, means operated by said circuit to actuate said registers and said alarms synchronously, an electrically operated control valve on the air-pipe to the air-brake and adapted to act the same, an electrically operated throttle on the steam-pipe to the engine, conducting means on said train, including an actuating device for said air valve and an actuating device for said throttle and so positioned as to electrically engage said yieldable element and so electrically connected with said track as to close and open said circuit by the transit of said train, and operate said air-brake valve and said throttle synchronously with the operations of said registers and said alarms.

1,305,392. FUEL AND PROCESS OF MAKING THE SAME. OTTO MYERS, Watts, Calif. Filed Mar. 28, 1918. Serial No. 325,394. 3 Claims. (Cl. 44-1.)

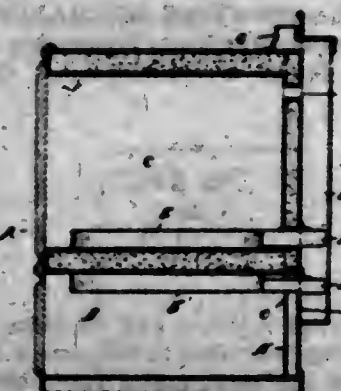
1. A process of producing a solid fuel, comprising heating a bituminous material of the consistency of tar, until the same is fluid, adding powdered lime stone thereto, adding a comminuted carbonaceous material, cooling the mass by adding water thereto, reheating the mass to soften the same, and molding the mass into briquets.

1,305,393. OPTICAL TELEMETETER. ALBERT A. MICHELSON, Chicago, Ill. Filed Sept. 1, 1917. Serial No. 189,301. 11 Claims. (Cl. 88-2.7.)



1. An optical range finder comprising end reflectors, an ocular reflecting system, two telescopes having a common ocular and each having a plurality of objectives arranged to form, at intermediate points between them, images of the object as viewed from opposite ends of the instrument and to form final images in the field of view of the ocular, and projecting lenses interposed at the image planes between said objectives.

1,305,394. STOVE CONSTRUCTION. ROBERT H. MILLER, Detroit, Mich., assignor to Detroit Stove Works, Detroit, Mich., a Corporation of Michigan. Filed May 12, 1917. Serial No. 168,154. 6 Claims. (Cl. 219-35.)



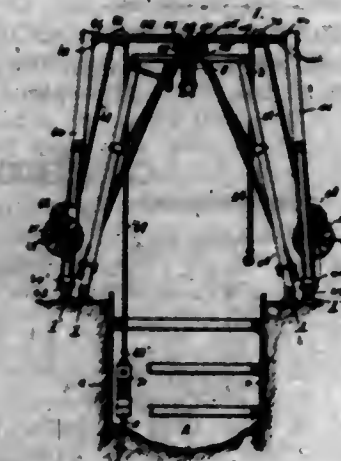
6. In an electric range, the combination with an oven, of a heating register therewithin, electrical connections for said register, terminal blocks for said electrical connections, and an air vent secured to the oven and forming a housing for said electrical connections and terminal blocks, the opening from the oven into the air vent being located adjacent the terminal block to compel a passage of air adjacent the terminal block to cool the same.

1,305,395. FRUIT-STONER. CONRAD MINK, Holgate, Ohio. Filed Mar. 3, 1919. Serial No. 280,280. 4 Claims. (Cl. 146-5.)



1. In a fruit stoner, a rotatable member having a plurality of compartments, the walls of the compartments having recesses, a plurality of knives extending into the compartments and a plurality of extracting lips extending into the compartments, the knives and the lips located in the line of rotation of the recesses.

1,305,396. TRENCHING APPARATUS. THOMAS F. MOORE, Westfield, N. J. Continuation in part of application Serial No. 69,217, filed Dec. 29, 1915. This application filed Mar. 8, 1917. Serial No. 153,422. 9 Claims. (Cl. 212-134.)



1. In a trenching apparatus, the combination of a trestle extending along the trenching line and a traveling

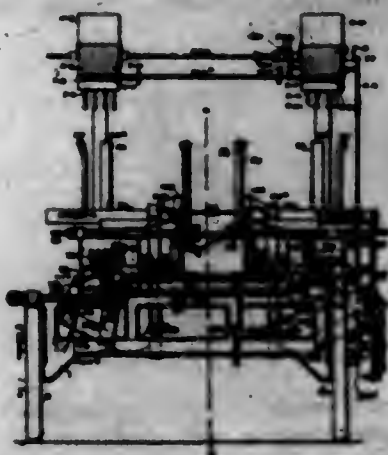
crane movable along the outside of the trestle and having its upper portion overhanging the same in traveling engagement therewith and carrying a part of the hoisting mechanism of the crane.

1,305,397. VALVE-OPERATING MECHANISM FOR ENGINES. CHARLES S. MURDOCK, Booneville, Ark. Filed June 8, 1918. Serial No. 239,071. 1 Claim. (Cl. 123-90.)



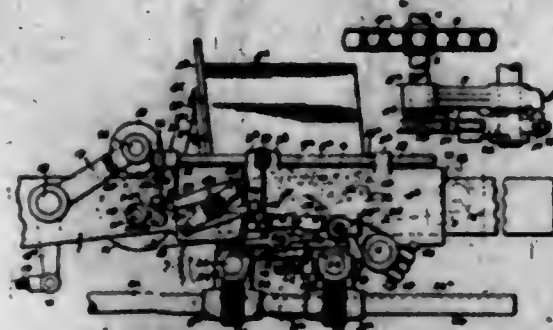
In combination with a valve and its stem, and means for constantly urging the valve to its seat, a disk secured to the outer end of the stem, and a rotatable cam coacting with the disk, a portion of the periphery of the cam being transversely beveled, the remaining portions thereof being flat, the beveled portion of the cam engaging the disk at one side of its axial center to impart slight rotary movement to the disk and to the valve, the flat periphery of the cam contacting with the axial center of the disk for imposing a direct thrust upon the stem.

1,305,398. BOX-MAKING MACHINE. ROBERT CASSELLMAN NEFF, Brooklyn, N. Y., assignor to Carl F. Baker, New York, N. Y. Filed Apr. 23, 1914. Serial No. 832,931. 29 Claims. (Cl. 1-14.)



1. In a machine for making boxes, said boxes having a frame portion comprising end and side pieces, a forming device comprising parallel arms similarly suspended in rectangular arrangement, assembling means comprising members for placing said side pieces laterally against oppositely disposed arms of said forming device with said end pieces bearing against the respective ends of said side pieces on said arms, and means for holding said end pieces thereon comprising yielding pressure bars upon said assembling members.

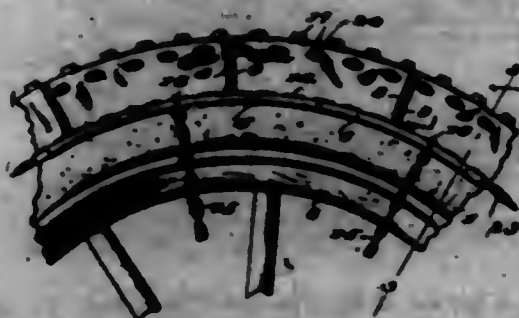
1,305,399. PAPER-FEEDING MACHINE. RICHARD J. NYTEL, Cleveland, Ohio. Filed Jan. 16, 1917. Serial No. 142,000. 21 Claims. (Cl. 271-38.)



2. A paper feeding machine, comprising a frame, pile supporting and sheet feeding and separating mechanism

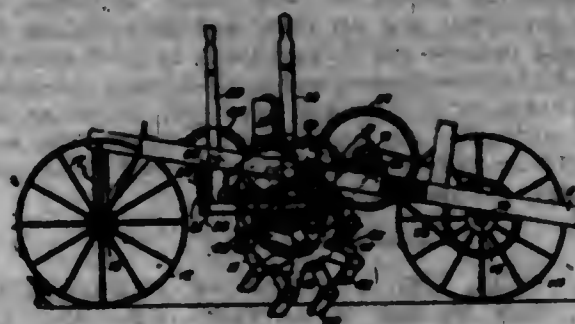
mounted thereon, sheet carrying means below said pile supporting mechanism and extending in front of said sheet feeding and separating mechanism, oscillatory sheet gripping drop rolls in cooperative relation to said sheet carrying means, and sheet actuated tripper mechanism for operating said sheet feeding and separating mechanism in cooperative relation with the movement of the sheet being fed.

1,305,400. TIRE-ARMOR. ANTHONY NOVY, Rapid City, S. D. Filed May 28, 1918. Serial No. 239,972. 5 Claims. (Cl. 183-14.)



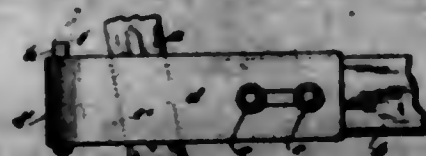
4. A tire armor comprising a flexible cover constructed in sections, means for retaining said cover upon a tire, and wear plates secured respectively upon the adjacent transverse edges of the sections and having a biased engagement, the outer surfaces of the plates being flush with the surfaces of the sections to which they are respectively secured.

1,305,401. PROPELLER FOR VEHICLES. JOHN HENRY NYENHUIS, Chicago, Ill. Filed Feb. 5, 1917. Serial No. 146,552. 10 Claims. (Cl. 180-8.)



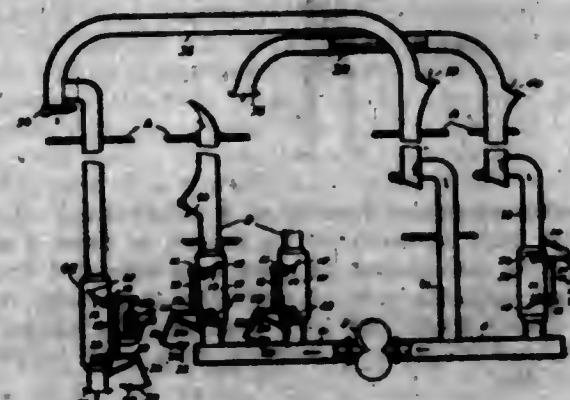
1. In a tractor or the like, the combination of a frame, a wheel support therefor, a propeller having driving blades projectable into the ground, said blades having a reciprocatory movement into and out of the ground along the same line of movement and without appreciably disturbing the material of the ground.

1,305,402. LUG-STRAP. EVERETT T. PACKARD, Avon, Mass. Filed Sept. 5, 1918. Serial No. 252,703. 2 Claims. (Cl. 139-48.)



1. The improved picker stick consisting of an outlining strap doubled upon itself, a buffer seated in the doubled end portion of said strap and opposing plates located in said strap; the ends of said plates abutting the buffer.

1,305,403. PNEUMATIC DISPATCH-TUBE APPARATUS. EMMETT B. PERRIN, Minneapolis, Minn. Filed Mar. 4, 1918. Serial No. 230,118. 8 Claims. (Cl. 137-152.)



1. A pneumatic dispatch tube apparatus comprising transmission tubes, means for causing currents of air to pass through said tubes, and impact means for maintaining a constant velocity of travel of said air currents.

1,305,404. FELT AND PROCESS OF MAKING THE SAME. RAY P. PERRY, Upper Montclair, N. J., assignor to The Barrett Company, a Corporation of New Jersey. Filed Apr. 12, 1917. Serial No. 161,870. Renewed Nov. 20, 1918. Serial No. 263,442. 18 Claims. (Cl. 92-21.)

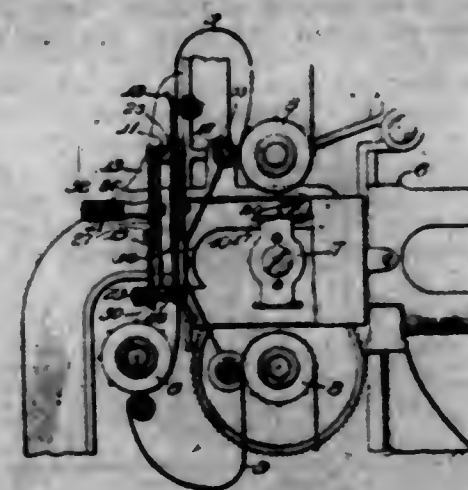


1. As an article of manufacture, a body comprising fusible waterproofing material in filamentary form and disintegrated paper stock material.

2. As an article of manufacture, a body comprising waterproofing material in solid filamentary form and disintegrated paper stock material.

18. The process of making felt which comprises adding a predetermined quantity of fusible material in the form of filaments to a pulp of paper-making material, forming the mixture into a layer, forming the layer into a sheet of paper, and saturating the sheet with molten bituminous material.

1,305,405. FILM-GATE. CHRISTEN J. PETERSON, Chicago, Ill. Filed June 11, 1918. Serial No. 239,412. 7 Claims. (Cl. 88-17.)



1. In combination with the head of a motion-picture machine having a light aperture therein, a film gate in front of said light aperture, a mounting for said gate enabling it to move outwardly from the head, tension mechanism for holding the gate in engagement with the film

263 O. G.—3

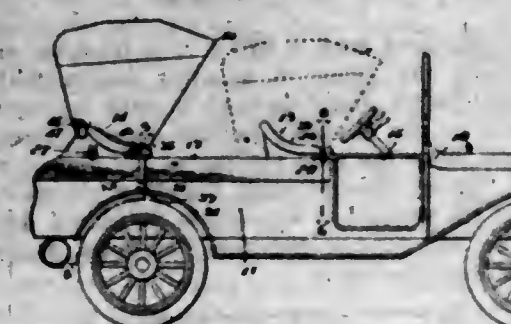
when in closed position, and an adjustable catch for holding the gate in closed position, said catch when adjusted serving to vary the pressure of said tension mechanism, substantially as described.

1,305,406. LAMP-HOLDER. CHRISTEN J. PETERSON, Chicago, Ill. Filed June 11, 1918. Serial No. 239,413. 5 Claims. (Cl. 340-52.)



3. In a device of the class described, the combination of a housing, a light producing element within the housing, a rod within the housing, a split body on said rod, a connecting means between said body and element, and a single releasable means for locking said body to said rod and said connecting means to said body, substantially as described.

1,305,407. VEHICLE-BODY. WILLIAM B. PROUTY, Evanston, Ill., assignor to Presto Passenger-Truck Co., Chicago, Ill., a Corporation of Delaware. Filed Nov. 2, 1916. Serial No. 129,002. 5 Claims. (Cl. 21-43.)

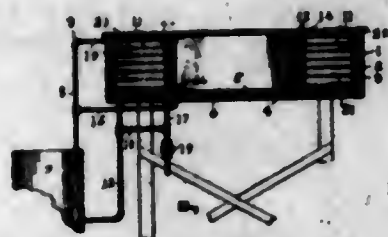


1. The combination with a vehicle body of a fixed front seat and a movable rear seat each facing forwardly in the body at all times, the said rear seat comprising a bottom, arms at each side of the bottom and a back, and the width of the rear seat between the arms being as great as the full width of the front seat, an inclined track slidably supporting the rear seat for movement between a service position in rear of the front seat and a concealed position in which the bottom of the rear seat extends under the front seat and the arms of the rear seat extend about the sides of the front seat, said track being provided with guard rails adjacent each end of the track adapted to prevent said rear seat moving away from said track in both service and concealed positions while allowing upward movement of said seat when in an intermediate position.

1,305,408. VULCANIZING APPARATUS. JAMES E. RASOR, Sherman, Tex. Filed July 12, 1918. Serial No. 244,592. 1 Claim. (Cl. 257-22.)

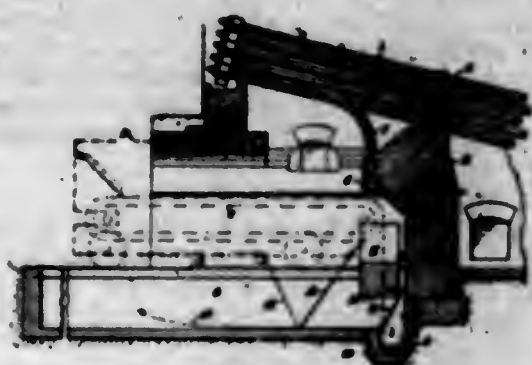
A vulcanizing apparatus comprising concentric inner and outer shells rising from the bottom thereof and secured thereto, a transverse partition located within the

inner shell and above the bottom, the intermediate space between the shells and bottom being filled with a non-conductor of heat, a centrally located, upstanding tube the height of the shells secured to the partition forming a circular chamber between the tube and the inner shell, a



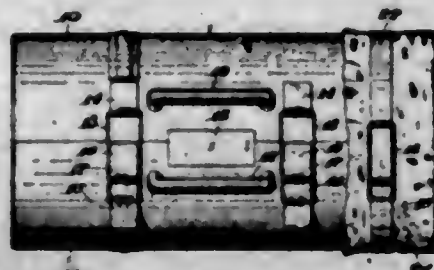
series of laterally disposed pipe coils adjacent and exteriorly surrounding the tube, a similarly disposed series of coils disposed interiorly of the inner shell adjacent thereto, and means for supplying steam of sufficient pressure to the coils to generate the desired heat in the chamber.

1,305,400. STEAM-BOILER FURNACE. WILLIAM J. REILLY, Denver, Colo., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Oct. 10, 1916. Serial No. 124,760. 2 Claims. (Cl. 110-171.)



1. The combination with a boiler of a chamber extending underneath the same to a point intermediate its length, a mechanical stoker located in said chamber, the inner portion of the chamber having a transversely extending flume below the rear portion of the stoker, means for flowing water through the flume, a damper supported above the flume and adapted to be moved over the same, and an air damper between the inner portion of the chamber and the flume.

1,305,410. CHEESE-HOOP. MARCUS H. REINER, Sheboygan county, Wis. Filed Dec. 28, 1918. Serial No. 268,754. 1 Claim. (Cl. 31-21.)



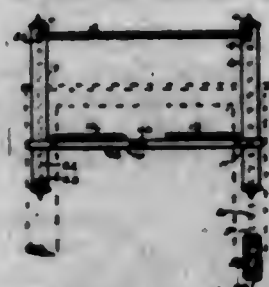
In a cheese hoop a pair of semi-cylindrical sections hinged together at one edge and clamped together at the other edge, a flange at one end of the cheese hoop sections, a disk seated within the cheese hoop against said flange, the other end of the cheese hoop being flaring to receive the disk end of a similar cheese hoop, a cloth arranged within the cheese hoop to form a lining therefor and having its edge turned over the open end of the cheese hoop, and a clamping band surrounding the edge of the cloth and the flaring end of the cheese hoop.

1,305,411. WATER-SPRINKLER. JOSEPH B. RICO, Los Angeles, Calif. Filed July 18, 1918. Serial No. 244,908. 3 Claims. (Cl. 137-64.)



1. A water sprinkler formed of a single piece of resilient wire bent centrally of its length to form a plurality of coils and having its free ends extended downwardly from opposite ends of said coils in parallel relation but spaced apart and then bent at right angles to form retaining steps for retaining said ends in their position of use.

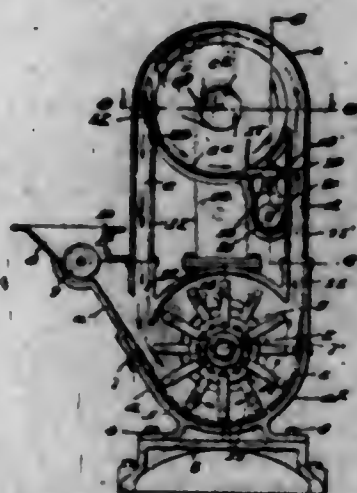
1,305,412. ADJUSTABLE SUPPORT FOR CURTAINS AND DRAPERIES. AUGUSTA E. ROSSER, Oakland, Calif. Filed Aug. 28, 1917. Serial No. 188,220. 2 Claims. (Cl. 156-27.)



1. A device of the character described comprising a plurality of tubular members arranged parallel to each other, and projecting equal distances above and below the casing of a window, movable blocks in said tubular members, resilient means pressing said movable blocks into frictional engagement with said tubular members, a curtain supporting bar between said movable members and arms pivoted in said movable members to support a drapery.

2. A curtain support comprising a plurality of tubular members, blocks slidably carried therein, a curtain rod extending between said blocks, and a spring carried upon each of said blocks and pressing them into frictional engagement with the said tubular members.

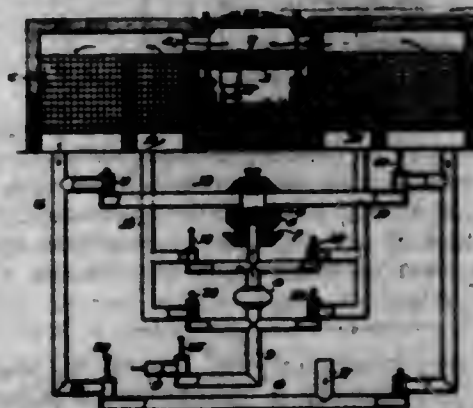
1,305,413. SELF-CONTAINED PULVERIZING AND SEPARATING MILL. JOSEPH MARTIN SCHULTZ, Chicago, Ill., assignor to Schutz Hawley Company, Chicago, Ill., a Corporation of Illinois. Filed July 22, 1915. Serial No. 41,340. 3 Claims. (Cl. 88-11.)



1. The improvement herein described comprising a rotary beater, in combination with a co-acting shell sur-

rounding the same and having air-intake openings in its ends, a chute communicating with the interior of the shell and through which the material to be milled is fed, a tangential outlet for said shell, a reversely positioned tangential inlet therefor, a drum superimposed upon said shell and having air outlet openings in its ends and which are in communication with respective air-intake openings in the ends of said shell, said drum having a tangential intake which joins the tangential outlet of said shell and a tangential outlet which joins the tangential inlet of said shell, and means for continually removing material from said drum, substantially as described.

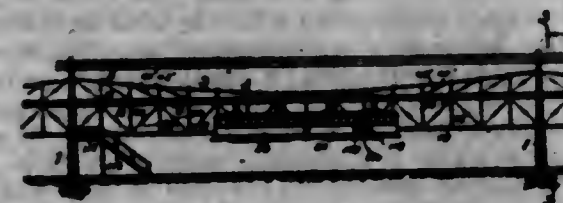
1,305,414. PROCESS AND APPARATUS FOR THE PRODUCTION OF METALLIC NITRIDE. FREDERICK T. SYDNOR, Oak Park, Ill. Filed Jan. 16, 1915. Serial No. 2,534. 11 Claims. (Cl. 23-15.)



3. The process of making compounds of nitrogen, which consists in passing over a mixture of an oxide of a basic metal and carbon, a great excess of superheated producer gas, the temperature of said gas being above the reduction temperature of the oxide of the metal, subsequently burning the gas with air to raise the temperature of the gas and then passing the products of combustion through a regenerator used to heat the subsequent incoming gas, then shutting off the air supply and passing the unburned nitrogen gas through the gas producer to maintain the circulation of the gas over the charge without further heating of said regenerators.

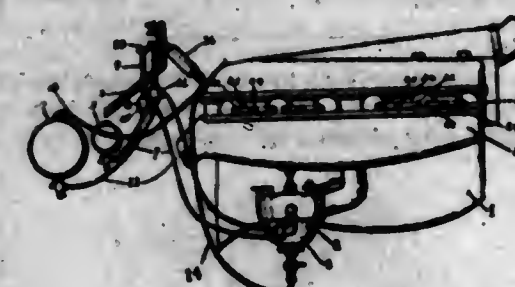
4. High temperature apparatus for the production of aluminum nitride comprising a rotatable furnace for the charge, a pair of gas regenerators each connected with one end of said furnace, a gas producer connected with said regenerators, a blower connected to said gas producer, valves permitting a reversal of flow of reducing gas through said furnace, means for supplying air from said blower to said gas after it passes through said furnace whereby it burns in one regenerator after being superheated in the other, and means for permitting the gas to be drawn from the furnace by said blower and re-passed through said blower, said gas producer, and the regenerator on the inlet side of said furnace.

1,305,415. ELEVATED-RAILWAY SYSTEM. FRED SHAWVER, St. Joseph, Mo., assignor of one-half to Henry L. Doherty, New York, N. Y. Filed Jan. 8, 1918. Serial No. 210,805. 7 Claims. (Cl. 104-64.)



1. In an elevated railway system, an elevated track, a truck running on said track, a car body yieldingly suspended from said truck, a longitudinal guide, and means including a vertically movable guiding device carried by the car body and engaging said guide for holding the car body from lateral swaying.

1,305,416. INTERNAL-COMBUSTION ENGINE. RUSSELL F. TAYLOR, Scotts, Mich. Filed Aug. 27, 1917. Serial No. 188,371. 6 Claims. (Cl. 158-36.)



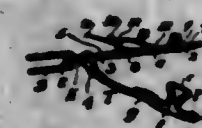
6. In an internal combustion engine, the combination of a carburetor, connections therefor to more than one source of fuel supply, and a pump means for returning the fuel from said carburetor to one of said fuel supplies independently of said supply connections.

1,305,417. MARGINAL CHECK-CUTTER. EDWARD TRAMBLE, near St. Joseph, Mo. Filed Apr. 9, 1917. Serial No. 160,749. 1 Claim. (Cl. 33-83.)



A marginal check cutter, comprising, a clamp bar having clamp hooks formed on the ends thereof for clamping said bar transversely on one end of the cover of a check book having blank sheets provided with longitudinal and transverse money designating margins; a slide, carrying rod formed integrally with one end of said clamp bar at a right angle thereto said rod being outside of and parallel with one of the longitudinal edges of said book; a slide mounted on said rod; slide holding means formed on the free extremity of said rod for holding said slide thereon against detachment therefrom; a cutting bar having one of its ends pivotally connected with said slide for permitting said cutting bar to be swung in a horizontal plane; and a cutting plate slidably secured on said cutting bar one edge of said plate being against the adjacent edge of said cutting bar and its opposite edge extended beyond said bar for adapting said extended edge portion to cover a transverse money designating margin of a check, the edges of said cutting bar and of said plate being adapted to cut said longitudinal and transverse money designating margins from a check when the latter is drawn thereagainst.

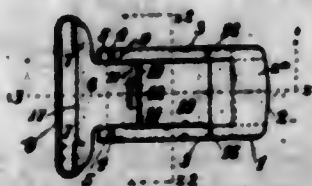
1,305,418. GARMENT-SUPPORTER. ALBERT T. VAN ALSTIN, New York, N. Y. Filed Sept. 17, 1918. Serial No. 799,149. 1 Claim. (Cl. 24-246.)



In a garment supporter of the class described, a frame having a post-receiving opening and having operatively supported thereon a post-clamping device comprising a lever pivotally connected at one of its ends to the frame, a presser plate, a portion of said presser plate bent downward, a hinge connection connecting said bent portion to the middle of said lever, said frame having lateral grooves facing one another, a pin secured to the other end of said presser plate below its upper surface, and slidably secured in said grooves, the entire arrangement, including the bent portion of said presser plate and the positioning of said pin, cooperating to dispose the upper

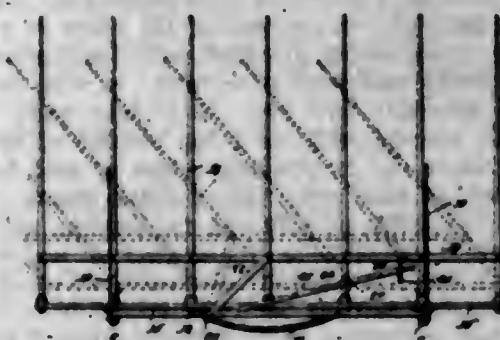
surface of said presser plate in alignment with the upper surface of said frame and disposing the upper surface of said lever parallel thereto when said presser plate is in clamping position.

1,305,419. GARMENT-SUPPORTER. ALBERT T. VAN ALSTYN, New York, N. Y. Filed Sept. 18, 1914. Serial No. 862,267. 12 Claims. (Cl. 24-247.)



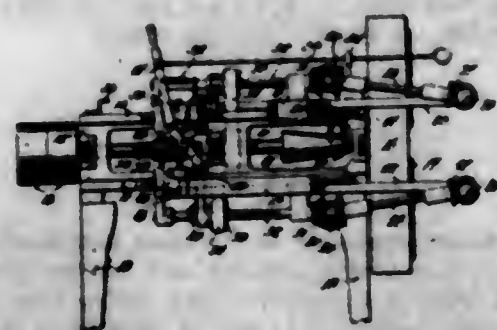
1. A garment supporter having a frame comprising two side members and two end members, one of said end members forming the post engaging portion, a lever fulcrumed at its intermediate portion to the other end member, a slide plate pivotally connected to one end of said lever plate, the free end of which slide plate forms the other post engaging portion, the post being adapted to enter between said post engaging portions from the underside of said frame, and securing means provided on the other end of said lever plate to which an elastic strip may be attached.

1,305,420. HAY-STACKER. OLGA P. VROOM, Linneus, Mo., assignor to Superior Hay Stacker Mfg. Co., Linneus, Mo. Filed Sept. 14, 1918. Serial No. 254,089. 8 Claims. (Cl. 214-140.)



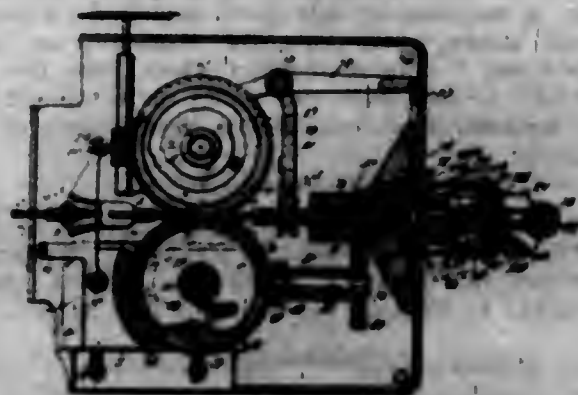
2. In a hay stacker of the over-shot type, a stacker head, delivery tines extending at an angle therefrom, means for elevating the head, and means operated by such movement for swinging the tines laterally relative to the head.

1,305,421. WOOD-SHAVING MACHINE. CHARLES A. WAKEMAN, Oshkosh, Wis. Filed Dec. 31, 1918. Serial No. 269,153. 5 Claims. (Cl. 144-185.)



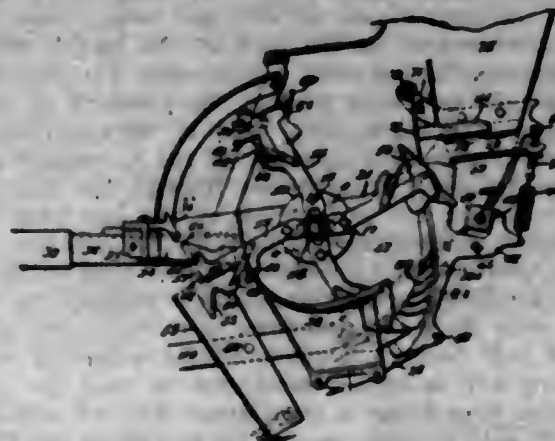
1. A machine of the class described including a main frame, a rotating knife head carried by the main frame, a pair of carriages slidably carried by the main frame, means carried by said carriages for holding work for engagement by opposite portions of the knife head, a driven screw shaft, and nut sections carried by the carriages and engageable with the screw shaft.

1,305,422. MACHINE FOR TYING OBJECTS WITH WIRE. ROSSAS M. WARWICK, Chicago, Ill., assignor to General Wire Tie Co., Chicago, Ill., a Corporation of Illinois. Filed July 12, 1915. Serial No. 89,515. Renewed Nov. 4, 1918. Serial No. 261,156. 15 Claims. (Cl. 140-93.)



1. In a machine of the kind specified, a traveling carrier for objects to be tied, object-engaging devices carried thereby, a wire bending element associated with each of said devices, means for feeding wire longitudinally carried by a rigid part of the machine, said bending means co-acting with said feeding means for looping the wire about the object.

1,305,423. POTATO-PLANTER. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Jan. 12, 1917. Serial No. 142,013. 13 Claims. (Cl. 221-127.)

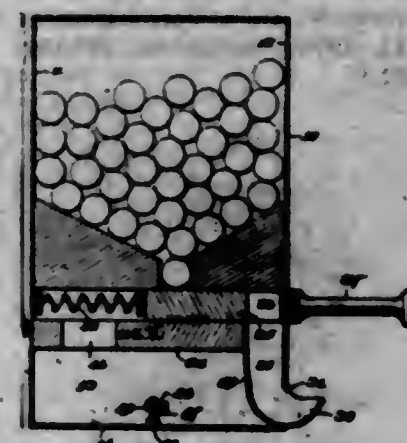


1. In a potato planter, the combination with an open-top potato magazine constructed to receive and accommodate a potato-conveying device, of an open-end hopper pivotally mounted on the magazine and discharging through its lower end into the open top of the magazine, and means for normally locking the hopper in operative position and permitting the hopper to be swung on its pivotal mounting to one side so as to afford access to the interior of the magazine through its open top.

1,305,424. COIN-CONTROLLED DISPENSING-MACHINE. LOUISA WAX, Philadelphia, Pa. Filed May 12, 1918. Serial No. 234,058. 1 Claim. (Cl. 194-2.)

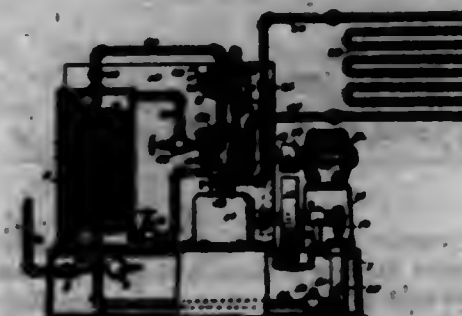
A container for a vending apparatus including a main casing having a tray and a partition therein spaced apart and between which a dispensing member can slide, said casing having an opening at one side in line with the space between said tray and partition through which a portion of said dispensing member can project to the outside of said casing, said casing having a cover section removably secured thereto and adapted to cover the front of said casing and the space between said tray and partition; and a transparent member projecting upwardly from said tray and spaced forward of the back of the

casing to provide a magazine, said cover section serving also to cover said transparent member and having openings therein whereby the interior of said magazine can be seen when the cover section is in place, said casing having a cup extending outwardly from its side and communicating with the space between said partition and tray, said tray having a hole therein through which material from the magazine can drop into engagement with



said dispensing member whereby the dispensing member can move the material to permit it to fall into said cup, said front section of the casing having a hole therein through which a coin can be inserted at a level above said partition, whereby the coin can be moved by said dispensing member, said partition having a hole through which said coin can drop to the bottom of said casing when moved into alignment with said latter hole by the dispensing member; substantially as described.

1,305,425. REFRIGERATING APPARATUS. GUSTAVE A. WAGNER, Rochester, N. Y. Filed July 13, 1917. Serial No. 180,295. 6 Claims. (Cl. 62-115.)

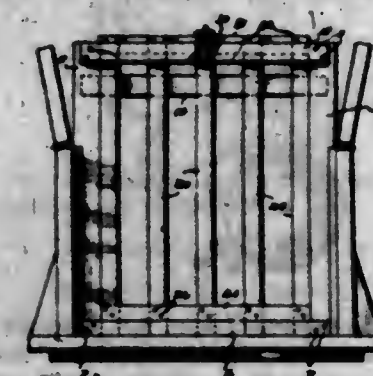


1. In a refrigerating apparatus, the combination with an expansion coil of a reservoir having connection to a source of water supply, means for automatically regulating the water supply, a water jacketed compressor, a pump, and means for operating both last named elements; a condenser, a condenser coil, a water cooler having connection at its discharge and with said reservoir, connections whereby water from the reservoir is forced by the pump through said condenser coil, said water jacket and to said water cooler; pipe connections from the expansion coil to the condenser, and additional connections from the expansion coil through the compressor to the condenser.

1,305,426. END-GATE. CARL WILLENDOERF, Idagrove, Iowa. Filed May 7, 1917. Serial No. 168,983. 1 Claim. (Cl. 21-21.)

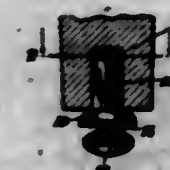
An end gate for wagons comprising a rectangular frame including vertical side members, spaced bottom members secured against opposite faces of the side members and a top member secured against one side face of each side member, a supporting member secured to the opposite side

face of the side members from the top member parallel with the top member and in a horizontal plane below and spaced from the horizontal plane of the top member, a grating disposed for vertical movement between the side members and between the top and supporting members, said grating including vertical members having their lower ends engaged between the bottom members, an upper transverse bar secured to the upper ends of the members of the grating and a lower transverse bar se-



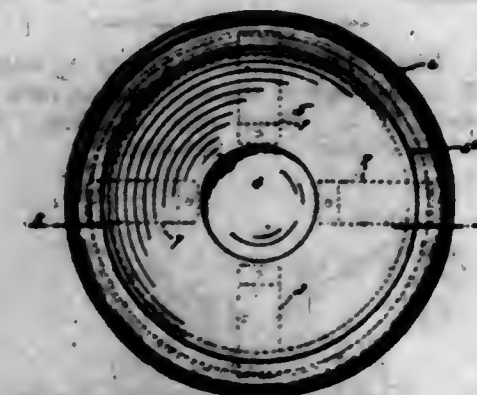
cured to one face of the members of the grating above the lower ends thereof and resting upon one of the bottom members, said grating being vertically slidable to disengage the lower ends of its members from between the bottom members and being shiftable also into horizontal position to lie with its vertical members upon the supporting member and in engagement with the top member of the rectangular frame and with the bottom bar of the grating engaging the top member of the frame.

1,305,427. FURNITURE-FOOT. WILLIAM F. WERNER, Brooklyn, N. Y. Filed Aug. 9, 1918. Serial No. 249,048. 4 Claims. (Cl. 46-13.)



1. A furniture foot comprising a socket adapted to fit a bore provided therefor in the end of a leg of a piece of furniture, a screw-threaded stem adjustable in said socket and upset at its inner end to prevent its removal from the socket, and a foot at the outer end of the said stem.

1,305,428. CUSPIDOR. EAVON J. WILSON, Minneapolis, Minn., assignor of one-half to Anton O. Ouren, Minneapolis, Minn. Filed May 27, 1918. Serial No. 236,876. 2 Claims. (Cl. 4-38.)



1. A cuspidor comprising a bowl having circumferentially spaced centering brackets, a bowl detachably seated on and centered by said brackets, a funnel detachably seated on said brackets and centered above said bowl, and a clamping rim having an inturned flange seated on

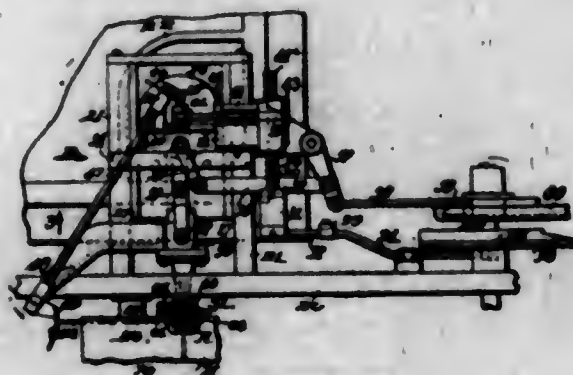
the outer portion of said funnel, the said clamping rim being telescoped around said centering brackets and base and extended from top to bottom of the cuspidor, thereby entirely inclosing the sides thereof.

1,305,429. WEB-RENEWING DEVICE FOR PRINTING-PRESSES. HENRY A. WISE WOOD, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Sept. 19, 1914. Serial No. 862,469. 26 Claims. (Cl. 242-58.)



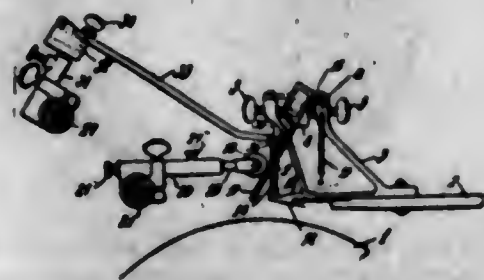
13. In a web renewing device for printing presses, the combination with means for supporting two web rolls, and a pair of pasting rollers, of means for causing one of the pasting rollers to move against the web coming from one web roll and force it against the surface of the other web roll when the latter is rotated to a certain position, and means controlled by one of said web rolls for preventing the first named means to act except at a certain time.

1,305,430. MELTING PUMP AND POT. HENRY A. WISE WOOD, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Original application filed Sept. 29, 1910, Serial No. 584,488. Renewed Oct. 12, 1917, Serial No. 196,345. Divided and this application filed Apr. 2, 1918. Serial No. 226,234. 20 Claims. (Cl. 22-70.)



1. In a machine for casting, the combination of a melting pot, and a pump located in the melting pot and movable bodily forward and back horizontally, and having a vertical nozzle.

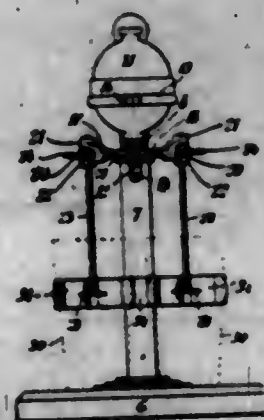
1,305,431. PRINTING-PRESS. JAMES A. ALLEN, Providence, R. I., assignor of one-half to Benjamin F. Briggs, Providence, R. I. Filed June 8, 1916. Serial No. 102,409. 15 Claims. (Cl. 271-53.)



3. In a printing-press, the combination with a feed-table of a rock-shaft mounted over the inner edge of said

table, an arm suspended from said rock-shaft, two guiding jaws secured to the free end of said arm and normally straddling said table, sheet controlled means arranged to rock said shaft and move said guiding jaws away from said table and an actuating finger arranged to move said jaws in the opposite direction.

1,305,432. AGITATOR IMPLEMENT. ALFRED B. ANTISSELL, New York, N. Y., assignor to H. B. Gibson Co., Inc., New York, N. Y., a Corporation of New York. Filed Oct. 15, 1918. Serial No. 258,182. 7 Claims. (Cl. 250-181.)



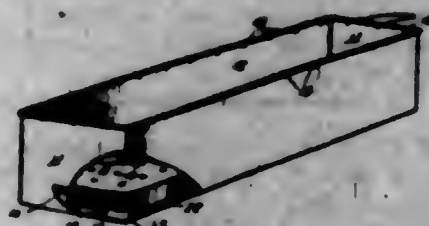
1. The combination of a standard, a post in telescopic union with said standard, a motor carried by said post, a bracket detachably clamped to said motor, a pair of agitator implements pivotally mounted on said bracket and means for operating said agitator implements from said motor.

1,305,433. TRACTOR. STUART G. BAITS and STEPHEN IVAN FENKES, Detroit, Mich., assignors to Hudson Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed May 7, 1918. Serial No. 233,077. 4 Claims. (Cl. 180-54.)



1. In a tractor the combination of an engine, an axle, driving wheels fixed to said axle, a spur gear on said axle between the said wheels, a spur pinion meshing with said gear, a change speed gear driving said spur pinion, and a frame which supports the said parts, the rear portion of said frame forming a housing for said rear axle, said spur gear and pinion lying within the periphery of said driving wheels and the housing being extended laterally beyond the planes of the adjacent faces of the said wheels.

1,305,434. PLANT-BOX. BRONSON BARLOW, Chicago, Ill. Filed Jan. 17, 1919. Serial No. 271,651. 9 Claims. (Cl. 47-41.)



1. In a device of the class described, the combination of a container having a bottom wall and a bridge wall located above the bottom wall and providing a water-receiving space therebeneath, a sheet of material having

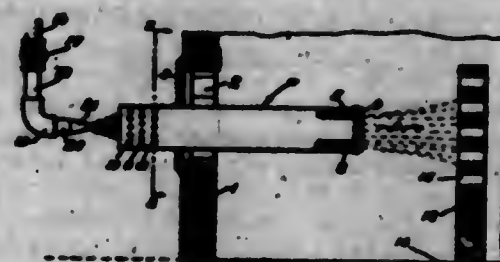
capillary capacity lying against the under surface of said bridge wall, portions of said sheet projecting downwardly into said water-receiving space, said bridge wall being provided with a plurality of spaced apertures whereby water which is elevated by said sheet may be absorbed by soil supported by said bridge wall, substantially as described.

1,305,435. GRIPPER. CHARLES FAWCETT BENNION, Leicester, England, assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 4, 1915. Serial No. 53,908. 13 Claims. (Cl. 13-11.1.)



12. A gripper comprising a pair of jaws relatively movable to grip material between them, one of said jaws comprising a gripping member and a bearing for said member on which the member is movable bodily lengthwise of said jaw, said bearing being constructed to cause the member to be forced toward the other jaw in response to pull of the gripper upon the material in such direction as to increase the bite of the jaws upon that portion of the material which is engaged by the outer edge of said member.

1,305,436. GAS-BURNER. GEORGE L. BLANCHARD, Pomona, Calif. Filed July 1, 1918. Serial No. 242,517. 3 Claims. (Cl. 188-7.)

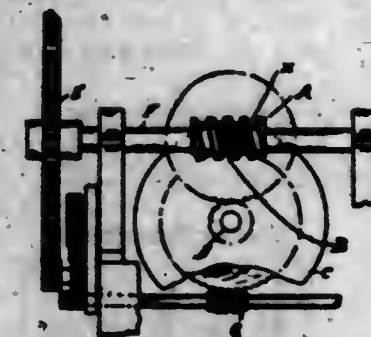


1. A gas burning plant comprising a furnace having a front wall with a door opening, a door covering the opening, a burner mounted through the door and comprising a straight pipe having radial longitudinal slots extending from its rear end and a series of perforations around its front end and a rod mounted diametrically at its rear end, a foraminous baffle wall behind the burner, and a cone-shaped nozzle in front of the burner and discharging through the burner toward the wall.

1,305,437. METHOD OF FORMING WORM-GEARS. WILLIAM EMIL BOCK, Toledo, Ohio, assignor to The Bock Worm Gear Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 11, 1914. Serial No. 837,933. 8 Claims. (Cl. 90-3.)

4. The method of cutting worms with the spiral face thereof of progressively changing pitch, comprising the

rotation of the worm blank about the axis thereof, and the simultaneous movement of the cutter in a circular orbit in



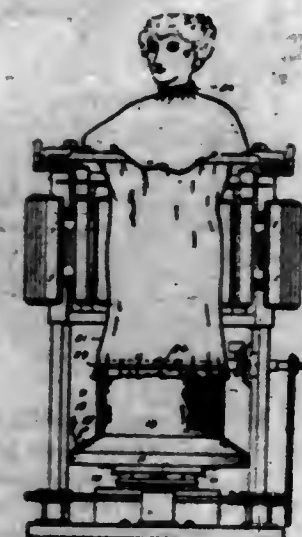
a plane at one side of the axis of the blank and into and out from engagement therewith.

1,305,438. PIPE-PULLER. ALBERT F. BRAUN, Clay Center, Kans. Filed Aug. 9, 1918. Serial No. 249,202. 1 Claim. (Cl. 57-9.)



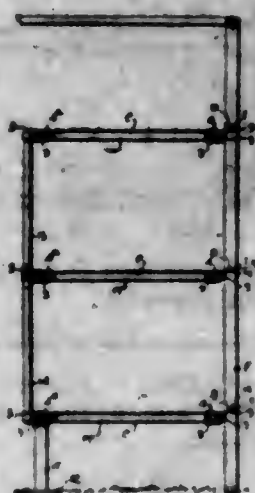
A pipe puller for a well, including a hollow cone member, means for manipulating the cone member within the well to engage the end of the pipe therein, a collar secured around the upper end of the cone member and having an opening in one side, parallel wings formed on the collar at the sides of the opening, said wings being formed with longitudinally extending and transversely aligning series of openings, a stop member mounted in the upper end of the cone member, and a spring pressed pawl mounted on a pivot which is adjustable with respect to said openings, and moving through said opening.

1,305,439. APPARATUS FOR BODY TREATMENT. WILLIAM E. BRENNAN, Chicago, Ill., assignor to The Reducing Machine Company, Chicago, Ill. Filed Sept. 21, 1914. Serial No. 862,708. 5 Claims. (Cl. 128-58.)



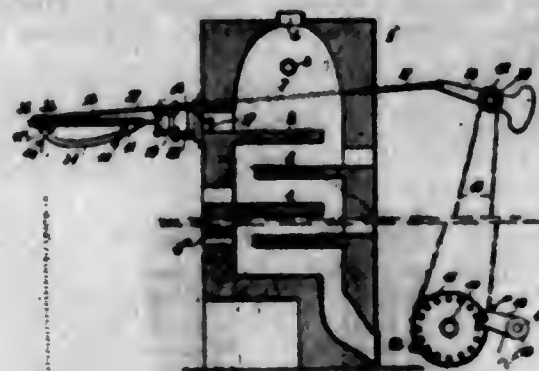
1. The combination with a machine for massaging the body, of an inclosure for inclosing the body of the person to be acted upon, and means for heating the air in the inclosure.

1,305,440. CAMP-BED. JOHN H. BRUNER, Louisville, Ky. Filed Feb. 5, 1918. Serial No. 215,523. 3 Claims. (Cl. 5-60.)



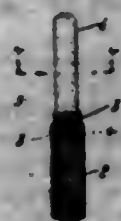
2. In combination with a supporting structure, a plurality of cots arranged in vertically spaced relation and including side strips, a side strip of each of the cots being engaged with the supporting structure, sleeves carried by the opposite end portions of the second strip of each of the cots and arranged substantially at right angles thereto, a ground engaging member co-acting with the second strip of the lower cot and removable members interposed between the second strips of the cots and engageable with the sleeves carried thereby.

1,305,441. FURNACE FOR EFFECTING REACTIONS BETWEEN ONE OR MORE SOLID SUBSTANCES AND ONE OR MORE GASEOUS SUBSTANCES. OSCAR FREDRIK SVANTE CARLSON, Ljungaværk, OSCAR IVAR CARLSON, Stockholm, and KARL GOTTFRIED ROMAN, Ljungaværk, Sweden, assignors to Aktiebolaget Nitrogenium, Stockholm, Sweden, a Corporation of Sweden. Filed July 29, 1916. Serial No. 112,066. 7 Claims. (Cl. 263-23.)



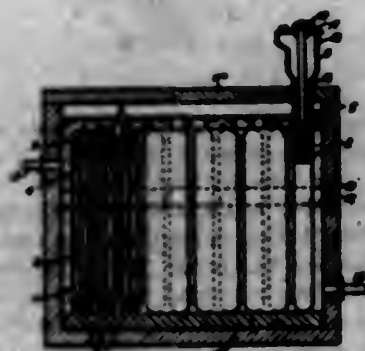
1. In a furnace for effecting reactions between one or more solid substances and one or more gaseous substances the combination of a stirring implement, a rotary body mounted at an opening in the wall of the furnace, packing means provided between the said rotary body and the said wall, an opening provided in the said rotary body through which the shaft of the said implement is passed, and packing means provided between the said shaft and the said body.

1,305,442. EYE-WIPER. CHARLES BOWNE CARR, New York, N. Y. Filed June 14, 1918. Serial No. 240,078. 3 Claims. (Cl. 128-257.)



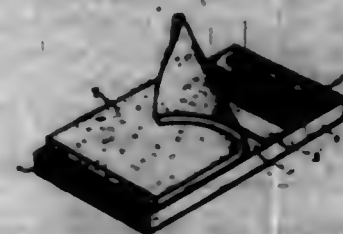
1. A device of the class described, comprising a wiper composed of a comparatively thin strip of soft rubber and a resilient stiffening wire molded within and extending entirely around the lateral edges of said strip near the periphery thereof.

1,305,443. ELECTROLYTIC CELL. LEWIS W. CHUBB, Edgewood Park, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 5, 1917. Serial No. 159,908. 7 Claims. (Cl. 175-318.)



7. An electrolytic cell comprising a substantially closed hollow electrode of film-forming material, an expansion chamber, a tube leading from the electrode to the expansion chamber and a second electrode of film-forming material enclosed within the first and adapted to be completely submerged by an electrolyte contained therein.

1,305,444. INKING-PAD. WILLIAM ELMO CLARK, Toronto, Ontario, Canada. Filed Jan. 29, 1919. Serial No. 273,821. 3 Claims. (Cl. 91-84.5.)



1. An inking pad comprising a block, a cover of textile material extending over the top and around the edges of said block, and an absorbent pad forming an ink container arranged beneath said block.

1,305,445. ANTI-FRICTION FEED-CHUTE FOR TUBE-MACHINES. ELIAS E. DAVIDSON, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Feb. 10, 1917. Serial No. 148,943. 2 Claims. (Cl. 18-12.)



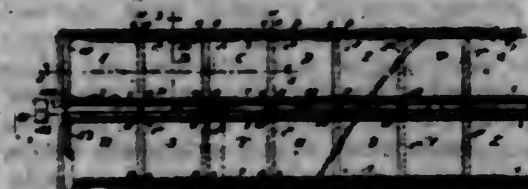
2. Is a tube machine, the combination with the feed-screw and hopper, of anti-friction devices at the upper mouth of said hopper comprising a loosely-journalled horizontal roller for supporting from below the overhanging portion of a strip of the raw material, and a pair of side rollers loosely journalled adjacent to the ends of said horizontal roller and extending substantially at right angles thereto for guiding the edges of said strip.

1,305,446. KNITTED FABRIC BODY. GEORGE DAVIDSON and HENRY C. DECROUX, Fort Wayne, Ind. Filed Mar. 6, 1918. Serial No. 230,684. 3 Claims. (Cl. 66-4.)



2. A knitted fabric body formed of a series of sections of single thickness, the first section of which is formed with rib-knit stitches and the second section being formed with plain-knit stitches, there being made at the juncture of the two sections a lap adapted to close the eyelet holes in the fabric at the juncture and being formed of fulling yarn, and the third section of which which is formed with rib-knit stitches, there being introduced at the juncture of the plain-knit section and the latter rib-knit section several courses of tack-stitches adapted to close the eyelet holes in the fabric at the latter juncture.

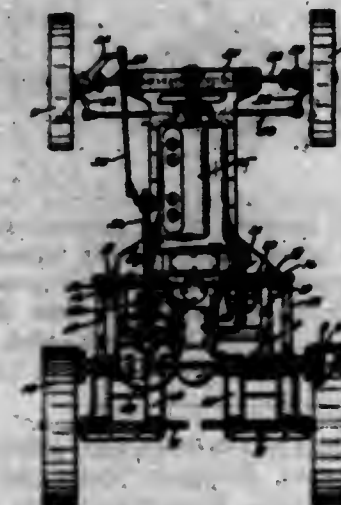
1,305,447. APPARATUS FOR BURNING BRICK. WILLIAM WALLACE DICKINSON, JR., Little Rock, Ark. Filed Mar. 18, 1918. Serial No. 223,936. 16 Claims. (Cl. 25-124.)



1. In combination a plurality of brick kilns each having its interior part of bricks loosely piled, and having

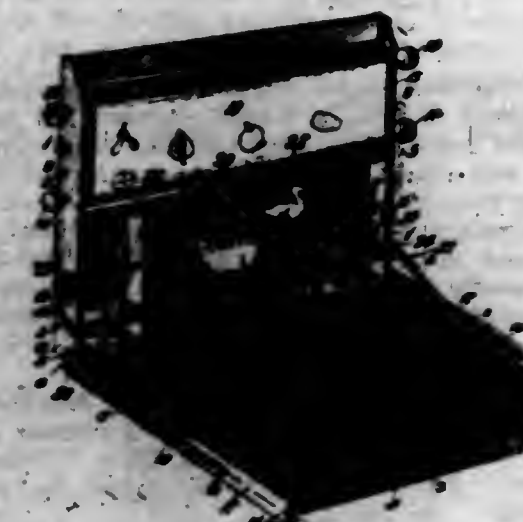
its top and sides formed of bricks closely piled, one of the sides of each kiln being formed with a vertical passageway which communicates at its upper end with the interior of said kiln adjacent to its top, and at its lower end with a conduit leading to the lower part of a succeeding kiln.

1,305,448. TRACTOR. LOUIS C. ENNS, St. Paul, Minn. Filed Apr. 19, 1918. Serial No. 229,626. 2 Claims. (Cl. 180-41.)



1. In a tractor, the combination with a main frame having a divided transverse jack shaft, the sections of which are provided with pinions at their outer ends, frame-like radius arms mounted for vertical pivotal movements around the axis of said jack shaft, traction wheels journaled to the free rear portions of said radius arms and having internal gears meshing with said pinions, a transverse adjusting shaft provided at the opposite sides of the main frame with pinions, vertically movable racks, the one engaging the front side of one of the pinions on said adjusting shaft and the other engaging the rear side of the other of said pinions, connections between said racks and said radius arms for simultaneously imparting reverse vertical adjustments thereto, and means for rotating and locking said adjusting shaft.

1,305,449. EDUCATIONAL DEVICE. CLARENCE A. EVANS, Chester, Pa. Filed May 27, 1916. Serial No. 100,229. 9 Claims. (Cl. 45-51.)



2. In an educational device, a casing, a reversibly mounted lid therefor forming black and working boards, an arm on the side of said casing and having a terminal elbow, a rotatable shaft mounted in said casing adapted to carry said arm, the side of said lid having therein spaced-apart recesses in which the terminal elbow of said arm is freely received, and a slot in said side of said lid

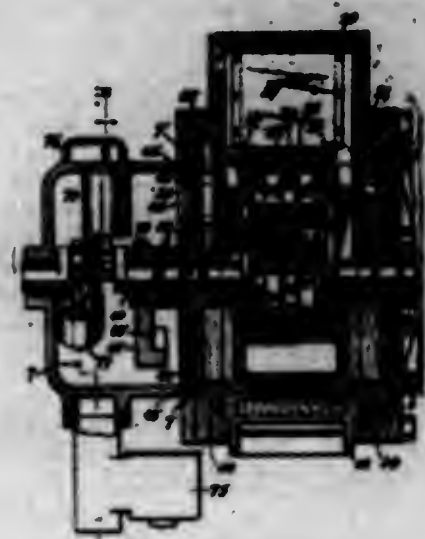
extending from one recess to the other, said elbow being slidable in said slot and devices on the casing engageable with the side members of the lid to hold the latter in its upright position.

1,305,450. POULTRY-PERCH. JAMES E. EVANS, Los Angeles, Calif. Filed Mar. 5, 1919. Serial No. 290,788. 1 Claim. (Cl. 119-25.)



As an article of manufacture a grease cup comprising a long externally screw threaded bolt having an eye at one end, a half grease cup screw seated upon the bolt, a second half grease cup screw seated upon the bolt, said cups being mounted mouth to mouth, and a nut upon the opposite end of the bolt from the eye.

1,305,451. INTERNAL-COMBUSTION ENGINE. JAMES M. EVANS, deceased, Westport, Conn., by Lillie May Evans, administratrix, Westport, Conn., assignor to Evans Engine Company, Incorporated, a Corporation of New York. Filed July 2, 1917. Serial No. 178,277. 2 Claims. (Cl. 123-14.)



1. An explosion engine comprising an explosion chamber, a piston therein, a second chamber for receiving compressed gaseous fuel, means forming connecting ports between said chambers, cylinders in said second chamber radiating from a common point therein, a common inlet tube for said cylinders surrounding said second chamber, pistons in said cylinders having inwardly opening valves therein, and driving connections between said first mentioned piston and said second mentioned pistons.

1,305,452. AUTOMOBILE TRACTION MECHANISM. FRANK H. FARMER, Cleveland, Ohio, assignor to The White Motor Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 11, 1917. Serial No. 173,970. 2 Claims. (Cl. 74-7.)

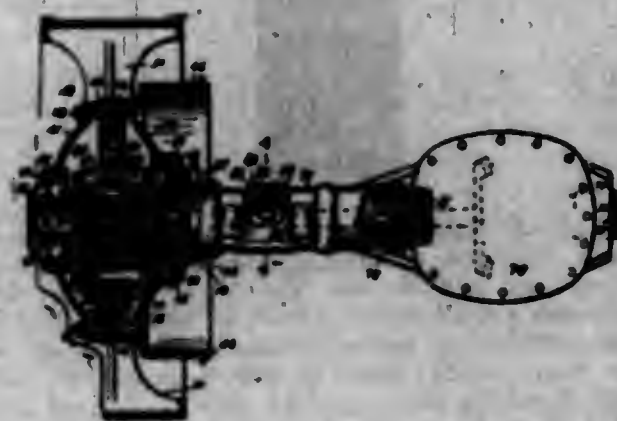
1. In automobile traction mechanism, the combination of an axle tube, a gear cage sleeve tightly fitted onto the outer end of said axle tube, a key engaging said axle tube and sleeve to prevent the rotation of the sleeve upon the axle tube, a gear cage rigidly connected with the outer end of said gear sleeve, a concentric traction wheel, an internal ring gear fixed to said wheel, an idler gear mounted in said gear cage, a driven axle shaft

which projects through said axle tube, a pinion on said axle shaft in mesh with said idler gear, bearings for said traction wheel comprising two anti-friction ring bearings, the inside ring of both of said ring bearings being fitted upon said gear cage sleeve, and said sleeve having



a shoulder against which one of said rings abuts, a spacing sleeve which embraces the gear cage sleeve and lies between and engages said two inside bearing rings, and a brake bracket sleeve which is fitted upon and firmly secured to the axle tube in engagement with the adjacent inner bearing ring.

1,305,453. INTERNAL-DRIVE REAR AXLE FOR MOTOR-TRUCKS. FRANK H. FARMER, Cleveland, Ohio, assignor to The White Motor Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 11, 1918. Serial No. 211,447. 8 Claims. (Cl. 74-7.)

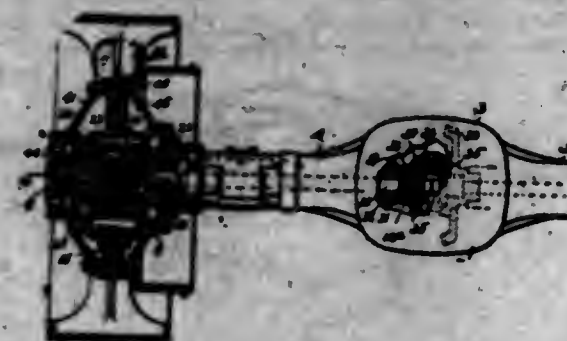


1. In a driving axle for a motor truck, the combination of a hollow axle frame member having a centrally placed differential housing and two aligned tubes which project therefrom in opposite directions, and associated with each of the last named tubes, a tube which telescopes into the same and has a longitudinal tongue and groove connections therewith, and a key which passes through the outer tube and is secured externally thereto and engages the inner tube to fix the position of said tubes longitudinally with respect to one another.

2. In a driving axle for a motor truck, the combination of a non-rotatable axle tube, a gear cage fixedly carried by the outer end of said axle tube and having an outwardly extended concentric stud, a rotatable axle shaft extending out through said axle tube and into said gear cage, a pinion fixed to said axle shaft within said gear cage, annular ball bearings by which said axle shaft is supported by the gear cage on both sides of said pinion, an idler gear mounted in said gear cage in mesh with said pinion, a traction wheel formed with a dished outer plate having at its outer margin an annular

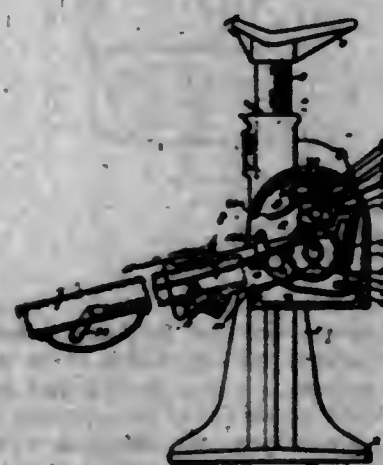
cylindrical flange and outside of that the outer portion of a wheel, and an oppositely dished inner plate which fits within said cylindrical flange, an internal ring gear which also fits within said cylindrical flange between said dished plates, means to firmly secure together said ring gear and two plates, an annular ball bearing located within the central chamber within the wheel by means of which the inner dished plate is mounted on said axle tube, and a second annular ball bearing located within said chamber by means of which the outer dished plate of the wheel is rotatably mounted on the outwardly extended cylindrical stud which is a part of the gear cage.

1,305,454. INTERNAL-DRIVE REAR AXLE. FRANK H. FARMER, Cleveland, Ohio, assignor to The White Motor Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 23, 1918. Serial No. 218,713. 3 Claims. (Cl. 74-7.)



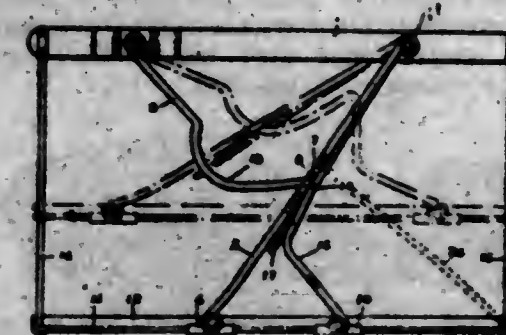
1. In an internal drive rear axle structure, the combination of a hollow axle frame member having a portion which serves as a gear housing, two aligned axle tubes which extend in opposite directions from said gear housing, and a tubular gear cage rigid with the outer end of each axle tube, differential mechanism mounted in said gear housing, a removable cover plate for said gear housing, and, associated with each axle tube, a wheel which is rotatably supported by said axle frame member on both sides of said gear cage, a co-axial tubular pinion rotatably mounted in said gear cage, an axle shaft which is of such diameter that it may pass through said tubular pinion, and which has longitudinal splined connection with said pinion and with the differential mechanism, and a removable hub plate which forms a part of the outer wall of the wheel.

1,305,455. LIFTING-JACK. CHARLES W. FISHER, Springfield, Ohio. Filed Dec. 10, 1915. Serial No. 67,256. 9 Claims. (Cl. 254-35.)



1. In a lifting jack, a main operating lever, a lifting bar, a ratchet wheel, an operating connection between said ratchet wheel and said bar, an operating pawl on said lever to cooperate with said ratchet wheel, a holding pawl to cooperate with said ratchet wheel, and a single manually operated device on said lever for controlling said pawls in both the raising and lowering operation of the same.

1,305,456. MOTOR-CAR SHIELD CLEANER. ROBERT B. FLEMING, Niagara Falls, Ontario, Canada. Filed May 23, 1918. Serial No. 236,186. 5 Claims. (Cl. 15-59.)



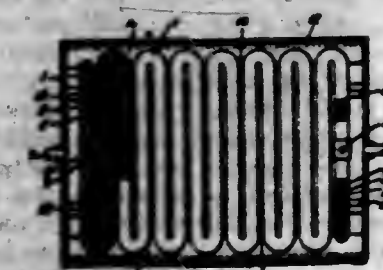
1. A motor car shield cleaner, comprising, a rigid support, a pair of arms pivotally secured to said support and operatively engaging each other in sliding contact intermediate of their length, a horizontal cleaning bar supported on said arms and operated thereby to move up and down, and means for operating said arms from the inner side of the shield.

1,305,457. FIRE-EXTINGUISHER. JAMES FLUKER, Feltham, England. Filed Mar. 6, 1918. Serial No. 220,843. 2 Claims. (Cl. 169-7.)



1. In a fire extinguisher, in combination, an invertible container for holding gas generating chemicals, a discharge pipe extending through the container nearly to the bottom, a casing surrounding and inclosing the end of said pipe, and a second pipe extending within the casing from the bottom of the container past the end of the first pipe.

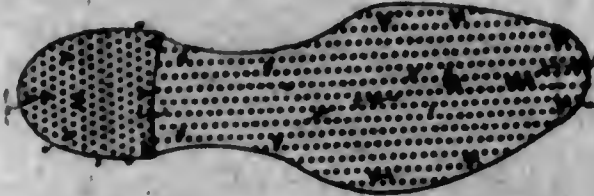
1,305,458. ELECTROLYTIC CELL. CHARLES LE G. FORTESCUE, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 4, 1917. Serial No. 150,659. 12 Claims. (Cl. 175-318.)



1. An electrolytic cell comprising an elongate electrolyte container having two opposed inner walls of electrode

material and an electrode member disposed within the said container and cooperating electrolytically with both of the said container walls.

1,305,459. SHOE-SOLE. WILLIAM P. GILLISPIE, San Francisco, Calif. Filed Sept. 28, 1918. Serial No. 256,128. 3 Claims. (Cl. 26-72.)



1. A shoe sole having a series of superposed thin metal plates fixedly secured to each other at their rear portions, front portions being secured so as to be movable longitudinally relative to each other.

1,305,460. AUTOMOBILE CURTAIN. GEORGE GLAUBER, Los Angeles, Calif. Filed Jan. 6, 1919. Serial No. 269,810. 2 Claims. (Cl. 21-220.)



1. In an automobile curtain window frame, an inner ring of wood having notches, spring hooks extending into the notches, and an outer metallic ring having tongues extending into the notches and adapted to be engaged by the spring hooks.

1,305,461. PUNCH-PRESS. WILLIAM S. GOODING, Chicago, Ill. Filed Apr. 1, 1918. Serial No. 226,047. 2 Claims. (Cl. 74-46.)



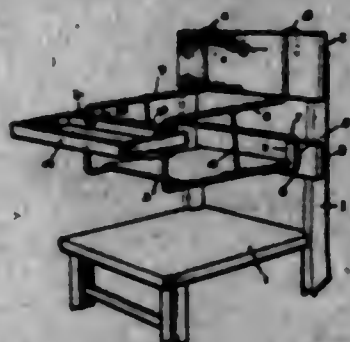
1. A cam shaft rotatably mounted, a pulley having a hollow hub provided with abutments therein and loosely mounted on said shaft and a collar provided with an annular groove rigidly mounted on said shaft, a longitudinally movable pin provided with a recess mounted in said collar, means to yieldingly hold said pin in an advanced position and with the end thereof in the path of movement of said abutments, in combination with a longitudinally movable member provided with an abutment and cam thereon, means to yieldingly hold said member in a raised position with said cam in said groove and in the path of movement of said recessed pin, a pivotally mounted cam knife provided with a recess, means to yieldingly hold the free end of said cam knife in the path of movement of said recessed pin, said abutment on said movable member arranged to move said cam knife out of the path of movement of said recessed pin on the depression of said longitudinally movable member and said cam arranged to be forced by said recessed pin out of the path of movement thereof, thereby moving said longitudinally movable member to force the abutment thereon into the recess of said cam knife, to permit the free end of

said cam knife to be automatically moved into the path of movement of said recessed pin by the heretofore named yieldingly holding cam knife means.

1,305,462. YOHIMBIN-ARSENIC PHARMACEUTICAL PRODUCT. WILHELM GÖTTMANN, Wittenfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed Dec. 1, 1915. Serial No. 64,469. 7 Claims. (Cl. 22-24.)

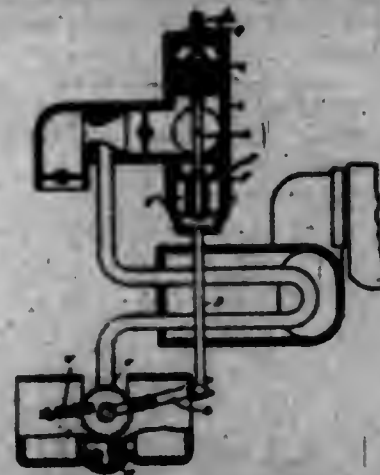
1. The herein described new yohimbin compounds containing arsenic, which are solid, stable substances having valuable remedial properties, substantially as described.

1,305,463. AUXILIARY SEAT FOR CHILDREN. ALFRED A. HARRIS, San Francisco, Calif. Filed Mar. 14, 1918. Serial No. 222,317. 2 Claims. (Cl. 155-36.)



1. An auxiliary seat for children comprising a flat seat, a pair of frames pivotally connected with said seat and having hooks to form a support for the seat, and a padded bar thicker in one plane than in the other having two grooves whereby it may be connected with the seat in either of the two planes, to hold the seat at the proper angle with respect to a support upon which it may be mounted.

1,305,464. CARBURETOR. DONALD T. HASTINGS, Detroit, Mich., assignor to Holley Brothers Company, Detroit, Mich., a Corporation of Michigan. Filed June 22, 1917. Serial No. 176,284. 3 Claims. (Cl. 122-127.)

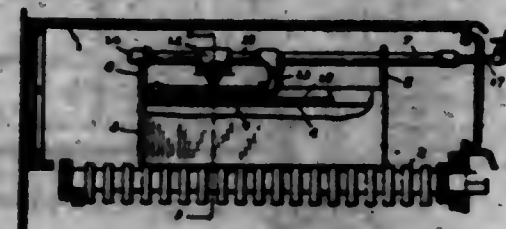


1. The combination with an internal combustion engine, of two containers for supplying fuels of different character to the engine, a valve having two positions in which the containers respectively have supply connection with the engine, mechanism for effecting a snap movement of said valve between said positions, and a thermostat influenced by the heat of the engine for controlling said mechanism.

1,305,465. LIQUID-FUEL BURNER. ARTHUR LANEY HERRICK, Paw Paw, Mich. Filed Dec. 10, 1918. Serial No. 268,040. 7 Claims. (Cl. 186-12.)

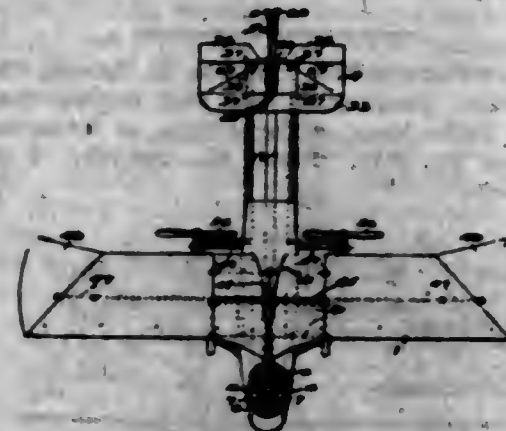
1. In a liquid fuel burner, the combination with a pan-like body member constituting a water receptacle and

having a support extending across the top thereof, and upwardly projecting rests on opposed walls, one rest having an opening therein and the other being shouldered, a fuel supply pipe disposed through said opening, a burner comprising a pair of horizontal members disposed one above the other connected at their inner ends, the lower



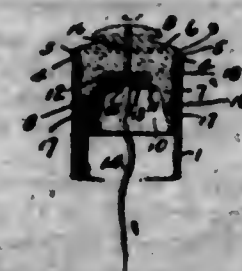
member being disposed on said support and provided with a jet orifice, the outer end of the upper member being connected to said pipe by a horizontally disposed U-coupling engaged with said shouldered rest, and a deflector disposed on the upper burner member above said jet orifice.

1,305,466. AEROPLANE. WALTER C. HIGLEY, Toledo, Ohio. Filed Nov. 5, 1917. Serial No. 300,474. 21 Claims. (Cl. 244-29.)



1. In an aeroplane, a pair of rudders, means for pivotally moving the rudders about axes located on opposite sides and on the outside of the rudders and a short distance from the outside surfaces of the rudders.

1,305,467. POCKET HUMIDOR. MARY GAO. HILTZMAN, Harrisburg, Pa. Filed May 3, 1916. Serial No. 95,184. 11 Claims. (Cl. 131-30.)

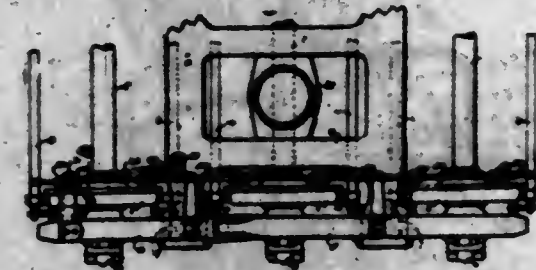


1. A pocket humidifier including a cigar holding receptacle, a closure plug, a humidifying member carried by the plug, and a cigar piercing member carried by the plug and arranged to form a retainer for the humidifying member.

1,305,468. BRAKE ARRANGEMENT FOR CARTHUCKS. BYRON W. KASSEL, Roanoke, Va., assignor to The American Brake Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 11, 1918. Serial No. 114,398. 5 Claims. (Cl. 186-24.)

1. In a brake arrangement for car trucks, a plurality of brake beams with brake shoes mounted thereon, a system of levers for the actuation of the same, the said lever system including a live lever at one end of the truck and

a dead lever at the opposite end, said levers being coupled together and there being suitable lever connecting members connecting the same together, a relatively fixed truck member with respect to which the said brake beams have movement, a lever supporting bracket secured to said truck member and extending therefrom to the dead point



of the said dead lever, a second relatively fixed member adapted to seat against a fixed portion of the car body, and a load-carrying member extending from the dead point of the said dead lever to the said second fixed member and adapted to receive the brake reaction load therefrom.

1,305,469. LOCK. CHARLES KEMP, New York, N. Y. Filed Mar. 11, 1919. Serial No. 281,931. 2 Claims. (Cl. 70-46.)



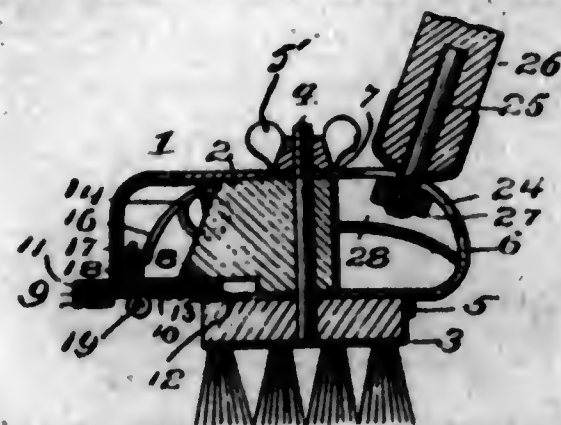
1. In closure means of the character designated, in combination with twin staples, a lock comprising a rotatable hasp cylinder adapted to engage with both of said staples and formed with peripheral teeth, a rack bolt formed with teeth engaging said hasp cylinder teeth, a spring pawl pivotally mounted on said rack bolt and formed with a shoulder for engagement with a stationary part and adapted for engagement with actuating cam arms on the key arbor and on the latch spindle, together with said cam-armed key arbor and said cam-armed latch spindle, for the purpose described.

2. In closure means of the character designated, in combination with a jamb staple, a lock comprising a rotatable hasp cylinder adapted to engage said staple and formed with peripheral teeth, a rack bolt formed with teeth engaging said hasp cylinder teeth and with a recess the side walls of which are adapted to receive and engage with the free ends of actuating cam arms on the key arbor and on the latch spindle, said cam-armed key arbor and latch spindle, a pawl pivotally mounted on said rack bolt and formed with a shoulder for engagement with a stationary part and also formed with a laterally extending bearing tongue protruding into and through the said recess in the rack bolt, said stationary part and a coiled spring interposed in said recess between the bottom thereof and the under side of said lateral bearing tongue on the pawl, for the purpose described.

1,305,470. CLEANING DEVICE. GEORGE L. LAMB, Nappanee, Ind. Filed May 1, 1918. Serial No. 231,785. 4 Claims. (Cl. 15-44.)

1. In a cleaning device, in combination, a brush holding frame having a brush engaging part thereon, said part having a recess rabbeted in its lower face and other recesses in its upper forward part, a detachable brush, means adapted to hold said brush in engagement with said brush engaging part, an adjustable squeegee strip adapted to be adjusted in the recess rabbeted in the lower face, a spring in each of the recesses in said upper forward part, a link for each, passing through said

squeegee strip, a bolt for all said links, said spring adapted to pull the strip against the upper wall of the



recess, and additional means adapted to hold said strip in place.

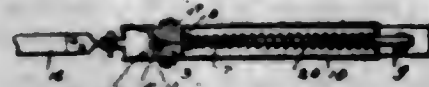
1,305,471. STERILIZING CARRIER FOR CLINICAL THERMOMETERS. COTLAND J. LANGLEY and CLARENCE P. WOOD, Philadelphia, Pa. Filed Dec. 30, 1918. Serial No. 268,897. 7 Claims. (Cl. 167-3.)



1. In a sterilizing carrier for a clinical thermometer, a barrel, a cap connectible therewith, a receptacle for sterilizing material adapted to be contained in said barrel, a resilient tubular gasket adapted to be seated on the top of said receptacle, and a tubular bushing of rigid material adapted to be imposed on said gasket, said barrel and bushing being provided with means whereby said bushing may be secured positively to said barrel and adapted to exert compression on said gasket.

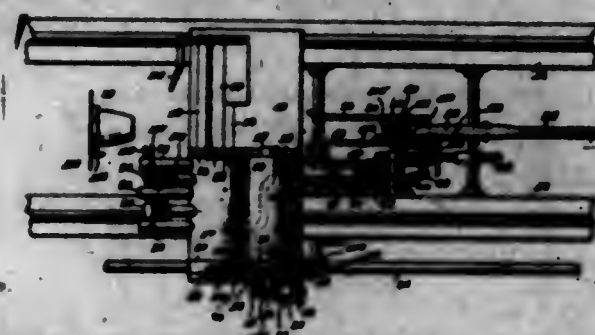
7. In a sterilizing carrier for a clinical thermometer, a barrel, a receptacle for sterilizing material adapted to be contained in said barrel, a gasket adapted to be seated on the top of said receptacle, said gasket having an opening therein, and a tubular bushing having a reduced neck adapted to be seated on said gasket, the thermometer being adapted to be passed through the bore of said bushing and gasket, said bushing having on its side an out-turned shoulder which is adapted to be seated on the top of said barrel, a portion of the side of said bushing above said shoulder having thereon a grasping knurl.

1,305,472. DRAW-BAR CONSTRUCTION. MICHAEL J. LAUBY, Lexington, Nebr. Filed Jan. 27, 1919. Serial No. 273,404. 2 Claims. (Cl. 213-67.)



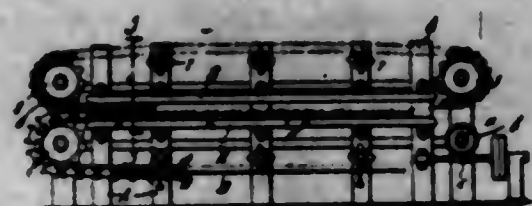
1. A draw bar comprising a bolster, a hollow supporting rod, means carried by the bolster and engaging the hollow supporting rod to support the latter, a yoke member embracing the bolster and provided with an opening at one end to receive the said supporting rod, a spring element mounted on the supporting rod and engaging the yoke member to urge the yoke member toward one end of the rod, and means to maintain the yoke member in sliding engagement with the bolster.

1,305,473. AUTOMATIC LATHE. HOMER HINCHESON LAWRENCE, St. Albans, Vt. Filed July 14, 1917. Serial No. 180,861. 26 Claims. (Cl. 29-54.)



10. In a lathe of the character described having a rotatable chuck, a tool cylinder provided with a plurality of rows of radially-extending tools, means for automatically reciprocating the tool cylinder transversely of the work comprising a collar on the cylinder provided with a pair of cam-rollers, a cam groove plate, and a cam groove cylinder, and means for automatically oscillating said cylinder at the end of each reciprocatory movement to position the different rows of tools to a horizontal working plane.

1,305,474. VULCANIZER. GEORGE H. LEWIS, Chicopee Falls, Mass., assignor to The Flak Rubber Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed May 27, 1918. Serial No. 234,783. 8 Claims. (Cl. 18-3.)

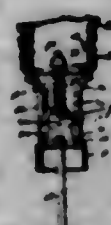


1. In a vulcanizer, two movable and endless series of mold sections arranged for a portion of their travel to move in contiguous relation, means to drive each of said series, the molds of one series presenting molding grooves, into which grooves a strip to be vulcanized may be fed and confined, and means additional to said driving means to hold the coating sections of each series against relative longitudinal displacement.

1,305,475. MANUFACTURE OF BRICKS AND FURNACE-LININGS FROM DEAD-BURNED MAGNESITE. SAMUEL GERARD MCANALLY, Hull, Quebec, Canada. Filed May 27, 1918. Serial No. 234,829. 3 Claims. (Cl. 106-9.)

3. As a new article of manufacture a dead burned magnesite containing from 16 to 18% of lime and 14 to 15% of iron oxide, silica and alumina.

1,305,476. SOAP-DISPENSER. ARTHUR W. MCCOMB, Washington, D. C. Filed Feb. 20, 1919. Serial No. 279,281. 4 Claims. (Cl. 221-114.)



1. A dispensing device including a container having a discharge neck forming a valve casing, an operating stem

slidably mounted in the casing and extending below the same, superposed longitudinally spaced valves carried by the stem and shifting therewith, the casing being formed to provide vertically spaced annular portions separated by a diametrically enlarged portion, the upper annular portion fitting the upper valve and the lower annular portion fitting the lower valve, a spring urging said valves downward, and means limiting the downward movement of the valve stem to a position where the lower valve seats in the lower annular portion and the upper valve is disposed in the intermediate enlarged portion, and means limiting the upward movement of the valve stem to a position where the upper valve is within the upper annular portion and the lower valve is disposed above the lower annular portion.

1,305,477. PENCIL EXTENSION. WILLIAM B. MCILVIN, Manchester, N. H. Filed Aug. 7, 1918. Serial No. 248,000. 2 Claims. (Cl. 120-84.)



1. A pencil extension comprising an integral piece of fibrous material, conforming in contour substantially to the form of the lead pencil and having a smooth conical socket in one end tapered to receive and substantially to fit the conical end of a pencil which has been pointed upon a pencil sharpener.

1,305,478. SOCKET FOR AUTOMOBILE-CURTAIN RODS. EWART McLAUGHLIN, Oshawa, Ontario, Canada. Filed Dec. 19, 1918. Serial No. 267,508. 4 Claims. (Cl. 21-82.)



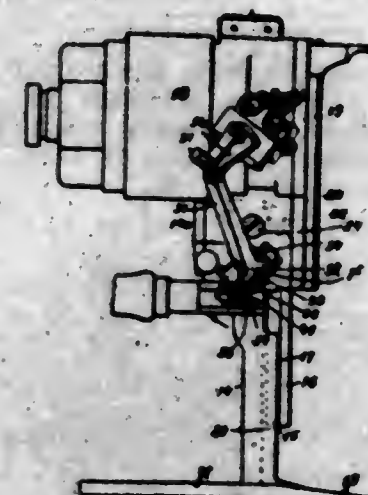
2. A socket comprising a wooden member having a recess counterbored therein to form a shoulder intermediate its ends; a base socket member engaging said shoulder and having its edges embedded in the sides of the recess.

1,305,479. TREE-SAWING MACHINE. ALEXANDER MCPHERSON, Windsor, Nova Scotia, Canada, assignor of one-half to William O'Neill, St. John, New Brunswick, Canada. Filed Feb. 17, 1917. Serial No. 149,356. 5 Claims. (Cl. 143-68.)



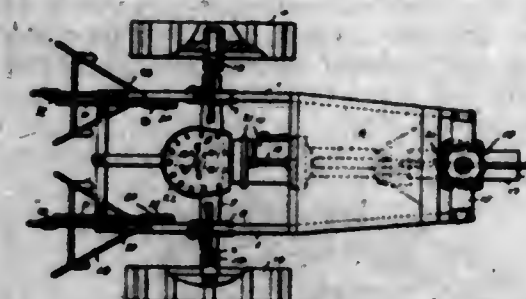
2. In a tree sawing machine, a longitudinal supporting bar provided at one end with means for attaching it to a tree, means for adjustably supporting the other end of the bar, a cylinder pivoted on the bar intermediate of the ends thereof and adjustable along the same between the attached end of the bar and the adjustable supporting means, a frame carried by the cylinder having a saw guide at its outer end, a piston operable in the cylinder, a piston rod connected with the piston and supported at its outer end by the frame, and a saw attached to the outer end of the piston rod and guided in its movements by the said saw guide.

1,305,480. FABRIC-CUTTING MACHINE. HYMAN MAIMIN, New York, N. Y., assignor to H. Maimin Co., Inc., a Corporation of New York. Filed Mar. 22, 1917. Serial No. 156,687. 18 Claims. (Cl. 164-75.)



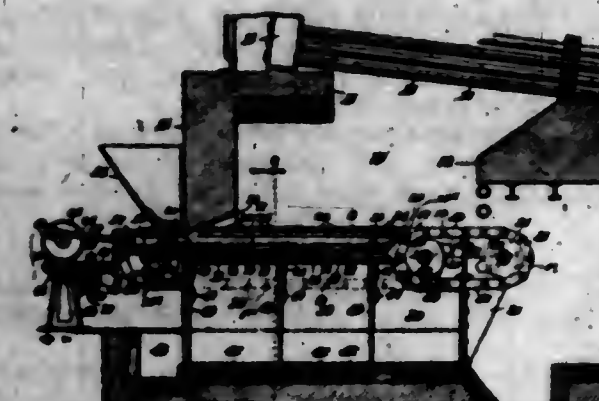
1. In a fabric-cutting machine, the combination with a standard and a knife adapted to be reciprocated in a straight line, of means for inclining the knife relatively to the standard to extend the lower edge of the knife for sharpening, substantially as described.

1,305,481. TRACTOR. GUS MALONE, Covina, Calif. Filed Aug. 21, 1918. Serial No. 250,785. 2 Claims. (Cl. 180-14.)



1. In a tractor, a main frame; pillars extending downwardly from the main frame; an axle housing rigidly connected to the lower ends of the pillars; bearing blocks extending downwardly from the pillars below the axle housing; draw frames slidably mounted upon the bearing blocks; and turn buckle draft rods connecting the forward ends of the draw frames to the forward end of the main frame.

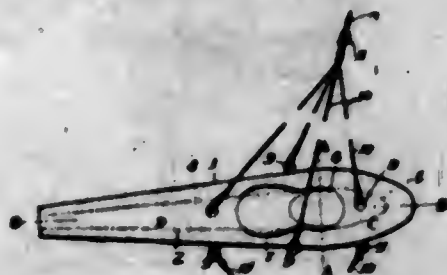
1,305,482. FURNACE-STOKER. THOMAS A. MARSH, Chicago, Ill., assignor to Green Engineering Company, East Chicago, Ind., a Corporation of Illinois. Filed Feb. 16, 1917. Serial No. 148,926. 12 Claims. (Cl. 110-44.)



1. In a furnace, in combination, an endless chain grate extending into the furnace and having the upper lap

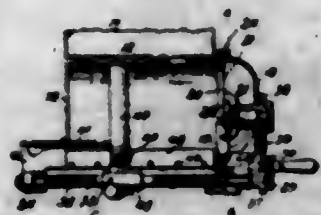
thereof forming the fuel supporting portion of said grate, a fuel retort located beneath the upper portion of said grate and having an opening permitting fuel to be discharged from said retort onto the upper surface of said grate, and means for moving fuel into said retort.

1,305,483. APPARATUS FOR SEARCHING AND LOCATING SUBAQUEOUS MATTER BY WAY OF SWEEPING. YOSHIO MATSUMURA, Minami-Katashika-Gun, Tokyo, Japan. Filed Feb. 20, 1919. Serial No. 278,111. 6 Claims. (Cl. 43-9.)



1. A sweeping apparatus comprising a plurality of spreaders, preferably fish shaped and substantially flattened ellipse in cross section, an inlet and outlet on said spreader respectively at head and tail portion thereof, means to cause the rushing water to strike against the head of the spreader before making its way to the exit.

1,305,484. ICE-BHAVING MACHINE. ALFONSO MOSCA, Norfolk, Va. Original application filed Oct. 5, 1914, Serial No. 865,170. Divided and this application filed Nov. 23, 1917. Serial No. 208,579. 3 Claims. (Cl. 83-62.)



2. In a machine for disintegrating material, the combination of a casing having an outlet for the treated material, a rotary cutter head operating between the casing and outlet and having a hub extension provided with radial arms, a sweep blade provided with an opening and having its outer edge conforming to the shape of the outlet, said blade bearing against the side of one of the radial arms, a lateral flange on the blade having a recess receiving the radial arm against which the blade bears, and means for securing the flange to the cutter head.

1,305,485. COMPOSITION FOR THE MANUFACTURE OF DRY CELLS. GEORGE W. B. NEFF and EMANUEL A. JENKINS, Sandy, Utah. Filed May 20, 1918. Serial No. 285,067. 1 Claim. (Cl. 204-29.)

A plastic composition for dry cells, consisting of 20% carbon, 20% graphite, 50% manganese dioxide, 10% sal ammoniac, sulfuric acid three parts and thirteen parts vinegar.

1,305,486. BROOM-HANGER. JOHN A. ORMAN, Ashland, Mont. Filed Nov. 16, 1918. Serial No. 262,821. 2 Claims. (Cl. 24-257.)

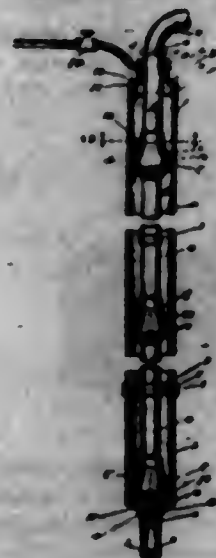
1. A broom hanger composed of a single piece of wire having a centrally formed eye to receive an attaching device and bent to form laterally projecting wall engaging wings, the ends of the wire being bent outwardly to form a loop adapted to receive the shoulder of the broom,

upwardly to form divergent prongs to engage the face of the broom head, then back upon itself through said prong



and loop forming portion, the extreme ends of the wire being brought together and formed with eyes adapted to receive a further attaching member.

1,305,487. PUMP. ALBERT LEE OWEN, Santa Rita, N. Mex. Filed June 8, 1917. Serial No. 178,642. 3 Claims. (Cl. 103-84.)



1. A lift pump including a discharge tube provided at an intermediate point in its length with an enlarged nozzle chamber, an annular series of nozzles extending into the nozzle chamber and arranged to converge toward a point on the axis of the discharge tube, the ends of the nozzles being spaced from one another a distance equal to the diameter of the discharge tube so that there is an unobstructed passage throughout the entire length of the discharge tube and nozzle chamber of a size corresponding to the cross section of the discharge tube, a reservoir carried by the discharge tube and completely surrounding the nozzle chamber, said reservoir being in communication with the inlet ends of the nozzles, and means for supplying an elastic working fluid medium to the reservoir.

1,305,488. ROLLER-BIT. THADDEUS PATIN, Whittier, Calif. Filed Sept. 6, 1918. Serial No. 252,959. 3 Claims. (Cl. 255-71.)

1. In a roller bit, two half bit heads each having a flat inner face and a circular outer face, and an inclined flat lower face extending from the lower end of the flat face downwardly and outwardly to the circular outer face, there being a bearing opening formed from the inclined flat lower face, a bearing opening formed from the

circular outer face in line with the first bearing opening, and a flange between the inner ends of the two bearing openings; a bearing plate fitting the inclined flat lower face; bearing rollers fitting the bearing plate; a cutting cone; a second bearing plate recessed into the cutting cone and fitting the bearing rollers; a stem extending from the axial center of the cutting cone through the



bearing plates into the first bearing opening; bearing rollers around the stem; a plate extending from the stem through the flange; a ball bearing upon the plate in the second bearing opening against the flange; a nipple extending from the plate; and a nut upon the nipple against the ball bearing.

1,305,489. ROLLER-BIT. THADDEUS PATIN, Whittier, Calif. Original application filed Sept. 6, 1918, Serial No. 252,959. Divided and this application filed Mar. 2, 1919. Serial No. 260,391. 3 Claims. (Cl. 255-71.)

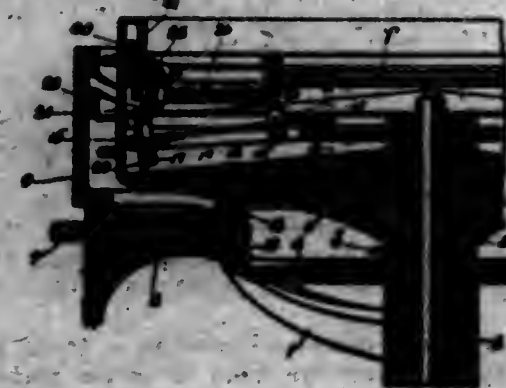


1. In a roller bit, two half bit heads each having a flat inner face and a circular outer face, and an inclined flat lower face extending from the lower end of the flat face downwardly and outwardly to the circular outer face, there being a bearing opening formed from the inclined flat lower face, a second bearing opening formed from the circular outer face in line with the first bearing opening, and a flange between the inner ends of the two bearing openings; a bearing plate fitting the inclined flat lower face; bearing rollers fitting the bearing plate; a cutting cone; a second bearing plate recessed into the cutting cone and fitting the bearing rollers; a stem extending from the axial center of the cutting cone through the bearing plates into the first bearing opening; bearing rollers around the stem; a plate extending from the stem through the flange; a ball bearing upon the plate in the second bearing opening against the flange; a nipple extending from the plate; a nut upon the nipple against the ball bearing; the first bearing rollers being recessed into the cutting cone; an annular packing recessed into the cutting cone around the bearing plates and engaging the inclined flat lower face; and a housing plate secured to the circular outer face and covering the

283 O. G.-4

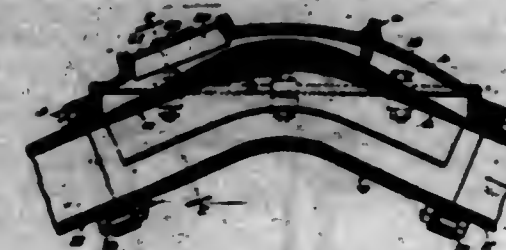
second bearing opening and forming a lubricant chamber, there being an opening leading downwardly from the top of the half bit head and communicating with the bearing opening, so that the bearing may be flooded and the lubricant chamber filled with lubricant.

1,305,490. BRAIDING-MACHINE. ANKER PETERSEN, Boston, Mass., assignor to Boston Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed July 7, 1918. Serial No. 108,070. 7 Claims. (Cl. 28-4.)



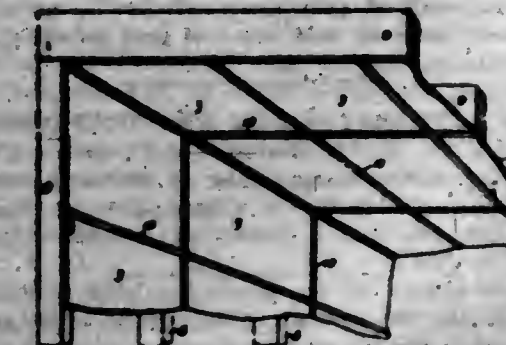
7. A braiding machine having a thread carrier, supporting and driving roller having attached thereto to rotate therewith an annular friction wheel lying at one side of said roller, in combination with bearing means on the carrier bearing on said roller and means for preventing said bearing means from being displaced centrifugally against said friction wheel.

1,305,491. ASH-CONVEYING SYSTEM. HERMAN A. FORREHUSEN, Hammond, Ind., assignor to Green Engineering Company, East Chicago, Ind., a Corporation of Illinois. Filed Mar. 21, 1918. Serial No. 228,802. 6 Claims. (Cl. 137-75.)



1. A pipe section adapted for use in an ash conveying or like system, and having a wear resisting portion, therein, said pipe section having an opening in its outer wall, and a cover plate for said opening and adapted to be worn through after said wear resisting portion has been worn through.

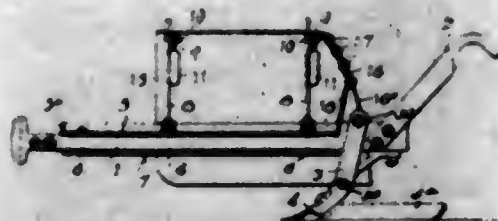
1,305,492. WALL CONSTRUCTION. CHARLES E. QUASS, Canton, Ohio, assignor to John F. O'Dea, Canton, Ohio. Filed Mar. 11, 1916. Serial No. 83,698. 1 Claim. (Cl. 73-24.)



A wall, partition, or ceiling, comprising a framework, and a series of panels, each comprising a fireproof body,

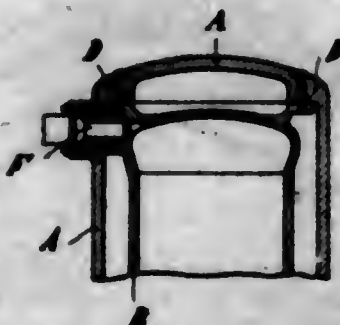
and metal sheets for covering the same, and parting strips for said panels adapted to be secured to the framework, the edges of said sheets lying within said panels, said sheets being normally concavo-convex and having their convex sides next to the panel body with their edges countersunk on the inside of the panels.

1,305,493. BOLL-WEEVIL DESTROYER. JOHN W. RAY, Philadelphia, Miss. Filed Nov. 24, 1917. Serial No. 203,680. Renewed Apr. 9, 1919. Serial No. 288,845. 8 Claims. (Cl. 43-1.)



1. A boll weevil destroyer including a frame mounted to be drawn between two rows of cotton plants, horizontally disposed pans arranged upon the frame, and longitudinally extending flexible side curtains at the sides of the pans, the upper portions of the side curtains being deflected over the pans, while the lower portions thereof hang in a spaced and parallel relation to the pans so that the plants in the two rows will pass between the pans and the curtains and be agitated to dislodge the boll weevils.

1,305,494. WORKING CYLINDER FOR INTERNAL-COMBUSTION ENGINES. CONRAD RESENDOHN and PAUL A. RITTER, Kiel, Germany. Filed May 22, 1918. Serial No. 29,932. Renewed Oct. 25, 1918. Serial No. 259,718. 2 Claims. (Cl. 123-173.)



2. A working cylinder for internal combustion engines having an inner cylinder and an outer cylinder surrounding the same, and means for securing the inner cylinder in the outer one, permitting axial, as well as radial displacement between the two cylinders, said inner cylinder having integral therewith a cap closing one end thereof, a valve secured in said cap and extending through the wall of said outer cylinder so as to permit displacement between said cap and said outer cylinder.

1,305,495. APPARATUS FOR EXCITING ROENTGEN-RAY TUBES. FRANK RISSER, San Francisco, Calif., assignor, by mesne assignments, to Rieber Laboratories, San Francisco, Calif., a Corporation of California. Filed Jan. 29, 1917. Serial No. 145,088. 6 Claims. (Cl. 175-364.)

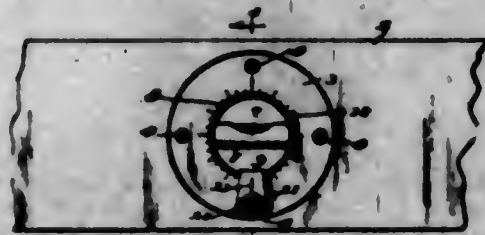
1. In an apparatus for producing high potential unidirectional electric current, a source of alternating potential, means for transforming said potential to another potential, means for varying said transformed potential without interrupting the continuity of the electric cur-

rent, means for transforming the variable potential to a much higher potential, and means for converting the



resultant high potential alternating current to high potential unidirectional current.

1,305,496. LEVEL. WELLINGTON SALT, Buffalo, N. Y. Filed July 23, 1918. Serial No. 246,295. 2 Claims. (Cl. 23-211.)



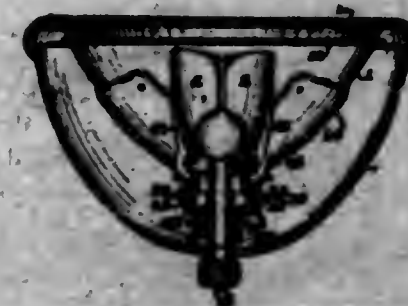
1. A level comprising a stock having a transverse aperture, a circular plate secured to the stock and having a central opening in registration with the aperture, a ring connected with the plate and adapted for angular movement with respect thereto, a spirit level tube secured at diametrically opposite points in the ring, an L-shaped member having one leg attached to the ring at a point 90 degrees from the ends of the tube, and the other leg lying upon the face of the plate, and means for attaching the plate to the stock, said means cooperating with the L-shaped member to hold the tube in parallelism or at right angles with the longitudinal edges of the stock.

1,305,497. RUG-BEATER. WILLIAM E. SCHNEIDER and GEORGE E. VOELKES, Dasey, N. D. Filed Mar. 8, 1918. Serial No. 221,190. 4 Claims. (Cl. 15-18.)



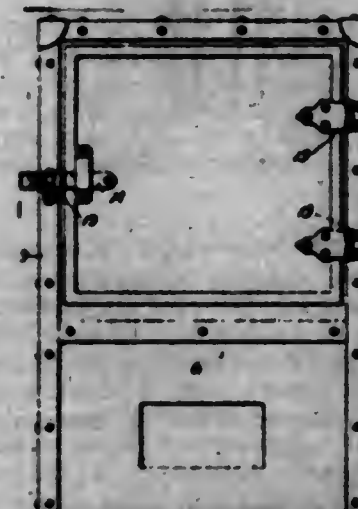
1. A device of the character described including a support, an endless rug supporting cable mounted thereon, beating arms connected to the support, a shaft journaled in the support and positioned between the arms, resilient means for normally holding the beating arms in close relation with respect to each other, coactive means on the shaft and on the adjacent faces of the arms for cooperating with the resilient means for allowing the arms to alternately strike a rug adapted to be supported on the table, a pulley wheel over which the cable is trained, a ratchet wheel carried by the pulley wheel, a pawl eccentrically connected to the shaft and engageable with the teeth on the ratchet wheel and adapted to be moved up and down during the rotation of the shaft so as to rotate the wheel and feed the cable, and resilient means for yieldingly holding the pawl in engagement with the teeth of the ratchet wheel to facilitate actuation.

1,305,498. CONTROLLABLE HEADLIGHT-SCREEN. WILLIAM A. SCHNEIDER, Seattle, Wash. Filed Dec. 27, 1917. Serial No. 269,089. 3 Claims. (Cl. 240-45.)



2. The combination with pivoted light screens each having a pair of operating arms projecting from their pivot, a rotative disk having a cam flange projecting from its face and entering between the pairs of arms, a ratchet wheel secured to the cam disk, an oscillating member carrying driving pawls, and a solenoid having its core actatively connected with said oscillating member.

1,305,499. STEAM-STERILIZER. HERMAN SPRITZ, Nashville, Tenn. Filed Oct. 1, 1918. Serial No. 256,454. 2 Claims. (Cl. 167-3.)



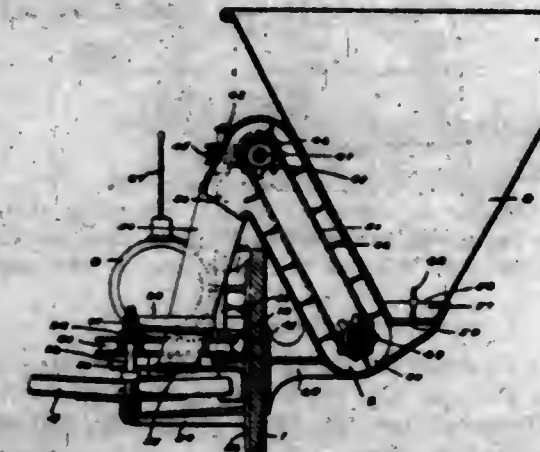
1. In a sterilizing apparatus, the combination of a sterilizing chamber having a dead air space at its top, bottom and sides, a small circulating passage connecting the upper end of said chamber with the lower end thereof, said circulating passage lying within said dead air space.

2. In a sterilizing apparatus, the combination of an outer casing having a door provided with a dead air space, a sterilizing chamber mounted within said casing and spaced therefrom, a perforated bottom for said chamber, an intumed flange arranged below said bottom, an opening in one of the side walls of said chamber adjacent the top thereof, and a passage lying between said casing and said chamber and communicating through said perforated bottom with said intumed flange, in and for the purpose described.

1,305,500. SEEDING-MACHINE. BENJAMIN M. STRELA, Peoria, Ill., assignor to Hart Grain Weigher Co., Peoria, Ill., a Corporation of Illinois. Filed Feb. 9, 1917. Serial No. 147,892. 11 Claims. (Cl. 275-8.)

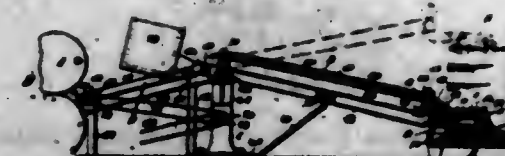
1. In combination with an end-gate, a hopper mounted on the inside thereof, a conveyer receiving the discharge

from the hopper and discharging over the top of the end-gate, distributing fans on the outside of the end-gate,



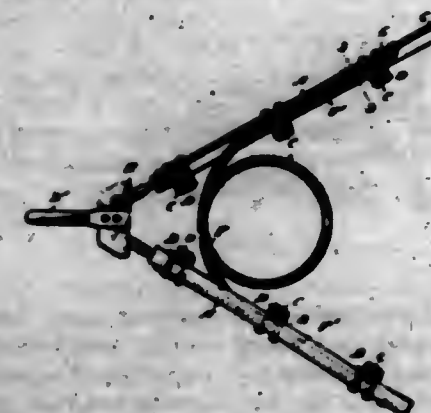
means for conveying the discharge of the conveyer to said fans, and means for driving said fans and conveyer.

1,305,501. CATCHING AND PACKING MECHANISM. LAWRENCE C. STANTA, Beaver, Pa. Filed Mar. 27, 1917. Serial No. 187,781. 26 Claims. (Cl. 271-83.)



1. A packing mechanism comprising means having opposed positively rotating members adapted to engage the edges on opposite sides of materials successively placed therebetween and move the materials lengthwise and sideways to thereby align said materials in a pile or pack, and means on said rotary members arranged to lift and automatically maintain the packing mechanism on top of the stack of piled materials during the formation of the pack.

1,305,502. CULTIVATOR. HENRY C. TATE, Memphis, Tenn. Filed Sept. 23, 1918. Serial No. 255,271. 3 Claims. (Cl. 97-10.)



2. The combination with the widely separated rearwardly diverging bars, of a horizontal spring coil lying in the space between the forward portions of the bars and having arms lying alongside and with their ends secured to the bars, respectively, and means for connecting draft power to the forward ends of the bars while allowing all motions permitted to the bars by said spring.

1,305,503. SPOT-WELDING. WADDEY RANDOLPH THOMSON, Lancaster, S. C. Filed July 9, 1917. Serial No. 179,377. 3 Claims. (Cl. 219-10.)

1. A method of welding pieces of bale ties, which consists in placing the ends of the piece upon each other in

lapping relation, and in lapping a third piece about the lapped ends transversely of the tie, said third piece being above and below the lapped ends, and in connecting the said ends and the other piece by spot welding, the weld-



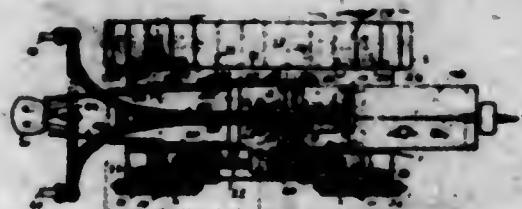
ing being arranged in series of spots extending transversely of the tie in a plurality of lines, the spots of one line being staggered with respect to the spots of the other lines.

1,305,504. STOVEPIPE-FASTENER. CHARLES F. TOWNSEND, Onarga, Ill. Filed Feb. 2, 1918. Serial No. 215,114. Renewed Apr. 16, 1919. Serial No. 290,639. 1 Claim. (Cl. 126-318.)



A device of the class described comprising a collar, inwardly extending members connected therewith, each member having guide ways formed on its inner end, and a lug adjacent to said guide ways, a sliding member engaging with the guide ways of each member, said member consisting of a flat hook shaped piece, the edges of the long arm of the hook engaging and sliding in the guide ways, and one side of the long arm having a V-shaped rib thereon which extends between said guide ways, a nut engaging a part of said rib and a bolt carried by the lug and engaging the nut.

1,305,505. TRACTOR. ERNEST F. TOWNSEND, Los Angeles, Calif. Filed Jan. 23, 1918. Serial No. 213,712. 8 Claims. (Cl. 180-9.)



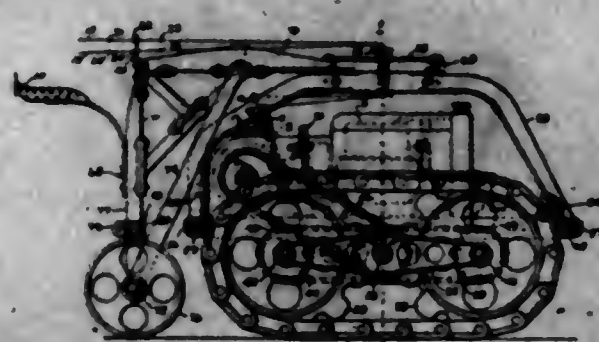
3. A tractor comprising a running gear having two track belt treads, each tread having two drivers one at each end, a power plant for operating the drivers, two lines for controlling the connections between the power plant and the drivers, and a draft rigging pivotally connected to the plan center of the running gear.

8. In a tractor a track belt tread, a driver at each end of the tread, and means for optionally operating one driver to move the tractor one way and the other driver to move the tractor the other way.

1,305,506. TRACTOR. ERNEST F. TOWNSEND, Los Angeles, Calif. Filed May 2, 1918. Serial No. 232,123. 5 Claims. (Cl. 180-9.)

3. In a tractor, a main frame, pivots extending transversely in the main frame, tractor tread chain constructions mounted upon the pivots to rock independently of each other, means for holding the main frame from tipping

on the pivots, a power plant upon the main frame, independent transmissions connecting the power plant to the pivots, and connections from the pivots to both ends of the tractor tread chain constructions so as to drive both



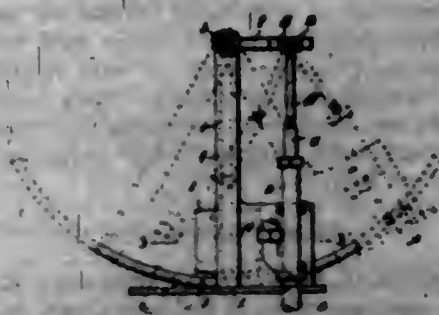
ends of the tread constructions simultaneously and so as to drive either construction independently of the other and so as to drive the constructions in opposite directions when it is desired.

1,305,507. SHEET-ANCHOR. LOUIS VICTOR WILLIAM FROST, Lorient, France. Filed Mar. 26, 1918. Serial No. 224,531. 10 Claims. (Cl. 114-208.)



7. A sheet anchor, connected to a ship by an endless, flexible operating element, comprising a substantially frusto-conical body having upper and lower axial recesses opening through its top and bottom faces, with a separating ballasting web between them, a filling plug secured in the upper recess; a bolt embedded in said plug and having its upper end projecting above the same; a collar loosely mounted on said bolt end and provided with a pair of diametrically-opposite trunnions; a shackle having a forked portion straddling said collar and pivoted on said trunnions, and a solid stem portion formed with a transverse guide opening for the passage of said endless operating element therethrough; and means for holding said collar on said bolt.

1,305,508. BILGE-PUMP. LEOPOLD WESTON and JOHN RAID JONES, Northcote, Auckland, New Zealand. Filed Feb. 1, 1919. Serial No. 274,479. 3 Claims. (Cl. 103-67.)



3. A pump adapted to oscillate with the rolling of the vessel in which the same is fixed, a standard, a shaft

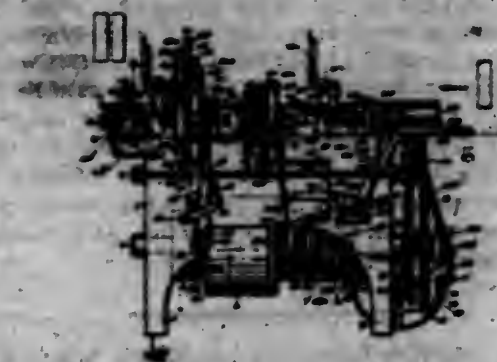
mounted in the standard, a pendulum and a lateral arm fixed to the shaft, a friction roller mounted on the end of the pendulum rod, a curved and grooved race in which the friction roller is adapted to run, and a rod connecting the said arm to the plunger of the pump, as set forth.

1,305,509. BILGE-PUMP. LEOPOLD WESTON and JOHN RAID JONES, Northcote, Auckland, New Zealand. Filed Apr. 4, 1919. Serial No. 287,595. 5 Claims. (Cl. 103-67.)



1. In a bilge pump, priming means comprising an upwardly sloping pipe having a flared mouth outside the vessel and connected to the delivery pipe of the pump near the delivery valve thereof, substantially as set forth.
2. In a bilge pump, the combination with a pendulum of an adjustable plate having a jaw to engage the end of the pendulum rod, substantially as set forth.
3. In a bilge pump, the combination with a pendulum and a race wherein the end of the pendulum rod oscillates, of buffers at the ends of the race, substantially as set forth.

1,305,510. METHOD AND MACHINE FOR MAKING CUFFS AUTOMATICALLY. OMAR A. WHEELER, Portland, Oreg., assignor, by direct and mesne assignments, to Wheeler Automatic Machine Co., a Corporation of Oregon. Filed May 10, 1915. Serial No. 27,124. 37 Claims. (Cl. 112-24.)

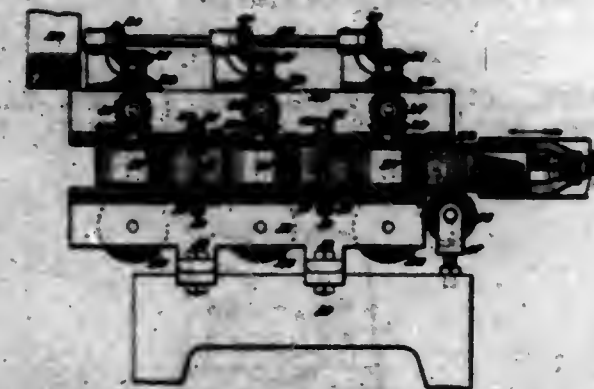


1. An automatic cuff making machine comprising in combination, means for receiving and holding a plurality of the piles, or material blanks, a traveling sewing mechanism with means for operating the same around the edges of said blanks, means for turning said sewed article inside out and for passing it forwardly, means for receiving and holding said article for a second sewing, a second traveling sewing mechanism with means for operating the same around the edges of said article, and means for delivering said article from the machine.

1,305,511. PAPER-BOX-FORMING MACHINE. GEORGE H. BASTLERT, San Francisco, Calif., assignor to National Paper Products Co., San Francisco, Calif., a Corporation of California. Filed Feb. 14, 1918. Serial No. 217,064. 12 Claims. (Cl. 92-80.)

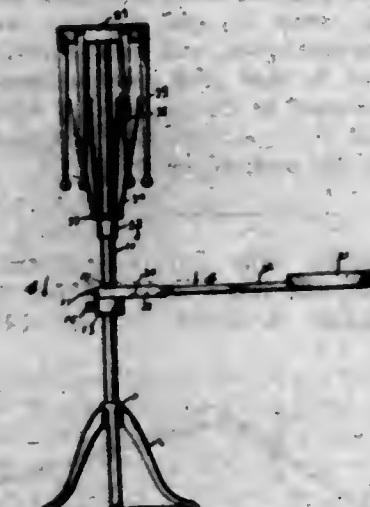
11. In combination with a paper tube wrapping machine, a floating shaping core in longitudinal alignment therewith and over which the tube is carried as made by

the wrapping machine and ironing rollers mounted in relatively fixed bearings adapted to press the side walls



of the tube against said core to cause the tube to assume the formation of the outer surface of the core.

1,305,512. COMBINED RACK AND SERVING-TRAY. LESLIE F. BAY, St. Louis, Mo. Filed Oct. 22, 1917. Serial No. 197,981. 1 Claim. (Cl. 45-82.)



A device of the character described comprising a standard, a collar adjustably mounted on the standard and provided with a reduced extension on the upper face, a second collar adjustable on the reduced extension of the first collar, a pair of spaced arms extending laterally from the second collar and each of said arms having a notch formed in the underside, a tray, an arm for supporting the tray, fingers extending from each side of the arm and adapted to be received in the notches in the spaced arms, and a bar connecting the outer ends of the spaced arms and adapted to receive the tray supporting arm when in horizontal position.

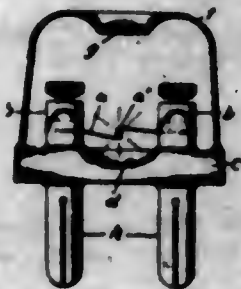
1,305,513. HAND-TOOL. WILLIAM A. BERNARD, New Haven, Conn., assignor to The William Schollhorn Company, New Haven, Conn., a Corporation of Connecticut. Filed Oct. 29, 1915. Serial No. 58,716. 4 Claims. (Cl. 81-9.5.)



1. A tool such as described, comprising a pair of pivoted handles, parallel jaws operated thereby, said jaws

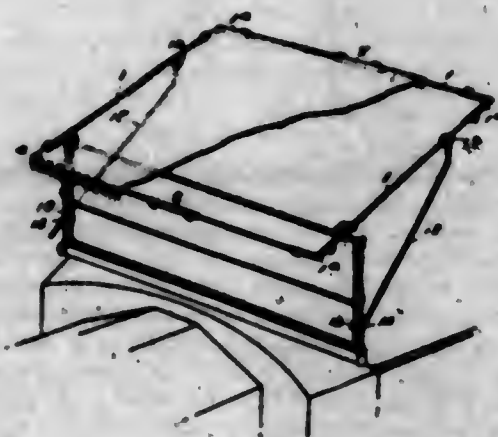
provided with transversely directed complemental seats, each of semi-cylindrical form, and a transverse row of cutting teeth projecting from the cylindrical surface of each seat; substantially as described.

1,305,514. CURRENT-INDICATOR. ARTHUR FRANCIS HENRY, Ealing, England. Filed May 12, 1917. Serial No. 168,296. 9 Claims. (Cl. 171-95.)



1. An electric current indicator comprising a conductor having between its end portions a localized glow portion forming only a comparatively small part of the length of the conductor and adapted when traversed by an electric current, to glow, while its end portions remain cooler and relatively nonluminous, and means arranged behind and in proximity to said glow portion and having its front surface adapted to throw forward radiant energy received from said glow portion and concentrate it on said glow portion for the purpose set forth.

1,305,515. SHADE FOR AUTOMOBILES. WILLIAM LOUIS BRASOLO, San Diego, Calif. Filed Jan. 9, 1917. Serial No. 141,419. 3 Claims. (Cl. 21-148.)



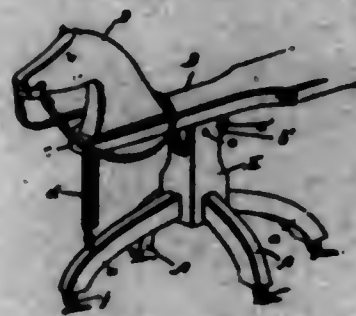
2. The combination with a vertical wind shield frame, including a horizontal top cross bar, of clamp members adjustably mounted on said cross bar, clamp members pivotally connected with the first mentioned clamp members, an expansible seat shade frame slidably engaging and held by pivotally mounted clamp members, whereby the seat shade frame may be adjustable forwardly and rearwardly and also through varying angles from the horizontal.

1,305,516. [WITHDRAWN.]

1,305,517. CHILD'S TOY. WILLIAM BOLLENBACHER, Bellevue, Ohio. Filed June 17, 1918. Serial No. 240,532. 1 Claim. (Cl. 46-22.)

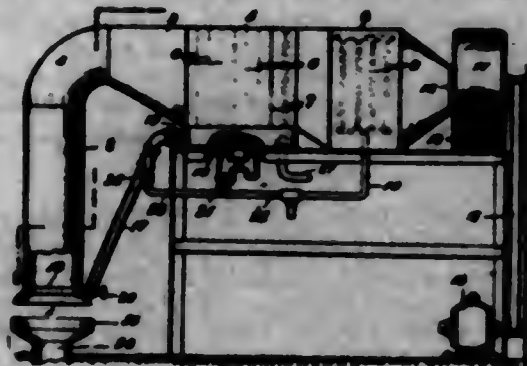
A child's toy, comprising a supporting post, a rocking board pivoted at its middle part to the upper end of the post and having a seat portion at its rear end, legs rigidly

secured to the said post and arranged radially of it, the front and rear legs being arranged in line with each other under the said board and being longer than the side legs,



and a spring arranged between the front leg and the front end portion of the board.

1,305,518. APPARATUS FOR CONDITIONING GAS. JOHN H. BOLLING, Newark, N. J. Filed Feb. 6, 1917. Serial No. 147,926. 4 Claims. (Cl. 261-24.)



1. In apparatus of the class described, a gas inlet, a gas duct leading from said inlet to a higher level, means for forcing a current of gas from said inlet through said duct, a spray producing device located in said duct intermediate the inlet and its highest level, a reservoir located above said spray producing device and having operative connection therewith and means located in the higher level of said duct for reclaiming excess moisture from the gas passing through said duct, and leading such reclaimed moisture to said reservoir.

1,305,519. MOTOR-VEHICLE-LOCKING MEANS. WILLIAM E. BOYTON, Omaha, Nebr. Filed Oct. 29, 1917. Serial No. 199,183. 4 Claims. (Cl. 281-4.)



1. Locking means for preventing operation of an internal-combustion engine, comprising the combination with separable flanged portions of the charge-supplying pipe of the engine, of a valve-casing inserted between said flanged pipe-portion, said casing having a passage connecting the passages through said pipe-portion, a valve for closing the passage through the casing, locking means for retaining the valve in closed position, bolts extending through the casing and the flanges of the pipe-portion to secure said parts together, and means controlled by the valve-locking means for preventing withdrawal of the bolts from the casing when the valve is closed.

1,305,520. SOCKET FOR FASTENERS. DAVID BOUGHES, Amesbury, Mass., assignor to G. W. J. Murphy Company, Amesbury, Mass., a Corporation of Massachusetts. Filed Aug. 2, 1918. Serial No. 247,928. 3 Claims. (Cl. 24-219.)



2. A female element for a stud and socket fastener having a stud receiving jaw comprising a wire bent substantially in the form of a fylfot or swastika.

1,305,521. TRAILER-TRUCK. ADDI BENJAMIN CADMAN, Beloit, Wis., assignor, by mesne assignments, to Warner Manufacturing Company, South Beloit, Ill., a Corporation of Wisconsin. Original application filed Dec. 6, 1916, Serial No. 135,419. Divided and this application filed Nov. 2, 1917. Serial No. 199,519. 7 Claims. (Cl. 218-67.)



4. A truck comprising, in combination, a body frame and a pivoted member extending longitudinally on the frame and forming a swingable draw-bar, said frame embodying a transverse member relative to which said pivoted member is swingable, and means for locking the pivoted member in central position with reference to the frame when desired, said means including a pivoted device carried by one of said members and swingable into holding engagement with the other one of said members.

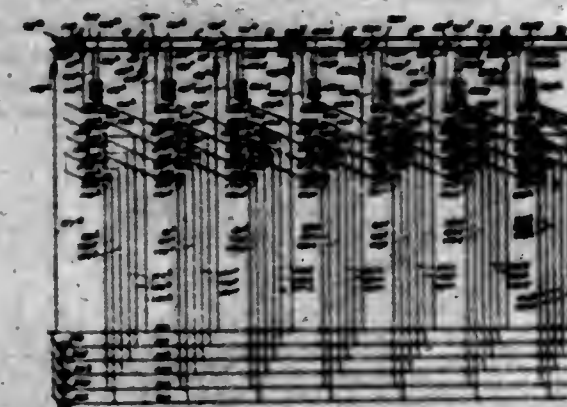
1,305,522. DIATOMACEOUS COMPOSITION. TAYLOR M. CAVEN, Baltimore, Md., assignor to Maryland Products Company, a Corporation of Maryland. Filed Apr. 11, 1917. Serial No. 161,276. 3 Claims. (Cl. 106-24.)

1. The herein-described process consisting in grinding diatomaceous material in the presence of water to form a plastic mass, burning said material to the desired degree of hardness, crushing the calcined diatomaceous material and then mixing Portland cement therewith and adding water to make the composition, substantially as described.

1,305,523. SIGNAL SYSTEM FOR MOVING VEHICLES. CLARENCE E. CHATFIELD, Buffalo, N. Y., assignor to The Simmen Automatic Railway Signal Company, Buffalo, N. Y., a Corporation of Arizona. Filed Mar. 6, 1917. Serial No. 152,550. 1 Claim. (Cl. 246-80.)

In a device of the character described, in combination: a trackway; a vehicle adapted to travel thereon; a plurality of signals carried by the vehicle; signal rails positioned along the trackway; an oscillatable shoe on the vehicle; means for energizing the signal rails with current of different characteristics; a plurality of relays on the vehicle, one for each signal, each relay operable only by current of a particular characteristic; means includ-

ing the shoe and a signal rail for deenergizing all of the relays and means including the contact shoe for main-



taining the energization of a relay which has been energized.

1,305,524. AEROPLANE. HIPPOLYTE M. CHIRON, Hog Island, Pa. Filed Aug. 3, 1918. Serial No. 248,130. 10 Claims. (Cl. 244-21.)



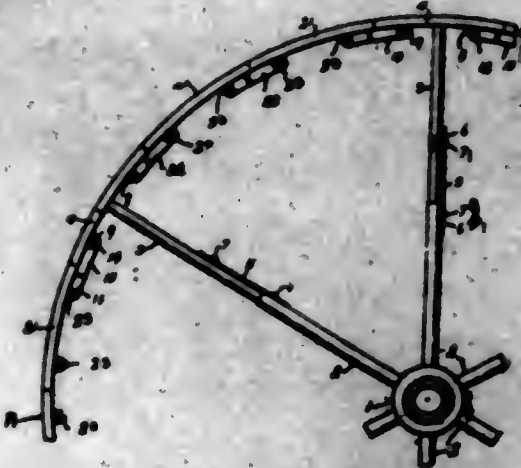
1. In combination in an aeroplane, a front frame section, a rear frame section, a seat for the aviator substantially at the junction of the two frames, means whereby the two frames are detachably connected together and a parachute arranged to drop free from both frames with the aviator when said frames are separated, substantially as described.

1,305,525. TRANSMITTING APPARATUS. JOHN J. COMER, Chicago, Ill., assignor to Automatic Enunciator Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 25, 1914. Serial No. 827,083. 11 Claims. (Cl. 179-100.1.)



1. In an electric transmitter, a set of diaphragms arranged in parallel, a vibrating arm and means whereby the vibrations of said arm are transmitted to said diaphragms, microphone cells each comprising a vibrating member, one cell located on each side of said set of diaphragms, the vibrations of said diaphragms being pneumatically transmitted to said microphones, and a stylus with a tension member for transmitting the vibrations of the stylus to the vibrating arm and a weight for keeping said tension member under tension normally.

1,305,520. PULLEY. HUNTER DENNIS, Woodlake, Calif. Filed July 20, 1918. Serial No. 245,679. 3 Claims. (Cl. 64-8.)



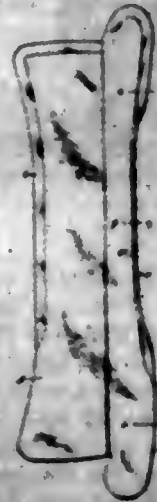
3. A pulley of the class described comprising a sectional rim, means for holding said sections in various radial adjustments, inwardly directed ears carried by the end portions of the sections, and a tie member detachably engageable with the ears of adjacent rim sections.

1,305,527. GREASE-CUP. WALLACE D. C. DOUGLASS, Hampton Falls, N. H. Filed July 24, 1918. Serial No. 240,570. 8 Claims. (Cl. 184-45.)



5. A grease cup including a cup body, a cap threaded on the body, a coil spring surrounding the body and having one end thereof in engagement with the cap, a rotatable plate carried by the body and engaging the other end of the spring, said plate being adapted to be rotated to place the spring under tension, and a pawl and ratchet construction for preventing backward rotation of the plate, the tension of the spring tending to screw the cap on the body.

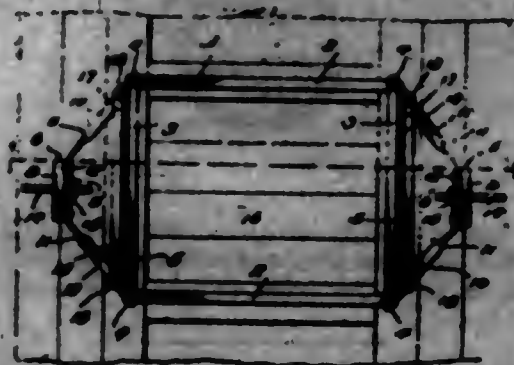
1,305,528. EDGE-FINISHING AND UNITING WOVEN FABRIC. GEORGE M. HANNS, Bridgeport, Conn. Filed Aug. 24, 1918. Serial No. 251,319. 2 Claims. (Cl. 2-67.)



1. An improved edge finish for collars and like articles made of interwoven multiply fabric having a thinned

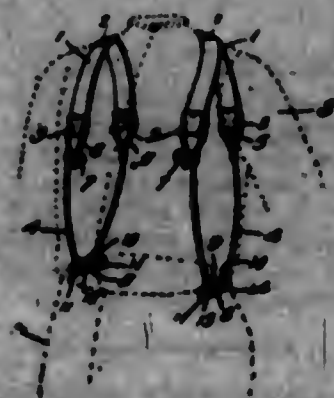
margin, said thinned margin being folded and secured to the body-fabric to produce a finished edge of substantially the same thickness as that of the body of said fabric.

1,305,529. SPANNER-LUG. ROBERT J. BLANKEN, Waverly, Iowa. Filed Feb. 10, 1919. Serial No. 276,391. 4 Claims. (Cl. 20-1.4.)



3. A spanner lug comprising a rectangular frame having end bars of angle iron, outwardly converging bars secured to the corners of said frame, the outer ends of said bars having means for attaching thereto the ends of a pile hoop or like member, and angle iron strut bars secured at their ends to said converging bars and located in close proximity to said angle iron end bars, whereby the outwardly extending flanges of said end strut bars may serve to brace each other.

1,305,530. SUSPENSOR. JAMES D. EVANS, Montgomery, Ala. Filed Apr. 23, 1917. Serial No. 164,090. 3 Claims. (Cl. 241-82.)

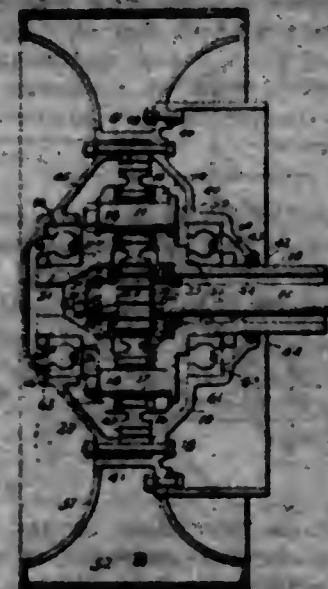


1. A suspensor embodying a shoulder strap, a cord having one end anchored to one end of said strap and having its other end slidably connected with the other end of said strap, means for adjustably connecting the last mentioned end of the cord with the body portion thereof, and means for slidably connecting said cord between its ends with a garment to be supported.

1,305,531. AUTOMOBILE TRACTION MECHANISM. FRANK H. FARMER, Cleveland, Ohio, assignor to The White Motor Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 11, 1917. Serial No. 173,978. 3 Claims. (Cl. 76-7.)

1. In automobile traction mechanism, the combination of a non-rotatable axle tube, a gear cage fixed to the outer end of said axle tube, a rotatable axle shaft extending out through said axle tube and into said gear cage, a pinion fixed to said axle shaft within said gear cage, antifriction bearings for supporting said axle shaft, an idler gear mounted in said gear cage in mesh with said pinion, a traction wheel having a constantly disposed chamber formed of two oppositely dished plates one of which is provided with a cylindrical flange at its margin and the other of which is fitted into said flange, an internal ring gear

which also fits within said cylindrical flange between the inside and outside dished plates, means to firmly secure together said ring gear and two plates, an anti-friction



bearing interposed between the inner dished plate and said axle tube, and a second anti-friction bearing interposed between the outer dished plate and an outwardly extended part of the gear cage.

1,305,532. HUMIDIFYING DEVICE IN COMBINATION WITH RADIATOR-CASINGS. WHITTON M. FULTON, Knoxville, Tenn., assignor to The Fulton Company, Knoxville, Tenn., a Corporation of Maine. Filed July 24, 1918. Serial No. 110,967. 17 Claims. (Cl. 257-183.)



1. In combination with a source of heat, means for controlling the flow of heated air therefrom, a vaporizing pan, and means coacting with said first-named means for proportioning the escape of vapor from said pan to the flow of heated air.

2. In combination with a source of heat, a damper for varying the quantity of heated air escaping therefrom, a vaporizing pan, a damper for varying the quantity of vapor escaping from said pan, and a common controlling means for said dampers.

3. A radiator casing having an air-outlet provided with an air-controlling damper, a vaporizing pan, and a vapor outlet provided with a vapor-controlling damper.

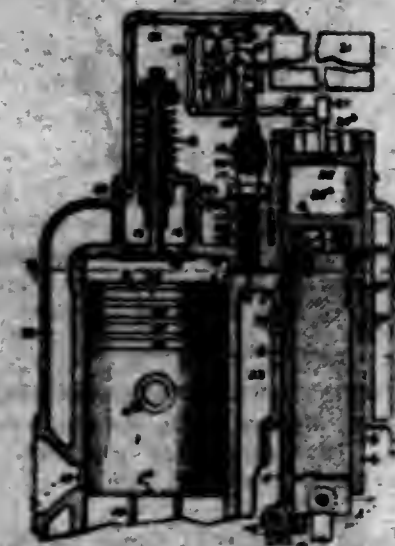
4. A radiator casing having an air-controlling damper, a vaporizing pan, a vapor-controlling damper, and a common controlling means for said dampers.

5. A radiator casing provided with means for controlling the flow of heated air therefrom, a vaporizing pan, and means coacting with said first-named means for proportioning the escape of vapor from said pan to the flow of heated air.

1,305,533. INTERNAL-COMBUSTION ENGINE. WALDO G. GERNHART, Chicago, Ill., assignor to Gernhardt Motor Corporation, Chicago, Ill., a Corporation of Illinois. Filed Dec. 26, 1917. Serial No. 260,968. 10 Claims. (Cl. 120-33.)

6. In an internal combustion engine, the combination of a plurality of combustion chambers and a plurality of

compression chambers having movable walls comprising pistons connected in timed relation to synchronously enlarge the dimensions of one and diminish the dimensions of the other of said compression chambers, each of said compression chambers provided with an obstructed inlet passageway from a combustion chamber and an obstructed discharge passageway to a different combustion chamber, and means, comprising ports, to remove said obstructions



from said inlet passageways on the approach of said pistons to the ends of the enlarging and to remove said obstructions from said discharge passageways on the approach of said pistons to the ends of the compression travels thereof, said compression chambers being thereby simultaneously provided, one with an inlet passageway and the other with a discharge passageway in communication with one of said combustion chambers.

1,305,534. MONOPLANE WITH SUBSIDIARY PLANES. CHARLES EDUARD PIERRE GOURDOU, St.-Mandé, France, assignor to himself and Jean Adolphe Lecomte, St.-Mandé, France. Filed Sept. 11, 1918. Serial No. 253,036. 2 Claims. (Cl. 244-2.)

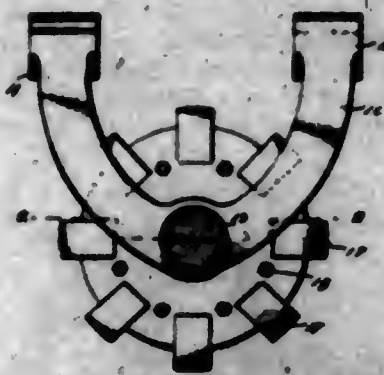


1. A monoplane with subsidiary wing, comprising tubular stays starting at both ends from the fuselage for the purpose of sustaining the wing at such a point that the bending moments on the longitudinal bearers may be equal on all the supports; a device for adjusting the stays uniting the wing to the fuselage; a landing carriage with its axle supported by four rotatable sliding tubes; wheels with an outer cover completely surrounding each of them and a means for fixing the outer covers; a framework with tubes united end to end by means of annular ridges, and tubes passing through one another with seating surfaces on one of them; spherical-seated bearings on the tubes of the chassis; a diaphragm shutter concealing the radiator; a simultaneous and individual control of the subsidiary planes; and the supporting of the warping control on the back longitudinal bearer of the wing.

1,305,535. VEHICLE-WHEEL. JOSEPH GRABOWIECKI, Detroit, Mich. Filed May 11, 1918. Serial No. 233,872. Renewed Apr. 2, 1919. Serial No. 267,071. 3 Claims. (Cl. 21-60.)

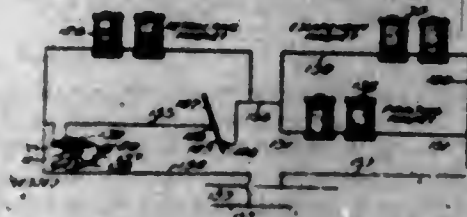
1. In a device of the kind described, a main wheel consisting of a pair of disks provided with registering grooves

on their confronting faces adjacent their peripheries, said disks being further provided with registering recesses



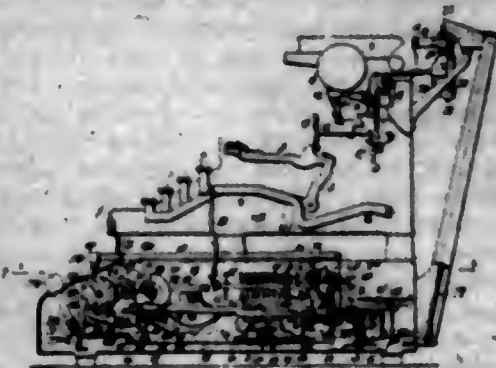
extending radially inward from their peripheries, shafts mounted in said grooves, rollers rotatably mounted on said shafts, and means to hold the disks together.

1,305,536. PRINTING-TELEGRAPH RECEIVER. HARRY V. GUTSMANN, Chicago, Ill., assignor to George D. Rose, Chicago, Ill. Filed May 10, 1918. Serial No. 233,651. 15 Claims. (Cl. 178-29.)



7. In a printing telegraph receiver the combination with a type wheel of means for rotating said type wheel comprising an electromagnet responsive to alternating current, means for advancing said type wheel to space the printed characters, comprising an electromagnet unresponsive to alternating current, means for connecting said magnets in parallel, means for retracting said type wheel comprising an electromagnet, a switch for controlling said last named magnet, connected in series with said two first-named magnets, and means for connecting said last-named magnet in shunt around said switch.

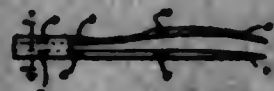
1,305,537. COMBINED TYPE-WRITING AND COMPUTING MACHINE. WILLIAM L. GUMPERT, Hartford, Conn., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Nov. 11, 1914. Serial No. 871,458. 47 Claims. (Cl. 235-60.)



1. In a computing machine, the combination with a totalizer for adding numbers, as expressed by their digits, and indicating their sum, of a plurality of element counters for separately adding numbers of elements of different selected denominations from which amounts represented by said first-mentioned numbers may be made up, settable actuating devices for said totalizer, a settable actuating device for each of said counters, key-controlled setting mechanism, common to all said actuating devices

but normally ineffective to set the same, means for selectively and simultaneously bringing an actuating device of said totalizer and an actuating device of one of said counters into effective relation with respect to said setting mechanism, so that both may be simultaneously set at the operation of a single key, and means for causing said actuating devices, when set, to operate said totalizer and said element counter amounts proportional to their respective settings.

1,305,538. RULING-PEN. JOHN A. HAGSTROM, Scranton, Pa., assignor to Technical Supply Company, Scranton, Pa., a Corporation of New Jersey. Filed May 1, 1918. Serial No. 231,535. 7 Claims. (Cl. 130-110.)



1. A blank for an instrument of the character described, including parallel members of approximately equal magnitude adapted for superposition one above the other, a slot with an enlarged aperture at its inner end separating said members, and said slot having substantially parallel edges for the major part of its length and diverging outer ends, a base portion common to both of the members beyond said aperture.

1,305,539. NEEDLE-VALVE. CHARLES BALLARD HALE, Park Ridge, Ill., assignor to Time-Systems Company, Portland, Me., a Corporation of Maine. Filed May 30, 1918. Serial No. 96,764. 8 Claims. (Cl. 251-40.)



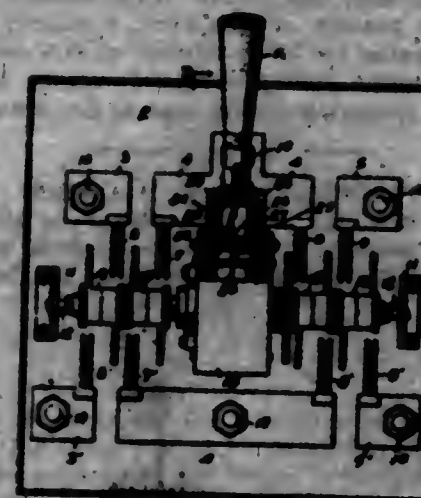
3. The combination with a valve casing, having a passage therethrough, of an apertured contraction in said passage, a shoulder formed in said passage adjacent to the contraction aforesaid, a bushing threaded into the end of said passage adjacent to said shoulder, having an interiorly threaded passage therein, a feather edge formed on the inner end of said bushing and arranged to contact with and be spread by the shoulder aforesaid for fixing the bushing in the casing, a valve stem threaded into the passage of said bushing, and a double cone valve carried at the inner end of said valve stem and adapted to seal either the contraction in the passage of the casing, or the inner end of the passage in the bushing.

1,305,540. ROVING-HOLDER. RALPH E. HANCOCK and MAURICE J. GRIFFIN, Manchester, N. H. Filed Dec. 16, 1916. Serial No. 208,963. 14 Claims. (Cl. 19-35.)



5. The combination with a spinning frame; of an upwardly projecting flange on the trumpet rail thereof, and a roving holder having means detachably hooked over said flange for connecting said rail and holder.

1,305,541. ROTARY SNAP-SWITCH. JOHN P. HAYES and JOHN E. BARNHART, Pittsburgh, Pa. Filed July 17, 1917. Serial No. 181,070. Renewed Oct. 26, 1918. Serial No. 200,561. 10 Claims. (Cl. 175-200.)



1. A switch of the class described comprising a base, a rotary shaft carrying contacts supported on said base, a drum rotatably mounted on said shaft, a coil spring within said drum and having one end secured to said shaft and its other end to said drum, gears on said drum, an operating lever connected by other gears to said first-named gears and adapted to rotate said drum to tension said spring, a cam secured to said drum and adapted to rotate therewith, a hand mounted around said cam and having a projection thereon adapted to engage stationary stop members, and a locking member secured to said shaft and positively engaging a lug on said hand.

5. A switch comprising a base of insulating material, a rotary shaft supported on said base and carrying contacts, a drum rotatably mounted on said shaft, a coil spring having one end secured to said shaft and its other end secured to said drum, a supporting casing on said base surrounding said drum and supporting the central portion of said shaft, means for rotating said drum to tension said spring, and means for locking said shaft in position with said spring in tensioned and automatically releasing said shaft, said means comprising a cam secured to said drum and adapted to rotate therewith, a hand mounted around said cam and having a projection thereon adapted to engage stop lugs on said casing, and means secured to said shaft and positively engaging said hand.

10. A switch comprising a base of insulating material having contact members thereon, a rotary shaft supported on said base and carrying contacts, a drum mounted on said shaft, a coil spring having one end secured to said shaft and its other end to said drum, gears on said drum, an operating lever connected by other gears to said first-named gears and adapted to rotate said drum to tension said spring, a cam secured to one of said first-named gears and adapted to rotate therewith, a hand mounted around said cam having a projection thereon adapted to engage stationary stops, and a locking member secured to said shaft having means for positively engaging said hand.

1,305,542. SEAM FOR SEWED ARTICLES. THOMAS J. HAYES, Rollinsdale, Mass., assignor to Arbetter Felling Machine Company, Boston, Mass., a Corporation of Maine. Original application filed June 18, 1915, Serial No. 25,079. Divided and this application filed Apr. 7, 1916. Serial No. 99,713. 5 Claims. (Cl. 112-34.)

1. A seam for sewed articles comprising a base layer of fabric, a superimposed layer presenting an edge thereon, said layers being fastened together by stitches comprising a needle thread presenting a series of loops the strands of which enter and emerge from the upper surface of the base layer without passing through the under surface of said layer, and means for concatenating

said loops, the embedded portion of certain of said loops of needle thread lying wholly within the base layer beneath



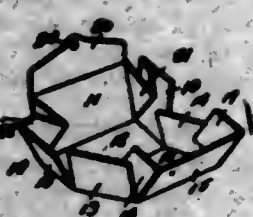
the edge of the superimposed layer and the embedded portions of other of said loops lying partially in the base layer and partially in the superimposed layer.

1,305,543. AUTOMATIC CHIMNEY-SWEEP. ROLLIE L. HENMAN, Elkhart, Ill. Filed Oct. 15, 1918. Serial No. 255,195. 6 Claims. (Cl. 15-41.)



2. In an automatic chimney sweep, the combination of a rotative vane-shaft; a vane on the vane-shaft; an arm radially adjustable relative to the vane-shaft; a drag carried by the arm; and a guard adjustable to conform to flues of different sizes and adapted to protect the drag.

1,305,544. RECEPTACLE. ANDREW HOFFFELDT, Harbor, Oreg. Filed Nov. 11, 1916. Serial No. 130,900. 1 Claim. (Cl. 229-33.)

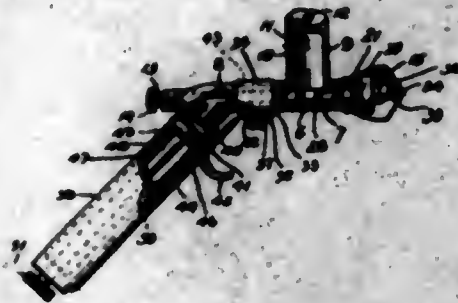


A collapsible box consisting of a blank folded transversely to form a bottom, front, rear, top and a flap section, said blank being also folded longitudinally and slit transversely to form end flaps for the top, front and bottom walls with unbroken folded corner portions connecting the rear wall and end flaps of the bottom and extending into the box, the flaps of the bottom being longer than those of the front and top, the flaps of the two latter being of the same length, the unbroken corner portions having their free edges inclined and extending from the base of the flap section.

1,305,545. PAINTER'S STRIPING MECHANISM. VICTOR JANSSEN, Los Angeles, Calif. Filed May 21, 1917. Serial No. 169,235. 5 Claims. (Cl. 15-49.)

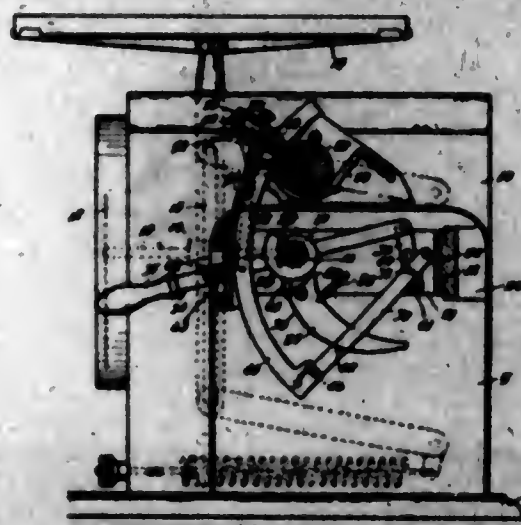
1. A painter's striping device, comprising a casing, a striping brush mounted therein, a guide member adjust-

ably mounted thereon, means for holding said guide member at different distances laterally from said brush and



means for holding it in different positions circumferentially thereof.

1,305,546. WEIGHING AND RECORDING DEVICE. HANS H. JENSEN, East Hartford, Conn., assignor of two-thirds to Jonathan C. Bigelow, Barnstable, Conn. Filed Dec. 4, 1917. Serial No. 205,297. 29 Claims. (Cl. 235—58.)



11. A register including a device concerning which a record is to be made, a plurality of positioning members each operatively connected to be rotated by a movable member of said device, each of said members having a continuous, unbroken positioning surface inclined with respect to the radius of said member, a plurality of detents each movably mounted to be positioned by the positioning surface on one of said members, a recorder operatively connected to be positioned by one of said detents, and means for operating the recorder to make a record.

1,305,547. CASTER. EDMOND C. JOSEPH, Garyville, La. Filed Dec. 8, 1917. Serial No. 200,307. 1 Claim. (Cl. 10—73.)



A device of the character described comprising an attaching plate formed to provide a central depression provided with a central opening, a second plate circular in form disposed beneath said first named plate and formed with a central depression conformingly receiving said first named depression, said second named depression being provided with a central opening registering with said first named opening, said second named plate being peripherally bent downwardly and having its lower edge terminating in an inwardly extending flange to form a ball recess, a stud having an enlarged head engaged within said first named depression and flush with the upper

surface of said attaching plate, said stud extending through said registering opening, a washer upon said stud extending toward said flange, balls disposed within a recess formed by said second named plate and retained by said washer, an inverted U-shaped center frame disposed beneath said last named plate member and apertured for the passage of said stud, a washer upon said stud and engaging the lower surface of said center frame, means for holding said last named washer in position, and a roller journaled within said center frame.

1,305,548. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed July 15, 1916. Serial No. 100,480. 11 Claims. (Cl. 100—24.)



1. In a typographical machine, the combination of a plurality of matrix releasing components, a single actuating device therefor, a shifting guide wherein the actuating device is slidably arranged, a sliding plunger carrying said guide, a face cam loosely surrounding the sliding plunger and controlling its movements in opposite directions, and means for rotating the cam periodically.

11. In a typographical machine, the combination of the escapement rods C and C', the single actuating device C' therefor, the shifting guide H wherein the actuating device is slidably arranged, the sliding spring-biased plunger H' carrying the guide and provided with the laterally projecting pin H', the face cam F loosely surrounding the plunger H' and provided with the ratchet wheel F', the ratchet plate H' loosely surrounding the cam F and carrying the pivoted actuating pawl H' and formed with the laterally projecting stud H'', the spring H'' attached to the outer arm of the pawl H' and pulling from a fixed part of the machine, and the arm C' fixed to the actuating device C and connected to the pin H', the said parts operating substantially in the manner shown and described.

1,305,549. NON-REFILLABLE BOTTLE. JOHN KENN, Toronto, Ontario, Canada. Filed Oct. 12, 1917. Serial No. 190,290. 1 Claim. (Cl. 215—65.)

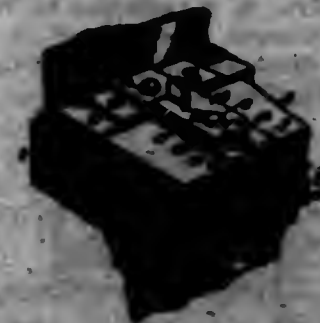
In a non-refillable bottle, a neck having a cylindrical upper end open at the top, this cylindrical end merging into an intermediate globular portion, the neck thereafter tapering in shape and terminating in a restricted portion forming a ball valve seat, said globular portion having opposed overlapping baffle walls the free ends of which terminate beyond imaginary lines dropped from those inside walls of the cylindrical portion directly above the said free ends, the upper baffle wall inclining slightly upward and being uniformly spaced throughout its length from the lower baffle wall, whereby a liquid in passing through the neck moves always from a higher to a lower

level to prevent trapping of the liquid behind the baffle walls, the cylindrical end being unobstructed between said imaginary lines above said baffle walls, the tapering portion of the neck having diametrically opposed inwardly projecting tongues, and a ball valve engageable upon the



said ball valve seat to close communication between the bottle and the neck, the said valve being also engageable upon the tongues when the bottle is in inverted position at which time a liquid may pass freely around the ball in flowing through the neck.

1,305,550. SASH OR WINDOW FASTENER. EMANUEL KRAMER, Sr., Palmyra, N. J. Filed Feb. 18, 1919. Serial No. 277,867. 5 Claims. (Cl. 10—30.)

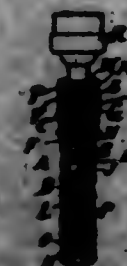


2. A fastener for window sashes consisting of a plurality of latches, means for pivotally connecting the same, one of said latches being adapted to be mounted movably on a meeting rail of one of the sashes, and a post-like device connectible with the other meeting rail of the sash, said latches being adapted to be interlocked with said device, the under latch having a plurality of shoulders on opposite sides of its outer end, and the upper latch having on its pivot end a lip which is adapted to engage either of said shoulders in the different positions of said upper latch.

1,305,551. ALUMINUM ALLOY. HENRY C. KIRK, Roland Park, Md. Filed Aug. 27, 1918. Serial No. 231,637. 3 Claims. (Cl. 76—1.)

1. An alloy consisting of 90% to 97% aluminum, the remaining 10% to 3% including about two parts nickel to one part copper.

1,305,552. TIRE-VALVE. HENRY P. KRAFT, Ridgewood, N. Y. Original application filed July 26, 1914, Serial No. 853,128. Divided and this application filed June 18, 1918. Serial No. 100,540. 5 Claims. (Cl. 182—12.)



1. A tool having a screw driver portion adapted to enter a valve shell to engage a valve part for rotating the

same, and said screw driver portion having a portion to depress a valve pin when so inserted, and means for holding said tool in inserted position to hold the pin depressed.

2. A tool having a screw driver portion adapted to enter a valve shell to engage a valve part for rotating the same, and said screw driver portion having a portion to depress a valve pin when so inserted, and frictional means for holding said tool in inserted position to hold the pin depressed.

4. A cap having a screw driver portion adapted to enter a valve shell to engage a valve part for rotating the same, and said screw driver portion having a portion to depress a valve pin when so inserted, and means for holding said screw driver portion in inserted position to hold the pin depressed.

1,305,553. INSECT-PROOF ATTACHMENT FOR FURNITURE AND OTHER ARTICLES. JOHN KRAMER, New Orleans, La. Filed Aug. 11, 1917. Serial No. 185,764. 7 Claims. (Cl. 45—15.)



1. An insect proof attachment for interposition between articles of furniture and the like and the surface on which said articles are supported, comprising a wooden structure having an interior portion accessible to insects from the exterior and defining a tortuous passage for the insects within the structure, said wooden structure having walls of the tortuous passage over which an insect must travel to reach the furniture impregnated with material repellant to insects and strongly adherent to and exposed on and confined in its accessibility to the insects solely to the interior walls of the tortuous passage, whereby insects endeavoring to travel through the passage are brought into direct contact with or into such relation to said material as to be repelled thereby.

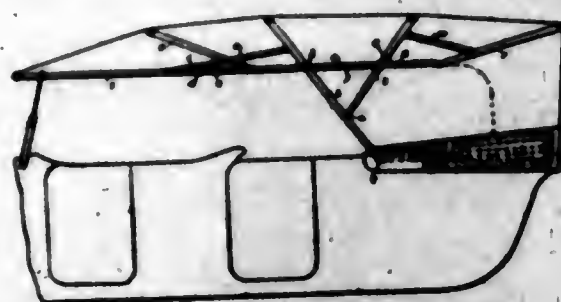
2. Means for repelling incursions of ants or other roving insects onto furniture or other articles, comprising an inverted cup-like structure of rigid absorbent material impregnated with material repellent to the insects and having associated therewith means for defining a tortuous path for the insects within the cup-like structure, with the tortuous passage accessible solely to such insects and having the impregnating material in a dry, strongly adherent state confined, in accessibility to the insects, to inner walls of the tortuous passage.

3. Means for preventing incursions of ants and other roving insects, comprising a wooden block impregnated with material repellent to the insects, and another block associated with the first-named block and defining therewith a tortuous passage which must be traversed by the insects in order to pass the block containing the repellent material, said repellent material being in the dry state.

5. Means for protecting articles of furniture and the like from incursions of ants and other roving insects, comprising an upper cup-like wooden block for inclusion in a leg portion of the article, said block being impregnated with material repellent to the insects, and a lower flat block associated with and spaced from the first block and defining with the first block a tortuous passage, for the insects, interior to the outer margins of the blocks.

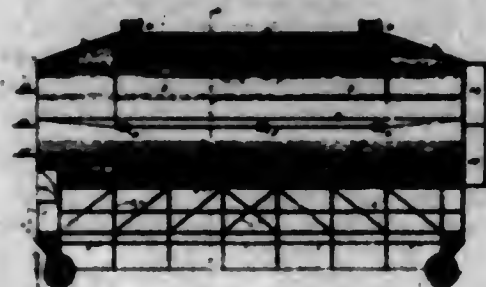
7. Means for protecting articles of furniture and the like from incursions of ants and other roving insects, comprising a block for inclusion in a leg of a piece of furniture and impregnated with a material repellent to insects, and another block associated with and spaced from and nearer to the supporting portion of the leg than the first named block, the two blocks defining a tortuous passage for insects interior to the outer margins of the blocks, and the outer surface of the impregnated block being provided with a protecting coating for preventing contact with the impregnating material.

1,305,554. COLLAPSIBLE OR FOLDING HOOD PARTICULARLY FOR VEHICLES. ALFRED KÜHN, Berlin-Wilmersdorf, Germany, assignor to Automobil- und Eisenbahnbedarf G. m. b. H., Berlin-Charlottenburg, Germany. Filed Oct. 4, 1916. Serial No. 122,647. 3 Claims. (Cl. 21-62.)



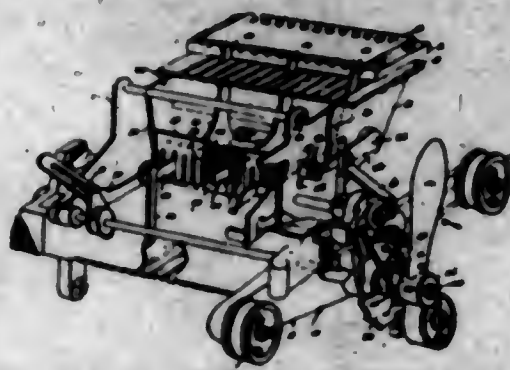
1. In a folding hood, the combination of a main hoop; a penultimate hoop pivotally connected to the main hoop; a rear hoop; rear extension levers fulcrumed to the penultimate hoop and pivoted to the rear hoop; rear links above said levers and connecting the penultimate and rear hoops together; forward extension levers fulcrumed to the main levers and pivotally connected to the rear extension levers; a forward hoop pivotally connected to the forward extension levers and forward links above said forward extension levers and connecting the main hoop to the forward hoop; and a cover disposed over said hoop.

1,305,555. FLYING-MACHINE. ARCHIBALD G. LAMONT, Clarkburg, W. Va. Filed Feb. 26, 1917. Serial No. 151,020. 3 Claims. (Cl. 244-10.)



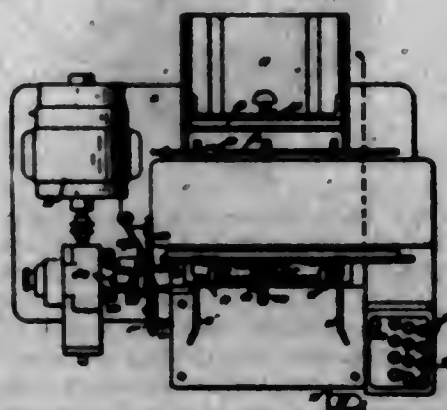
1. A flying machine of the character described, including a main gas cylinder having an inverted concave head at the front end and an inverted straight head at the rear end of said gas cylinder, a supporting frame work rigidly attached to the lower portion of the gas cylinder, air flues mounted within said gas cylinder and extending longitudinally through the heads thereof, propeller wheels mounted within and near the center of said flues and means for transmitting motion to said propeller wheels, planes mounted crosswise within said flues and extending longitudinally forward and rearward from said propeller wheels the entire length of said flues substantially as described and specified.

1,305,556. INTERLOCKING RELEASE MECHANISM FOR KEYBOARDS. WILLIAM W. LASKER, Brooklyn, N. Y., assignor to Powers Accounting Machine Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 22, 1917. Serial No. 122,651. 9 Claims. (Cl. 164-112.)



1. In an interlocking release mechanism, the combination of a plurality of operating parts; devices associated with the parts for preventing the operation of more than one part at a time; and means for rendering said devices inoperative.

1,305,557. PERFORATING-MACHINE. WILLIAM W. LASKER, Brooklyn, N. Y., assignor to Powers Accounting Machine Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 3, 1918. Serial No. 226,501. 40 Claims. (Cl. 164-112.)



1. In a perforating machine, the combination with settable pins for reproducing a record, punches, a driven shaft, means for actuating said punches to cooperate with said settable pins to perforate a record card, means for feeding a card into cooperation with said punches, means for operatively connecting said punch actuating means with said driven shaft, means for operatively connecting said feeding means with said driven shaft, and means for connecting the driven shaft for actuation thereby to actuate said feeding means while retaining said punch actuating means out of operation.

1,305,558. SPRING-WHEEL. CHARLES J. MCCOMB, Merrill, Wis. Filed June 12, 1918. Serial No. 229,008. 5 Claims. (Cl. 182-51.)

1. In a wheel, a hub, a spoke, a rim, a spring connecting the spoke and rim, a secondary spring also connected to the rim and movable radially with respect to the spoke, a bumper to limit the movement of the secondary spring toward the spoke, a series of progressively acting springs connected to the secondary spring and a secondary bumper also connected to said secondary spring and said series of progressively acting springs and arranged to engage the innermost of said series of progressively acting springs so that strain or shock is transmitted gradually and gently from one spring to another throughout the series of springs.

3. A spoke for a spring wheel comprising an inner member for attachment to a hub, a spring rigidly secured to said inner member and extending therefrom to the wheel rim and secured to said rim, a second spring also attached to the rim and provided at its inner end with a bumper, said bumper being movable toward and from the outer end of the hub member, and a series of successively acting springs also connected to the last named spring and movable therewith toward and from the outer end of the spoke member, and a secondary bumper within the innermost spring.



5. A spoke for a spring wheel comprising an inner member for attachment to a hub, a doubled spring attached to said hub member and extending to the wheel rim; a sleeve on said spoke member and around the intermediate portions of said spring, a secondary spring attached to the first named spring and arranged with its inner end in said sleeve, a bumper at the inner end of said secondary spring, a series of successively acting springs arranged within the secondary spring and normally out of contact therewith and also out of contact with each other, said series of springs being also attached to said bumper and movable with the secondary spring in the sleeve and toward and from the outer end of the spoke member, and a secondary bumper attached to the inner ends of said series of springs and arranged to finally engage the innermost spring.

1,305,559. TIMER. HENRY W. MUELHSEIN and CLEMEN LUND, Los Angeles, Calif.; said Muelhsein assignor of his right to William S. Rush, Los Angeles, Calif. Filed Oct. 21, 1918. Serial No. 259,033. 1 Claim. (Cl. 123-187.)



A timer, comprising a casing; an insulating ring fixed in the casing; contact plates embedded in the insulating ring; binding posts connected to the contact plates; a cam shaft rotatably mounted through the center of the casing; a sleeve keyed upon the cam shaft within the casing; two radial bearing lugs extending from the sleeve; a roller arm fitting against the outer face of one lug; a pivot pin extending from the roller arm through the lugs; a roller carried by the roller arm and adapted to travel inside of the insulating ring and engage the contact plates, and having an end flange adapted to press

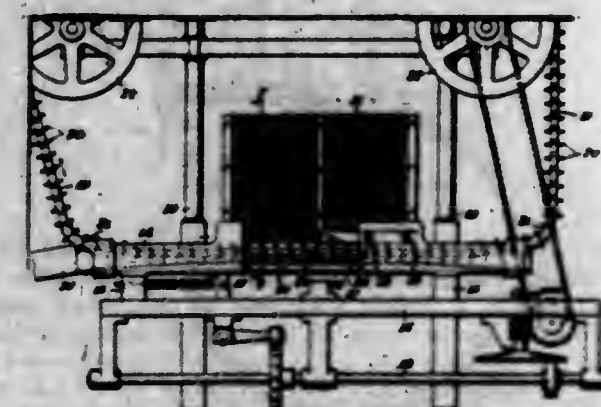
against the inner edge of the insulating ring; and a coil spring mounted upon the pivot pin between the bearing lugs, one end of the spring being connected to a lug and the other end of the spring being connected to the pivot pin, the tension of the spring being exerted to hold the roller against the insulating ring and contact plates and to hold the flange against the edges of the insulating ring and contact plates.

1,305,560. HAT AND CLOTHES HOOK. DAITAKE OKAMOTO, North Yakima, Wash. Filed Jan. 13, 1919. Serial No. 270,823. 3 Claims. (Cl. 248-22.)



1. In combination, a clothes hook comprising a body having a tubular member provided with a chamber extending from its outer end to a shoulder in proximity to the other end of the member and communicating with a passage extending from said shoulder to the adjacent face of the body, a rod extending through said member and engageable interiorly of the latter with said shoulder, said rod having a screw-threaded end protruding from said passage and a head provided on the rod outside of said member for rotating the rod to cause the threaded end thereof to be screwed into or from a wall, and means engageable in the outer end of said member to cover said rod head.

1,305,561. METHOD OF AND MEANS FOR ASSEMBLING MATCHES. MICHAEL PARISON, Barborton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 3, 1918. Serial No. 256,718. 5 Claims. (Cl. 144-61.)

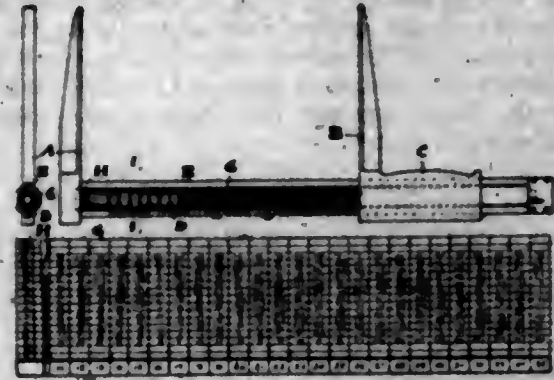


1. A method of assembling matches in superposed layers with the heads of the matches of adjacent layers in opposite relation to each other, comprising advancing the matches row by row to a horizontal plane; discharging the succeeding rows of matches at said plane; permitting them to fall into a receiver traveling below their path of descent; and causing a series of each row of falling matches to make a half-turn in the air preparatory to their delivery to the receiver.

1,305,562. TIMBER-GAGE. MAGNUS PAULSEN, Elverum, Norway. Filed Aug. 16, 1915. Serial No. 45,754. Renewed Apr. 1, 1919. Serial No. 286,800. 4 Claims. (Cl. 33-143.)

1. A timber gage designed for cube readings comprising a cylinder having a scale indicating the length of the

timber and a corresponding cubing scale mounted thereon, a rail parallel to said cylinder having a diameter scale



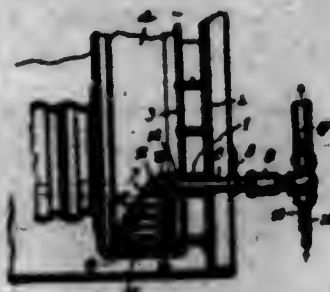
thereon, a gage arm fixed on said rail, and a gage arm slidable along said fixed rail and said cylinder.

1,305,563. AUTOMOBILE-LOCK. JOHN L. POLAND, Chetopa, Kans. Filed Mar. 4, 1919. Serial No. 280,573. 2 Claims. (Cl. 70-90.)



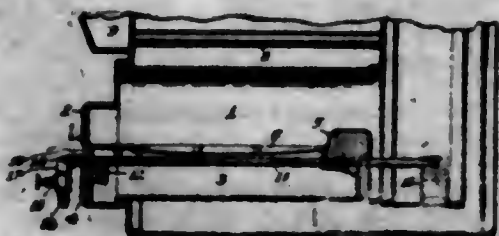
1. A device of the character described, consisting of a U-shaped member adapted to fit upon an automobile axle, a transverse member operably secured to said U-shaped member to secure the same to the axle, a spoke-engaging member operably secured at one end to said transverse member, a retaining member operably secured to the free end of said spoke-engaging member and engaging one end of the U-shaped member, and means to lock the respective members in active position.

1,305,564. ASH-EJECTOR. GEORGE P. PAVIA, Port Huron, Mich. Filed June 7, 1918. Serial No. 235,798. 5 Claims. (Cl. 110-165.)



1. The combination of a fine type boiler having an upright smoke passage with an ash ejector consisting of a suction nozzle, a hollow stay bolt in the boiler shell in which the nozzle is rotatably mounted to sweep the lower end of the passage and to agitate mechanically and stir up any deposit therein, a steam ejector, and connections between the ejector and the nozzle permitting the rotation of the latter and providing for an exhaust through the nozzle.

1,305,565. SOOT-EJECTOR. GEORGE P. PAVIA, Detroit, Mich. Filed Aug. 12, 1918. Serial No. 249,424. 5 Claims. (Cl. 110-165.)



1. The combination of a smoke box, a reciprocatory sector shaped soot collecting head having notched walls

adapted to scrape walls of said smoke box, and means connected to said head adapted for removing soot therefrom and facilitate reciprocating said head.

1,305,566. PROCESS OF TREATING SALINE LIQUORS. JAMES H. REEVE, Oswego, N. Y., assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 6, 1915. Serial No. 65,171. 18 Claims. (Cl. 22-23.)

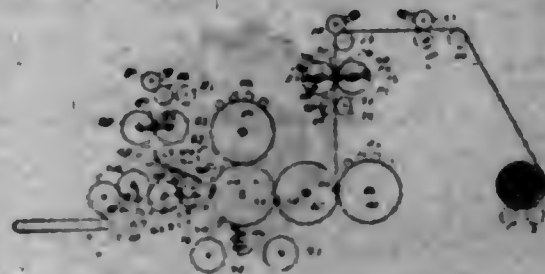
3. A process of treating saline liquor of the character described, which comprises adding to the liquor a sufficient quantity of magnesium chloride to hold the potassium chloride content of the liquor in hot solution while the other saline constituents of the liquor are being precipitated; removing the hot liquor from the precipitated salts, and cooling the liquor to obtain therefrom a deposit of artificial carnallite.

1,305,567. PISTON FOR INTERNAL-COMBUSTION ENGINES. PAUL A. RUTTEN, Kiel, Germany, assignor to Fried. Krupp Aktiengesellschaft Germaniawerft, Kiel-Garden, Germany. Filed July 16, 1918. Serial No. 40,283. Renewed Oct. 25, 1918. Serial No. 230,719. 7 Claims. (Cl. 123-176.)



1. An expansible piston for engines having a cylindrical portion closed at both ends and made with thin walls, the central part of the closed ends forming rigid connection with the piston rod, a supporting device secured to the piston rod and abutting against the closed ends near the cylindrical portion permitting unimpeded radial expansion of said end walls.

1,305,568. PRINTING-PRESS. RALPH C. SHERMAN, Larchmont, N. Y., assignor to Goss Printing Press Company, a Corporation of Illinois. Filed July 16, 1915. Serial No. 40,244. 9 Claims. (Cl. 270-12.)



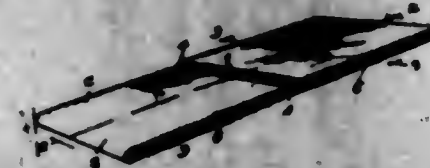
1. A printing machine including in combination printing cylinders, paper supplying means comprising a variable size sheet supplying mechanism for feeding to said cylinders and means for cutting a web after it has been printed by said cylinders, and folding means adapted to receive sheets direct from the printing cylinders or from said means for cutting the printed web.

4. A printing press including in combination two web cutting mechanisms, printing cylinders interposed therebetween and adapted to receive the web from one cutting mechanism or to deliver it to the other, and folding

means adapted to receive the sheets either directly from the printing cylinders or from the last mentioned web cutting mechanism.

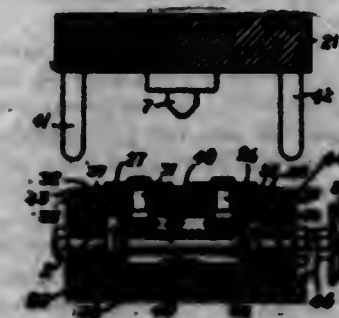
9. A printing machine including in combination a rotary printing couple, variable speed web feeding means, all size cutters supplying sheets thereto from said web, fixed size cutters cutting a printed web coming from the printing couple, and a common folder for receiving the sheets directly from the printing couple or from the fixed size cutter when the couple is printing on the web, and having means for folding all sizes of either sheets centrally transversely.

1,305,569. POCKET-BOOK. WILLIAM ARCHIE SMITH, Olympia, Wash. Filed May 29, 1918. Serial No. 237,286. 2 Claims. (Cl. 150-32.)



1. A device of the character specified formed from a strip of flexible material having a notch near each end extending from one side edge to near the other side edge and forming a body and two flaps connected to the body by narrow tongues at one side edge of the strip, the said tongues being at opposite side edges of the strip, and the aggregate width of the flaps being equal to half the length of the body, said blank being folded into three folds, with the end flaps forming the intermediate fold.

1,305,570. BUTTON-MACHINE. OSCAR W. SODERSTROM, New York, N. Y., and WARREN FUERNBERG, Westfield, N. J. Filed Mar. 2, 1917. Serial No. 151,965. 11 Claims. (Cl. 70-3.)



4. In a button machine, the combination with a bed adapted to support an article, and a plunger movable to and from the bed, of a pair of carriers mounted to reciprocate on the bed on opposite sides of the article, a circular saw on each carrier, cam arms on the plunger arranged to reciprocate the carriers to bring the saws to engage opposite sides of the article, and a driving shaft on the bed arranged to rotate the saws during said movement of the carriers.

10. In a button machine, the combination with a bed adapted to support a strip having heads, and a plunger movable toward and from the bed, of a pair of carriers mounted to freely reciprocate on the bed on opposite sides of the strip, a circular saw on each carrier, means controlled by the plunger for reciprocating the carriers to bring the saws to engage a head on the strip on opposite sides to cut slots in the head, and means for rotating the saws during the movement of the carriers.

1,305,571. AUTOMATICALLY-ADJUSTABLE WRENCH. ARTHUR BRONER, Eureka, Calif. Filed Apr. 11, 1918. Serial No. 227,938. 3 Claims. (Cl. 91-111.)

1. A wrench comprising a major member having a jaw, a minor member having a jaw, a pair of links pivotally secured to said major member and having a separate pivotal connection with said minor member for holding them in

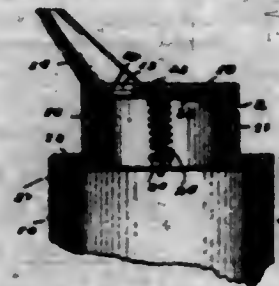
263 O. G.-5

cooperative relation for engaging an object to be turned, and oppositely extending studs on said minor member



adapted to move against one of said links so as to limit movement of said minor member with relation to said links.

1,305,572. DISPENSING-CAN. LESTER STORT, Leola, S. D. Filed Mar. 28, 1918. Serial No. 225,247. 2 Claims. (Cl. 221-19.)



1. A top for dispensing cans comprising an outer cap member having a single aperture for filling and emptying the can and having an outwardly directed flange at its lower edge portion, an inner cap member rotatable within the outer cap member and having openings therein for registration with the aperture of the outer cap member, a pivot carried by the outer cap member and extending through the inner cap member, said inner cap member being rotatable upon the pivot, a flange carried by the inner cap member and engaging the flange of the outer cap member, a spring engaged with the pivot and mounted to bear against the inner face of the inner cap member and a handle for the inner cap member and projecting through the outer cap member and operable to shift the inner cap member pivotally.

1,305,573. ARTIFICIAL-LIMB SOCKET. THEOPHILUS VAN KANDEL, Yardville, N. J. Filed Mar. 19, 1918. Serial No. 223,300. 5 Claims. (Cl. 3-9.)

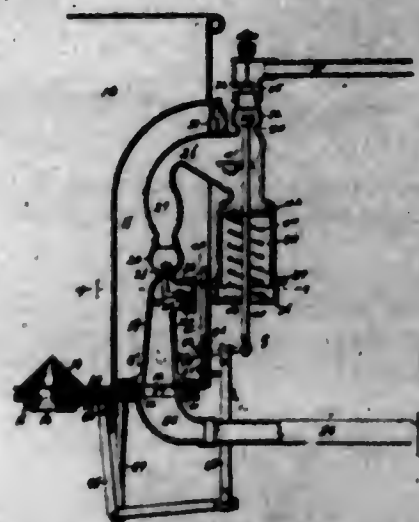


1. In an artificial limb-socket, the combination, with the socket-body having an opening at the front, of hook-plates secured to opposite sides of the opening and formed with hooks tapered upon their edges from the middle toward both ends; and a slide having flanges upon the edges adapted to engage the said hooks and to rock upon the projecting middle portion of the hooks when engaged therewith.

1,305,574. AIR-BLAST PLASTERING-MACHINE. GILBERT E. WHITE, Kewanee, Ill. Filed Apr. 15, 1918. Serial No. 228,593. 17 Claims. (Cl. 91-44.)

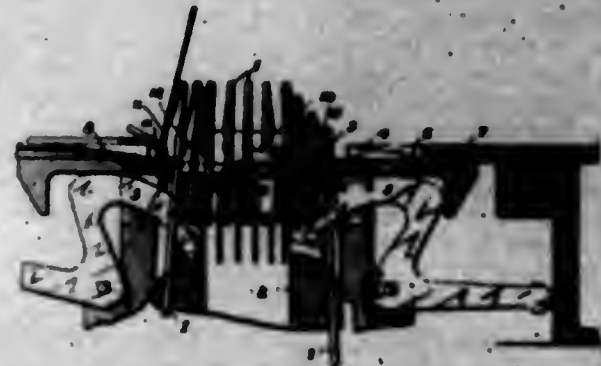
1. A machine for automatically delivering successive charges of previously mixed plastic material, comprising a

pipe, a receptacle for the plastic material, means for introducing successive charges of said material into said pipe,



and automatic means for intermittently directing a blast of fluid pressure through said pipe to discharge said plastic material.

1,305,575. BEARD-OPENER FOR SPRING-BEARD-NEEDLE KNITTING-MACHINES. FRANK WILCOX, Norristown, Pa., assignor to Wildman Mfg. Co., Norristown, Pa., a Corporation of Pennsylvania. Filed Sept. 9, 1916. Serial No. 119,270. 25 Claims. (Cl. 66—81.)



10. In combination with spring beard needles, a needle beard opener comprising an elongated rib-like member horizontally disposed and having a front end tapered laterally to facilitate entrance between the beard and stem, and means for guiding the yarn exterior to the said opener and beneath the same, substantially as described.

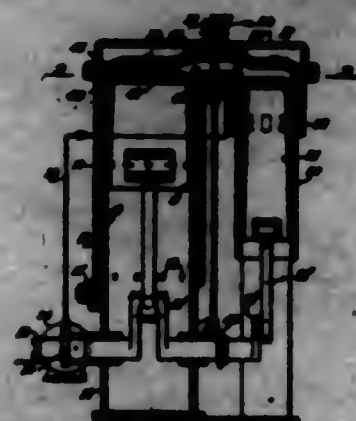
1,305,576. PORTABLE HOUSING STRUCTURE. WALTER A. WILCOX, Pontiac, Mich. Filed Aug. 5, 1918. Serial No. 248,403. 7 Claims. (Cl. 125—2.)



3. In a device as set forth, the combination, of a plurality of tubular standards, a collapsible roof structure, said roof structure including a plurality of rafters hingedly connected in pairs, a ridge plate attached to the upper ends of said rafters, bolts extending through said ridge plate and rafters, for connecting the ridge plate to the rafters, longitudinally extending sheathing or bracing

strips connecting the pairs of said rafters, and depending pins formed upon the lower ends of the rafters and adapted for insertion into the upper ends of said tubular standards.

1,305,577. INTERNAL-COMBUSTION ENGINE. MUEL R. WOLFARD, Cambridge, Mass., assignor of one-fourth to Leroy A. Ames, Spencer, Mass., and one-fourth to Everett E. Kent, Newton, Mass. Filed Feb. 8, 1912. Serial No. 675,518. 17 Claims. (Cl. 123—22.)



1. An internal combustion engine including in combination two cylinders and means to admit air to them for the combustion; a passage continuously open between their head ends, sufficient in size for the main body of air to pass through it under normal operating conditions without material increase of pressure; pistons in the cylinders, connected together to move the main body of air through said passage at their inner end of stroke; means to inject the fuel charge directly into said main body of air at the inner end of stroke gradually while it is so being moved; and means whereby the fuel ignites and burns gradually during the continuance of its said injection into the main body of air.

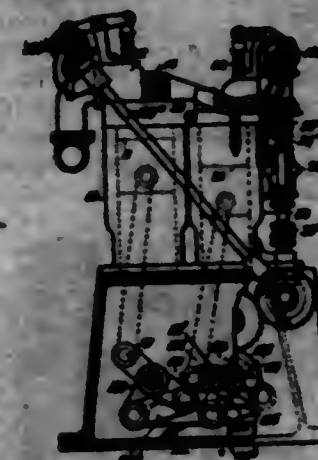
2. An internal combustion engine including in combination two cylinders and means to admit air to them for the combustion; a passage continuously open between their head ends, sufficient in size for the main body of air to pass through it under normal operating conditions without material increase of pressure; pistons in the cylinders, connected together to move the main body of air through said passage at their inner end of stroke; a pipe holding a column of liquid fuel extending continuously to said passage; a pump acting on said fuel; injecting part thereof gradually into said passage while the main body of air is so being moved; and means whereby the fuel ignites and burns gradually during the continuance of its said injection into the main body of air.

3. An internal combustion engine including in combination two cylinders and means to admit air to them for the combustion; a combustion chamber connecting their head ends sufficient in cross-sectional area for the main body of gases to pass through it under normal operating conditions without material increase of pressure; a piston in one cylinder having approximately no clearance therein; there being clearance for it in said chamber; a piston in the other cylinder connected to the first piston in such relation as to reach its inner end of stroke after the first mentioned piston has reached its inner end of stroke and is moving outward; and means gradually to inject fuel across said chamber, while the main body of air which is to support the combustion thereof is being pushed past the point of fuel injection by the second mentioned piston.

1,305,578. INTERNAL-COMBUSTION ENGINE. MUEL R. WOLFARD, Cambridge, Mass., assignor of one-fourth to Leroy A. Ames, Spencer, Mass., and one-fourth to Everett E. Kent, Newton, Mass. Filed Feb. 17, 1918. Serial No. 8,831. 7 Claims. (Cl. 123—41.)

1. An internal combustion engine comprising a multiplicity of power units, each having a power cylinder, air

cylinder, short direct connecting passage, and piston; parallel shafts; linkage connecting the shafts; and connections from the pistons to the shafts; the pistons of



each pair being connected to different shafts, with the air piston lagging behind its power piston; and one of the power pistons being on the same shaft with an air piston.

1,305,579. COMBUSTION AND THERMODYNAMIC CONVERSION WITHIN ENGINES. MUEL R. WOLFARD, Cambridge, Mass., assignor of one-fourth to Leroy A. Ames, Spencer, Mass., and one-fourth to Everett E. Kent, Newton, Mass. Filed Feb. 17, 1918. Serial No. 8,832. Renewed Dec. 6, 1917. Serial No. 206,802. 12 Claims. (Cl. 123—32.)



1. A process of combustion and thermo-dynamic conversion within an engine comprising the confinement within a limited space of a gaseous working medium consisting in part of products of combustion and in part of fresh air, which is the main body of air that is to support combustion; these occupying different portions of the space; compression of said confined contents by a mechanically moving part, reducing the volume and tending to move a column of said confined air toward said products of combustion; the gradual introduction of liquid fuel directly into said air while being so moved past the point of fuel introduction, and the gradual combustion of said fuel at the head of said column of air setting up a back pressure retarding the movement of said air past the place where said fuel is introduced; followed by expansion of the products of combustion against a power-transmitting element.

2. A process of combustion and thermo-dynamic conversion within an engine including the simultaneous confinement of a body of air, compression of the whole body by mechanical reduction of volume of the space wherein it is confined, movement of it through a definite course gradually, and introduction of liquid fuel gradually into said air, the rate of fuel inflow being graduated according to the amount of air to whose immediate proximity it is introduced, so that sufficient air for complete combustion of the introduced fuel is in immediate proximity thereto; volatilization of said liquid upon its said introduction; combustion of said volatilized fuel in its said air at a locality farther along in the course of movement thereof and continuing simultaneously with the continuance of introduction of the main body of fuel; and expansion of the products of combustion against a power transmitting element.

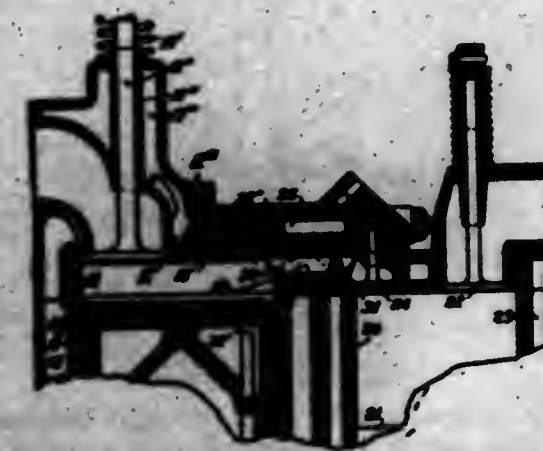
3. A process of combustion and thermo-dynamic conversion within an engine including the simultaneous confinement of a body of air, compression of the whole body by mechanical reduction of volume of the space wherein

it is confined, movement of it through a definite course gradually and introduction of liquid fuel gradually into a part of said air which still retains heat from its said compression and is of sufficient temperature to volatilize but not to ignite said liquid upon its said introduction; the rate of fuel inflow being graduated according to the amount of air to whose immediate proximity it is introduced, so that sufficient air for complete combustion of the introduced fuel is in immediate proximity thereto; combustion of said volatilized fuel in said air at a locality farther along in the course of movement thereof and continuing simultaneously with the continuance of introduction of the main body of fuel; and expansion of the products of combustion against a power transmitting element.

4. A process of combustion and thermo-dynamic conversion within an engine including the confinement of a quantity of gas stratified in zones, one of which zones consists of air located near a moving wall of the confining means and undergoing compression and displacement thereby; another zone, of air more remote from said wall but still affected thereby, into which some injection of liquid fuel is simultaneously proceeding and in which some said fuel is mixed with and volatilized in the main body of air which is to support its combustion; another zone in which combustion of fuel is in progress supported by the air with which it was mixed in the preceding zone; and another zone in which are the products of combustion; the said air moving progressively forward through said zones whereby a gaseous combustible mixture constituting the source of power is made progressively under confinement and pressure, and is burned in a separate but closely adjacent zone.

5. A process of combustion and thermo-dynamic conversion within an engine comprising the repeated execution of a cycle, in one period of which confined gases are stratified in zones including a zone of air, a zone of mixed air and fuel in which liquid fuel is being vaporized and a zone of products of combustion; the said air moving progressively from its zone toward the others during the combustion; the said mixture being affected by spraying liquid into the moving air as it passes; and the quantity of passing air being so proportioned to the rate of injection of fuel that the passing air is adequate for the complete combustion of the fuel that is injected into it; said gases when so confined being within a space, in substantially all parts of which the pressure varies through a wide range during each cycle.

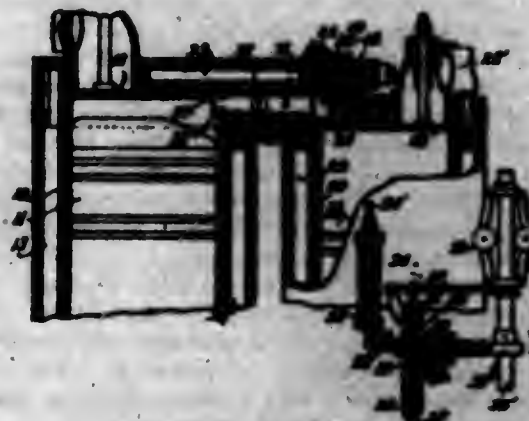
1,305,580. INTERNAL-COMBUSTION ENGINE. MUEL R. WOLFARD, Cambridge, Mass., assignor of one-fourth to Leroy A. Ames, Spencer, Mass., and one-fourth to Everett E. Kent, Newton, Mass. Filed Feb. 17, 1918. Serial No. 8,830. Renewed Oct. 23, 1918. Serial No. 250,457. 12 Claims. (Cl. 123—68.)



7. The combination, in an internal combustion engine having a power cylinder and a piston therein traveling close to the head of the cylinder; of a combustion passage discharging into the head end of the power cylinder, there being means for compressing air into the combustion

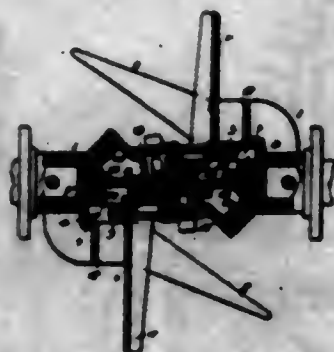
tion passage, said passage being adapted to have the main charge of air and fuel for each cycle introduced into and ignited within it and to discharge the burning contents during the progressive combustion of the same into the head end of said cylinder; and a lining for the part of said passage where combustion occurs and for the adjacent head part of the cylinder composed of about one-third to two-thirds of nickel alloyed with iron.

1,305,581. INTERNAL-COMBUSTION ENGINE. MERRILL R. WOLFARD, Cambridge, Mass., assignor of one-fourth to Leroy A. Ames, Spencer, Mass., and one-fourth to Everett E. Kent, Newton, Mass. Filed Feb. 17, 1915. Serial No. 8,928. Renewed Feb. 13, 1919. Serial No. 270,868. 14 Claims. (Cl. 123-68.)



1. In an internal combustion engine having a powder cylinder and piston, a confined space with a displacing element adapted to compress and displace air, and a passage connecting said space with the head end of the cylinder, in combination, throttling means in said passage, means to introduce fuel into said passage and means to ignite fuel within said passage; the whole being adapted and arranged to force the main charge of air for each cycle through said passage and past the place of fuel introduction, and for mixture and combustion of the same to occur progressively with flow toward and into said cylinder, and with said throttling means adapted to regulate the flow of said air past the place of fuel introduction during a portion of said combustion which occurs while the pressure is increasing simultaneously within said cylinder and said confined space.

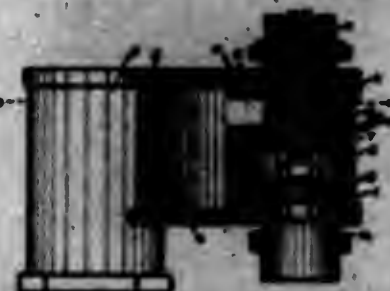
1,305,582. FLUID-PRESSURE COUPLING. LEONIDAS D. WOODAUFF, Norwood, Ohio, assignor to Union Connector Company, Wilmington, Del., a Corporation of Delaware. Filed July 9, 1917. Serial No. 179,442. Renewed Apr. 21, 1919. Serial No. 201,726. 13 Claims. (Cl. 285-58.)



13. The combination, in a fluid pressure coupling of a coupler head having a coupler face adapted to be moved into coupling position with a coupling face of a companion head, there being a port in the coupling face adapted to register with a port in the face of the companion head, a gasket seated in the port for engagement with a gasket in the companion port, means for shifting the head laterally away from the companion head during

the initial portion of the coupling movement to prevent the head from engaging the gasket of the companion head, and means for preventing the coupler heads moving laterally toward one another during the remainder of the coupling movement.

1,305,583. WATER-CHANGE VALVE. FREDERIC E. WOODMAN, Hudson, Mich., assignor to Hazen Manufacturing Company, Hudson, Mich., a Corporation of Michigan. Filed Mar. 8, 1918. Serial No. 221,146. 1 Claim. (Cl. 103-56.)



In a valve, in combination with an outer shell having a plurality of serially connected apertured chambers, a supply pipe connected with one of the end chambers, discharge pipes connected with each of two others of said chambers, an axially disposed valve seat in one of said chambers, a shell member removably located partly within and partly outside of that chamber wherein said valve seat is located, its inner end forming an oppositely disposed companion valve seat, a piston member disposed between said valve seats in position to seat against either and to thereby shut off the flow to one or the other of the discharge pipe apertures, an actuating stem for said piston member extending through said removable shell member, and a packing nut through which said stem extends to an outside point, located on the outer end of the valve shell.

1,305,584. APPARATUS FOR FILLING CONTAINERS. EARL I. YARLES, Newark, N. J. Filed Nov. 26, 1917. Serial No. 203,931. 13 Claims. (Cl. 226-9.)



1. In a filling machine, a hopper for material in substantially powder form, said hopper being provided with an elongated opening in its bottom, a continuously and uninterruptedly moving conveyor for traveling containers along beneath the opening in the hopper, and a traveling belt serving as a moving bottom for the open portion of the hopper and having openings therein to receive the tops of the containers.

1,305,585. CAMERA. HARVEY L. BOYER, Philadelphia, Pa. Filed June 19, 1915. Serial No. 36,047. 27 Claims. (Cl. 95-1.1.)



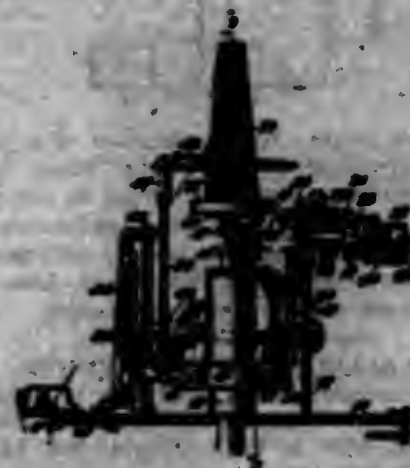
1. The combination with a camera having a plurality of controllable exposure apertures and within which a sensitized photographic element may be protected from light; such exposure apertures permitting portions of

unit exposure areas of said sensitized element to be exposed when occupying different positions in the camera, of movable means designed to limit the size of a predetermined unit exposure area of said sensitized element and prevent exposure of a portion of the same when said sensitized element is in one exposure position.

10. The combination with a camera having a controllable exposure opening and within which camera a sensitized film made up of independent unit spaces may be protected from light, of means for obscuring a portion of the surface of a unit space while exposing the rest of the same in one position within the camera, means for moving the film to bring said unit space to another position where the unexposed surface portion of the same may be exposed, and means permitting exposure of the original unexposed portion of the same surface of said film unit at a second exposure point and from a direction opposite the original exposure of said unit space.

27. The combination with a camera within which a sensitized photographic element may be protected from light; said element being movable within the camera, of a casing having exposure openings at different positions with respect to the movable sensitized element whereby portions of the same predetermined unit area or space of said sensitized element may be exposed different times; one portion of the sensitized element being exposed at one time and the balance of said predetermined area of the element being exposed at the second exposure opening, means for moving said sensitized element between said exposure positions, and an independent title carrier for printing upon the film and adapted for interposition between a source of light and said sensitized element at one of said exposure openings.

1,305,586. ATTACHMENT FOR UNRAVELING TEXTILE FABRICS. JAMES BOYCE, Philadelphia, Pa., assignor of one-half to Curt Fide, Philadelphia, Pa. Filed June 18, 1917. Serial No. 176,282. 8 Claims. (Cl. 242-1.)



1. An attachment of the character stated comprising a fixed spindle, a winding-head support rotatable thereon, means of driving said support, a winding-head member seated upon said support so as to rotate therewith by frictional contact during a raveling period, but adapted to resist rotation at predetermined intervals upon a raveling being rendered that, a cone-frustum fixed with respect to said member and a cone to receive the ravelings detachably fitted over said cone-frustum.

1,305,587. COMBINATION HAND-TOOL. GEORGE B. BOY CALDWELL, Ottawa, Ontario, Canada. Filed Jan. 27, 1919. Serial No. 373,410. 3 Claims. (Cl. 7-13.)

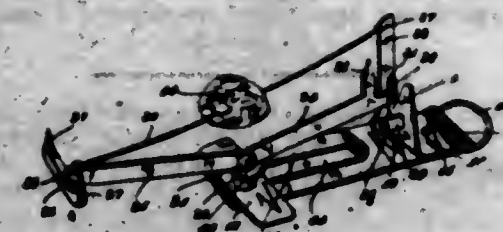
1. In an article of the class described comprising a combination hand tool and in combination, a hand saw blade having straight edge conformation on its back edge and provided on its sides adjacent its back edge with tabulated scales having characters to denote inch and fractional measurements, a handle therefor, means for securing the handle to the blade, the back or upper and forward edges of the handle having exact rectangular

relation, metal plates having rectangular arms conforming in contour to the back or upper and the forward edges of the handle positioned on the handle adjacent



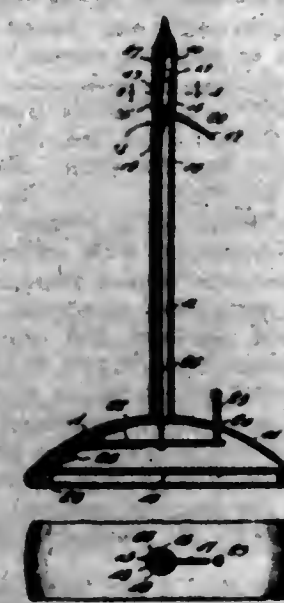
its back or upper and forward edges, means for attaching said plates to the handle, tabulated scales on said metal plates having characters to denote inch and fractional measurements, there being transverse bores through the handle and portions of the metal plates and vertical and horizontal spirit levels in the handle located within said transverse bores.

1,305,588. TRAP. HENRY CHAMBER, Chaplin, Saskatchewan, Canada. Filed July 1, 1918. Serial No. 242,857. 2 Claims. (Cl. 43-23.)



1. An animal trap, comprising a base, a cylindrical standard arranged thereon, and a pair of levers pivoted in said standard, prongs formed at the extremities of said levers, a spring on said base having a part movable longitudinally over said standard, and adapted to engage with said levers whereby they are closed, an arm pivoted near the end of said base, a detent formed integral with one of said levers, engageable with said arm, a flexible element extending between said detent and the other of said levers, and a lure on said flexible element, said detent adapted to be operated by a pull on said flexible element.

1,305,589. PAPER-FILE. CLARENCE M. DRABON, Carnegie, Okla. Filed Dec. 11, 1918. Serial No. 206,255. 3 Claims. (Cl. 123-23.)



1. A paper file including a base, a stem mounted on the base, a paper retaining arm movably mounted on the stem, means carried by the base and connected with the arm for moving the arm downwardly to permit the re-

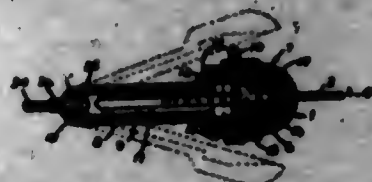
removal of papers, and means for resiliently returning and holding the arm in outwardly extending horizontal position.

1,305,500. TURNBUCKLE AND CABLE-HEAD. JOHN W. DICKSON, Dallas, Tex. Filed May 25, 1918. Serial No. 236,642. 4 Claims. (Cl. 287-82.)



1. A cable head having a central chamber, a tapered seat extending one way from the chamber, a screw-head seat extending the other way from the chamber, and a side opening leading to the chamber; a guy fixed to a swedge-ferrule; the swedge-ferrule fitting in the tapered seat in the head, the guy and swedge-ferrule being inserted through the side opening to the tapered seat; a screw fitting the screw seat, a barrel fitting the screw, and a nut fixed upon the screw for operating the screw.

1,305,501. CABLE-HEAD. JOHN W. DICKSON, Dallas, Tex. Filed May 25, 1918. Serial No. 236,643. 3 Claims. (Cl. 287-82.)



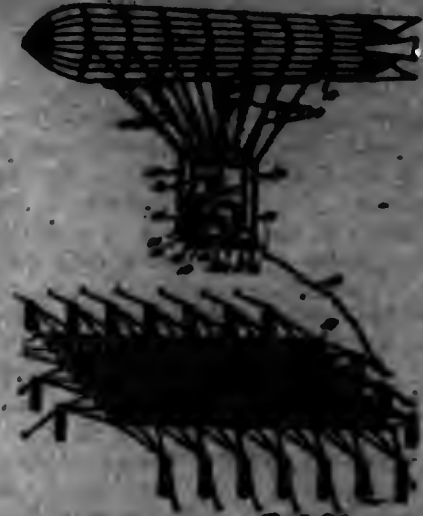
1. A cable head comprising a circular stem, a circular head extending from the stem; there being a central chamber in the head, a tapered seat extending one way from the central chamber, a bore extending the other way from the central chamber to near the outer end of the stem, and there being a shoulder at the bottom of the bore and a bearing opening passing the shoulder, and the head and stem being slotted longitudinally from the top of the head to near the shoulder so as to separate the head into two parts so that the two parts may be spread apart to receive a guy and tapered ferrule; a guy, a tapered ferrule secured to the end of the guy and fitting in the tapered seat, and means for holding the two parts together to grip the ferrule.

1,305,502. BALLOON. ROSALIO GARCIA FERNANDEZ, Cerro, Habana, Cuba. Filed Jan. 30, 1917. Serial No. 145,517. Renewed Nov. 25, 1918. Serial No. 264,123. 8 Claims. (Cl. 46-70.)

1. A balloon including a car comprising standards, a platform hingedly connected with certain of said standards and having cut-outs formed therein providing pockets to receive the remaining standards, a latch slidably connected with said platform and provided with latch pins extending through eyes formed in the lower ends of the second mentioned standards to releasably hold the platform in a set-up position, movement of the latch to an inoperative position releasing the platform and permitting the same to drop, a trip extending along said platform adjacent the free end portions of the platform, and a striker carried by the platform adjacent the hinged end portion thereof.

2. A balloon including a car comprising a platform, standards hingedly mounting the platform, standards extending in operative relation to the free edge portion of the platform, a latch carried by the platform for engaging the second mentioned standard and releasably holding the platform in an upright position, a trip rail mounted

upon said platform adjacent the free edge thereof, supports mounted upon the platform adjacent the hinged edge thereof, and a striker rail carried by the supports.



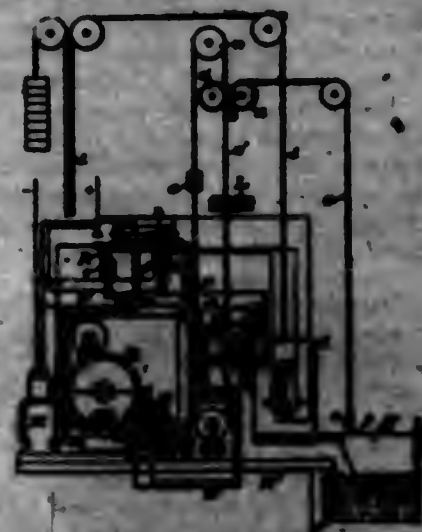
3. A device of the character described comprising a balloon including a car having a pivotally mounted platform, means for releasably holding the platform in a horizontal position, a trip mounted upon the platform, and a striker mounted upon the platform, the platform moving to a vertical position when released and an animal placed upon the platform between the trip and striker being struck by the striker and turned in the air by the tripper when leaving the platform.

1,305,503. TRACTOR-TREAD. JOHN FRANCO, San Francisco, Calif. Filed Feb. 21, 1918. Serial No. 218,498. 5 Claims. (Cl. 51-186.)



1. An endless tractor tread composed of a plurality of tread plates arranged in alignment, hinge joints connecting said plates together, extensions on one plate overlapping the hinge joint with the contiguous plate adjacent the side edges thereof, and an extension on the contiguous plate overlapping the hinge joint with the first plate between the said side extensions.

1,305,504. VARIABLE-LANDING DEVICE. FLOYD C. FURLOW, Montclair, N. J., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 3, 1917. Serial No. 147,874. 11 Claims. (Cl. 187-89.)



1. In elevator apparatus, the combination with the car, means to operate the car, auxiliary means to operate the

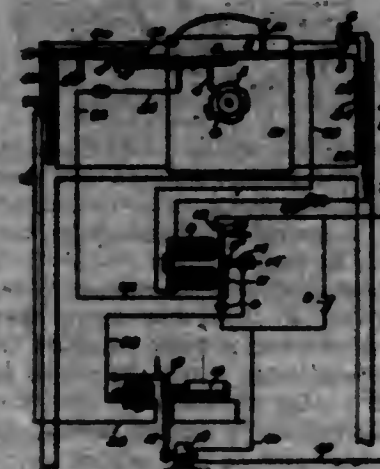
car, a landing having a variable elevation, and means movable in accordance with the landing to control the auxiliary means and level the car with the landing.

1,305,505. BODY-TREATMENT MACHINE. JAMES P. CAMPBELL, Chicago, Ill., assignor to The Reducing Machine Company, a Corporation of Illinois. Filed July 4, 1914. Serial No. 940,342. 17 Claims. (Cl. 128-58.)



1. In a machine of the character set forth, the combination of a pair of oppositely disposed flexible roller carrying devices, rollers mounted on said devices, tension devices for placing a predetermined tension on said flexible roller carrying devices, and co-acting means for manually increasing the tension on said devices.

1,305,506. PHONOGRAPHIC CLOCK. FRANCISCO MEXER GIL, Mexico, Mexico. Filed Dec. 27, 1917. Serial No. 209,112. 3 Claims. (Cl. 58-14.)

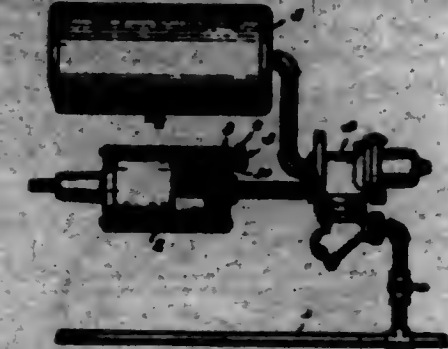


1. In combination, a time-piece, a talking machine, an electric motor for operating the talking machine, means operated by the time-piece for closing the motor circuit, said means embodying an electro-magnetic device having a movable armature forming part of the motor circuit, a brake for the phonograph, an electro-magnetic device for operating this brake including a circuit and means for closing contacts in said circuit at one point when said armature is retracted to open the motor circuit, and means for closing this brake circuit at another point by operation of the time-piece.

1,305,507. RELIEF-VALVE. FRANK GORE, Collingswood, N. J. Filed Oct. 1, 1917. Serial No. 164,304. 4 Claims. (Cl. 188-10.)

1. A relief valve comprising a body having a recess at one end, a bore extending from said recess and an out-letting nipple at one side communicating with said recess, a cap attached to said end of the body and having a relief port and a valve seat at the inner end of said port,

a valve head movable in the recess and having a stem movable in said bore, said valve head being movable



against the seat by a suction and pressure of the fluid flowing through the relief port, and a retarding spring confined between said head and cap.

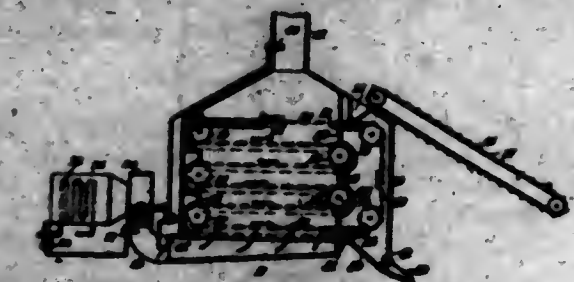
1,305,508. RELIEF-VALVE. FRANK GORE, Collingswood, N. J. Filed Dec. 18, 1917. Serial No. 207,850. 9 Claims. (Cl. 188-10.)



1. A relief valve having a relief port, a valve member normally removed from said port and movable toward said port to close it, and a passage of smaller cross section than said port leading to a point between said port and valve member.

2. A relief valve comprising a casting having a chamber with a reduced portion and shoulder, a relief port leading from said reduced portion, a valve seat between the reduced portion and port, and a passage leading to said reduced portion, a cap closing said chamber, a valve member slidable in said reduced portion and having a head movable in the chamber, and an expansion spring between said head and shoulder, the casing having a channel leading from said passage to the shoulder, and the head having a bore for the passage of fluid.

1,305,509. PROCESS FOR DRYING VARIOUS SUBSTANCES. AUGUST A. GOUSSIER, Englewood, N. J., assignor to Harry Bents, Montclair, N. J. Filed Feb. 28, 1917. Serial No. 151,308. 14 Claims. (Cl. 34-24.)

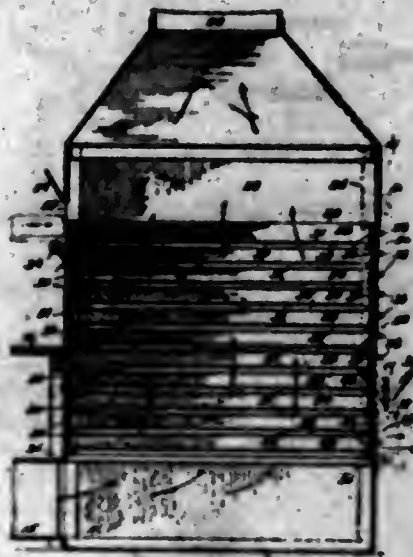


12. The process of drying vegetables and the like comprising a passing current of air in contact with and in counter direction to the material to be dried, maintaining the air at the point of first contact with said material at a substantially constant elevated temperature above that of the natural air, and varying the volume of flow of the air sufficiently to maintain a substantially uniform high moisture content at the point the air passes out of contact with the material.

1,305,510. APPARATUS FOR DEHYDRATING. AUGUST A. GOUSSIER, Englewood, N. J. Filed June 25, 1917. Serial No. 176,782. 4 Claims. (Cl. 34-11.)

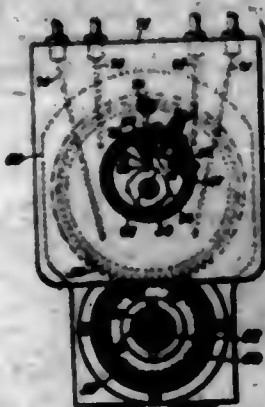
1. An apparatus for dehydrating vegetable and other material, comprising an air heater, a stack of superposed

trays for said material, and means for driving the heated air through said trays and the material thereon, said trays having side and end walls and perforated bottoms and along said side and end walls downwardly extending flanges to permit each tray to nest upon and engage the tray next below it.



4. A dehydrating apparatus comprising in combination a vertical stack of superposed trays for containing material to be dried, said trays having recesses in their sides and bars fixed within said recesses, and means for lifting the trays above the bottom tray preparatory to the withdrawal of said bottom tray and thereafter lowering said trays, comprising shafts at opposite sides of said stack and having drums, flexible members arranged to wind on said drums, and hooks at the free ends of said flexible members.

1,305,601. IGNITION DEVICE FOR MOTOR-VEHICLES. JOHN ALLEN HENRY, New Haven, Conn., assignor to Lindsay Auto Parts Company, Indianapolis, Ind., a Corporation of Indiana. Original application filed July 27, 1910, Serial No. 874,000. Divided and this application filed July 30, 1918. Serial No. 247,371. 12 Claims. (Cl. 128—140.)



1. In a device of the character described, the combination with an electric machine including a rotor shaft, of a distributor device and a timing mechanism mounted on the same axis independently of said shaft and on one side of the electric machine, and driving means between the distributor and the electric machine and on the same side of the electric machine as the distributor and timing mechanism.

2. In a device of the character described, the combination with an electric machine including a rotor shaft, of a casing for said machine including an end covering, a timing mechanism and distributor device mounted on said end covering independently of the rotor shaft, and a driving connection between the rotor shaft and the distributor device and timing mechanism.

3. In a device of the character described, the combination with an electric machine including a rotor shaft, of a casing for said electric machine including an end covering, a timing mechanism and distributor device mounted on the same axis on said end covering independently of the rotor shaft, and driving connections between the rotor shaft and distributor device and timing mechanism.

4. In an ignition apparatus, the combination with a rotatable cam, of a housing therefor, a pair of interrupter contacts mounted within said housing, a pivot pin secured therein, an interrupter actuating member having a cam contacting portion pivotally mounted on said pin and adapted to transfer motion from said cam member to one of said interrupter contacts, and a resilient member mounted upon said pivot pin for normally holding the cam contacting portion of said interrupter actuating member in operative position with respect to said cam.

5. In an ignition apparatus, the combination with a rotatable cam, of a housing therefor, a pair of interrupter contacts mounted within said housing, a pivot pin secured therein, an interrupter actuating member having a cam contacting portion pivotally mounted on said pin and adapted to transfer motion from said cam member to one of said interrupter contacts, and resilient means encircling said pivot pin for returning said interrupter actuating member to normal position after the same has been moved out of normal position by the cam.

1,305,602. SHARPENING-TOOL. LOUIS HERMANN, Chicago, Ill. Filed Oct. 28, 1916. Serial No. 128,153. Renewed Apr. 28, 1919. Serial No. 293,375. 5 Claims. (Cl. 51—7.)



1. The combination of a stone having a smooth grinding surface and a slot in said surface, and a removable guide bar in said slot projecting above the surface of the stone and forming a shoulder along which the device to be sharpened may be reciprocated.

2. The combination of a grinding stone having a flat grinding surface, a removable guide member mounted thereon and presenting a guide shoulder for the blade to be sharpened and along which the blade may be reciprocated in contact with the surface.

3. The combination of a stone having a smooth grinding surface and a slot in said surface, a removable guide bar in said slot projecting above the surface of the stone and forming a shoulder against which the device to be sharpened may be simplified, a holding device adapted to be placed upon the device to be sharpened and to confine the blade between the holder and stone, and means for guiding the blade and holder in a definite path along the stone.

4. The combination of a honing stone having a smooth flat surface and having two parallel slots, a removable guide bar in one of said slots projecting above the surface of the stone and a separate blade holder for confining the blade between the holder and the surface of the stone and having means to engage the side edges of the blade and project into the other slot to guide the holder and blade in a definite line of movement.

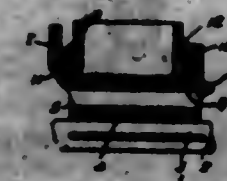
5. The combination of a honing stone having a smooth flat grinding surface and two parallel slots or grooves in said surface, a removable guide bar in one of said slots and a blade holding device comprising a plate adapted to be positioned against the upper side of the blade, and having downwardly projecting lugs cooperating with the said other slot or groove for guiding the plate in a definite line of movement.

1,305,603. REGULATOR. WILLIAM HODGSON, New York, N. Y. Filed Dec. 9, 1910. Serial No. 205,060. 1 Claim. (Cl. 187—187.)



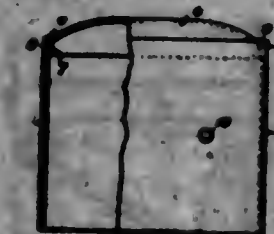
In a regulator of the character designated, the combination with a diaphragm of an elastic resilient reinforcing shield independent of, unattached to and interposed between it and the plunger by which the motion of the diaphragm is transmitted to the actuating mechanism, said reinforcing shield being formed with a plurality of slots extending from a central solid imperforate base area outward radially to and through the periphery thereof, said diaphragm and shield being unconfined throughout their areas except at their peripheries, combined with a plunger bearing on said solid imperforate center for the purpose described.

1,305,604. CORE MEMBER FOR DYNAMO-ELECTRIC MACHINES. GEORGE H. F. HOLY, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 14, 1915. Serial No. 29,705. 5 Claims. (Cl. 171—208.)



1. A laminated structure comprising a cylindrical supporting member, a plurality of annular plates mounted on the said member and provided with outwardly extending slots on the inner periphery and aligned off-set portions adjacent said slots, and retaining end members for the said plates respectively having a recess and a projecting portion coacting with the off-set portions of adjacent plates.

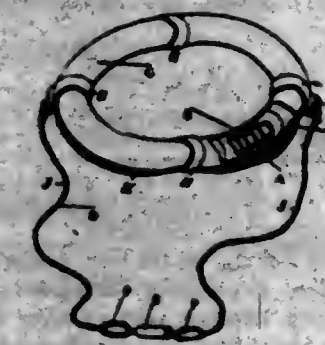
1,305,605. ANNEALING-BOX. FRED E. HUNTER, Pittsburgh, Pa. Filed Apr. 15, 1918. Serial No. 223,708. 6 Claims. (Cl. 283—40.)



1. An annealing box composed of a rectangular plate metal body portion formed of a continuous integral blank preliminarily formed with its ends slightly converging whereby to provide overlapping ends at one side having single metal bar welding, said ends being welded together between the corners of the box with a rounding expansion.

also and resumption of rectangular formation of the sides and ends, and a top secured to the upper portion of the body portion.

1,305,606. LIFE-BUOY. TATSUJIRO IMAIZUMI, Seattle, Wash. Filed Nov. 6, 1918. Serial No. 261,350. 4 Claims. (Cl. 9—17.)



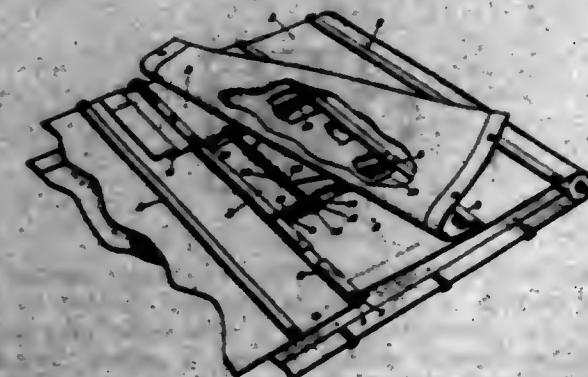
1. A life buoy having a ring-like body and a cellular structure for said body formed by cup-like elements nested together.

1,305,607. FORCE-FEED ATTACHMENT FOR ALFALFA-GRINDERS AND THE LIKE. FOREMAN W. JOHNSON, Hartman, Colo., assignor of one-half to Floyd M. Wilson, Hartman, Colo. Filed May 31, 1917. Serial No. 172,064. 2 Claims. (Cl. 193—14.)



1. In combination in a force feed apparatus for grinders, an upper and a lower roll, with means for feeding the material thereto, arms one on each side of the machine supporting the upper roll, said arms being pivotally mounted, an equalizer shaft extending across the machine and a connection between each end of said shaft and the pivotally mounted supporting arms for the upper roll, substantially as described.

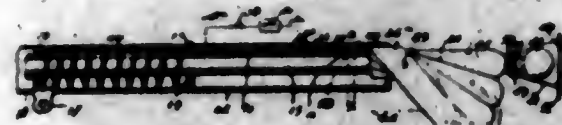
1,305,608. CANVAS CONVEYER. HOWARD M. JOHNSTON, Toronto, Ontario, Canada, assignor to Massey-Harris Company Limited, Toronto, Canada. Filed Jan. 10, 1919. Serial No. 271,458. 6 Claims. (Cl. 24—32.)



3. A conveyor canvas having a flat bar connected therewith adjacent one end on which the canvas may be

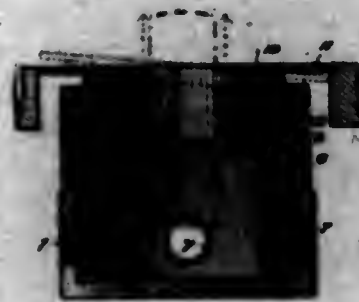
rolled, and a socket bar secured to the other end of the canvas adapted to receive the flat bar with the canvas rolled thereon, the mouth of the socket being at the back of the bar, in combination with means connected with the flat bar and the socket bar for drawing the same toward one another.

1,305,600. DIRECTION-INDICATOR FOR AUTOMOBILES. THOMAS F. KIERNAN, Salida, Calif. Filed June 12, 1917. Serial No. 174,203. 1 Claim. (Cl. 177-329.)



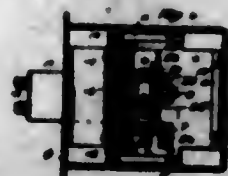
A signal device of the character described, comprising a tubular cylinder, a plunger slidable in said cylinder, means for normally holding said plunger within said cylinder, a reflector plate having a bracket fixed on the outer end of the plunger and closing the cylinder when said plunger moves inwardly thereof, an electrically lighted lamp carried on the plunger to be disposed within the bracket inwardly of the reflector plate and concealed within the cylinder when closed by the latter, and means for moving the plunger outwardly of the cylinder.

1,305,610. FLOOR-BOX. HUBERT KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., a Corporation of New York. Filed Sept. 27, 1915. Serial No. 52,820. 7 Claims. (Cl. 247-6.)



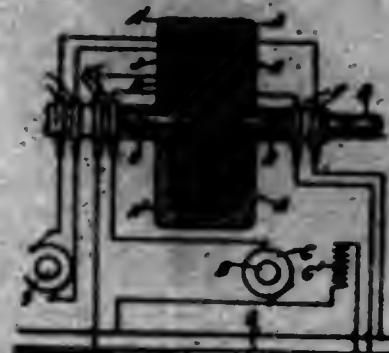
6. A floor or junction box comprising a box body having an annular concave seat, a top or cover, means located in said seat and retained therein by the curvature of said seat, and connected to said top or cover to permit the latter to be adjustably tilted in any direction.

1,305,611. OUTLET-BOX. HUBERT KRANTZ, New York, N. Y., assignor to Krantz Manufacturing Company, Inc., a Corporation of New York. Filed May 4, 1916. Serial No. 95,402. 9 Claims. (Cl. 175-282.)



9. An outlet box having an insulated support arranged therein, a line circuit terminal carried by said support in combination with a removable plug and a branch line contact carried thereby, a switch carried by said support and adapted to bridge the terminal and contact said plug operating when inserted in said box to shift said switch in one direction and when moved from said box to shift said switch in the opposite direction.

1,305,612. ELECTRICALLY-CONTROLLED CLUTCH. WALTER LANGDON-DAVIES, Weybridge, England. Filed May 8, 1917. Serial No. 166,701. 7 Claims. (Cl. 171-231.)



1. The combination with an electric motor, of an electrically controlled clutch driven by the motor and having a coil which is in circuit with the motor armature and tends to produce slip between the clutch members.

1,305,613. SPARK-PLUG. WILEY ALBERT LATHAW, Clinton, Mich. Filed Nov. 9, 1917. Serial No. 201,142. 3 Claims. (Cl. 128-109.)



1. In a spark plug, the combination of a shell, a barrel fitting in the shell, a gland nut carried upon the upper end of the shell and engaging the barrel to bind the latter in the shell, a glass cylinder fitting upon the upper end of the barrel, a U-shaped packing ring fitting about the lower end of the cylinder and against the barrel, a fibrous head fitting upon the outer end of the glass cylinder, screw rods connecting the head to the gland nut for binding the head and the barrel against the opposite end of the glass cylinder, a fixed electrode section in the barrel, a movable electrode section arranged within the head and adapted for adjustment toward and from the upper end of the fixed electrode section, and means for locking the movable electrode section in the head.

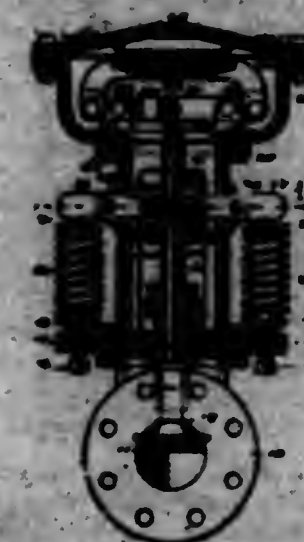
1,305,614. WINDOW-OPENER. HERMAN J. LANDMANN, Ann Arbor, Mich. Filed Mar. 8, 1919. Serial No. 261,537. 1 Claim. (Cl. 200-21.)



The combination with a window pivoted at its upper edge portion, of a casing mounted adjacent thereto, a

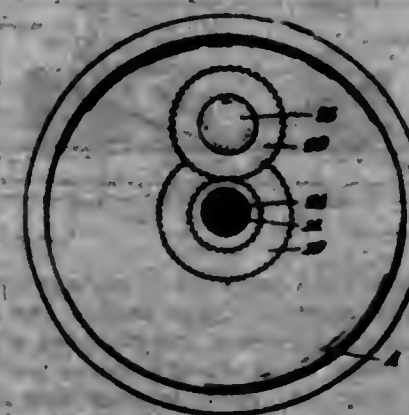
pulley rotatably mounted in the casing, a strand connected to the lower portion of the window and trained over and downwardly from the pulley, the casing at the side of the pulley opposite to the window extending transversely of the pulley and having an edge directed toward the pulley and provided with a notch opening toward the pulley, the notch being so formed and disposed that when the free end portion of the strand swings away from the pulley beyond the vertical tangent of the pulley remote from the window it will engage and bind in the notch, whereby when the strand swings under the influence of rapid travel over the pulley, it will engage the notch and be held therein.

1,305,615. RELIEF-VALVE. ROBERT H. MULLER, Decatur, Ill. Filed July 9, 1917. Serial No. 179,904. 10 Claims. (Cl. 187-83.)



1. In a device of the class described and in combination a valve casing, a valve therein, a diaphragm casing, a pressure controlled diaphragm therein to actuate said valve, a lever connection between said valve and diaphragm, spring actuated means engaging said lever connection to actuate said valve in opposition to said diaphragm, and means for adjusting the tension of the spring for said actuating means comprising a disk at one end of the spring and an adjusting screw for moving said disk.

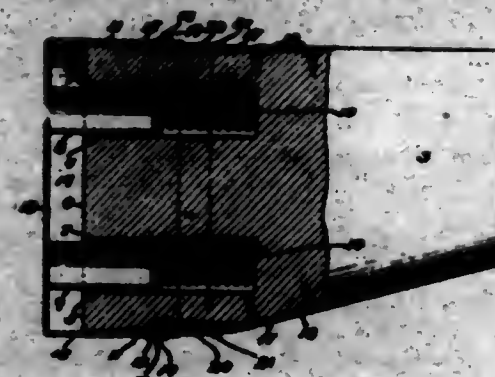
1,305,616. COMBINATION DIFFERENTIAL DIRECT-POWER DRIVE AND FRICTION-CLUTCH PULLEY. NELSON H. NEMAN, Renfrew, Ontario, Canada, assignor to Renfrew Machinery Company Limited, Renfrew, Ontario, Canada. Filed May 13, 1918. Serial No. 234,236. 5 Claims. (Cl. 74-34.)



1. A device of the class described, comprising a shaft, a sleeve gear rotatably mounted on the shaft, a pulley rotatably mounted on the sleeve, a second sleeve gear on

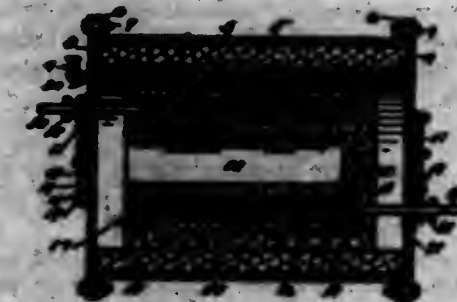
the shaft, gear means carried by the pulley for transmitting motion to the first sleeve gear, and means for transmitting motion from the first sleeve to the shaft.

1,305,617. SHOCK-ABSORBING DEVICE FOR GUNS. CHRISTOPHER FRANKSON, Philadelphia, Pa. Filed Dec. 17, 1918. Serial No. 267,115. 2 Claims. (Cl. 42-74.)



1. A gun having a resiliently pressed shoulder engaging cap slidably mounted on the butt thereof and having slots therein; and resilient hooks secured to said butt and having heads adapted to project outwardly from said butt into said slots, said butt being recessed to permit the hooks to be depressed from said slots when it is desired to remove said cap; substantially as described.

1,305,618. PROCESS OF PRODUCING BARIUM OXID. JAMES B. FRANCH, JR., Charleston, W. Va. Filed May 6, 1918. Serial No. 232,902. 3 Claims. (Cl. 23-12.)



6. The herein described process of producing barium oxid from barium carbonate, which consists in heating the barium carbonate free from a reducing agent to a reaction temperature in the presence of a high degree of vacuum.

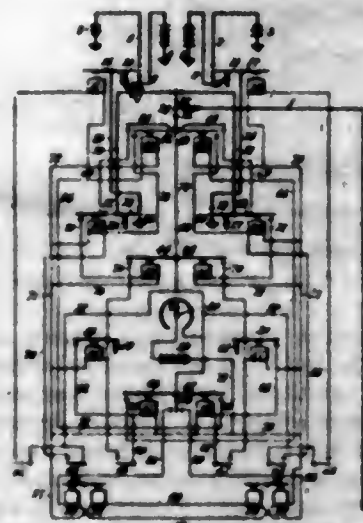
1,305,619. DOOR-HANDLE. CLARK P. POWS, Philadelphia, Pa. Filed Mar. 27, 1917. Serial No. 167,754. 2 Claims. (Cl. 70-42.)



1. The combination of a door; a bolt therefor; mechanism for actuating the bolt including a rotary spindle; at least one abutment mounted on the door; a handle fixed to the spindle and having a portion inclosing said abut-

ment; with a second abutment on the inclosing portion of the handle mounted to engage the abutment on the door after the handle with the spindle has been turned through a predetermined angle.

1,305,620. TELEGRAPH SYSTEM. EDWIN PORZ, Quebec, Canada. Filed June 10, 1915. Serial No. 33,229. 31 Claims. (Cl. 178-50.)



1. The combination, in an electric circuit, of means for producing a continuous series of impulses of opposed polarity therein and means for prolonging selected negative impulses and thereby transmitting a system of signals, and means for prolonging selected positive impulses and thereby transmitting another system of signals, both systems of signals employing all of the impulses in their transmission.

1,305,621. LEATHER SUBSTITUTE. JOHN D. PRINCE, Boston, Mass. Filed July 22, 1916. Serial No. 110,609. 5 Claims. (Cl. 106-33.)

1. A permanently fibrous material designed as a substitute for leather and the like, comprising short length fiber, selected sheet Ceylon rubber, gum Concho, shoddy, pontianak, magnesite, red oxid of iron, and sulfur, in substantially the proportions specified, the whole being vulcanized.

1,305,622. INNER TUBE FOR PNEUMATIC TIRES. CHARLES R. RAWDON and JOHN HENRY HESTMANN, St. Louis, Mo. Filed July 3, 1918. Serial No. 243,100. 3 Claims. (Cl. 152-18.)



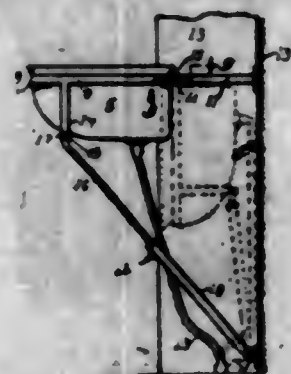
1. An inner tube for pneumatic tires comprising a one-piece dilatant air tube, a layer of pliable puncture resisting non-stretching material covering the tread portion and sides of said tube with its edges disposed adjacent the rim engaging portion of the tube, a protecting covering of non-stretching material extending over said puncture resisting layer and loose therefrom over the tread and sides of the tube, the edges of said covering being se-

cured to said air tube along the edges of said layer, and the rim engaging portion of said air tube being exposed and free to stretch between said secured edges of said covering.

1,305,623. PROCESS OF MANUFACTURING LACTIC ACID. GEORGE A. EICHEN, Berlin, N. H., assignor to Brown Company, Berlin, N. H., a Corporation of Maine. Filed Nov. 2, 1917. Serial No. 190,965. 4 Claims. (Cl. 23-24.)

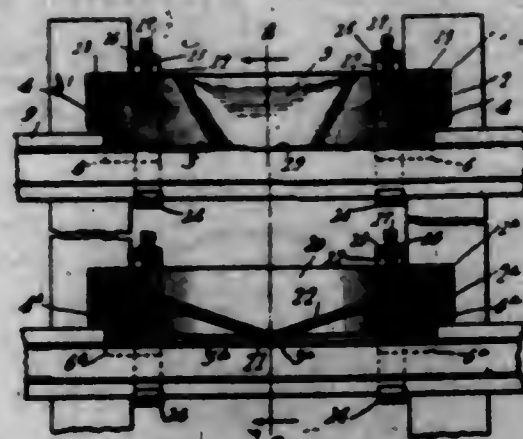
1. A process of making lactic acid which consists in hydrolyzing sawdust or other equivalent carbohydrate with lactic acid, fermenting the reducing sugars resulting from such hydrolysis with lactic acid bacteria, and removing the lactic acid resulting from such fermentation.

1,305,624. BASIN. HARRY SCHNEIDER and JOHN SCHNEIDER, Jr., Bloomsburg, N. Y. Filed Sept. 11, 1917. Serial No. 190,819. 2 Claims. (Cl. 4-1.)



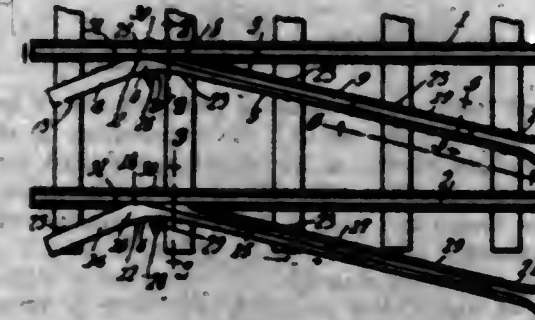
1. In a device of the character described, a basin formed with an outwardly flared upper rim and with a retaining rib, a bracket having an element extending substantially around said basin and being disposed between said rim and retaining rib, means pivotally connected with said bracket and cooperating therewith for supporting said basin in different positions, and means for allowing said bracket to swing with said basin into different positions and for supporting said bracket and basin in the useful position of the latter.

1,305,625. RERAILER. HENRY A. W. SMITH, Chatham, Va., assignor of one-half to Edwin S. Held, Chatham, Va. Filed Nov. 29, 1918. Serial No. 204,647. 1 Claim. (Cl. 104-265.)



A device of the class described comprising a block having a longitudinally convexed upper surface and including a transversely slanting surface, the block being provided on its outer side with longitudinally spaced seats, and having, upon its inner side, laterally projecting rail-engaging lugs spaced apart; a clamp extended beneath the block and provided at one end with a rail-engaging hook, the clamp being supplied, at its opposite end, with an arm; and a screw-threaded into the arm and adapted to be engaged, directly, at its inner end, in any of the seats.

1,305,626. RERAILER. HENRY A. W. SMITH, Chatham, Va., assignor of one-half to Edwin S. Held, Chatham, Va. Filed Jan. 13, 1919. Serial No. 270,911. 2 Claims. (Cl. 104-268.)



1. A rerailer comprising a pair of members having laterally extended guiding grooves in their upper surfaces, one member being cut away at the inner end of its groove to permit the flange of a car wheel to cooperate with the inner edge of one rail of a track, the groove of the other member merging into an elevated part permitting the flange of a car wheel to ride over the other rail of a track and cooperate with the inner edge thereof, each member, upon its lower surface, duplicating the construction of the other member, whereby the members may be turned end for end and upside-down, thereby rendering the rerailer effective when the rerailing operation is carried out in opposite directions.

1,305,627. COLLAPSIBLE FUNNEL. WILBUR JOE SMITH, Coldwater, Kans. Filed July 13, 1917. Serial No. 180,420. 4 Claims. (Cl. 226-32.)



1. A funnel comprising a bottom ring and a split top ring made of spring metal, means for holding said split ring in expanded position, and a covering carried by said rings.

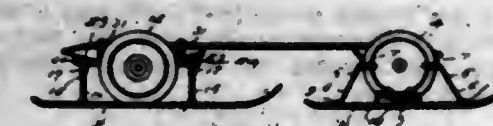
1,305,628. WRENCH. ROLAND JOHN STATHAM, Vancouver, British Columbia, Canada. Filed Oct. 5, 1918. Serial No. 257,030. 1 Claim. (Cl. 81-85.)



In an adjustable wrench, a head having a gap, a fixed jaw, a slack laterally slidable jaw having a tongue

threaded on its lower edge passing through a gap in the wrench head, a rotatable worm normally engaging the threaded tongue and endwise movable in the gap, and a fulcrumed lever adapted when gripped with the handle to bear at its upper end above its pivot directly on the end of the worm and effect endwise movement of the same, said lever being arranged so that the point of contact of its upper end with the worm varies as the lever is swung inwardly around the fulcrum whereby an increasing gripping pressure of the jaws is exerted as the lever closes on the handle.

1,305,629. SLEIGH ATTACHMENT FOR AUTOMOBILES. BENJAMIN F. SUTHERLAND, McGill, Nev. Filed July 27, 1917. Serial No. 183,121. 5 Claims. (Cl. 189-6.)



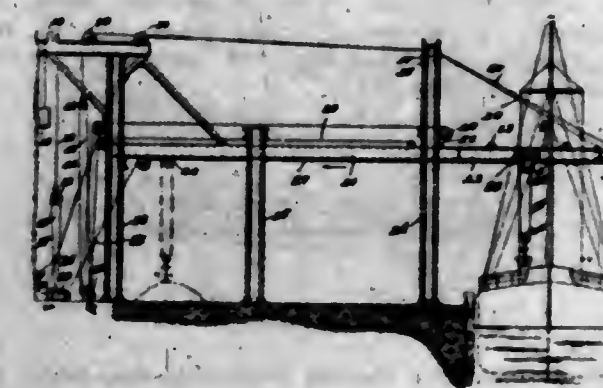
1. In a sleigh attachment for automobiles, two runners secured in parallel spaced relation each provided with a longitudinally extending slot adapted to receive the drive wheel of an automobile supported above said runners, said runners being of concavo-convex cross section so as to compact snow and similar materials over which they are driven and direct these compacted materials toward the slots of the runners so as to be engaged by the drive wheels of an automobile projecting through said slots.

1,305,630. RECEPTACLE. RAY H. SWENDEGER, Los Angeles, Calif. Filed Nov. 28, 1917. Serial No. 204,410. 3 Claims. (Cl. 229-6.)



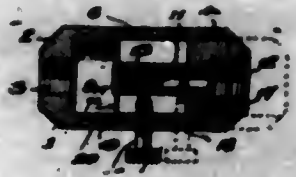
1. A container comprising a fibrous body, longitudinal strands arranged within the body for strengthening the same, and an annular strand arranged within the body, the ends of said longitudinal strands being coiled about said annular strand.

1,305,631. BOOM. WARREN TRAVELL, New York, N. Y. Filed Jan. 15, 1919. Serial No. 271,298. 15 Claims. (Cl. 104-91.)



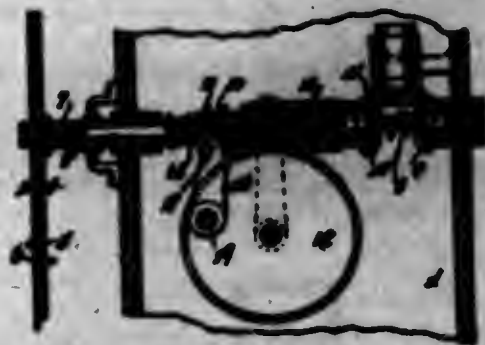
1. Hoisting and transporting apparatus, comprising a fixed way; a boom projecting from its end; mounting means whereby the boom is movable in the direction of its own length; and a carriage adapted to run on both said way and said boom.

1,305,632. AIR AND GAS MIXER FOR GAS-BURNERS. NICHOLAS L. TURNER and ANTHONY V. TURNER, Baltimore, Md. Filed Jan. 21, 1919. Serial No. 274,239. 3 Claims. (Cl. 158-118.)



1. An air and gas mixer for gas burners including a tubular body relatively closed at one end and open at the other and having its side wall cut away to provide an air intake port, a plug axially adjustable in the open end of the body and a gas supply nozzle-projecting from the plug, and a radially disposed needle valve also supported from the plug and adapted to control the discharge orifice of the nozzle-project.

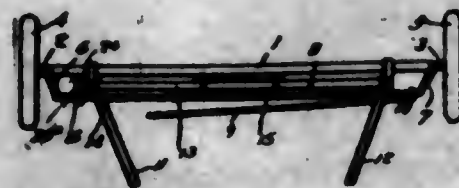
1,305,633. MOTION-PICTURE CAMERA. CHARLES UNESLMUSSEN, New York, N. Y., assignor to Cus Patents Corporation, a Corporation of New York. Filed Mar. 11, 1915. Serial No. 12,818. 6 Claims. (Cl. 88-19.2.)



1. In a motion picture device, a shutter screening device consisting of a pair of shutters, means to rotate same in opposite directions, a spiral gear slidably mounted on the shaft for one of said shutters, a gear carried by said shaft, a gear mounted on the shaft of the other shutter, an idle gear meshing with said gears to reverse the direction thereof, means to rotate said spiral gear, and means to slide said gear upon its shaft whereby the position of the shutters relative to each other can be changed.

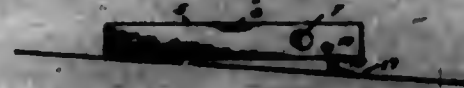
1,305,634. [WITHDRAWN.]

1,305,635. STEERING-STRAIN-BELIEVING DEVICE FOR AUTOMOBILES. WILLIAM GEORGE WARD, St. Catharines, and GEORGE VINCENT WARD, Dundas, Ontario, Canada. Filed Apr. 22, 1918. Serial No. 230,161. 2 Claims. (Cl. 21-194.)



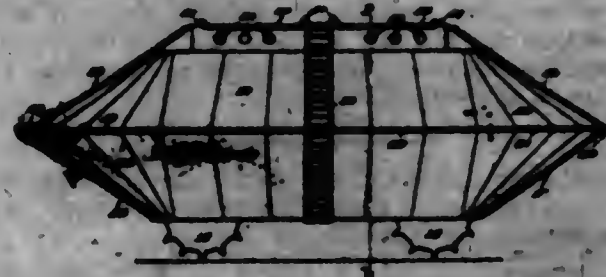
2. In an automobile steering strain relieving device the combination with the wheels, the spindle arms, and the spindle arm connecting rod, of a cylinder rigidly supported on the frame parallel to the axle and provided with end air vents, a double piston having a yielding central felt portion to each member, a piston rod, an arm secured to the spindle connecting rod and a link rod connecting the piston to the arm.

1,305,636. SPIRIT-LEVEL ATTACHMENT. WILLIAM HOWARD WHELAN, Brighton, Colo. Filed June 21, 1918. Serial No. 241,194. 1 Claim. (Cl. 38-513.)



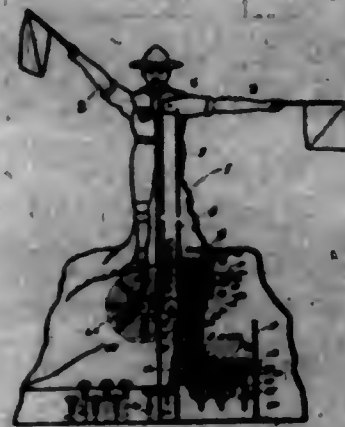
In a spirit level, a body member provided with a transverse recess and with central shaft passage, a sleeve mounted in said recess, a leg slidably mounted in the sleeve, a shaft extending through one of the passages and through the sleeve and body member and provided with a shoulder engaging one side of the sleeve, a second shaft disposed in the other passage and engageable with the other side of the sleeve and provided with a threaded socket for receiving the adjacent end of the first named shaft, a gear pinion on the first named shaft and a series of rack teeth on the leg meshing with said pinion.

1,305,637. ARMORED AUTOMOBILE. MARCIN KAJAC, Chicago, Mass. Filed Mar. 16, 1918. Serial No. 222,923. Renewed Jan. 7, 1919. Serial No. 270,084. 4 Claims. (Cl. 38-40.)



2. An armored automobile comprising a body, a wire-cutting ledge surrounding the body at its outermost substantially central line, a housing upon the body having perforations therein and arranged with hinged top sections provided with windows, latches upon the housing normally overlying the hinged portions when in their closed arrangement adapted for releasing from points within the device, racks upon said hinged portions, and operating means for the racks arranged within the device.

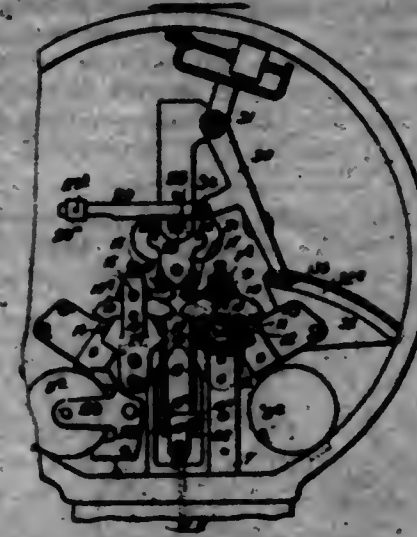
1,305,638. TOY. THOMAS HENRY BAMPFTE, Vancouver, British Columbia, Canada, assignor of one-half to Ruby Mae Bawlings, Vancouver, British Columbia, Canada. Filed Oct. 20, 1917. Serial No. 189,112. 16 Claims. (Cl. 116-51.)



11. A toy comprising a figure having arms pivoted at the shoulder, a plurality of detents for holding the arms in different angular positions, and means for giving either arm a full stroke movement up or down or in cooperation with said detents for giving either arm a step by step movement up or down, substantially as described.

1,305,639. [WITHDRAWN.]

1,305,640. MEASURING INSTRUMENT. JOSEPH C. HAMMERT, Brooklyn, N. Y. Filed May 10, 1918. Serial No. 98,486. 6 Claims. (Cl. 308-62.)



1. A measuring instrument comprising a lever having pivots, movable members adapted to support said pivots and having recesses extending downwardly, and upwardly disposed knife edges receiving said recesses to freely support said members thereon, said lever having an actuator, an arm cooperative with the actuator, an indicator, and means operative between the arm and the indicator to operate the latter.

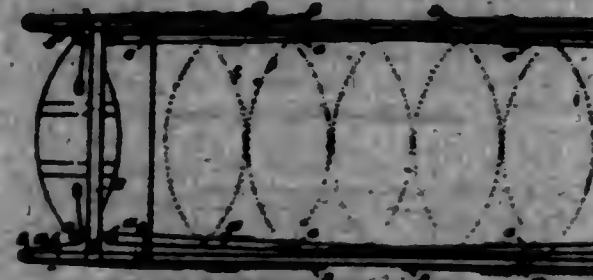
1,305,641. METHOD OF MAKING MAGNESIUM CHLORIDE AND THE LIKE. EDWIN O. RABSTOW, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Filed June 6, 1916. Serial No. 161,922. 7 Claims. (Cl. 28-12.)

1. The method of making magnesium chloride from a solution containing calcium chloride, which consists in reacting between such chloride, magnesium hydrate and a compound carrying an available acid sulfate component, in such order as to precipitate calcium sulfate and leave magnesium chloride in solution, substantially as described.

1,305,642. METHOD OF MAKING MAGNESIUM CHLORIDE AND THE LIKE. EDWIN O. RABSTOW, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Filed June 6, 1916. Serial No. 161,924. 5 Claims. (Cl. 28-12.)

1. The method of making magnesium chloride from a solution containing calcium chloride which consists in reacting between such chloride, magnesium hydrate, and an alkali metal acid sulfate, in such order as to precipitate calcium sulfate and leave magnesium chloride in solution, substantially as described.

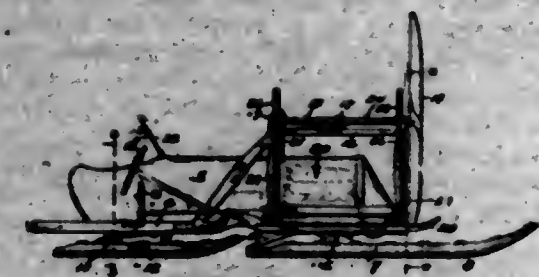
1,305,643. BOAT LAUNCHING AND LOWERING GEAR. ROSSMICK BRATON, Pollockshields, Scotland. Filed Dec. 20, 1916. Serial No. 189,989. 2 Claims. (Cl. 9-22.)



2. A boat-launching and lowering gear, comprising overhead runways, a carriage for the boats supported

thereby, outboard extensions to said runways having a top surface inclined downward away from said runways, vertical pivots for said outboard extensions, a pair of pulleys on the carriage, boat falls passing over said pulleys, one end thereof passing to the boat, while the other end passes over the pulleys at the end of the pivoted extensions and thence backward along the runways, a second pair of pulleys on the carriage and a second set of falls passing over said pulleys, and means to connect one end of said falls to a fixed point on the overhead runways.

1,305,644. POWER-DRIVEN SLED. CORBY C. BRAYTON, Berkeley, Calif., and ALEXANDER A. ALLAN, Nome, Alaska. Filed July 12, 1916. Serial No. 108,849. 7 Claims. (Cl. 180-2.)

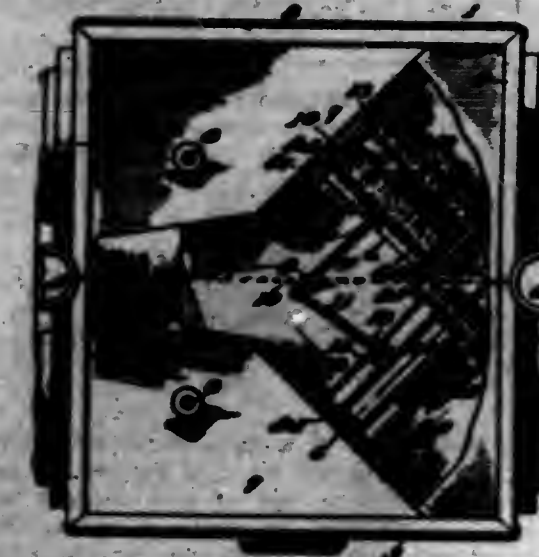


1. In a sled, an air propeller, means for rotating said propeller and means for producing a turning moment in the opposite direction to the engine reaction.

1,305,645. WATERPROOF CEMENT. SAMUEL CABOT, Canton, Mass., assignor to Samuel Cabot, Inc., Boston, Mass., a Corporation of Massachusetts. Filed Feb. 26, 1916. Serial No. 80,600. 13 Claims. (Cl. 106-25.)

10. A composition in paste form to be used in producing waterproof cement consisting of powdered pitch brought into paste form in water by means of a protective colloid.

1,305,646. GAS-METER. EDMUND S. DICKENY, Baltimore county, Md., assignor to American Meter Company, Inc., New York, N. Y., a Corporation of Delaware. Filed Mar. 20, 1918. Serial No. 222,577. 6 Claims. (Cl. 78-1.)



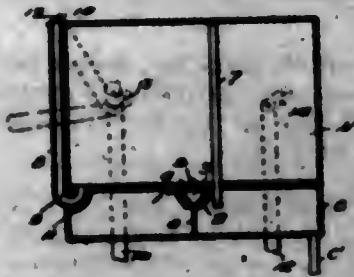
1. In a gas meter, in combination, a valve seat whose dimension transverse to the direction of the line of travel of the valve on the seat, is greatly in excess of its length, and having diaphragm, casing, and outlet ports, coextensive with said dimension, whereby greatly increased valve capacity is obtained and a valve on said seat, and means for operating the same.

1,305,647. COMBINATION STOVE-TOP AND WATER-HEATER FOR GAS AND VAPOR STOVES. WILLIAM J. ELLIOTT, Brooklyn, N. Y. Filed May 25, 1918. Serial No. 236,542. 2 Claims. (Cl. 126-52.)



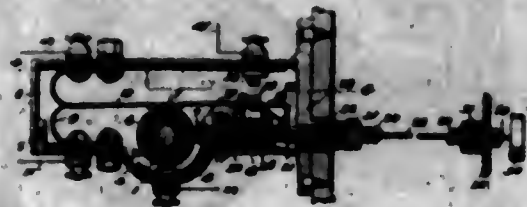
1. The combination of a gas or vapor stove, an auxiliary top comprising a rectangular-shaped body having a marginal flange provided with cut-away portions to provide air inlets, said body being provided with lid openings, circular water heaters arranged below said lid openings and spaced therefrom, to provide annular spaces, said water heaters being provided with inlet and outlet openings, separated by a partition for causing the water to circulate around each of the chambers of said heaters.

1,305,648. FUEL-FEEDING DEVICE. WILLIAM J. EMMS, Iron River, Mich. Filed July 23, 1918. Serial No. 246,320. 4 Claims. (Cl. 186-41.)



1. In a fuel feeding device, a movable reservoir having outlet means in its bottom, a receiving receptacle arranged beneath said reservoir, valve means in the outlet operable upon movement of the reservoir with relation to said receptacle, a vent pipe extending from the reservoir to a point adjacent the outlet means, a filling tube arranged adjacent one end wall of said reservoir and communicating with the bottom thereof, standards arranged adjacent the reservoir, a substantially U-shaped lever having the extremities thereof formed at substantially right angles thereto pivoted to the upper ends of certain of said standards, and links pivoted at certain of their ends in the remaining standards and to the reservoir.

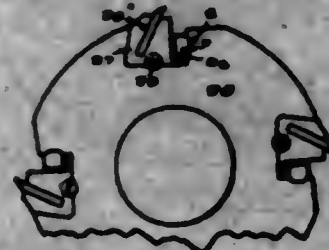
1,305,649. CIRCUIT-INTERRUPTER FOR TRAFFIC-SIGNALS. OTTO FRITZ, Boise, Idaho. Filed May 11, 1917. Serial No. 168,038. 1 Claim. (Cl. 175-347.)



A switch mechanism for a signaling device comprising a support, a rotor carried by said support, a primary spring fastened near one end of said support and extending across said rotor, an auxiliary spring fastened near one end and secured contiguous to said rotor and under said primary spring, guide means on said support and contiguous to said auxiliary spring, cam means slidably mounted upon said support and normally engaging said primary spring, a plunger extending through said cam means and positioned in said guide means, said plunger adapted to engage and force said auxiliary spring into contact with said rotor, said cam means permitting the primary spring to engage said rotor when

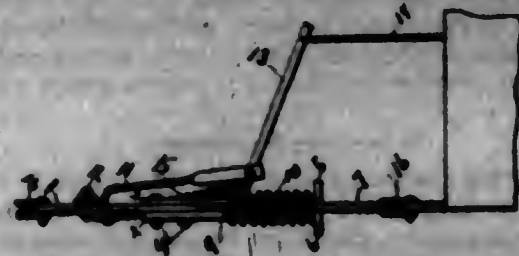
said plunger is holding said auxiliary spring in contact with the rotor, a spring surrounding said plunger and engaging said guide means and said cam means and normally allowing said primary spring to be out of engagement with said rotor, said rotor provided with insulated metallic portions, and said metallic portions being electrically connected at their ends, whereby an interrupted current is permitted to flow through the primary and auxiliary springs when the plunger and cam means are in their innermost position upon the support.

1,305,650. PLANE AND CUTTER HEAD. JOHN HANSEN, Seattle, Wash. Filed June 26, 1917. Serial No. 176,805. 2 Claims. (Cl. 144-230.)



1. The combination with a cutter head having peripheral recesses extending lengthwise thereof, the rear walls of said recesses being inclined forwardly at an acute angle to the bottom walls thereof, of blade clamping flgs fitted within said recesses and provided with forwardly inclined blade receiving slots, said flgs having front walls at right angles to the bottom walls thereof and forwardly inclined rear walls at an acute angle to the said bottom walls thereof, two pieces on said flgs adjacent the bottoms thereof, and stud bolts carried by said flgs in said recesses adapted to be screwed outwardly to clamp said flgs within said cutter head recesses.

1,305,651. DRAFT APPLIANCE TO PREVENT SHOCK. HENRY KAISER, New Holstein, Wis. Filed July 2, 1917. Serial No. 178,110. 1 Claim. (Cl. 180-14.)



In a device of the character described, a bar having extensions secured thereto, said extensions being provided with shoulders extending at right angles to said bar, a draw bar having arms extending at right angles thereto, a spiral spring seated between said shoulders of the extension and draw bar, a lever suitably supported by a supporting bracket, means for holding the free end of said lever normally against one of the extensions on said draw bar and means for connecting said lever to the throttle valve or clutch.

1,305,652. LAND-ROLLER. GEORGE E. KART, Berea, Ohio, assignor to The Dunham Company, Berea, Ohio, a Corporation of Ohio. Filed June 17, 1915. Serial No. 34,715. 7 Claims. (Cl. 220-75.)



1. In a lawn roller, in combination, circular heads, an outwardly turned flange on each of said heads, a cylin-

drical shell surrounding said heads and in contact with said flanges at a distance from the ends of the shell, said shell and flanges being spot welded together, the ends of the shell being bent inward about the ends of the flanges and welded at the edges to said flanges, whereby there are established two zones of union between said shell and flanges, and a tube passing through and connecting said heads, at the center thereof, whereby the structure is further strengthened.

1,305,653. TARGET. ANTONIO LAGARRE, San Francisco, Calif. Filed Sept. 11, 1918. Serial No. 254,521. 9 Claims. (Cl. 134-18.)



1. A target comprising a figure; a second figure adjacent thereto; a striking means mounted upon the second figure and arranged, when released, to strike the first mentioned figure; and means operatively connected to both figures whereby said striking means may be released when a designated portion of the first mentioned figure is struck by a missile.

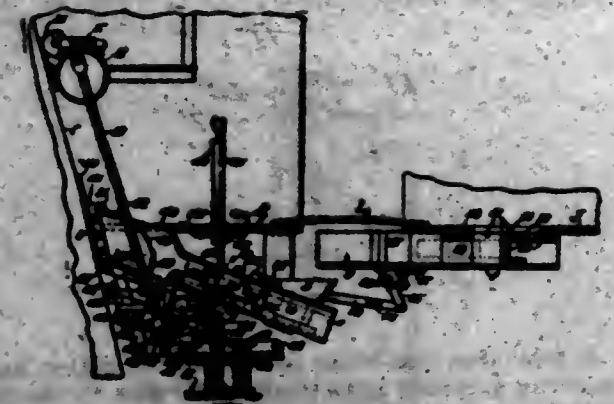
1,305,654. DEVICE FOR BREAKING, CONTRACTING, AND EXPANDING RIMS. GUY L. LEWIS, Akron, Ohio. Filed Jan. 20, 1919. Serial No. 272,169. 1 Claim. (Cl. 157-1.)



In a rim breaker, the combination of clamps for gripping each end of the rim, one jaw of each clamp having a perforation to one side of the normal center of the clamp when in operation, an arm loosely swivelled at one end in the perforation of one of said clamps permitting the clamp to tilt transversely to the rim and having at its opposite end a rectangular offset with its end bent back in line with said arm, a second arm swivelled at one end in the perforation of the other clamp and having at its opposite end a yoke, a lever having a rectangular offset the end of which is pivoted to the bent back end of the first arm, the yoke of the second arm being pivoted at the offset angle of the lever.

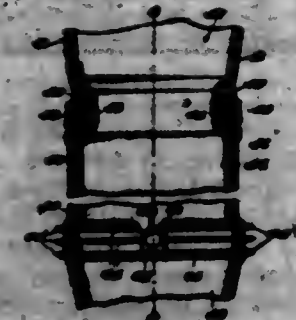
285 O. G.—6

1,305,655. LOCOMOTIVE-STOKER. HAMILTON LINDSAY, Willoughby, Ohio. Filed Oct. 12, 1917. Serial No. 196,128. 16 Claims. (Cl. 110-113.)



1. In a locomotive stoker, a fire box having an opening, a blade opposite said opening, means for oscillating the blade in an upper quadrant to throw coal into the fire box, a plunger conveyor adapted to periodically deposit coal upon said blade, means for operating the conveyor, and means for clearing the path of the swinging edge of said blade preceding the movement of the blade.

1,305,656. DIVING-ARMOR. JAMES F. LONG, San Antonio, Tex. Filed June 12, 1917. Serial No. 174,348. 5 Claims. (Cl. 61-7.)



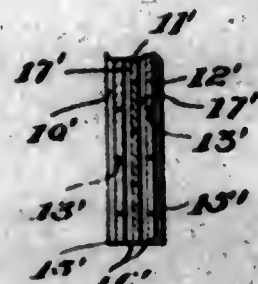
1. A diving armor including arm and leg sections disposed in spaced relation at their confronting ends, a continuous fabric shield to said arm and leg sections and extending over the space between their confronting ends, a plurality of annular supporting members engaging the interior of the fabric shield between the confronting ends of the arm and leg sections, a plurality of annular supporting members engaging the exterior of the fabric shield and in transverse alignment respectively with the first mentioned supporting members, and a supporting connection between the sections permitting pivotal movement thereof.

1,305,657. SEPARATOR FOR SECONDARY BATTERIES. JOSEPH O. LUTY, San Antonio, Tex. Filed Jan. 16, 1919. Serial No. 271,553. 12 Claims. (Cl. 204-29.)



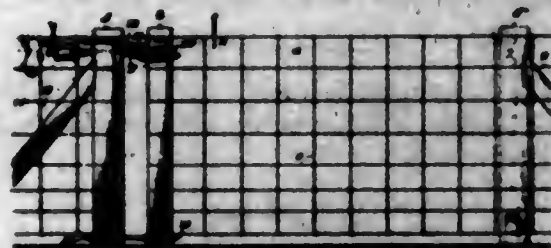
4. A separator consisting of a series of undulatory elements arranged in nested relation with passages therebetween.

1,305,658. SEPARATOR FOR SECONDARY BATTERIES. JOSEPH O. LUTY, San Antonio, Tex. Filed Jan. 16, 1919. Serial No. 271,354. 4 Claims. (Cl. 204—29.)



2. A separator consisting of a series of plates having horizontally arranged slots therein, the slots in the intermediate plate being arranged above the corresponding slots in the outer plates.

1,305,659. GATE-CLOSER. WILLIAM H. MCCARTY, Chicago, Ill. Filed Sept. 13, 1918. Serial No. 253,660. 4 Claims. (Cl. 70—121.)



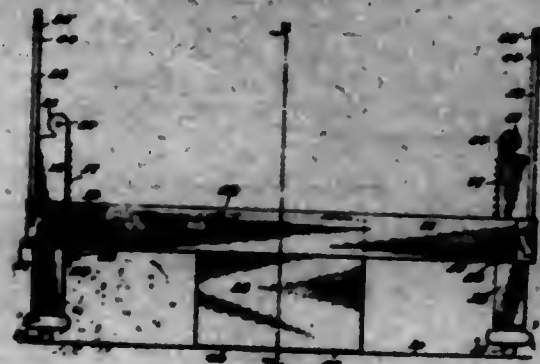
4. A gate-closer to cooperate with a gate-post and a wire gate hung to close toward said post and provided with a reinforcing bar on its free end, comprising a bolt secured in the upper part of the post and carrying a link, a link confinedly hung on said bar and carrying a second link, and a bent lever fulcrumed between its ends on said second link to form shorter and longer lever-arms and insertible at its shorter arm into said bolt-carried link to adapted the lever to be turned on its fulcrum to pull the gate into closed position.

1,305,660. SPARK-PLUG. EMERSON E. MAIN, Indianapolis, Ind. Filed May 15, 1918. Serial No. 234,660. 3 Claims. (Cl. 123—169.)



1. In a spark plug comprising a shell threaded upon its exterior and constituting one electrode, an insulating member arranged within said shell, a stem extending through said insulating member and terminating in a disk, the lower or outer face of which is flat, the inner face thereof being a shallow cone, said disk having a plurality of apertures therein, the periphery of said disk being spaced from the lower inner edges of the shell, and means for positioning the stem within the insulating member.

1,305,661. COMBINED TABLE AND BED. JOHN MARI-ANTON, Lethbridge, Alberta, Canada. Filed Dec. 12, 1918. Serial No. 298,461. 4 Claims. (Cl. 5—17.)



1. A device of the class described comprising a rectangular frame, mounting posts within the corner portions of the frame, means adapted for elevating the frame upon the posts, head and foot boards hinged to the opposite ends of the frame adapted for automatically closing inwardly upon the top of the frame when the latter reaches its upward limit of movement and a shiftable panel carried by the frame positioned between said boards upon the frame when the device is employed as a table.

1,305,662. SOFA-BED. WILLIAM L. MURPHY, San Francisco, Calif., assignor to Dewey Davenport Company, San Francisco, Calif., a Corporation of California. Filed Aug. 31, 1916. Serial No. 117,662. 15 Claims. (Cl. 5—48.)



1. In a device of the class described, a stationary structure, a head frame pivoted directly to said stationary structure, a seat frame pivotally mounted in said stationary structure and a foot frame pivotally mounted on both said seat frame and said head frame.

1,305,663. PROCESS OF MAKING STOP-PLATES FOR DRAFT-RIGGING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Nov. 16, 1916. Serial No. 131,615. 1 Claim. (Cl. 29—167.)



The herein described process of making a stop plate for draft riggings which includes, taking a blank and providing the same with a plurality of longitudinally extending strengthening grooves throughout the entire length of the blank; expanding said grooves laterally at predetermined spaced points therein to provide riveting areas; and providing the blank with a series of spaced transverse bends to thereby provide stop shoulders extending transversely of the stop plate.

1,305,664. SIDE BEARING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Aug. 23, 1918. Serial No. 251,674. 2 Claims. (Cl. 64—65.)

1. In an anti-friction bearing, the combination with a housing, of a rocker associated therewith, said rocker comprising a series of merged cylindrical sections having

their axes spaced equal distances apart and uniformly located with respect to the axis of the rocker itself, said



rocker being adapted to move bodily with respect to the housing and the latter having its interior surfaces conformed to the peripheral surfaces of the rocker.

1,305,665. HIGH-CAPACITY FRICTION SHOCK-ABSORBING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Aug. 23, 1918. Serial No. 251,676. 5 Claims. (Cl. 213—64.)



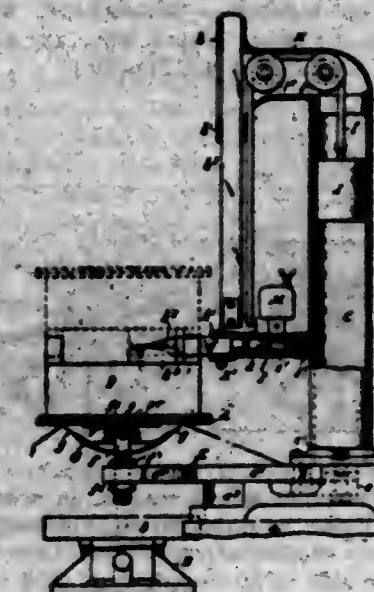
1. In a friction shock absorbing mechanism, the combination with a friction shell having friction surfaces extending both longitudinally and transversely thereof, of friction shoes co-acting with said longitudinal friction surfaces, combined friction shoes and wedges co-acting with the first named friction shoes and said transverse friction surfaces of the shell, opposed and oppositely movable wedge followers co-acting with said combined friction shoes and wedges, spring means, and means co-acting with said followers for compressing said spring means simultaneously from opposite ends upon separating movement of said wedge followers.

1,305,666. TUBE-FOLDING MACHINE. KENNETH A. PALMER and JOHN C. INVIS, New York, N. Y. Filed July 6, 1918. Serial No. 249,666. 10 Claims. (Cl. 154—5.)



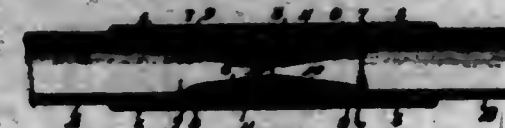
1. A machine, for telescopically folding a flexible tube, including two means adapted to grasp different and connected portions of said tube within its length and being relatively movable to telescopically fold one of said portions over the other of said portions, substantially as described.

1,305,667. APPARATUS FOR USE IN MAKING CORES OR THE LIKE. ROSECON C. PATTERSON, Rochester, N. Y., assignor of one-half to William A. Everitt, Rochester, N. Y. Filed May 6, 1918. Serial No. 232,685. 28 Claims. (Cl. 22—10.)



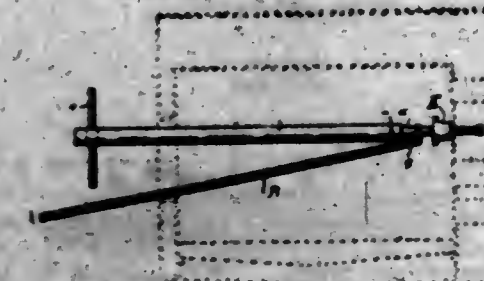
1. In an apparatus for use in making cores or the like, the combination with a core box, of a drawing member movable substantially in a straight line and connected with said core box to draw the same from a core, and a member for supporting the core and which is movable into and out of operative relation to said drawing member.

1,305,668. PIPE-REINFORCEMENT AND COUPLING THEREFOR. WALTER N. RIDGER and WILLIAM D. CAMDEN, Taft, Calif. Filed Aug. 18, 1917. Serial No. 186,973. 4 Claims. (Cl. 285—146.)



3. A pipe with a uniformly thickened end portion tapering from a point intermediate of the length of the thickened portion to the extremity of the pipe and threaded on the exterior of the tapered portion, in combination with a coupling sleeve interiorly tapered and threaded from opposite ends to receive the tapered reinforced ends of two adjoining pipes.

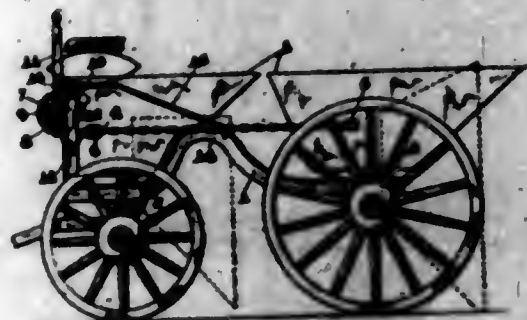
1,305,669. TUBE-EXPANDER. ALBERT S. ROBINSON, Weston, Colo. Filed Feb. 8, 1919. Serial No. 275,619. 1 Claim. (Cl. 153—62.)



In combination, an elongated tubular member, an expander including a mandrel extending within an end portion of the tubular member and secured thereto, and an elongated rod insertible through the opposite end portion of the tubular member and adapted to serve as a hammer to impose requisite impact upon the mandrel of the expander to effect an expansion operation, an end portion

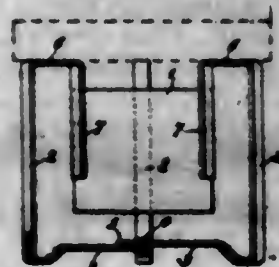
of said rod being provided with a saddle to receive the mandrel of the expander whereby the rod may be employed to facilitate the fitting of the expander within a tube.

1,305,670. DUMP-WAGON. HARVEY M. RUSSELL, Woodstock, Ontario, Canada. Filed Mar. 23, 1917. Serial No. 157,043. 3 Claims. (Cl. 21-20.)



1. In a four wheeled dump wagon, in which the forward wheels oscillate, in combination, a frame, and a pair of tiltable buckets supported one behind the other in said frame, the upper and adjacent edges of said bucket being close together and the rear and forward sides of the forward and rear buckets, respectively diverging downwardly to provide substantial wheel clearance therebetween.

1,305,671. APPARATUS FOR CONTAINING AND CONSUMING FUEL. JACOB SCHAU, Newark, N. J., assignor to American Linseed Company, a Corporation of New Jersey. Filed Feb. 25, 1918. Serial No. 219,071. 4 Claims. (Cl. 126-48.)



2. Apparatus for consuming fuel comprising in combination a cylindrical fuel container, and resilient legs having inwardly disposed upper portions provided with downwardly extending resilient fingers adapted to clamp the side walls of the container and permit vertical adjustment of the container.

1,305,672. STOCK-FEEDING MECHANISM. AUGUSTUS E. SCHLIEDER, Detroit, Mich., assignor to Schlleder Manufacturing Co., Detroit, Mich., a Corporation of Michigan. Filed Dec. 29, 1915. Serial No. 60,157. 12 Claims. (Cl. 29-63.)



1. The combination with a stock chuck, of a feeding device comprising a non-rotatable support, a single feeding roller having a fixed position and a single presser roller

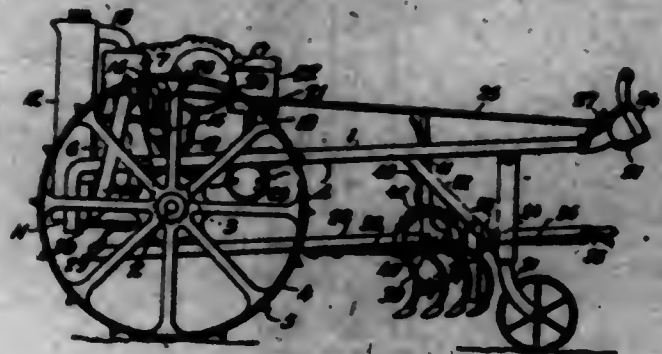
arranged beneath said feeding roller and spaced therefrom, said presser roller being adapted for movement toward and from said feeding roller, said feeding and presser rollers being so positioned relative to said chuck that said presser roller is adapted to move the stock to be fed through said chuck into contact with said feeding roller, means for closing the chuck upon the stock and simultaneously moving said presser roller from said feeding roller, said means serving also to release the chuck from the stock and simultaneously move said presser roller toward said feeding roller.

1,305,673. WIRE CHAIN. FRIEND W. SMITH, JR., Bridgeport, Conn., assignor to The Smith & Rags Mfg. Co., Bridgeport, Conn., a Corporation of Connecticut. Filed July 15, 1916. Serial No. 109,552. Renewed Oct. 24, 1918. Serial No. 230,598. 7 Claims. (Cl. 50-62.)



1. A wire chain, each link of which consists of a bow portion and two eye portions, the wire from which said link is formed crossing intermediate said bow and eye portions, with the terminal of each eye anchored or interlocked to the cross-over portion of the strand which extends from the opposite side of the bow, whereby the eyes and bow are anchored to each other.

1,305,674. WALKING-CULTIVATOR. GAILLARD SMITH, Glen Ridge, N. J., assignor to World Harvester Corporation, New York, N. Y., a Corporation of Delaware. Filed June 14, 1917. Serial No. 174,676. 4 Claims. (Cl. 97-90.)



1. A walking cultivator, comprising a pair of carrying wheels, an axle on which said wheels are mounted, a supporting structure mounted on said axle between the carrying wheels and adapted to carry suitable wheel-driving means, a rearwardly extending frame, a rear running support carried by said frame, a vertically adjustable carrier hung beneath said frame for carrying soil working means

between the carrying wheels and said rear running support, and a spring connection between the forward end of said carrier and the forward portion of the rearwardly extending frame.

1,305,675. APPARATUS FOR APPLYING SKILLY TO CORE-BARS. WILLIAM STROENINGER, Riverton, N. J., assignor to United States Cast Iron Pipe & Foundry Company, Burlington, N. J., a Corporation of New Jersey. Filed Oct. 10, 1916. Serial No. 124,805. 6 Claims. (Cl. 22-12.)



1. Apparatus for coating core bars with skilly comprising in combination means for supporting two groups of parallel closely spaced horizontally disposed core bars, and means for intermittently rotating each group independently of the other.

1,305,676. DOOR-STOP. HENRY G. VOIGT, New Britain, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 7, 1917. Serial No. 200,724. 9 Claims. (Cl. 16-46.)



1. In a stop device, a pair of pivoted arms movable angularly with respect to each other, means for retaining said arms in pivoted relation, an eccentric member non-rotatably secured to one of said arms adjacent its pivot, a stop mounted on the other arm, a collar rotatably mounted on said eccentric member and movable thereby into stopping engagement with said stop by a relative movement of said arms.

1,305,677. THERMO-CONTAINER FOR HAND-OILERS. CHAS. A. WANN, Milford, Me. Filed Apr. 27, 1916. Serial No. 98,306. 1 Claim. (Cl. 215-3.)



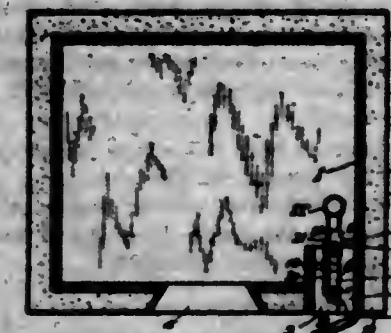
The combination with an oil can including a cylindrical body of a casing including an inner cylindrical chamber in which the body of the oil can is slidably received, said casing having a curved resilient bottom touching the

bottom of the oil can body, and an outer chamber spaced from the cylindrical wall of the inner chamber at all points, the inner chamber having a radiating flange at its open end connected to the corresponding end of the wall of the outer chamber, the interspace between the chambers constituting a vacuum chamber.

1,305,678. BITUMINOUS LINING FOR SURFACES EXPOSED TO CORROSIVE ACTION. HENRY WINDMOLD, Philadelphia, Pa., assignor to The Barber Asphalt Paving Company, Philadelphia, Pa., a Corporation of West Virginia. Filed Jan. 2, 1915. Serial No. 204. 2 Claims. (Cl. 106-51.)

1. A bituminous composition for use as a protective lining for tanks or the like, formed by combining asphaltum free from calcareous material, with a mineral aggregate consisting of particles graded in size from grit to dust, said particles being substantially free from carbonates, which are mechanically acted upon by said corrosive fumes or liquids.

1,305,679. OIL-BURNER FOR BAKE-OVENS. WILLIAM F. YOST, Chicago, Ill., assignor of one-half to Morris H. Klamt, Chicago, Ill. Filed Aug. 19, 1918. Serial No. 250,523. 4 Claims. (Cl. 158-53.)



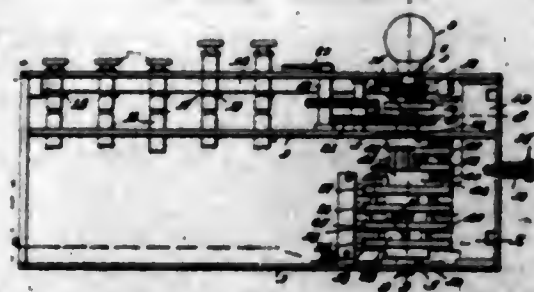
1. An oil burner of the class described, comprising a burner tube, a fuel and air supply located at one end for directing gaseous mixture into said tube, a deflector shiftable mounted on the other end of said tube and adapted to be radially shifted with respect thereto, and means for shifting said deflector whereby the flame emitted from said tube is deflected in different directions.

1,305,680. BOLTING-UP JACK. WILLIAM F. YOUNG, Bremerton, Wash. Filed Dec. 20, 1918. Serial No. 267,564. 2 Claims. (Cl. 20-84.)



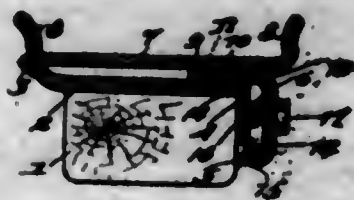
1. A plate pulling jack comprising a casing longitudinally chambered to receive a ram bar and its nut and adapted to engage one of the plates, a threaded ram bar mounted to reciprocate within the casing and axially bored to receive a pulling bolt, a nut for said ram bar having thrust bearing support from the casing, means for turning said nut, means for preventing turning of the ram bar, and a pulling bolt passing entirely through the ram and adapted to pass through holes in the plates, said bolt being provided at opposite ends with respectively a head and a nut adapted to engage with the ram bar and the other plate.

1,305,681. PERMUTATION-LOCK. JENNINGS GRANT AMBROSE, Loma Portal, Calif., assignor of one-third to Thomas C. Hammond and one-third to Henry W. Ambrose, Loma Portal, Calif. Filed Feb. 15, 1918. Serial No. 217,350. 2 Claims. (Cl. 70-53.)



2. A permutation lock comprising a case; a plunger mounted to slide on the case; a rack bar disposed substantially at right angles to the plunger and mounted for right line sliding movement on the case, the bar and the plunger having interengaging parts which limit the sliding movement of the plunger; a shaft journaled in the case; tumblers rotatable on the shaft; means for rotating one tumbler from the shaft; means for rotating the other tumblers from the shaft actuated tumbler; a member slidable longitudinally of the shaft, said member and the tumblers having elements which coact to hold said member against sliding movement when the tumblers are set; an actuating element slidable longitudinally in the case and rotatable therein, the actuating element and the shaft having clutch parts which coöperate when the actuating element is slid; a pinion on the actuating element and movable therewith into and out of engagement with the rack bar; and means for connecting the slidably mounted member with the actuating element.

1,305,682. VEHICLE-WHEEL RIM. ROBERT W. ASHLEY, New York, N. Y., assignor of one-half to Frank Oberkirch, St. Marys, Pa. Filed May 2, 1916. Serial No. 94,935. 3 Claims. (Cl. 152-21.)



1. A device of the character described comprising a felly band, contractive locking means associated with said felly band, a plurality of reception supporting means associated therewith, a demountable rim adapted to engage said felly band at the rear edge thereof, a plurality of reception locking cleats mounted on said demountable rim and arranged to engage said felly band at its opposite edge, a plurality of supporting retaining locking means mounted on said supporting means and engaging said contractive locking means and said locking cleats, and means operative on said supporting means and engaging said retaining locking means adapted to exert a contractive and inwardly radial seating action on said demountable rim annularly at one edge thereof and at a plurality of points of contact at the opposite edge thereof.

1,305,683. DEMOUNTABLE RIM FOR WIRE WHEELS AND THE LIKE. ROBERT W. ASHLEY, New York, N. Y., and FRANK OBERKIRCH, St. Marys, Pa. Filed Mar. 20, 1917. Serial No. 156,040. 2 Claims. (Cl. 152-21.)

1. A device of the character described comprising a fixed rim provided with tire and spoke reception means and a channel adapted to receive a detachable retaining ring, and a removable tire supporting rim adapted to en-

gage said fixed rim and said detachable retaining ring, said removable rim being sufficiently rigid to support a semi-inflated tire under normal conditions and smaller in



contour than the reception surface on said fixed rim, and of sufficient flexibility to permit of its spreading and locking itself in said fixed rim when a tire is under full inflation thereon.

1,305,684. POLISH. ROBERT BATES, Athens, Tenn. Filed Aug. 6, 1918. Serial No. 248,690. 3 Claims. (Cl. 134-24.)

3. The herein described composition of matter comprising wild grape-vine juice one and two-thirds quarts, pure water three quarts, and alcohol one-third pint.

1,305,685. ROTARY SCREEN. FITCH H. BRACH, Charlotte, Mich. Filed Mar. 30, 1918. Serial No. 225,818. 3 Claims. (Cl. 83-56.)

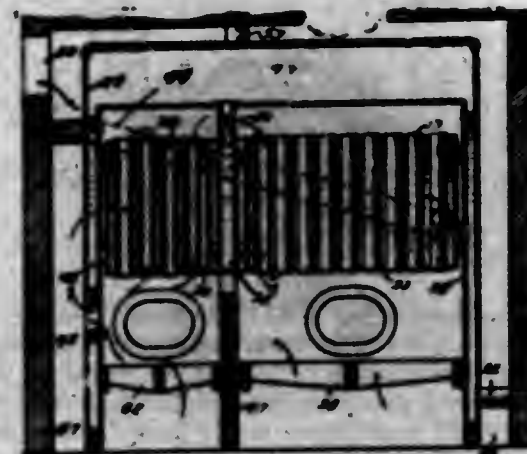


3. A rotary inclined screen including a drum, a series of screen plates mounted for rotation and extending around the drum, each plate being hingedly mounted and having its advancing edge supported by the next adjoining plate in advance thereof during the movement of the plate under the drum, said plates being successively tilted inwardly through approximately 45° and into violent contact with the drum when moved upwardly past their vertical position to dislodge material accumulated within openings in the plates and drum.

1,305,686. HEATER FOR HOT WATER OR STEAM. JOHN T. BURNING, Chicago, Ill. Filed Aug. 28, 1913. Serial No. 47,764. 5 Claims. (Cl. 122-123.)

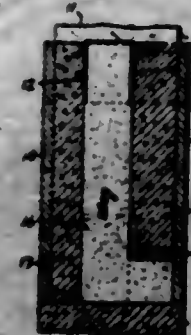
5. A heater of the character described, comprising a pair of inner water chambers, a main grate beneath one of said inner water chambers, a smoke consuming grate beneath the other, an outer water chamber connected to said inner water chambers, a heating chamber spacing said inner water chambers from said outer water chamber, another heating chamber disposed about said outer water chamber, a stack outlet connection and inclined deflecting walls meeting at their tops and disposed on opposite sides

of said heater in said outer heating chamber, the function of said deflecting walls being located above the communi-



cation between said outer heating chamber and the inner heating chambers and beneath the stack outlet connection.

1,305,687. ART OF FORMING CONCRETE WALLS. WILLIAM D. BURGIN, Joplin, Mo. Filed Nov. 4, 1918. Serial No. 260,989. 3 Claims. (Cl. 25-131.)



2. The method of forming walls which consists in disposing a hollow open-ended inner form within a hollow open-ended outer form, with the walls of the forms in vertical position, filling the inner form through its upper open end with granular material, filling the space between the inner and outer form with concrete, raising the inner form to a level with the top of the granular material, and repeating the steps above recited to form a complete wall.

1,305,688. TOOL-HANDLE-ATTACHING MEANS. JAMES F. BURKE, Kansas City, Mo. Filed July 30, 1918. Serial No. 247,434. 6 Claims. (Cl. 287-27.)



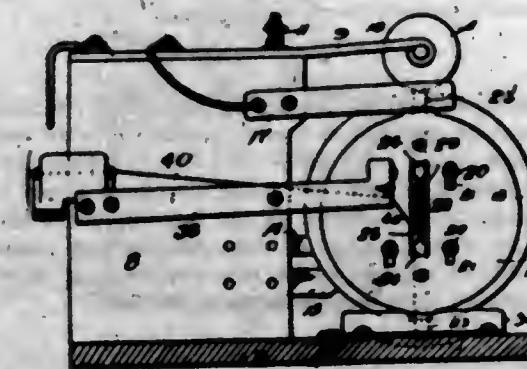
1. A handle attaching device for tool heads having spaced, yieldingly connected head and handle clips consisting of plates, bolts connecting the plates and compressed springs interposed between the plates, and means for rigidly securing the head and handle respectively to said clips.

1,305,689. LIQUID-FUEL GASIFYING APPARATUS. BENJAMIN R. BURNELL, Indiana Harbor, Ind. Filed Feb. 26, 1919. Serial No. 279,256. 5 Claims. (Cl. 158-4.)



1. A liquid-fuel gasifying apparatus comprising a gas-generating chamber having a conduit at its discharge end and provided with longitudinal series of spraying-nozzles angularly disposed with reference to said chamber and discharging therein, a liquid-fuel feeding-conduit having branches each leading to a spraying-nozzle, a tube meeting the inlet-end of said chamber, and a steam-supply pipe extending into said tube.

1,305,690. GRID-MAKING MACHINE. HENRY SYLVESTER COYNE, New York, N. Y., assignor to De Forest Radio Telephone & Telegraph Company, New York, N. Y., a Corporation of Delaware. Filed May 7, 1918. Serial No. 233,004. 15 Claims. (Cl. 219-4.)



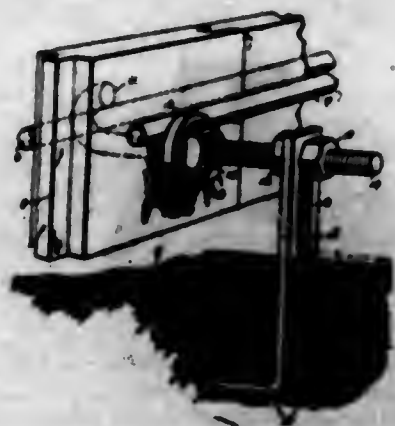
14. The combination with spaced journals, of means for supporting therebetween spaced supports, means for rotating said spaced supports and simultaneously moving the same longitudinally, a plate, mounted around said supports to rotate therewith, means for feeding wire to said supports whereby upon the rotation and longitudinal movement thereof said wire is wound therearound, and means actuated by the rotation of said plate for subjecting said wire at the point of contact with said supports to pressure and heat.

1,305,691. MOUTHPIECE FOR CORNETS AND SIMILAR INSTRUMENTS. BAUSO CRISTIANO, Canonsburg, Pa. Filed Mar. 12, 1919. Serial No. 282,168. 5 Claims. (Cl. 84-79.)



2. In a cup-shaped mouthpiece for wind instruments, a cup, a lug on opposite sides thereof, and means for detachably securing to each lug any of a plurality of lip-holding members.

1,305,692. SILO-BASE ANCHOR. HENRY B. CURRY, Louisville, Ky. Filed Apr. 2, 1919. Serial No. 286,837. 3 Claims. (Cl. 72-10.)



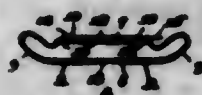
3. The combination with a silo wall and inside and outside hoops encircling the same; of a post anchored in the silo foundation, and a vertically adjustable anchor rod carried by the post and passing through the silo wall, said rod having holding means engageable with the hoops of the silo.

1,305,693. TAG-FASTENING MEANS. DON D. CUTTING, Seattle, Wash. Filed Nov. 14, 1917. Serial No. 202,081. 1 Claim. (Cl. 40-26.)



A tag fastening device formed in one piece of resilient wire and bent at one end to form a hook, the wire leading from the hook being corrugated and bent to form an eye, the wire leading from the eye being corrugated and inter-fitting with the corrugations on the wire between the eye and the hook, the terminal of the wire leading from the eye being bent to engage under the wire leading from the hook, whereby to form a lock to close the eye.

1,305,694. HAT-RETAINING DEVICE. WILLIAM B. DALES, Philadelphia, Pa. Filed Mar. 26, 1918. Serial No. 224,739. 6 Claims. (Cl. 132-25.)



6. The combination with a hat body having a sweat band attached thereto, of a retaining device formed of a single piece of spring wire having its end portions connected and being bent to form an open loop having two spaced members, each member having two spaced bearing parts engaging the body of the hat and an intermediate bearing part engaging the sweat band and held normally spaced from the hat body by said spaced bearing parts, and said end portions of the wire terminating in prongs which face in different directions and penetrate the sweat band and hold the device in place.

1,305,695. ROTARY ENGINE-VALVE. JAMES E. DAVENPORT, New York, N. Y., assignor to Union Technical Corporation, New York, N. Y., a Corporation of New York. Filed Oct. 25, 1917. Serial No. 198,539. 15 Claims. (Cl. 123-80.)

1. In an engine containing a driving mechanism, a rotary valve adapted to be rotated by said mechanism, alternately presenting inlet and exhaust ports to cooperate with said mechanism, a shoe embracing said rotary valve substantially more than 180° and thus provided

with means to cause it to cling to said valve, said shoe provided with portions surrounding the passageway adapted to register with the ports of said valve, said shoe



having a circular projection provided with means to form a gas-tight joint with a casing connected to said mechanism.

1,305,696. PROTECTOR FOR LAMPS OR SIGN STRUCTURES. JOHN L. DAWSON, Pittsburgh, Pa. Filed Jan. 9, 1919. Serial No. 270,293. 4 Claims. (Cl. 40-130.)



1. A lamp or sign structure having a supporting frame, a glass plate mounted in each side of the frame, and a protector interposed between the glass plates and hidden thereby; substantially as described.

1,305,697. OPHTHALMIC MOUNTING. GEORGE H. DAY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Jan. 29, 1917. Serial No. 145,106. 3 Claims. (Cl. 2-140.)



1. In a device of the character described, the combination with a lens frame and a flexible shield member having a pair of slots therein, of a temple pivoted to the shield member and extending through the slots in the shield, said temple being adjustable with the shield member upon flexing thereof and relative to the shield member swinging upon its pivot the length of the slots.

1,305,698. NUT-LOCK. ROBERT U. DAY, Stephenson, Miss. Filed Nov. 6, 1918. Serial No. 261,353. 2 Claims. (Cl. 151-17.)



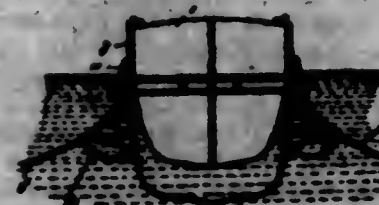
1. In a nut lock, the combination with a bolt provided with a right-hand and a left-hand threaded portion, of a right-hand nut threaded upon the right-hand threaded portion of the bolt, said nut comprising a body provided with an extension, a left-hand nut threaded upon the left-hand portion of the bolt, and provided with an extension, said extension of the left-hand nut adapted to rest coaxially with the extension of the right-hand nut when said nuts are assembled upon the bolt, and means extending through the extensions of both nuts and securing the same against independent rotary movement upon the bolt.

1,305,699. CIGARETTE-CASE. JACOB DENHARM, Trenton, N. J. Filed Jan. 28, 1919. Serial No. 272,630. 4 Claims. (Cl. 208-41.)



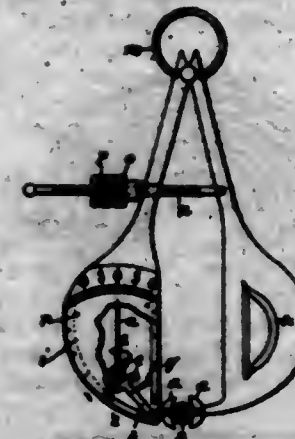
4. In a cigarette-case, a box-member open at one end thereof, an eccentrically mounted rotatable ejector adjacent thereto, an arm pivotally connected, intermediate its ends, to said receiver, a portion of said arm projecting through an opening in said receiver, and a cam carried by the box engaging the end of said projecting portion of said arm and arranged to actuate said arm to force one end of a cigarette out of the receiver when said receiver is rotated.

1,305,700. MEANS FOR PROTECTING SHIPS FROM TORPEDOES. JULIUS DINEN, New York, N. Y. Filed Aug. 22, 1918. Serial No. 250,953. 2 Claims. (Cl. 114-240.)



1. In combination with a ship, a device for protecting the same from torpedoes, consisting of a framework conforming in shape with the sides or bottom of the ship and adapted to removably engage the latter, wing shaped deflector members projecting from said frame and curved so as to be substantially tangent to the warhead of an approaching torpedo, and air tanks for rendering the device buoyant, said air tanks being capable of being filled with water to allow the lowering or submerging of the device.

1,305,701. INDICATING-CALIPERS. HARRY B. DOUGLASS, Detroit, Mich. Filed Mar. 17, 1919. Serial No. 283,145. 8 Claims. (Cl. 33-148.)



1. Indicating calipers, having in combination, a pair of caliper arms, a lever pivoted near one of the ends of the caliper arms having a gear segment at one end, a pinion meshing with said gear segment, and a pointer attached to the pinion.

1,305,702. PRESSURE-COOKER. ROBERT C. EHLEST, Denver, Colo., assignor to The Albert Sechrist Manufacturing Company, Denver, Colo., a Corporation of Colorado. Filed Dec. 6, 1918. Serial No. 265,497. 2 Claims. (Cl. 53-1.)



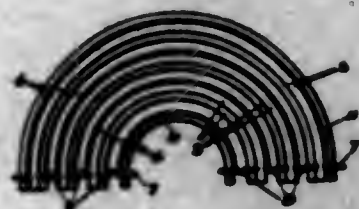
1. In a pressure cooker, a container, a reinforcing bottom member on said container, said member having an internally grooved upstanding flange into which the inclined portion of the container is expanded, a portion of the upper wall of the groove being frusto-conical in shape.
2. In a pressure cooker, a container, a reinforcing ring about the upper portion thereof, the upper part of the inner face of the ring being beveled upward and outward, the adjacent portion of the container being fitted thereto and correspondingly beveled, a cover for the container having a part beveled to engage the beveled portion of the container, and means on the ring and on the cover for cooperation to retain the cover in position.

1,305,703. ATTACHMENT FOR WELL-DRILLS. ALVIN J. ESHENBAUGH, Shawnee, Okla. Filed July 30, 1918. Serial No. 247,414. 4 Claims. (Cl. 242-54.)



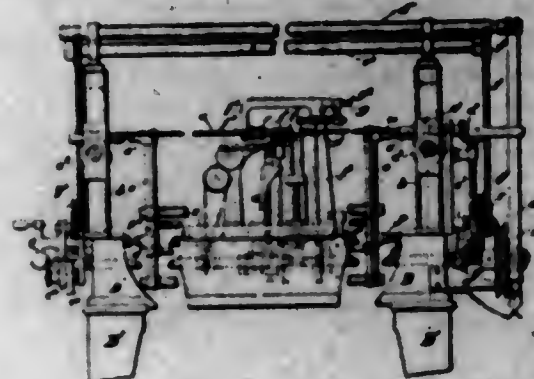
1. In a cable rewinding attachment for well drills, the combination of a shaft having a crank arm, a band wheel mounted on said shaft, a working reel, a supply reel, a drive pulley mounted upon the crank arm of the crank shaft, a driven pulley mounted upon one side of the supply reel, and a belt connecting said pulleys whereby a cable may be unwound from the working reel and onto the supply reel.

1,305,704. MOLD FOR SEGMENTAL STRUCTURES. WILLIAM H. EVERS, Lakewood, Ohio, assignor of one-third to Herman Schmitt and one-third to William F. Elrick, Cleveland, Ohio. Filed Dec. 24, 1918. Serial No. 268,125. 7 Claims. (Cl. 25-121.)



6. A mold comprising face plates and end plates, and fillers located in supporting relation between the face plates and having interlocking engagement with the end plates.

1,305,705. WARP-UNITING MECHANISM. MILLARD F. FIELD and CHARLES D. LANNING, Boston, Mass., assignors to American Warp Drawing Machine Company, Boston, Mass., a Corporation of Maine. Filed Mar. 6, 1905. Serial No. 248,000. 34 Claims. (Cl. 130-95.)



5. In a warp uniting machine the combination with a traversing uniting carriage and two differentially fed warp frames.

10. In a warp uniting machine the combination with supports for holding two warps, mechanism adapted to act progressively across the warps and take successive pairs of threads, one thread from each warp and place them in operative relation to a cementing device, feeding means, and means to cement said threads.

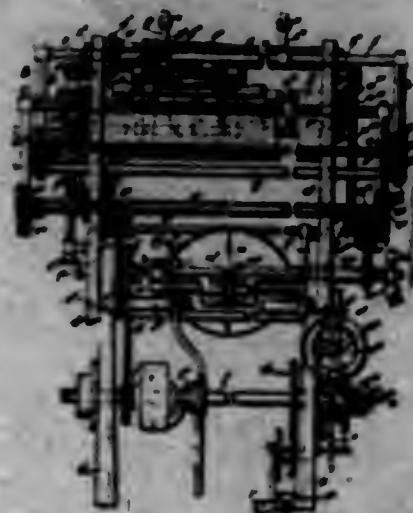
64. An organized machine for joining together the threads of unreleased warps comprising in combination supporting devices to hold the crosswise sections of two such warps, warp joining mechanism adapted to act progressively upon the threads of the two warps, feeding means to cause relative traverse between the warp supports and the joining mechanism, and compensating means to compensate for, and adapt the action of said mechanism to, the irregular spacing of the individual threads on said warp supports.

1,305,706. THREAD-UNITING MACHINE. EDGAR F. HATHAWAY, Boston, Mass., assignor to American Warp Drawing Machine Company, Boston, Mass., a Corporation of Maine. Filed Feb. 14, 1906. Serial No. 301,018. 130 Claims. (Cl. 130-95.)

4. A warp-uniting machine having warp-uniting means, means for supporting a pair of warps, compensating mechanism for adjusting the position of either warp support relatively to the uniting means, a shiftable gear for applying said mechanism to the adjustment of either warp support; and means whereby said gear may be shifted.

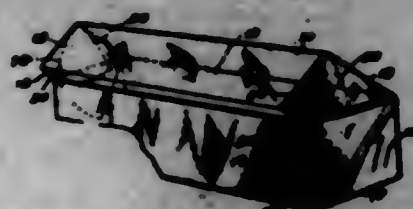
84. In a warp tying machine the combination with thread tying mechanism, means to advance the same relatively across the warps to be united to permit the action thereof upon the warp threads and compensating means to compensate for any insufficient or excess ad-

vance of said tying mechanism relatively to the individual threads of the warp.



118. A knot tying mechanism comprising a rotatable tying bill arranged to be opened and closed, a thread guide having movement longitudinally of the axis of the tying bill to place the threads in position for action thereon by the open tying bill, and a thread clamp arm having movement transversely of the tying bill.

1,305,707. CARTON. HENRY FURST, Cincinnati, Ohio, assignor to The United States Printing and Lithograph Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 13, 1917. Serial No. 142,183. 1 Claim. (Cl. 229-44.)

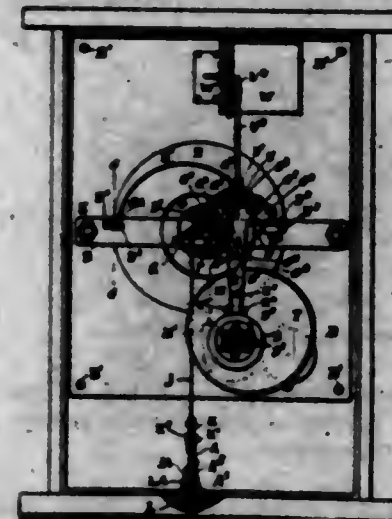


A carton blank comprising a series of portions adapted to be folded to form the body of a carton, portions attached to the body-forming portions adapted to be folded to close the body, flaps attached to certain of the first and second mentioned portions adapted to be folded into engagement with said certain portions to form reinforced edges, flaps attached to the end edges of the body-forming portions adapted to be folded to form the ends of the body, certain of the flaps being attached to the front and back-forming portions, the flaps attached to the back-forming portion having a diagonally extending slit formed therein adjacent to its attached edge, the flap attached to the front-forming portion having a hooked tongue formed on the edge opposite its attached edge for locking cooperation with the slit when the flaps are folded, and flaps attached to the end edges of the body-forming portions, having curved edges adapted to facilitate closing of the box without distortion of the material thereof and to reinforce and close the ends of the carton when the body-forming portions are moved to closed position.

1,305,708. INTEGRATING AND RECORDING INSTRUMENT. JOSEPH W. GABLE and WALTER S. GIBBS, Philadelphia, Pa., assignors to Joseph S. Lovering Wharton, William S. Halliwell, and John C. Jones, Philadelphia, Pa., doing business under the firm-name of Harrison Safety Boiler Works. Filed May 6, 1914. Serial No. 324,006. 5 Claims. (Cl. 224-34.)

1. In an instrument of the kind described, the combination with the float stem, motion translating cam,

an adjustable connection through which said float stem imparts movement to said cam, a carriage moved by said



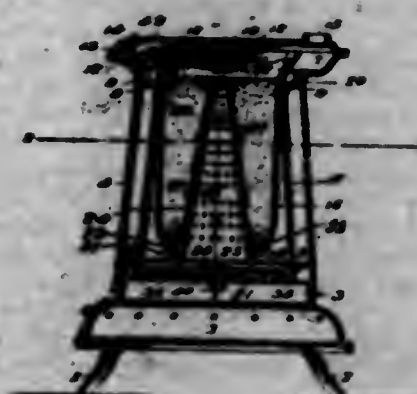
cam and means for releasably securing said cam in a predetermined position to facilitate calibration.

1,305,709. FOUNTAIN-BRUSH. CHRISTOPHER A. GARVY, Clayton, Mo. Filed Feb. 20, 1919. Serial No. 278,156. 5 Claims. (Cl. 91-67.2)



1. In a fountain marking device, the combination of a reservoir, a discharge device associated with said reservoir having an orifice therein through which liquid may flow to supply a marking tip, and a valve extending through said orifice adapted to tilt in response to tilting of said reservoir.

1,305,710. INCINERATOR. CLARENCE A. GIBBS, Wilkes-Barre, Pa. Filed Feb. 2, 1918. Serial No. 215,022. 12 Claims. (Cl. 110-18.)



9. An incinerator comprising a base member having air inlets, an outer casing mounted upon said base member and provided with a plurality of inward extending projections, an inner casing mounted upon said projections, a top member mounted on the outer casing pro-

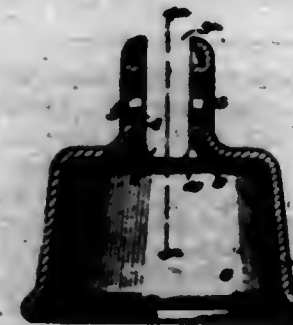
vided with an outlet, a perforated garbage receptacle within the inner casing and suspended from the top member, a perforated cone member centrally and detachably secured within the receptacle adapted to direct the gas flames to the inner walls of the garbage, means mounted within the top member for projecting a sheet of flame across the top member above the garbage, and a removable gas burner mounted within the outer casing.

1,305,711. CHIPPER AND METHOD OF MAKING THE SAME. RAYMOND B. GILCHRIST, Newark, N. J., assignor to The Gilchrist Company, Newark, N. J., a Corporation of New Jersey. Filed Apr. 3, 1914. Serial No. 829,182. 4 Claims. (Cl. 83-62.)



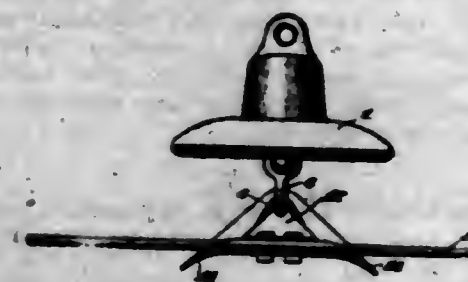
1. A chipper comprising a one-piece head having holes extending therethrough, a handle secured to the head, and pins having cylindrical portions and points extending from the cylindrical portion to the operative ends thereof, said cylindrical portions being driven into said holes and secured therein by stretching the metal around the holes, the points of the pins being adapted to pass through the holes.

1,305,712. INSULATOR-CAP. WALTER T. GODDARD, Victor, N. Y. Filed Dec. 8, 1917. Serial No. 206,205. 5 Claims. (Cl. 172-366.)



5. An insulator cap comprising a sheet metal outer shell with side and top walls, a supporting device stamped up from the top wall having an opening through the latter, and an impermeable inner shell secured within the outer shell so as to seal the opening in the top wall of the latter and prevent the entrance of moisture.

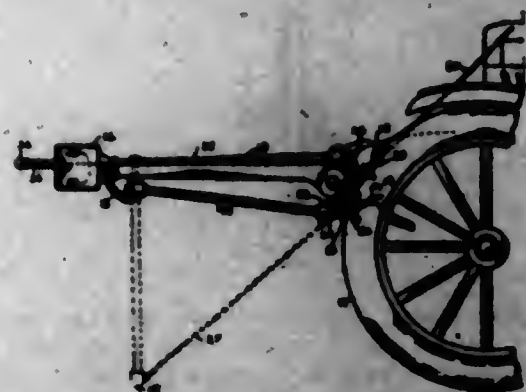
1,305,713. CABLE-CLAMPING DEVICE. WALTER T. GODDARD, Victor, N. Y. Filed Dec. 8, 1917. Serial No. 206,206. 5 Claims. (Cl. 24-135.)



2. A cable clamping device comprising a plate or body portion, formed of sheet metal and having a substantially triangular central opening, an integral curved flange at the apex of said opening affording a bearing

for a support, an integral substantially V-shaped flange extending from one side of the base of the opening forming a seat for a cable, an integral flange extending from the opposite side of the base of the opening, a removable clamping member consisting of a substantially U-shaped plate affording an upper portion which engages a cable in said seat and a lower portion which engages the under face of said flat flange, and securing devices which hold the clamping member in engagement with the flange and the cable.

1,305,714. AUTOMATIC FENDER. WILLIAM LEON GOLDSTEIN, New York, N. Y. Filed Aug. 23, 1918. Serial No. 231,106. 6 Claims. (Cl. 293-30.)



1. An automatic fender for vehicles, comprising supporting members adapted to be secured to and extend forwardly from a vehicle, a substantially rigid fender swingingly supported by said supporting members, devices adapted to maintain said fender in an elevated or inoperative position, devices adapted to release said fender and allow it to swing into a lowered or operative position, and devices adapted to lock said fender in its lowered or operative position.

1,305,715. COMPOUND VALVE. JOHN W. GRANTLAND, Cincinnati, Ohio. Filed Apr. 27, 1918. Serial No. 94,033. 1 Claim. (Cl. 277-12.)



In a compound valve for seating over two relatively fixed ports in axial alignment and spaced, the combination of two primary valves, as a first, and second, co-operating with seats at said ports respectively, each valve slidably supported and sustained within its port, a secondary valve mounted and having limited motion within the first primary valve and having a stem telescopically engaging with a stem of the second primary valve, a member for coupling said valve stems, interlockingly engaging with said first primary valve, said member being fixed to one valve stem and loosely connecting with the other valve stem, and controlling means detachably connecting with said secondary valve for moving the same, and consecutively the other valves of the series, through their engagement one with the other and subsequently as a unit.

1,305,716. GEARING. HENRY B. GUSTAFSON, Anoka, Minn. Filed June 24, 1918. Serial No. 241,575. 3 Claims. (Cl. 74-56.)

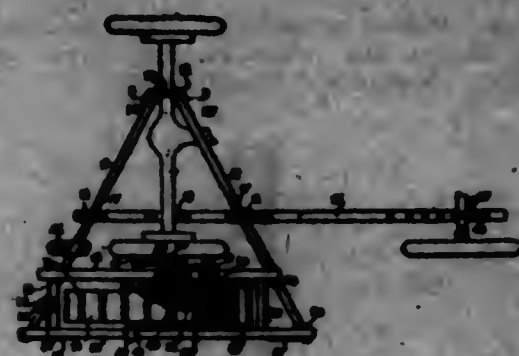
1. The combination of a master gear having a rack on one side, a driven gear disposed coaxially with the master gear, gears at opposite sides of the driven gear to be engaged by the rack, intermediate gears between the said gears and the driven gear whereby the driven gear will

be caused to rotate alternately in opposite directions, a driving shaft, means for rotating the driving shaft con-



tinuously in one direction, and means for operatively connecting the driving shaft with the master gear or disconnecting it therefrom.

1,305,717. TRACTOR ATTACHMENT FOR AUTOMOBILES. HOWARD E. HANSON, Redstone, Mont. Filed June 8, 1918. Serial No. 238,948. 12 Claims. (Cl. 190-16.)



1. A tractor attachment including a supporting frame, a traction wheel carried thereby, and a crank operatively connected to the traction wheel and having means for engaging it with a spoke of an automobile wheel.

1,305,718. [WITHDRAWN.]

1,305,719. FLUID-GAGE. HERBERT HASTINGS, Brighton, N. Y. Filed July 17, 1918. Serial No. 245,412. 9 Claims. (Cl. 72-62.)



1. In a fluid gage, a tubular casing provided with an internal flange, a depressed annular recess provided in said flange, a dial adapted to rest on the flange outside of said recess, a plate adapted to be supported in said recess, a float mechanism supported on the underside of said plate, means for retaining the plate in the seat.

1,305,720. MECHANICAL STARTER FOR EXPLOSIVE ENGINES. ARTHUR J. HAYES, Nashua, N. H. Filed July 12, 1917. Serial No. 180,304. 5 Claims. (Cl. 185-41.)



1. In a mechanical starting device for automobile engines, the combination of a main starting gear, a main winding gear, and a spring one end of which is attached to the main starting gear and the other to the main winding gear, with means to prevent the main winding gear from moving except in one direction, a starting shaft, a reducing starting gear carried thereby in engagement with the main starting gear, a clutch drum revoluble with the main engine shaft, means which connect it with the starting gear shaft which cause it to revolve therewith in one direction, a reducing winding gear in engagement with the main winding gear, and a clutch member slidable on the starting gear shaft revoluble with the reducing winding gear and adapted to engage the clutch drum as described.

1,305,721. ARTIFICIAL LIMB. CHARLES HOFER, Newark, N. J. Filed May 27, 1918. Serial No. 236,746. 9 Claims. (Cl. 2-12.)

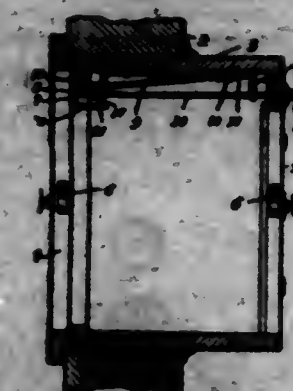


1. An artificial limb comprising a main tubular wrist portion and a forwardly extending member connected with said wrist portion, a series of coiled springs, each spring being attached at one end-portion to said forwardly extending member, button-members mounted upon the free ends of said springs, a cuff-attachment connected with and extending rearwardly from said tubular wrist portion, means connected with said cuff-attachment for securing said artificial limb to the mutilated portion of the limb of a person, flexible connections extending into and through said springs, said flexible connections being secured at one end to said button-members, a plate also connected with and extending rearwardly from said tubular wrist portion, a box mounted upon said plate, said box being provided with an elongated opening, and an angularly disposed open portion in communication therewith, a slide within said box with which the other ends of said flexible connections are connected, a post connected with said slide and extending from said slide into and through the opening in said box, a pivot-post connected with and located at the side of said box, and a lever pivoted upon said pivot-post, said lever having a cam-let into and through which the post of said slide extends.

1,305,722. DELIVERY-BOX. FREDERICK KEND, Minneapolis, Minn. Filed June 26, 1918. Serial No. 241,735. 7 Claims. (Cl. 222-32.)

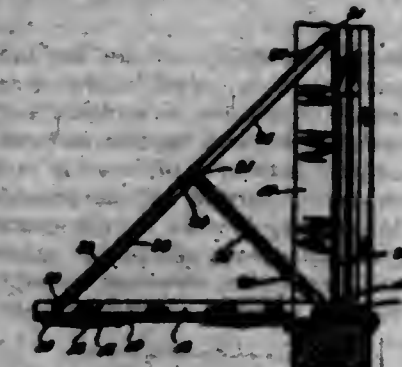
1. A delivery box having inside and outside doors, a locking device for the outside door, and indicating means

for operating said locking device to release said outside door and a cam device connected with said outside door



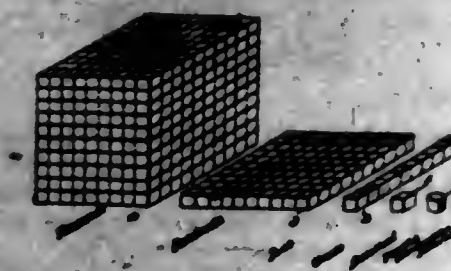
for setting said locking device in position when said outside door is opened to relock said outside door when it is closed.

1,305,723. SCAFFOLD. KAROL KEMPT, Cleveland, Ohio. Filed Jan. 2, 1918. Serial No. 209,955. 1 Claim. (Cl. 20-81.)



In a scaffold, the combination with a pair of opposed vertical supports, a bar hingedly engaged to each of said supports, means for supporting said bars when extended horizontally, means for raising or lowering said bars, cross elements engaged between said rails, said cross elements comprising a pair of bars having lattice members therebetween and containing recesses engageable with said bars, racks formed upon said bars and slidable within said recesses, dogs engageable with the teeth of said racks, said dogs being pivoted to the ends of said cross elements, means for holding said dogs in engagement with the teeth of said racks, means for releasing said dogs and a platform disposed over said cross elements.

1,305,724. EDUCATIONAL APPLIANCE. ALBERT H. KENNEDY, Rockport, Ind. Filed Nov. 21, 1918. Serial No. 263,479. 1 Claim. (Cl. 35-2.)



An educational appliance for visually teaching notation, the same comprising a block representing the decimal point, and at each side thereof a plurality of series of independent geometric blocks of ten each, the blocks of each series being of uniform size and shape, those series of blocks at the left of the decimal-point increasing in dimensions in ratios of ten to one over the series of

blocks immediately preceding or the decimal-point, and those blocks of the series at the right of the decimal-point decreasing in dimensions from those of the preceding series and the decimal-point.

1,305,725. ELECTRIC MASSAGE-MACHINE. CHARLES W. KENT, Peoria, Ill. Filed July 5, 1918. Serial No. 243,314. 7 Claims. (Cl. 174-80.)



1. In an electric massage machine the combination of a handle characterized by conductivity, a primary coil mounted within said handle, a secondary coil movably mounted in said handle and having movement into and out of the magnetic field of said primary coil, a primary current switch partly carried by the secondary coil for completing the primary circuit by the beginning of the movement of the secondary coil in the magnetic field of the primary coil, a battery mounted in said handle and a secondary electric terminal carried by said handle.

1,305,726. FLUID-PRESSURE APPARATUS FOR BURNING POWDERED FUEL. PATRICK A. LEONARD, MICHAEL F. MALONEY, and ERNEST FANDRICH, Schenectady, N. Y. Filed Apr. 2, 1918. Serial No. 226,262. 8 Claims. (Cl. 110-28.)

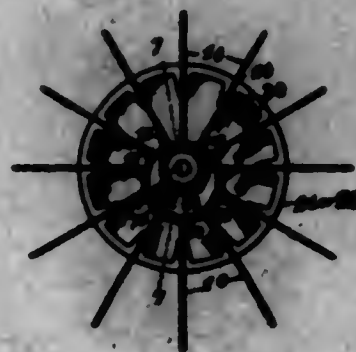


1. The combination, with a furnace, of means for forcing thereto a jet of commingled powdered fuel and air; and means for delivering a jet of air under pressure into the furnace, in line with, and unobstructed from direct impingement against, said first specified jet.

1,305,727. PADDLE-WHEEL. FREDERICK J. LINDB, Falconer, N. Y. Filed Feb. 8, 1918. Serial No. 216,000. 3 Claims. (Cl. 170-144.)

1. A paddle wheel comprising a shaft, a cam shaped boxing for said shaft, a chain movably mounted around said boxing, paddle blades attached to said chain in

spaced relation with freedom of movement around said boxing, a drum in two parts attached to one another and to said shaft, said drum having spaced open ended slots



in each of said parts to coincide and form one slot when said parts are attached to one another to receive said paddle blades therethrough in radial alignment with said shaft.

1,305,728. INTERNAL-COMBUSTION ENGINE. EARL E. MCCOLLUM, Downers Grove, Ill. Filed Jan. 13, 1917. Serial No. 142,334. 2 Claims. (Cl. 123-55.)



1. In an internal combustion engine, the combination of a single rotary valve mounted on a substantially vertical axis and having an inlet and exhaust port therein, a plurality of cylinders, a crank casing upon which said cylinders are mounted, and a substantially vertical shaft extending from said crank casing upwardly to said valve for rotating the same, said substantially vertical shaft having an opening therein for conducting lubricants from the crank casing to the valve, said valve having ducts in communication with said opening in the vertical shaft, said ducts leading to the periphery of the valve.

1,305,729. NUT-LOCK. HUGH F. McGRATH, Philadelphia, Pa. Filed Aug. 11, 1916. Serial No. 114,331. 10 Claims. (Cl. 151-11.)



1. In a nut lock, the combination with a bolt having a longitudinal groove, of a recessed nut, a dog adapted to engage said groove positioned in said recess, means to constantly depress said dog and means operative to force said dog toward the axis of said bolt when pressure tending to unscrew said nut from said bolt is brought to bear on said nut.

1,305,730. WHEEL. THOMAS CARY MCGRIFF, Winnemucca, Nev., assignor of one-fourth to William J. Kelley and one-fourth to Frank L. Kelley, Winnemucca, Nev. Filed May 12, 1918. Serial No. 234,396. 8 Claims. (Cl. 21-207.)

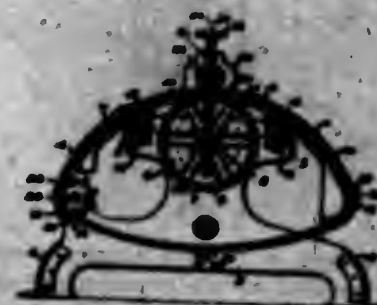
1. A vehicle wheel including a hub and spokes, a rim engaged by said spokes and sloping from a medial line

toward the axial line of the hub, coating webs united respectively to the hub and to the outer edges of the



rim, and braces connected respectively to said webs and to said hub.

1,305,731. SANDING-MACHINE. KARL F. G. MAIER, South Ashburnham, Mass. Filed Aug. 30, 1917. Serial No. 189,009. 5 Claims. (Cl. 51-5.)



1. In a machine of the class described, the combination of a curved table, a sanding roll extending through a portion of the curved table to act upon the work as it is moved about said curved table, means for rotating the sanding roll, a pressure roll opposed to the exposed portion of the sanding roll for pressing the work toward the sanding roll, flexible feeding members movable in paths substantially corresponding to the curved surface of the curved table, and means extending between the feeding members for engaging curved, strips placed upon the curved table and feeding them over the curved table and between the sanding pressure rolls.

1,305,732. MAIL-PROTECTING APPARATUS. JOSEPH J. MASON, Rochester, N. Y. Filed Nov. 16, 1915. Serial No. 61,741. 7 Claims. (Cl. 232-50.)



1. A mail protecting apparatus comprising an enclosure having an opening formed through one of the walls

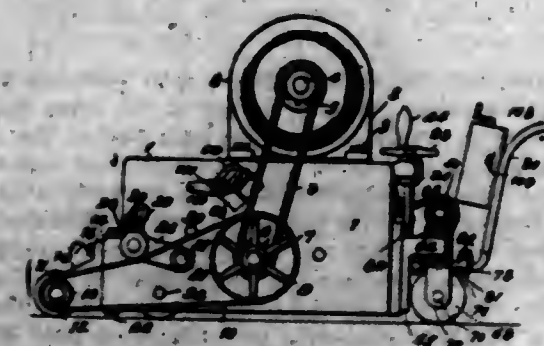
thereof, a movable chute normally disposed out of registry with said opening, a shutter normally closing said opening and movable into said enclosure away from said opening, and means for effecting a relative movement of said chute and shutter to disclose said opening and bring the chute into registry with said opening.

1,305,733. BRUSH. ROBERT P. MILLER and CHARLES J. BREMMER, St. Louis, Mo.; said Miller assignor to said Bremmer. Filed Nov. 12, 1917. Serial No. 201,500. 9 Claims. (Cl. 91-45.)



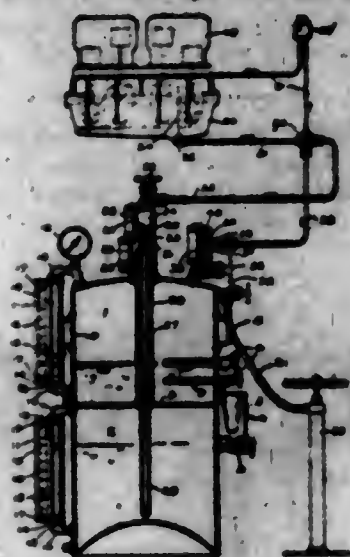
1. A brush of the class described comprising, in combination, a casing, an air-chamber within the casing having a normally open nozzle-outlet and adapted for communication with a source of compressed air supply, a spring-pressed valve normally closing communication between the air-chamber and its source of supply, a paint-chamber within the casing having a nozzle-outlet in proximity to the nozzle-outlet of the air-chamber, a spring-pressed disk mounted for slidable movement in the casing, a needle attached to and movable with the disk and normally closing the outlet of the paint-chamber, and means for actuating the valve and disk to open communication between the air-chamber and its source of supply and open the outlet of the paint-chamber, said means including a spring-pressed conoidal member mounted for slidable movement within the casing and adapted to engage at an end with the disk and at its sloping face directly with the valve, and a depressible trigger pivoted upon the casing for actuating the conoidal member.

1,305,734. SELF-PROPELLED FLOOR-PLANER. WILLIAM J. MOON, Plainfield, N. J., assignor to Charles N. Thorn, Arthur M. Watkins, William E. Bewley, and William J. Moore, Partners. Filed Aug. 15, 1917. Serial No. 186,283. 8 Claims. (Cl. 144-117.)



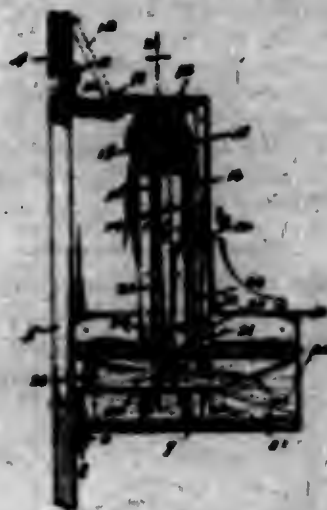
1. In a self propelled floor planer the combination of a body frame, a motor mounted thereon, a pair of wheels supporting said frame near the front end, a rotary cylindrical cutter in front of said wheels and connected to be driven by said motor, a pair of wheels supporting the rear end of the frame, said rear wheels being propelling and steering wheels adapted to be driven by said motor, means for adjusting said body frame relative to said driving wheels thereby rocking said frame on said front wheels to raise and lower said cutter, and a clutch for throwing said driving wheels into and out of gear with said motor.

1,305,735. OIL-CLARIFYING SYSTEM AND APPARATUS. WILLIAM L. MOONIS, Chicago, Ill. Filed Apr. 12, 1916. Serial No. 90,554. 55 Claims. (Cl. 184-6.)



1. In apparatus of the class described, the combination with a pair of closed receptacles having a common wall, of a discharge connection for one of the receptacles, an inlet for the other receptacle, tubular means for keeping liquid contents of the receptacles separate but permitting the free passage of air between them, and a pump connected to one of the receptacles but causing the same pressure in both receptacles.

1,305,736. NEST-BOX FOR HENS. HANS NAGELBAKER, Great Falls, Mont. Filed Sept. 26, 1917. Serial No. 193,359. 3 Claims. (Cl. 119-50.)



1. A nest box for hens having a door opening, a door frame for the door opening having in its sides pairs of guide channels, a roller, a curtain attached to the roller, a tilting platform having intermediate end extensions projecting into one pair of said guide channels with freedom to turn on a horizontal axis, cables intermediately suspending the platform from the roller and arranged to be wound thereon during the unwinding of the curtain therefrom, and a rod secured to the lower edge of the curtain with its ends extending into the other pair of said guide channels and normally holding the curtain drawn and the platform raised.

1,305,737. HOSE-BAND. CHARLES G. NEISTICK, Chicago, Ill. Filed Mar. 18, 1918. Serial No. 222,901. Renewed Mar. 20, 1919. Serial No. 283,835. 2 Claims. (Cl. 24-19.)

1. A hose band formed of a sheet metal strip provided with a longitudinal slit and having the portions on opposite sides of said slit spread apart and reverted to form spaced bearing loops adapted to freely encircle a cotter pin, the cotter pin rotatably mounted in said spaced bear-

ing loops, the opposite end of said band being arranged to pass through the central portion of said cotter pin between said bearing loops and to be wound on said central



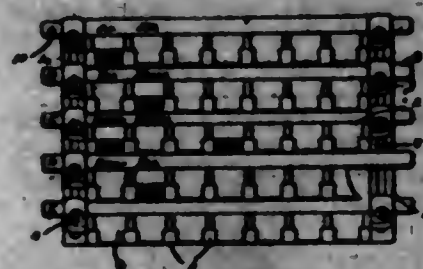
portion of the cotter pin by the rotation of the latter while allowing said loops to slide longitudinally of the cotter pin and to be drawn into snug engagement with the portion of the band wound upon said pin.

1,305,738. TRAIN-STOP MECHANISM. HERBERT R. NEVENS, Hartford, Conn., assignor to Nevens-Wallace Train Control Company, a Corporation of Massachusetts. Filed May 24, 1914. Serial No. 841,000. 4 Claims. (Cl. 246-100.)



1. In combination, a casting having a tubular portion providing a guide and having communicating passages extending from said guide, a chambered valve stem slidable in said guide, a valve in the chamber of said stem and controlling the communication of said passages, a spring confined between said valve and one end of said tubular portion, and a movable support for said stem.

1,305,739. CHECK-HOLDER FOR TOOL-ROOMS. HARLAN W. OSBURN, Detroit, Mich. Filed Apr. 25, 1918. Serial No. 230,637. 2 Claims. (Cl. 211-14.)

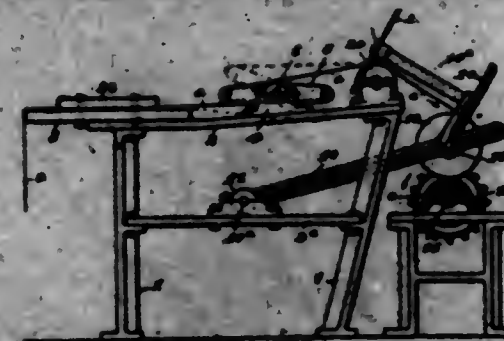


1. In a check holder, the combination with a pair of supporting standards, each having an inclined longitudinally slotted bar, of a series of bars mounted in spaced stepped relation upon the inclined bars of said standards each formed with a series of check holding receptacles and with terminal lugs engaging said inclined bars, and members for adjustably clamping said adjustable bars to the standards, passing through the lugs of the bars and the slots of the standards.

1,305,740. FABRIC WINDING AND MEASURING MECHANISM. JOHN OSBURN, Cleveland, Ohio. Filed Aug. 22, 1916. Serial No. 116,445. 5 Claims. (Cl. 23-129.)

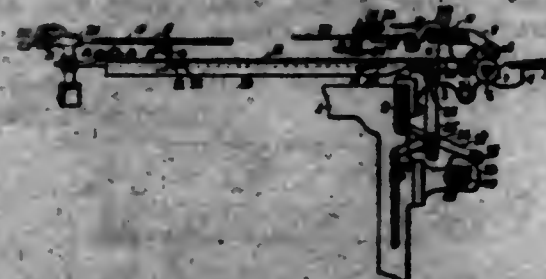
1. In a winding machine, the combination of a tension regulating frame around and through which the material

to be wound passes; a roller mounted in bearings attached to the frame, over which the material passes after leaving the tension frame; a succeeding roller mounted in a gravity yoke pivoted to the frame, over which the mate-



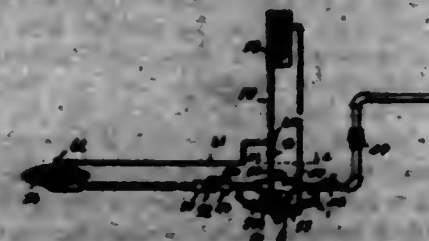
rial passes; a following spindle which carries a core on which the material is ultimately wound; and means for automatically engaging and disengaging said spindle and core.

1,305,741. REVERSIBLE-SHEET-REGISTERING MECHANISM. JOHN R. FENNER, Pearl River, N. Y., assignor to Dexter Folder Company, Pearl River, N. Y., a Corporation of New York. Filed Aug. 10, 1917. Serial No. 135,452. 3 Claims. (Cl. 271-50.)



6. In sheet-feeding mechanism, sheet-feeding tapes, a stop which intercepts a sheet fed by said tapes, a sheet guide disposed above said tapes, and means normally disposed below the plane of said tapes but adapted to move said sheet upwardly into a plane of movement in which it will be intercepted by said guide, said means rising above the plane of said tapes in its movement toward said guide and falling below the plane of said tapes in its movement away from said guide.

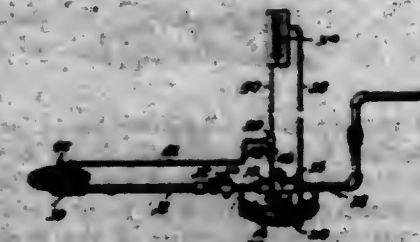
1,305,742. GAS-SUPPLY REGULATOR FOR GAS-HEATERS. WILLIAM P. POWERS, Los Angeles, Calif. Filed July 22, 1918. Serial No. 246,199. 11 Claims. (Cl. 236-6.)



1. In a gas controlling device, the combination of a casing, a main valve, a gas controlled diaphragm in said casing for adjusting the position of said valve, said casing providing a chamber at one side of said diaphragm, a thermostat for controlling the pressure of gas in said chamber which is exerted on said diaphragm, said casing providing a passage for gas to said chamber, and an automatic valve located in said passage, said valve being adapted to prevent the subsequent opening of the main valve by the thermostat and diaphragm, following a failure and restoration of the supply of gas, until manually actuated, substantially as described.

293 O. G.-7

1,305,743. GAS-REGULATOR. WILLIAM P. POWERS, Los Angeles, Calif. Filed Oct. 25, 1918. Serial No. 259,652. 15 Claims. (Cl. 236-6.)



1. In a gas regulator, the combination of a casing, a main valve for controlling the supply of gas to a burner, and means controlled by the pressure of gas on the supply side of the valve for fully opening and fully closing said valve after an opening or closing movement has begun, substantially as described.

1,305,744. CARBURTER. LEONARD H. RHODES, Chicago, Ill., assignor of one-half to Howard Ames, Chicago, Ill. Filed June 9, 1916. Serial No. 102,678. 4 Claims. (Cl. 261-44.)



1. In a carburter, the combination of a mixing tube, a butterfly throttle valve mounted in said tube to control the passage therethrough, said valve being formed with an air passage extending transversely to its plane from its inlet face to its outlet face and with an air baffle adjacent said passage on the inwardly opening side of the inlet face of the valve, a liquid fuel conduit extending upward through the throttle valve and opening into the air passage thereof, and means for turning the valve.

1,305,745. TALKING-MACHINE. BELFORD G. ROYAL, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Jan. 22, 1910. Serial No. 539,504. Renewed Oct. 16, 1918. Serial No. 258,484. 37 Claims. (Cl. 74-45.)



20. In a talking machine, the combination with a record support, a reproducing mechanism, and a motor arranged and adapted to rotate said record support at a constant angular velocity, of means arranged to be thrown at will into operation to vary the speed of said record support regularly to produce a constant linear speed of said record support under said reproducing mechanism.

1,305,746. JOINT FOR METALLIC BASH AND THE LIKE. ALBERT RUAN, Columbus, Ohio. Filed July 17, 1915. Serial No. 40,517. 4 Claims. (Cl. 189-76.)



1. A joint including, in combination, a cross bar of angle form having a transverse slit in its head and web portions, and a second or interlocking cross bar having a bent and depressed head portion to form a seat to receive by superposition the head portion of the first mentioned bar at said slit.

1,305,747. SAFETY-VALVE. ALBERT SACHS, Denver, Colo., assignor to The Albert Sachst Manufacturing Company, Denver, Colo., a Corporation of Colorado. Filed Dec. 6, 1918. Serial No. 265,510. 5 Claims. (Cl. 137-53.)



2. A sanitary safety valve comprising a body member having a seat, a valve member in said seat, a removable casing to retain said valve member and having a second seat above the first seat for said valve, and spring-pressed means in said casing engaging said valve member.

1,305,748. FOLDING-MACHINE. HETMAN SHAPIRO, Brooklyn, N. Y. Filed Feb. 23, 1918. Serial No. 218,005. 18 Claims. (Cl. 270-86.)



1. A folding machine adapted to fold material into a band comprising a folding guide adapted to fold the cloth upward on each side thereof, means for folding down said upfolding sides and means for preventing said sides from interfering with each other as they emerge from said folding guide, said means comprising a guide finger having an overturned head portion serving to form a spacing member whereby one of said sides passes and adapted to curve said side away from the other side of the band.

1,305,749. TOE-SPREADER. FRANK SHIRLEY, Phoenix, Ariz. Filed Nov. 27, 1917. Serial No. 204,102. 1 Claim. (Cl. 128-344.)

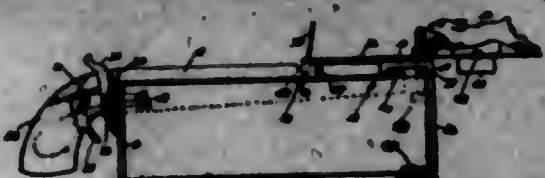
A toe spreader of the character described comprising a pair of toe engaging clamps each of which is formed from a single strip of relatively narrow resilient metal bent

into an arcuate form, a spreading element also formed from a single elongated strip of relatively narrow resilient metal slightly bowed longitudinally and having relatively flat end portions, fasteners passing through the medial portions of the clamps and the end portions of the element



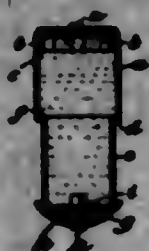
for swingingly connecting the clamps to the outer surfaces of the end portions of the element so that the element when bowed upon itself will exert a tension on the clamps to hold them in position, and the fasteners also permitting of the swinging of the element in various directions when the clamps are held in position by the element.

1,305,750. TOY BANK. NICHOLAS A. SMITH, Grand Rapids, Mich., assignor of one-half to Alexander F. Winters, Grand Rapids, Mich. Filed Feb. 15, 1919. Serial No. 277,218. 14 Claims. (Cl. 40-36.)



1. In a device of the character described, a coin receiving receptacle having a coin receiving opening, a target movably mounted on the receptacle to pass before the opening, means to move a coin toward the target, said target intermittently crossing the path of movement of the coin as it moves with respect to the receptacle and means to guide the coin to the opening.

1,305,751. INCENDIARY BOMB. MARCUS C. STEARNS, Buffalo, N. Y. Filed May 18, 1918. Serial No. 235,381. 1 Claim. (Cl. 102-29.)

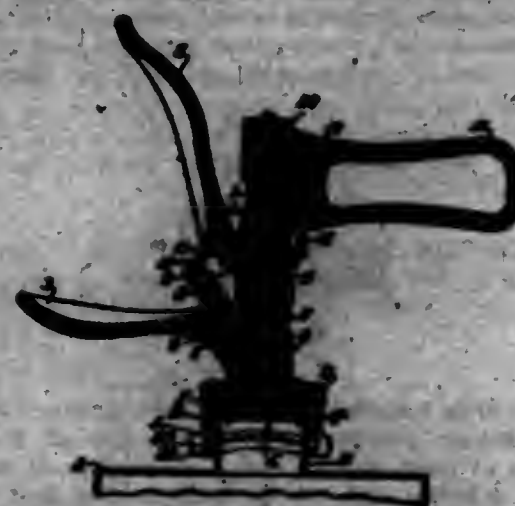


An incendiary bomb comprising a container for combustible liquid, a cooperating plunger, a cap secured to the bomb to provide a receptacle for an igniting charge and to direct the burning gases therefrom, and a percussion igniter to ignite the charge.

1,305,752. CRIMPING-TOOL. WILLIAM F. STONE, Portland, Me., assignor to National Metal Seal Corporation, a Corporation of Maine. Filed July 10, 1914. Serial No. 851,287. 7 Claims. (Cl. 112-4.)

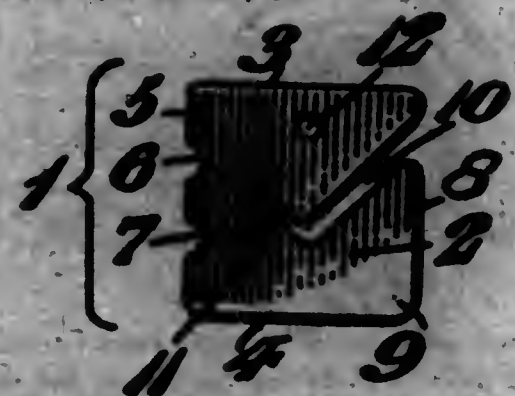
1. A crimping tool for crimping the legs of a closure beneath the shouldered mouth of a containing vessel, comprising a spindle having a head adapted to rest upon the closure, a slide reciprocable on said spindle, a stationary clenching handle mounted upon said spindle, a pair of

crimping jaws pivoted between their ends to said slide and having their lower ends formed as crimping surfaces, an operating handle fulcrumed on said slide and connected with said fixed clenching handle, means having a sliding



engagement with the upper ends of said crimping jaws effective to expand said upper ends and contract said lower ends when the slide is raised, and means for automatically returning said slide to original position after each reciprocation.

1,305,753. PACKAGE-TIE. GEORGE W. BROU, Merchantville, N. J. Filed Jan. 25, 1919. Serial No. 273,062. 2 Claims. (Cl. 24-12.)

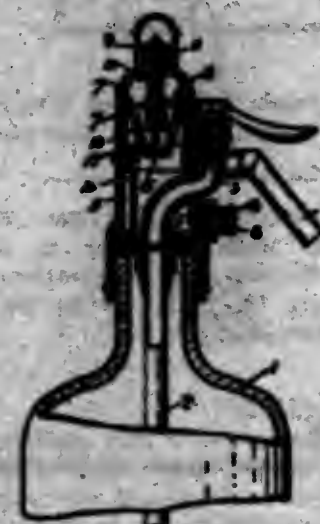


2. A package tie which comprises a body provided with an obliquely disposed slot which enters a side of said body above the transverse median line and extends obliquely and inwardly below said transverse median line to the longitudinal median line, and which there turns and thence extends in the opposite direction to the afore-mentioned slot and outwardly at an angle toward the opposite side of said body, with its walls converging and meeting at a point near said horizontal median line and beyond said vertical median line, said body having an eye for a cord, located on the longitudinal median line beyond said angle of the slot, the side of said body opposite that through which the slot enters having two recesses which are disposed one above and one below said horizontal median line.

1,305,754. DISCHARGE OF LIQUIDS FROM VESSELS OR CONTAINERS. WILLIAM RAMAGE TATE, Rippon Lea, and ALBERT VICTOR PARK, Melbourne, Victoria, Australia. Filed Feb. 14, 1917. Serial No. 148,590. 1 Claim. (Cl. 225-12.)

In a vessel for discharging liquid under pressure, the combination of a bottle having a neck, a fitting fixed to the neck of the bottle and having a pressure gas chamber arranged directly above the bottle neck, means to permit gas to be introduced into said chamber, a conduit passing through said chamber and having one of its ends extending into the bottle and its other end extended downwardly on the exterior of the chamber to form a spout

for discharging the contents of the bottle, a manually controlled valve arranged to the conduit, a valve chamber arranged directly above the gas chamber and having a port placing the valve chamber in communication with the gas chamber, a pipe extending from the valve chamber through the gas chamber and into the bottle neck for



introducing pressure gas to the bottle, a spring pressed diaphragm arranged in the valve chamber, and a valve head in operative connection with said diaphragm and normally closing said port, said diaphragm being adapted, when the pressure in the bottle falls, to press the valve head downwardly and open the port to permit pressure gas to pass from the gas chamber to said valve chamber.

1,305,755. NEW MEANS AND SYSTEM OF HEATING. AARON TURNER, Springfield, Mass. Filed Feb. 14, 1918. Serial No. 217,100. 8 Claims. (Cl. 126-106.)



1. The combination, in a heating appliance, with an inclosure provided with a heat conduit, of a heating drum supported in said inclosure and comprising inner and outer shells both open at the top, the inner shell closed at the bottom, and the outer shell open at the bottom, means to introduce air from a point in said inclosure which is below the level of the open bottom of said outer shell into the interior of said inner shell onto the bottom thereof, said means being provided at its discharge end with a deflector member, and means to apply heat to said drum at the bottom.

1,305,756. CAN. FRANK J. TONE and EDMUND S. SMITH, Niagara Falls, N. Y., assignors to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed Sept. 25, 1917. Serial No. 193,090. 8 Claims. (Cl. 220-22.)

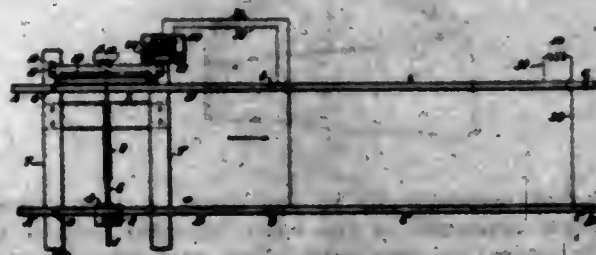
2. A can having a plurality of separate compartments, comprising top, bottom and body members, the top and bottom members being secured to the body member by

clenched seams, and a partition separating one compartment from the other extending from the top member



to the bottom member and formed integrally with one of said members; substantially as described.

1,305,757. TRAIN-CONTROL SYSTEM. LEWIS R. WALLACE, Waltham, Mass., assignor to Nevins-Wallace Train Control Company, a Corporation of Massachusetts. Filed July 15, 1912. Serial No. 700,346. 24 Claims. (Cl. 246-202.)



9. A device of the class described comprising a moving member normally positioned over a track, a wheel engaging member, and an operative connection between said moving member and said wheel engaging member for removing it from the track as a wheel passes and returning it immediately upon the passage of the wheel.

1,305,758. AIR-PUMP. ROBERT WARNOCK, Bloomfield, N. J., assignor to Empire Cream Separator Company, Bloomfield, N. J., a Corporation of New Jersey. Filed June 21, 1916. Serial No. 165,014. 5 Claims. (Cl. 230-27.)



1. In an air pump, the combination of a cylinder, piston, connecting rod crank and a crank case in which said crank operates, said crank case being closed at the bottom to provide a lubricant reservoir, the exhaust from said cylinder taking place into said crank case.

1,305,759. SELF-ADJUSTING GRINDER. ADOLPH J. WERNETTE, Los Angeles, Calif., assignor of one-half to Rex R. Farrar and one-half to Annie E. Wernette, Los Angeles, Calif. Filed Jan. 24, 1919. Serial No. 272,901. 1 Claim. (Cl. 51-1.)

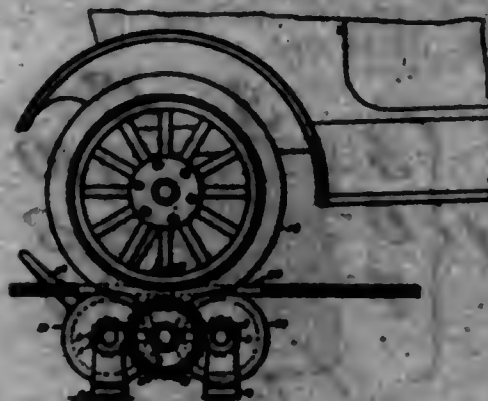
A self-adjusting grinder comprising a casing adapted to be projected into the opening to be ground; a flange

on said casing adapted to project across the opening to be ground; a casing projecting outwardly from said flange centrally thereof; a plunger slidably mounted in said last casing adapted to be projected into said first casing; a slot in said outwardly projecting casing; a pin in said plunger projecting into said slot; a spring in said casing coiled around said plunger between said pin and the outer end of said casing adapted to cause said



plunger to slide longitudinally; a flange on the inner end of said plunger provided with a plurality of T-shaped slots open at their smaller ends; a plurality of radially extending grinders slidably mounted in said first casing having their inner ends of a shape to fit said T-shaped slots, said ends extending downwardly and inwardly at an angle, whereby said grinders are expanded or contracted by the movement of said flange and plunger.

1,305,760. POWER-TRANSMISSION MECHANISM. JOHN J. WITTLINSON, Detroit, Mich. Filed Oct. 19, 1918. Serial No. 258,786. 2 Claims. (Cl. 74-100.)



1. In a power transmitting mechanism, the combination with a wheel grooved to have frictional engagement with a vehicle drive wheel and a pulley driven by said grooved wheel, of a pivoted hooked arm for engagement with the axle of a motor vehicle to maintain a wheel of said axle engaged with said grooved wheel, and means for first swinging said arm into contact with said axle and then shifting the arm longitudinally to engage the hook thereof with the axle.

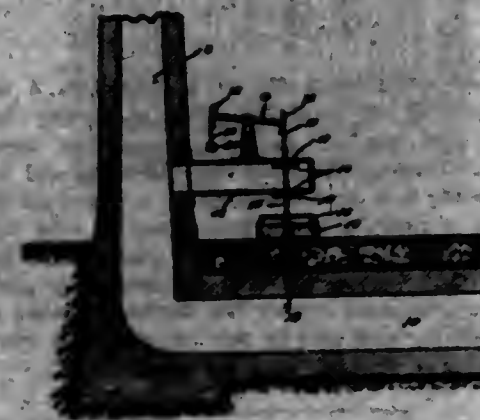
1,305,761. VEHICLE-WHEEL. ALVA WINSALL WOODWARD, Akron, Ohio. Filed Nov. 22, 1918. Serial No. 262,568. 2 Claims. (Cl. 182-28.)



1. In a vehicle wheel an outer member having apertures and a central opening, there being an apertured web or

tending between the apertures, and each spoke having oppositely disposed seats resident in planes at right angles to that of the wheel; a hub having flanges, one on each side of the wheel and having each an annular series of indentations, those on the one flange being situated opposite those of the other; a series of blocks shaped to receive at each side thereof the indentations of the corresponding flanges and being secured in connection therewith, said blocks having also opposite seats resident in planes respectively parallel with those on the adjacent spokes; and a series of resilient members interposed in said seats between the adjacent spokes and blocks.

1,305,762. FLUID-STREAM-PRESSURE GOVERNOR. WILLIAM H. WRIGHT, Indianapolis, Ind. Filed May 9, 1917. Serial No. 167,822. 7 Claims. (Cl. 236-2.)



1. In combination, a conduit carrying a fluid stream and provided with a bleed opening communicating therewith, a balanced valve controlling said bleed opening, a gas holder the bell of which is connected to said balanced valve to operate it, the space beneath the bell of said gas holder being connected with said conduit, and means whereby the forces acting on such bell are substantially constant save for the variations in pressure beneath it.

1,305,763. PRESS-GUARD. EDMUND W. ZAN, Newark, N. J. Filed Apr. 29, 1918. Serial No. 94,284. 13 Claims. (Cl. 74-105.)



1. The combination with a press having a clutch and a guard, of two racks one for operating the clutch and the other for operating the guard, a pinion member adapted to transmit motion to both said racks, and means for causing said pinion member when moved in one direction to move the guard-operating rack until it stops and then move the clutch-operating rack.

1,305,764. MEANS FOR CONVERTING BASE-BURNER STOVES INTO SOFT-COAL HEATERS. PAUL J. AGWART, Chicago, Ill. Filed Dec. 5, 1918. Serial No. 265,330. 4 Claims. (Cl. 126-77.)



1. In combination with a stove having an opening in its top adapted to receive a magazine, and adapted to be converted from a base burner stove into a soft coal stove, of converting means of the character described, comprising a plate adapted to be secured on the open top of the stove, and having an escape opening for the products of combustion and an air vent, and an air tube secured to said plate and extending down from said air vent.

1,305,765. CAPPING-HEAD. ALBERT R. BETHEL, Baltimore, Md., assignor to The Buck Glass Company, Baltimore, Md., a Corporation of Maryland. Filed Mar. 27, 1919. Serial No. 285,556. 1 Claim. (Cl. 112-4.)

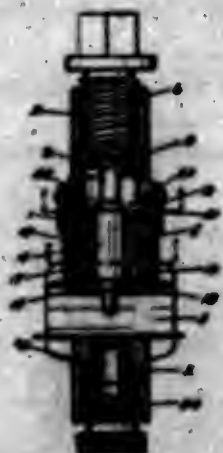


A bottle cap applicator comprising a hollow reciprocating head having an internal annular shoulder, an annular series of crimping balls inside the shouldered portion of the head, a carrier for the balls positioned inside the head, said carrier consisting of a top and an annular flange depending therefrom and of a diameter to admit the cap for engagement by the top, stems extending from the top of the carrier and having a sliding connection with the head, and springs interposed between the head and the carrier, said carrier flange having apertures in which the balls loosely seat, said balls being exposed on the outside of the flange for engagement by the aforesaid shoulder, and being free to move inwardly to project from the inside of the flange.

1,305,766. PUNCHING-MACHINE. LEWIS H. BULLARD, Kalamazoo, Mich. Filed Dec. 16, 1918. Serial No. 266,912. 9 Claims. (Cl. 164-101.)

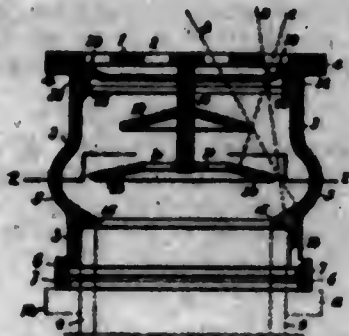
9. In a punching machine, the combination with a body, of a reciprocating punch, a coacting reciprocating strip

per, means for holding said stripper in work engaging position adapted to be released by the return movement of



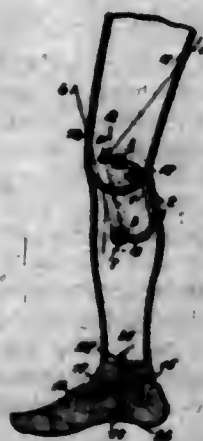
the punch, permitting the retraction of the stripper, and a return spring for said stripper.

1,305,767. VENT-BOX. WILLIAM W. BETHUNE and FRANK MONTAGUE, Philadelphia, Pa. Filed Mar. 29, 1919. Serial No. 296,070. 5 Claims. (Cl. 4-21.)



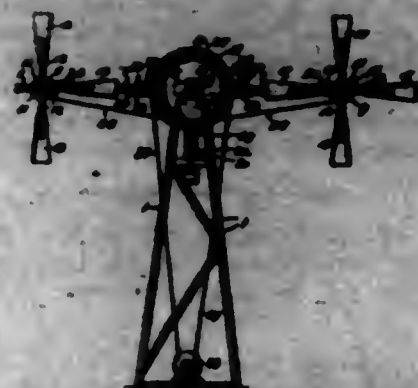
1. A vent box for drains comprising a casing, a cover having orifices formed therein, disks centrally located within the casing, said disks being of different diameters, the larger one of said disks having apertures formed therein located adjacent to the center thereof, the smaller one of said disks being larger in diameter than the said apertures formed in the larger disk to prevent a wire from passing through the said orifices formed in the cover and the said apertures formed in the larger disk, and a conical flange projecting inwardly from the casing.

1,305,768. ARTIFICIAL LIMB. GASTONE DE CATELAN CATELANI, Rome, Italy. Filed Apr. 16, 1918. Serial No. 228,832. 2 Claims. (Cl. 3-2.)



1. An artificial limb comprising a leg section, a rod mounted on the leg section, a thigh section pivoted to said rod, a bar fixed to the leg section and having the upper end thereof pivoted to the rod, a sleeve loosely fitted on the lower end of said rod, and a flexible member trained about such sleeve for actuating the leg section.

1,305,769. AIR-CIRCULATING DEVICE. NICHOLAS J. CAVAGNARO, Union Course, N. Y., assignor to CAVAGNARO, CAVAGNARO & AMBROSIO, Inc., a Corporation of New York. Filed July 1, 1918. Serial No. 242,879. 10 Claims. (Cl. 230-1.)

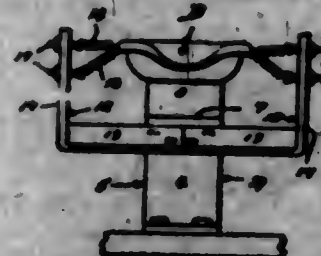


1. In an air circulating device, a pedestal, a bearing member supported by said pedestal, a rotary bushing journaled in said bearing member, transverse oppositely extending arms connected with the forward end of said bushing, a rotary fan device supported at the end of each of said arms, a driving shaft journaled in said bushing, a transmission pulley on the forward end of said shaft, a transmission belt driven by said transmission pulley in driving relation to said rotary fan devices, means for rotating said shaft, and means for imparting a revolving movement to said bushing and its arms.

1,305,770. FELT AND METHOD OF MAKING THE SAME. ALBERT L. CLAPP, Marblehead, Mass., assignor to Reginald W. Bird, Framingham, Mass. Filed Aug. 21, 1918. Serial No. 116,163. 5 Claims. (Cl. 92-21.)

1. As a new article of manufacture a porous flexible felt sheet adapted for a foundation for prepared roofing, consisting of a thorough and intimate admixture of rag fiber, and a composition of matter comprising essentially finely shredded leather fiber and a fine spacing material.

1,305,771. SPRING-SEAT. SHERRMAN W. CLARK, Wapato, Wash. Filed Oct. 22, 1918. Serial No. 359,239. 2 Claims. (Cl. 155-33.)



1. A spring seat comprising a relatively stationary frame including a main supporting bar, a vertically extending back portion formed on one end of the bar, side members formed as brackets secured to said bar, a plurality of springs connected with said back portion and said side members, and a seat proper disposed within said frame and connected with the other ends of said springs, the points of connection of certain of said springs with said back and side members being in different planes.

1,305,772. REFRIGERATOR-CAR. JAMES M. COLEMAN, Westmount, Quebec, Canada, assignor of one-half to Karl F. Nystrom, St. Lambert, Montreal, Quebec, Canada. Filed Sept. 30, 1916. Serial No. 122,970. 1 Claim. (Cl. 62-19.)

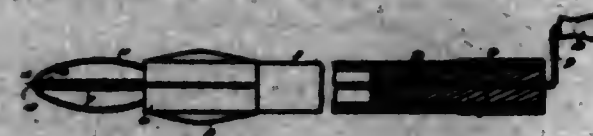
In a refrigerator car, a collapsible ice box, said ice box having a back wall formed of corrugated sheet metal and spaced from the inner face of the end wall of the car to thereby provide a vertical air passage, said box having

also side and front walls formed of corrugated sheet metal, the side walls being spaced from the inner face of the side walls of the car to also provide vertical air passages, studding located at spaced intervals on the outer sides of said side walls and attached thereto, said



side walls of the box being movable to a position paralleling the end wall of the car when the ice box is collapsed, said front wall of the box being also shiftable back and forth and relatively to said rear wall of the box, and means for holding said front wall in either its extended or retracted position.

1,305,773. EXTRACTOR FOR OBSTRUCTED ESOPHAGUS. WILLIAM HENRY CORRY, Newport, Me. Filed Mar. 22, 1918. Serial No. 223,954. 5 Claims. (Cl. 128-354.)



1. A device of the character described including a flexible tubular casing, and rotatable cutting means normally arranged in one end of said casing but capable of moving outwardly therefrom upon rotation.

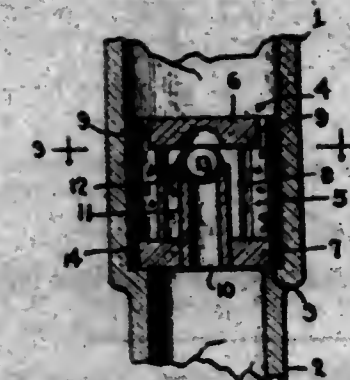
1,305,774. SCUDDING ATTACHMENT TO FELT AND HIDE WASHING OR BATING MACHINES. WILLIAM COX, Petone, Wellington, New Zealand. Filed Sept. 8, 1917. Serial No. 169,720. 3 Claims. (Cl. 149-8.)



1. Attachment for felt and hide washing machines, comprising a bar arranged longitudinally of the machine adjacent to and parallel with the rotating "dolly"

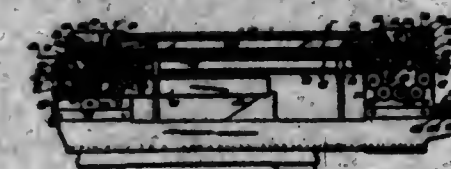
or beaters, such bar being formed with one or more scraping edges along its bottom, substantially as and for the purposes herein specified.

1,305,775. NON-REFILLABLE BOTTLE. WILLIAM D. CHALKER, Glencara Warra, Queensland, Australia. Filed Jan. 19, 1918. Serial No. 212,709. 1 Claim. (Cl. 215-65.)



The combination with a bottle neck, of a casting therein provided with a recess passing entirely through the same from one side to the other and leaving a top and bottom and a pair of sides, said top having notches in its side edges communicating with said recess and a central depression on its under face, said bottom having a central hole therein, a tube fitting in said hole and having its upper end located a slight distance below the depression and a ball valve normally closing the top of the tube and adapted to enter said depression when the bottle is tilted.

1,305,776. MULTIPLE-LENGTH SERIES-DELIVERY TAPE-MOISTENING MACHINE. CHARLES H. CHORLEY, Brooklyn, N. Y. Filed Feb. 8, 1917. Serial No. 147,824. 26 Claims. (Cl. 91-14.5.)

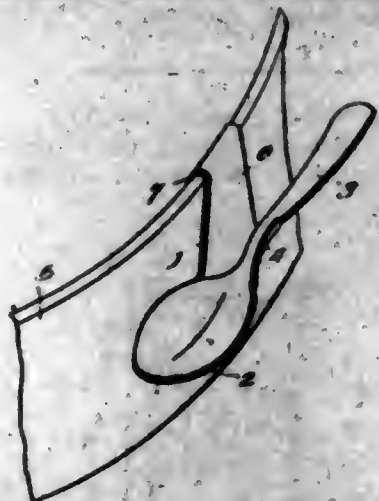


1. In tape moistening machines, feed rolls to engage and feed forward a strip of gummed tape, cutter devices to intermittently engage and sever the tape into lengths, delivery belts to receive and carry forward the severed strips and moving at a slightly greater surface speed than said feed rolls and tape moistening devices cooperating with the discharge end of said delivery belts and operating at several times the surface speed of said belts to moisten the severed strips and cutter actuating devices comprising a one revolution stop motion clutch and a connected cut-off cam positively geared to the feeding or delivering elements of the machine and having a series of spaced cam operating members arranged at different spaced intervals around the cam to periodically actuate said cutter devices and sever the tape into recurring series each comprising strips of different lengths.

1,305,777. KITCHEN AND TABLE ARTICLE. ALBINA J. CUNNINGHAM, Bridgewater, Mass. Filed June 12, 1917. Serial No. 174,251. 1 Claim. (Cl. 95-65.)

As a new article of manufacture a holder of the class described initially substantially in L-shape with one arm folded to form a supporting hook and the other arm pressed into bowl shape and with the juncture of the arms bent into trough shape, the hooked portion adapted

to engage over the edge of a dish, the bowl shaped portion adapted to receive the bowl of the spoon, and the



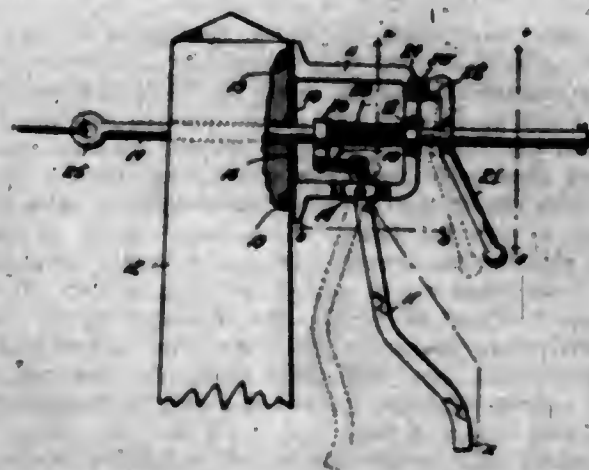
trough shaped portion adapted to receive the handle of the spoon.

1,305,778. PRINTING-MACHINE. JOHN G. CUSHING, Los Angeles, and FRED C. MUNRO, Long Beach, Calif. Filed July 15, 1916. Serial No. 109,482. 5 Claims. (Cl. 101-209.)



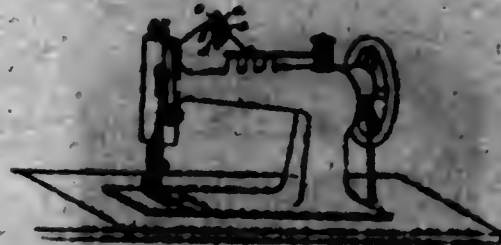
1. In a printing machine, the combination with a type bed, a reciprocating carriage mounted to move over the type bed, ink means carried by the carriage, impression means carried by the carriage, means permitting the alternate movement of the impression means and ink means into operative position, and a spring arranged to yieldably hold either the impression means or the ink means in operative position at all times.

1,305,779. WIRE-STRETCHER. LEWIS EDWIN DANNER, Catasauqua, Pa. Filed July 6, 1918. Serial No. 243,008. 1 Claim. (Cl. 254-86.)



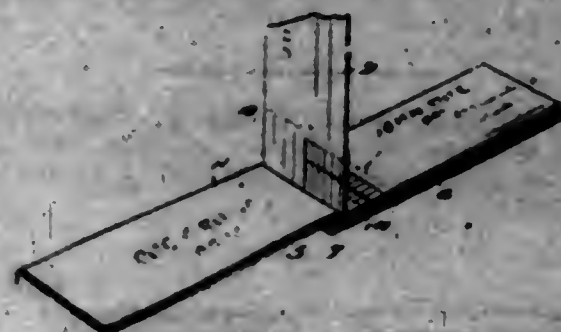
A stretching apparatus having a bracket provided with a bearing base and arch, the former of which is adapted for contact with an upright supporting surface, a tension rod arranged in horizontally registering openings in said base and arch, and operating and retaining clutches having jaws engaging said tension rod, an operating lever fulcrumed upon the arch and having a link connection with the operating clutch, the retaining clutch having a pivotal and sliding connection with the arch, and a spring for actuating the operating clutch interposed between the latter and the arch.

1,305,780. TENSION-TESTING DEVICE FOR SEWING-MACHINE THREADS. CHARLES F. DILKE, Bridgeton, N. J., assignor of one-half to I. W. Goldberg, Bridgeton, N. J. Filed Oct. 2, 1917. Serial No. 184,878. 2 Claims. (Cl. 248-68.)



1. An improved thread tension testing device consisting of a relatively thin flat plate fashioned with a segment at one end; said segment being provided with a scale, and a separate spring tensioned arm secured to the end portion of the plate opposite to said segment, the point of attachment of the spring tensioned arm being substantially the center from which the segment is struck, said spring tensioned arm being normally inclined relatively to the inclined side of the plate and having an open hook to readily receive the thread.

1,305,781. CHECK-BOOK. THOMAS J. DONNELLY, Jumboldt, Pa. Filed Feb. 18, 1919. Serial No. 277,840. 1 Claim. (Cl. 281-3.)



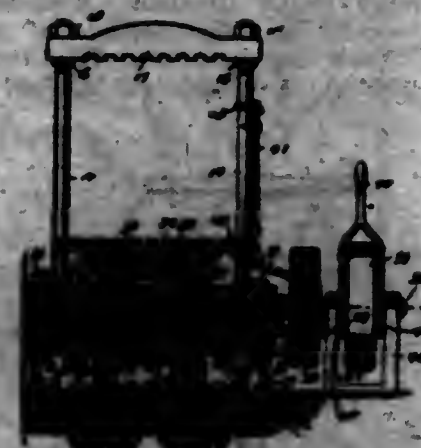
A check book including a front and back cover, stubs and checks carried by the stubs bound in said book, strips of absorbent material secured to the backs of the stubs, a strip of absorbent material secured to the inner surface of the front, and a supplementary strip of absorbent material bound between the checks.

1,305,782. REINFORCED SHOE. ALFRED DRYLINS, Maurer township, Middlesex county, N. J., assignor of twenty-five one-hundredths to William C. Leach, Stamford, Conn. Filed Oct. 28, 1918. Serial No. 260,001. 4 Claims. (Cl. 36-9.)



1. In a shoe, an upper formed of a plurality of thicknesses of material, the outer thickness comprising a layer formed of fiber and of wire, the fiber and wire being interwoven, and a sole and heel for the shoe, certain of the layers of said sole and heel being reinforced with wire.

1,305,783. GIN-COMPRESS. SAMUEL H. DUNLAP, Etna, Tex. Filed Apr. 2, 1917. Serial No. 189,887. Renewed Oct. 22, 1918. Serial No. 250,390. 4 Claims. (Cl. 100-8.)



1. In a device of the class described, a framework, a follower operating therein, a screw for operating the follower, a shaft, and means carried thereby for operating the screw, and a speed changing and reversing device for controlling the shaft, said device last named including a plurality of pinions adapted to mesh with each other at times, a toothed member adapted to mesh with one of the pinions at times, and means for changing the position of one of the pinions with reference to the other, said means last named including a lever pivotally mounted at one end thereof, a laterally extending device carried by the lever and including a cam slot positioned between the fulcrum of the lever and the handle thereof, said slot controlling the position of one of the pinions, and adjustable means operated from the follower, and having connection with said lever near the fulcrum thereof.

1,305,784. HAY-PRESS. BERN T. EDMONSON, Coyle, Okla. Filed Aug. 14, 1918. Serial No. 240,756. 5 Claims. (Cl. 100-24.)

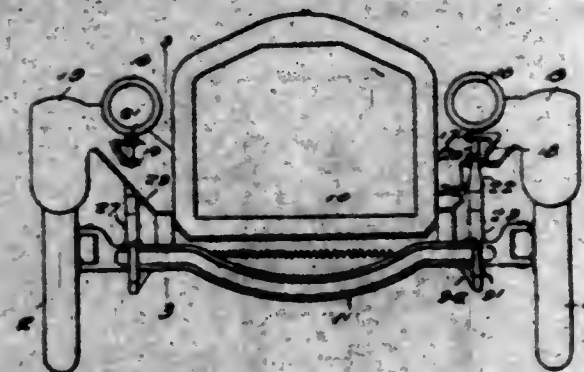


1. In a hay press, a press-chamber having an opening for a division-block, holding means carried by the press-chamber, said holding means being arranged to allow free entering movement of the division-block and to positively retard outward movement of said division-block.

1,305,785. DIRIGIBLE AUTOMOBILE-HEADLIGHT. HENRY HOCHMANN, Argyle, Wis. Filed June 28, 1918. Serial No. 242,804. 2 Claims. (Cl. 240-62.)

1. In combination with a vehicle including a front axle, wheels connected therewith, steering arms connected with the wheels and a rod connecting the arms, headlight supporting brackets pivotally supported upon the vehicle, laterally directed crank arms carried by the brackets, means loosely connecting the arms with the rod whereby the

latter is permitted limited movement with relation to the arms, and spring means connecting the bracket arms with



the steering arms to yieldably take up the relative movement between the arms.

1,305,786. AUTOMOBILE-LOCK. WILLIAM T. ESTERB, Camden, N. J. Filed Feb. 19, 1919. Serial No. 278,100. 3 Claims. (Cl. 70-90.)



1. An automobile lock, which comprises in combination:—a casing,—a lock within said casing,—a bolt formed with a polygonal head and a projecting end and reciprocable within the casing under the control of the lock,—a steering column having said casing attached thereto,—a cylindric steering rod within said column formed with a bolt seat in range of the end of the bolt,—and a tubular sleeve passing through said column and having an externally slotted collar at one end adapted to fit over the bolt head and a concavity at the other end adapted to fit over and contact with the cylindric exterior of the steering rod in proximity to said seat whereby said bolt end is guided at all times with respect to its seat,—and a helical spring within the tubular bore of the sleeve and abutting between a shoulder within said bore and the bolt head, said spring tending to normally unseat said bolt from its seat.

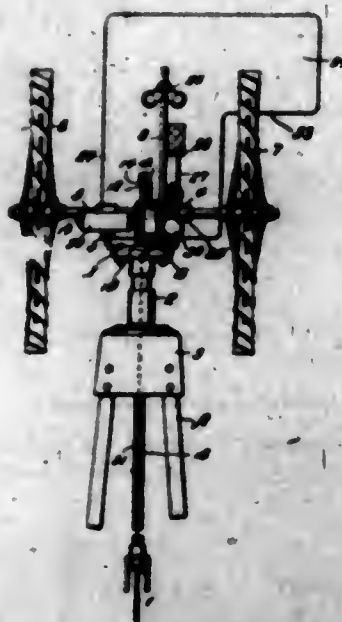
1,305,787. TREATMENT OF ELECTROLYTIC SLIMES. WILLIAM C. FRACUSON, Garden City, N. Y., assignor to Nichols Copper Company, New York, N. Y., a Corporation of New York. Filed Sept. 29, 1915. Serial No. 53,178. Renewed Oct. 26, 1918. Serial No. 259,852. 10 Claims. (Cl. 75-18.)

1. The herein described process of treating electrolytic copper refinery slimes containing silver, but not containing material quantities of sulfur which comprises roasting the same in the presence of an added sulfatizing agent, until at least the major part of the silver is converted to silver sulfate, and thereafter leaching the roasted material.

1,305,788. TREATMENT OF ELECTROLYTIC SLIMES. WILLIAM C. FRACUSON, Garden City, N. Y., assignor to Nichols Copper Company, New York, N. Y., a Corporation of New York. Filed Nov. 19, 1918. Serial No. 268,127. 4 Claims. (Cl. 75-18.)

1. The herein described process of treating electrolytic slimes which comprises subjecting such slimes to a roasting operation in the presence of a sulfatizing agent at such a temperature and with such a proportion of sulfatizing agent that substantially all of the silver and as little as possible of the copper are converted into sulfates.

1,305,789. WINDMILL. CLARENCE E. FLINCHBAUGH, Lima, Ohio. Filed Apr. 29, 1918. Serial No. 231,483. 2 Claims. (Cl. 170—39.)

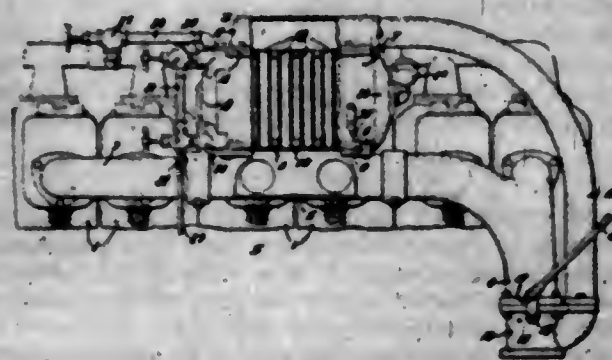


1. In a windmill, a main rotary wind wheel shaft, a bearing yoke in which said shaft is journaled adapted to turn on a vertical axis, front and rear wind wheels fast on said shaft at opposite sides of the vertical axis of movement of said yoke and arranged in spaced relation to each other, a reciprocating pump rod geared to said shaft and actuated thereby, a substantially vertical rudder post connected with said yoke, a rudder mounted for turning movement on said rudder post, and a weighted governor lever connected with said rudder, said rudder being substantially L-shaped in elevation to provide a portion which overhangs the rear wind wheel and provides clearance therefor.

1,305,790. MANUFACTURE OF RESINOUS PRODUCTS. CHARLES N. FOSBERT, Rahway, and JOSEPH V. MAISON, Perth Amboy, N. J., assignors to The Barber Asphalt Paving Company, Philadelphia, Pa., a Corporation of West Virginia. Filed Dec. 31, 1917. Serial No. 209,704. 4 Claims. (Cl. 124—26.)

4. A balsamic or resinous material resulting from the reaction of nitric acid or oxides of nitrogen derived therefrom upon the unsaturated and reactive distillates of native bitumens, characterized by being soluble in alcohol and acetone, but insoluble in petroleum ether or carbon disulfide.

1,305,791. WATER-HEATER FOR AUTO FIRE-ENGINES. CHARLES H. FOX, Cincinnati, Ohio. Filed Sept. 23, 1918. Serial No. 255,340. 3 Claims. (Cl. 90—31.)



1. The combination with an internal combustion engine, an exhaust manifold connecting with the respective cylinders of the engine, and a boiler comprising a horizontal barrel, having a series of vertical tubes extended there-

through at one end in communication with said manifold, and a slidable valve plate for controlling the communication of all of said tubes with the said manifold.

1,305,792. POST-HOLE DIGGER. RICHARD CLAYTON FRASER, Central City, Colo., assignor of one-third to William R. Fraser, Durango, Colo. Filed Oct. 15, 1918. Serial No. 259,769. 4 Claims. (Cl. 255—67.)



1. An earth boring tool comprising a cylindrical shell open at its top and having its lower edge forming a helix of one turn with a straight longitudinal lip connecting the terminals of the helical edge and forming a vertical cutter of that part of the shell; a sleeve attached to the upper end of the shell and coaxial therewith; a center rod on which the sleeve is slidable without rotation; and an integral, multiturn helical cutter attached to the lower end of the rod, the pitch of the helix being coordinate with that of the end of the shell so that the first turn forms a bottom for the shell while the upper portion of the helix projects well up into the shell to facilitate cutting and carrying of soil; the helix having a leading radial cutting edge; and means for holding the bottom edge of the shell.

1,305,793. GLASS. HENRY PHILIPS GAGE and WILLIAM CHITTENDEN TAYLOR, Corning, N. Y., assignors to Corning Glass Works, Corning, N. Y., a Corporation of New York. Filed May 28, 1918. Serial No. 237,109. 10 Claims. (Cl. 106—361.)

1. A glass containing nickel oxide and substantially free from lead oxide, lime and magnesia.

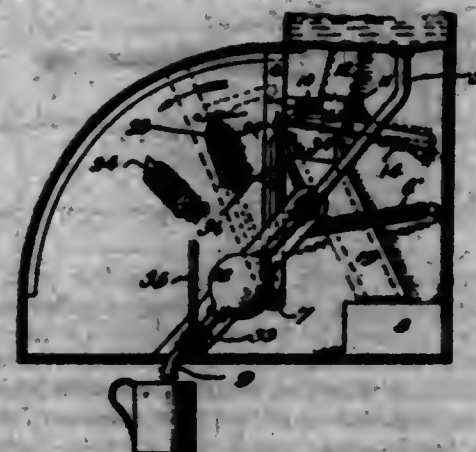
1,305,794. GLASS. HENRY PHILIPS GAGE and WILLIAM CHITTENDEN TAYLOR, Corning, N. Y., assignors to Corning Glass Works, Corning, N. Y., a Corporation of New York. Original application filed May 28, 1918, Serial No. 237,109. Divided and this application filed Oct. 14, 1918. Serial No. 259,098. 3 Claims. (Cl. 106—361.)

3. A glass essentially consisting of an alkali-silicate colored with oxide of nickel.

1,305,795. VENDING-MACHINE. FREDERICK J. GAMRAN, Monroe, Nebr. Filed Mar. 19, 1918. Serial No. 223,417. 3 Claims. (Cl. 221—110.)

1. In a machine of the type described, the combination with a pivoted main lever standing normally upright and having a rib on one side, and check-released mechanism for locking it in this position; of rocking elements at

opposite sides of said lever, fingers thereon between which said rib moves, and a spring bearing the upper



finger normally downward and the lower finger normally upward.

1,305,796. BEARING FOR CENTRIFUGAL MACHINES. LESTER - GRISCOM, Philadelphia, Pa., assignor to Fletcher Works, Incorporated, a Corporation of Pennsylvania. Filed Apr. 13, 1916. Serial No. 99,822. 13 Claims. (Cl. 64—36.)



1. A centrifugal machine comprising in combination a basket, a hollow upright member or standard, a shaft carried in said standard, upon which shaft said basket is mounted, a radial roller bearing between the shaft and the upper end of the standard, a thrust bearing between the shaft and said standard, and a radial roller bearing between the exterior of said standard and a member which is on or secured to the shaft.

1,305,797. SCHOOL-BAG. CHARLES F. HENDERSON, Madisonville, Ohio, assignor to The Kemper-Thomas Company, Norwood, Ohio, a Corporation of New Jersey. Filed Nov. 23, 1916. Serial No. 132,983. 1 Claim. (Cl. 224—47.)

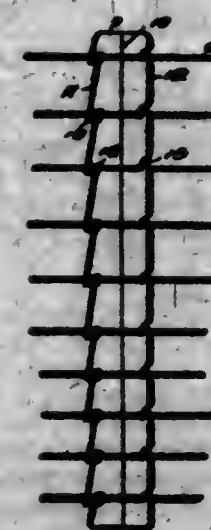
A school bag made from a single piece of suitable material folded on itself, with a binding strip to bind the side edges together to form a bag open at the top, in combination with a strip of similar material folded on itself to form a pocket of less depth than the depth of the bag with the rear wall of the pocket folded over to form a

cover flap, and a binding strip for the top edge of the bag, with the stitches therefor securing the upper edge of the



pocket portion at the fold of the cover flap to the upper edge of the bag on the inside, whereby the pocket portion may be readily and easily secured in place.

1,305,798. WIRE-TIGHTENING DEVICE. ORTO HANSEN, Canton, Ohio. Filed Feb. 28, 1918. Serial No. 219,635. 1 Claim. (Cl. 256—53.)



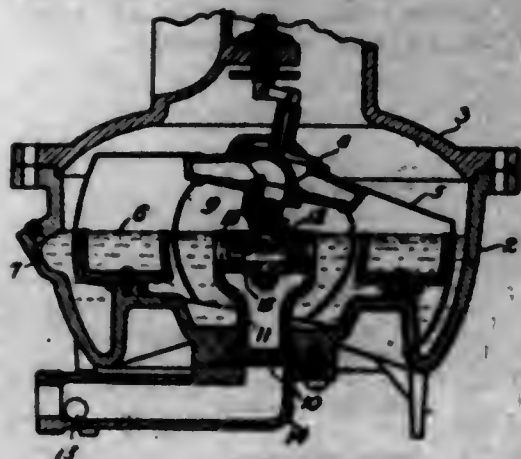
A wire tightening member formed from a single piece of metal including a plate-like body bent transversely of its length to provide angularly disposed flanges, a plurality of wire engaging hooks struck out from the outer side edge of the one of the flanges leaving wire receiving recesses, the hooks extending downwardly and being offset from the plane of the flange, the other of the flanges being provided with a plurality of inwardly and downwardly curved wire receiving recesses at its free side edge, the portions of the flange between the outer walls of the recesses and the outer edge forming upturned wire engaging hooks, the first mentioned hooks being adapted to engage the wire when the flange is disposed at a predetermined angle thereto so that the wire will lie in the first mentioned recesses, the plate being then twisted or turned whereby the wire is bent and thereby pulled or stretched, and the wire being finally adapted for engagement with the inwardly and downwardly curved recesses behind the upturned hooks.

1,305,799. PICKER-STICK CHECK FOR LOOMS. JOHN W. HENBERT and JAMES A. ANDREWS, Biddford, Me. Filed Aug. 16, 1918. Serial No. 250,106. 3 Claims. (Cl. 139-22.)



2. A picker stick check comprising a bracket part having vertically spaced horizontal flanges extending outwardly to form a strap guide, an endless strap passed therethrough, a spring actuated clamp arranged within the guide and operable to clamp the strap when moved outwardly and to release the strap when moved inwardly, and a second bracket part spaced from the first part and having spaced arms straddling the strap to bind thereon when engaged by the stick in its outward movement, and means adjustably spacing the arms more or less apart to vary the frictional binding thereof on the strap.

1,305,800. WET-GAS METER. ABRAHAM G. HOLMES, Pittsburgh, Pa. Filed June 30, 1917. Serial No. 177,880. 1 Claim. (Cl. 73-1.)



In combination in a wet gas meter, a measuring drum located in the liquid seal chamber of the said meter and provided with a universal bearing, a pedestal provided with a seat for the bearing adapted to support the bearing beneath the normal level of the sealing liquid in the said chamber and provided with a gas passage communicating with the gas inlet and terminating in a plurality of spaced nozzles surrounding the bearing and projecting upwardly through the liquid and opening into the measuring drum at the normal level of the liquid, whereby gas may be delivered therethrough to the interior of the drum and liquid drained therefrom when the quantity becomes excessive, the said nozzles being so spaced that liquid is free to pass between them to the said bearing.

1,305,801. METHOD OF MAKING PNEUMATIC TIRES. EMMETT HOPKINSON, New York, N. Y. Filed Oct. 12, 1917. Serial No. 196,133. 10 Claims. (Cl. 18-56.)

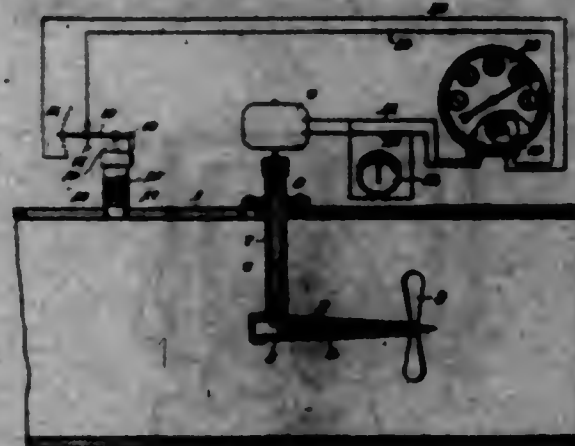
1. The method of making a tire casing which comprises forming the casing with an opening along its inner circumference wider than the finished casing, closing the opening and placing a quantity of mobile material in the cavity of the casing sufficient to afford an internal support for the finished casing, thereafter bringing the edge portions to their final tire positions, and finally vulcanizing.

1,305,802. WAREHOUSE-CRANE. GEORGE H. HOLLETT, Cleveland, Ohio. Filed Oct. 10, 1918. Serial No. 257,506. 2 Claims. (Cl. 214-14.)



1. In a warehouse plant, the combination of a house having openings through which a crane member may be projected so as to handle freight outside of the house, runways within the house, the said runways being elevated to permit of free access to and from said main floor under them, a crane mounted on said runways, one end of said crane terminating within the house adjacent the side having openings therein, a boom telescoping with said end and adapted to be projected through said openings, and a trolley adapted to travel on the crane bridge and also on the boom.

1,305,803. FLUID-METER. BATES LAWIN, Brooklyn, N. Y. Filed Oct. 17, 1918. Serial No. 126,171. 4 Claims. (Cl. 73-107.)



1. A fluid meter comprising a propeller, an electric generator mechanically driven thereby, a rheostat, an electro-responsive device electrically connected with said generator and rheostat, and means responsive to the pressure of the fluid being measured for governing said rheostat.

1,305,804. MOTION-PICTURE MACHINE. CHARLES FRANCIS JENKINS, Washington, D. C. Filed July 17, 1918. Serial No. 245,418. 8 Claims. (Cl. 88-17.)



2. The combination with a film chamber having above a narrow opening for the outward and inward passage of film, of a roller mounted in position to separate outgoing from incoming film, and two other rollers mounted to swing about axes above their central line against opposite sides of the roller first mentioned.

1,305,805. PIPE-JACK. JAMES H. JAMES, Etowah, Tenn. Filed Jan. 20, 1919. Serial No. 374,119. 2 Claims. (Cl. 254-100.)

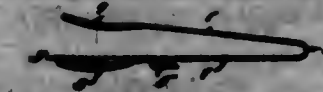
1. A pipe jack of the character described including a sectional attaching and supporting clamping bracket, a tubular receiving body formed thereon, an interiorly

threaded sleeve member arranged in the tubular body, a head on one end of said sleeve member and designed for abutting engagement with one end of the body and also provided with a plurality of sockets, a screw member op-



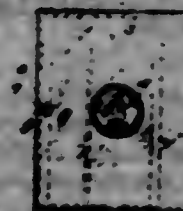
eratively arranged in said sleeve member, one end of the screw member being provided with a socket, a pointed head having a stem swiveled in said socket, and another head integral with the opposite end of the screw member and provided with a plurality of sockets.

1,305,806. FRUIT-SQUEEZING TONGS. GEORGE C. KAPPLER, West Baden, Ind., assignor of one-half to Theodore Dixon, West Baden, Ind. Filed Sept. 12, 1917. Serial No. 190,873. 2 Claims. (Cl. 100-41.)



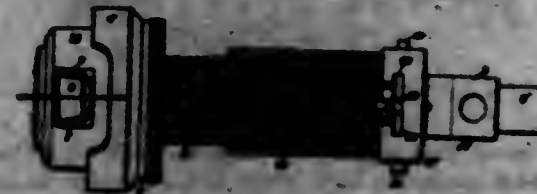
1. A fruit squeezer consisting of a single piece of metal bent to form U-shaped tongs having a spring bow, the arms of said tongs terminating in jaws dished in a corresponding direction so that the convex side of one jaw will enter the concavity of the second jaw.

1,305,807. TOY CAMERA. ALVA L. KENN, Mount Gilead, Ohio. Filed May 18, 1918. Serial No. 234,146. 6 Claims. (Cl. 46-37.)



2. In a toy camera, a casing having openings in the opposite ends thereof, and a drum rotatably mounted in the casing having a series of pictures thereon successively movable into exposed position behind one of the openings, a portion of the drum lying laterally of the pictures being disposed adjacent the other opening whereby the drum may be adjusted to successively bring the pictures to the position behind the first mentioned opening.

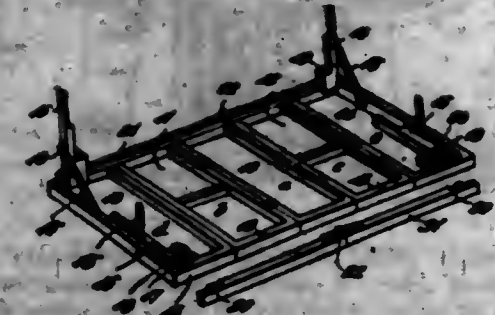
1,305,808. EXPANDER. FREDERICK E. KEY, St. Louis, Mo. Filed Mar. 22, 1917. Serial No. 154,620. 3 Claims. (Cl. 153-82.)



1. In an expander, rotatable pressure roller arranged to engage the inner face of the article to be expanded, a rotatable spreader pin having a tapered portion which lies between and engages said pressure roller, a feeder including an externally threaded tube surrounding said spreader pin, an internally threaded sleeve fitted to said

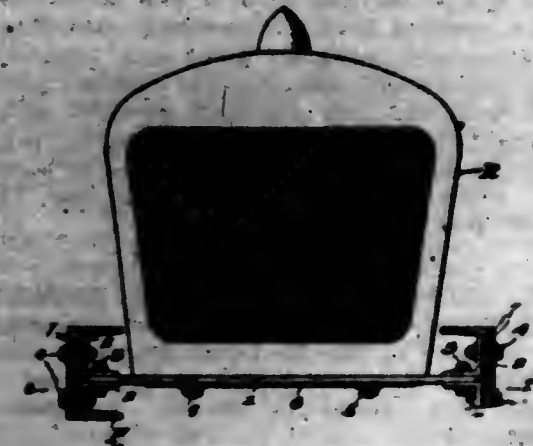
externally threaded tube, said internally threaded sleeve having an internal flange at its outer end, a collar formed on said spreader pin and located within said internally threaded sleeve at a point adjacent to said internal flange, a power transmission collar fixed to said spreader pin and located adjacent to said internal flange, a spring pressed power transmission pin slidably mounted in said power transmission collar and arranged parallel with the axis of the spreader pin, said internal flange having a notch for the reception of the slidable power transmission pin, the latter being movable in a direction parallel with said axis of the spreader pin so as to move into and out of said notch, and a latch device for retaining said power transmission pin in an inoperative position to allow the spreader pin to turn the pressure roller without forcing them away from each other.

1,305,809. TABLE. JOHN A. KIRWAN, Emporia, Kans. Filed Nov. 12, 1917. Serial No. 201,547. Renewed Oct. 29, 1918. Serial No. 266,174. 1 Claim. (Cl. 45-116.)



A device of the character described comprising a plurality of sections hingedly connected together and adapted to be folded one upon the other, each of said sections being provided with a compartment adapted to be closed by one of said sections; a plurality of legs hingedly connected to each of the end sections, and adapted to be folded into the compartment provided therein; tongues carried by said legs, said tongues being arranged longitudinally with respect to said legs and provided with lugs; supports having grooves provided in the ends thereof, said grooves being adapted to receive said tongues, a plurality of links pivoted to each of the end sections, said links being adapted to lock said legs in a perpendicular position with respect to the sections whereby said supports may be locked in position with respect to the ends of said sections to support said sections.

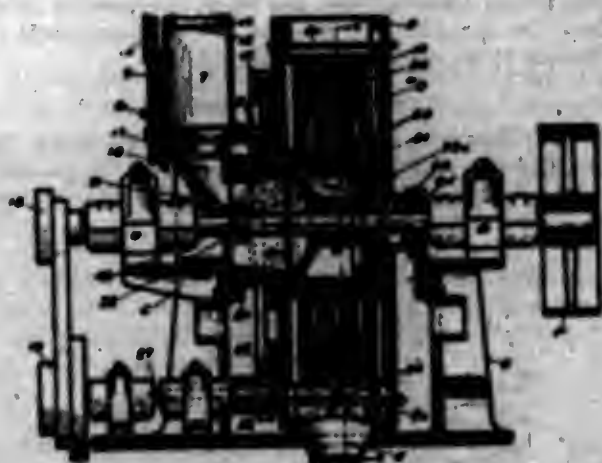
1,305,810. RADIATOR-SUPPORT. WILLIAM KRAFFE, Fall River, Mass., assignor to Capitol Motors Corporation, Fall River, Mass., a Corporation of Massachusetts. Filed June 6, 1918. Serial No. 238,420. 8 Claims. (Cl. 100-68.)



1. In combination with the frame of an automobile, a flexible strap, means to secure the radiator to the strap between the ends of the latter, a pair of substantially

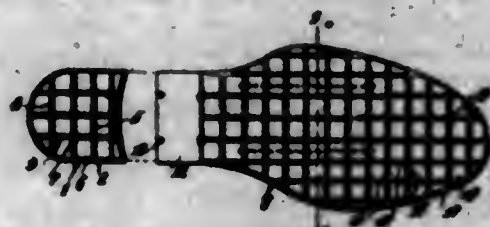
L-shape clamps for each end of the strap, said clamps having their horizontal arms engaged with opposite faces of the strap and secured thereto, means to secure the vertical arms of the clamps to the sides of the frame, and a series of shims interposed between said sides of the frame and the vertical arms of the clamps, to allow adjustment of the strap to maintain same taut.

1,305,811. HULLING-MACHINE. DAVID KRAUSS, Cleveland, Ohio. Filed Oct. 16, 1918. Serial No. 288,453. 4 Claims. (Cl. 82-37.)



1. A rotary huller comprising a set of rotary attrition disks spaced apart, a rotary drum inclosing said disks, and a set of laterally-spaced attrition segments projecting inwardly from the periphery of the drum and between said disks, said segments being also spaced apart at their ends, and the drum having valved discharge outlets in the spaces between said ends.

1,305,812. METAL AND RUBBER SHOE-SOLE. HENRY E. LAMBERT, Attalla, Ala. Filed Feb. 5, 1918. Serial No. 218,507. 2 Claims. (Cl. 36-18.)

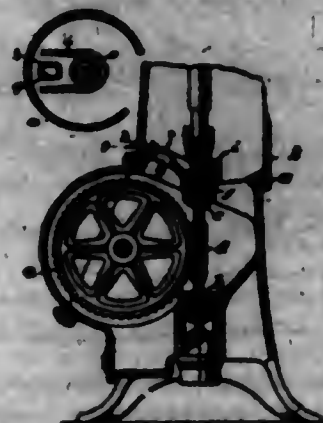


1. A shoe sole comprising a plurality of sections, each section being provided with a plurality of longitudinally and transversely extending rib portions for producing a plurality of rectangular cushion receiving pockets upon the under face of the sole, some of said transversely extending rib portions having transversely extending apertures provided with outwardly flared ends, retaining rods extending through said apertures and cushions positioned in said pockets, and said sole being provided with apertures at the junction of some of said longitudinally and transversely extending ribs for the purpose of permitting fasteners which attach the sole to the shoe to pass through the sole.

1,305,813. LUBRICATING MEANS FOR CENTRIFUGAL SEPARATORS. MERRITT LITCH, Poughkeepsie, N. Y., assignor to The De Laval Separator Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 22, 1918. Serial No. 224,088. 3 Claims. (Cl. 64-56.)

1. In a centrifugal separator, the combination of an upright shaft and a worm thereon, a horizontal shaft and a worm-wheel thereon meshing with the worm, upper and lower bearings for the upright shaft, and a member above

the worm wheel having an upper surface inclined toward and leading to the upper bearing and provided with an



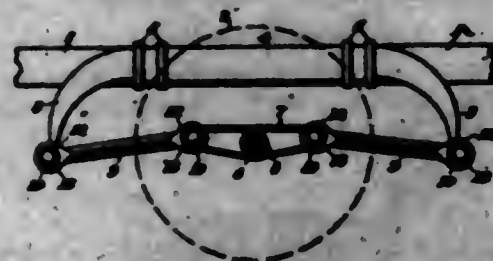
oil opening positioned in the plane of the worm-wheel and through which oil splashed by the worm wheel is delivered to said inclined surface.

1,305,814. ELECTRIC-ACCUMULATOR PLATE. HENRY LITHEM, Westminster, London, and WILLIAM HENRY EXLEY, Woking, England. Filed Dec. 10, 1918. Serial No. 266,982. 6 Claims. (Cl. 204-29.)



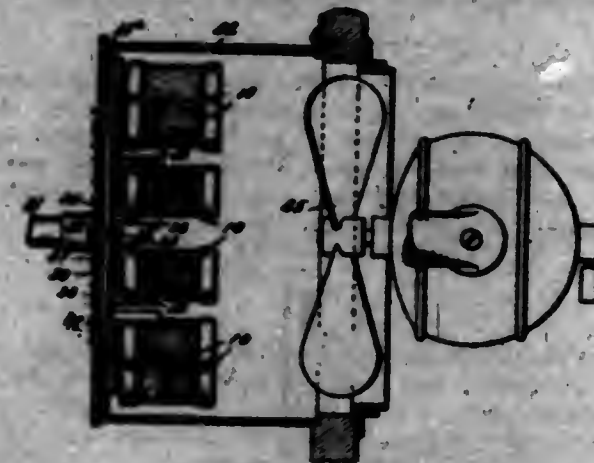
3. The combination with a grooved support having a space near its upper edge, of a collector bar located in one side of said support and carrying a plurality of conductors, one of said conductors extending down one side of the support, another conductor extending through the space at the upper edge of the support and extending down to the other side of the support, and active material surrounding said conductors.

1,305,815. PIVOT. BENJAMIN LISBOWITZ, New York, N. Y. Filed Aug. 2, 1917. Serial No. 184,006. 4 Claims. (Cl. 64-10.)



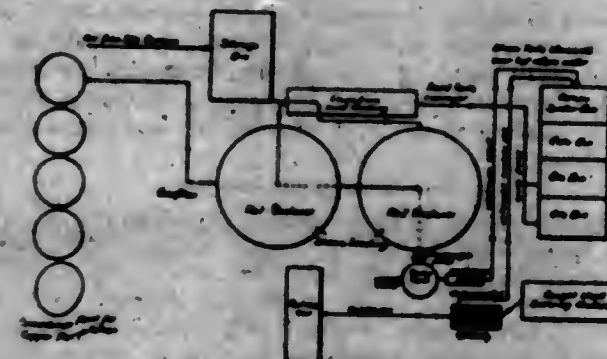
1. A pivot for connecting two relatively movable members which maintain said pivot continuously under load, comprising a pin secured to one member, and a bearing for the pin secured to the other member, the diameter of the bearing being larger than that of the pin and the ratio of said diameters being such that for a predetermined range of relative angular displacement of the members the pin and bearing have rolling contact and beyond said range sliding contact.

1,305,816. SPARK-GAP DEVICE. FRANK LOWENSTERN, Brooklyn, N. Y. Filed Aug. 23, 1914. Serial No. 353,400. 13 Claims. (Cl. 286-38.)



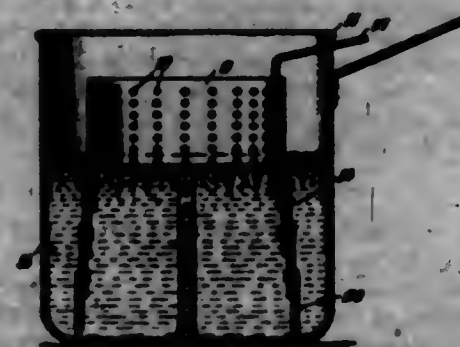
2. Quenched spark gap apparatus comprising a plurality of gap units electrically connected in series and so mounted that each of the units is individually removable independently of the others, in combination with switch means operable to include a variable number of said units effectively in circuit.

1,305,817. TREATING FINE ORES. DANIEL SHIELDS McAFEE, New York, N. Y., assignor to The Dorr Company, a Corporation of Delaware. Filed Aug. 16, 1918. Serial No. 250,126. 8 Claims. (Cl. 75-73.)



1. The herein described process of treating slimes or sludges encountered in metallurgical operations wherein fine ores are to be slanted which consists in adding the slimes to the hot product of a slanting machine to simultaneously dry the slimes and quench the said product.

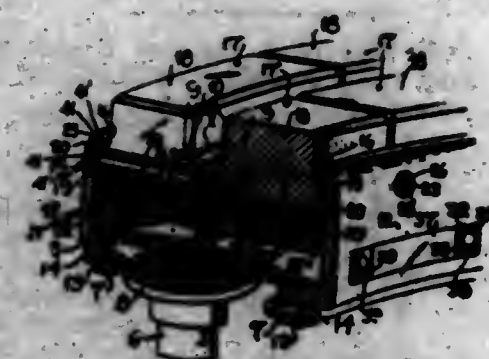
1,305,818. COOKING UTENSIL. JOHN McFARLAND, New York, N. Y., assignor of one-half to Charles M. Nixon, New York, N. Y. Filed Oct. 2, 1916. Serial No. 123,805. 1 Claim. (Cl. 82-1.)



In combination, a cooking utensil comprising an outer vessel having a notch formed in its rim, an inner vessel formed with a plurality of series of vertically spaced openings extending around the vessel, extensible supporting legs for the inner vessel to support the same upon the hot

bottom of the outer vessel and to position said inner vessel at various heights, a bent handle having one end provided with a vertical series of apertures and the other end extending through the notch of the outer vessel, and a bolt extending through one of the apertures of the handle and into one of the apertures of the inner vessel, whereby to permit the handle to be retained in the notch in different positions of said inner vessel.

1,305,819. TIRE FOR VEHICLE-WHEELS. ROBERT G. McMULLAN, Portland, Oreg. Filed Oct. 18, 1916. Serial No. 126,372. 1 Claim. (Cl. 182-9.)



A resilient tire for trucks including a channel-shaped rim, a series of tread blocks radially movable in the rim channel, resilient compressible cushioning means arranged between the tread blocks and the base of the channel, the outer face of the channel base being transversely inclined, an expansible metal ring engaged against the inner surface of the cushioning means, said inclined rim face having spaced slots therein, and wedge blocks insertible between the expansible ring and the inclined face of the rim and having keys for engagement in said slots, said wedge blocks expanding the metal ring to compress the cushioning means and urge the tread blocks outwardly.

1,305,820. VEHICLE-WHEEL. COLIN MACRETH, Birmingham, England, assignor to The Dunlop Rubber Company, Limited, Westminster, London, England. Filed Jan. 4, 1919. Serial No. 269,580. 5 Claims. (Cl. 21-69.)

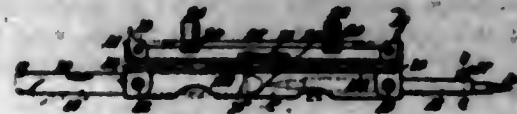


1. A metal vehicle wheel comprising two continuous annular hub members, oppositely dished spoke members integral with and radiating from the hub members, the peripheral ends of said spoke members being adapted to be surrounded by a tire band and provided with transverse slots that extend inward to, without penetrating, the annular hub members, and means for exerting pressure in a transverse direction on the oppositely dished spoke members to expand them radially against said tire band while the outer portions of the spoke members are held against transverse movement.

1,305,821. COMBINATION-TOOL. CHESTER TORSEN MADSEN, Oakland, Calif. Filed Aug. 22, 1917. Serial No. 187,006. 5 Claims. (Cl. 33-42.)

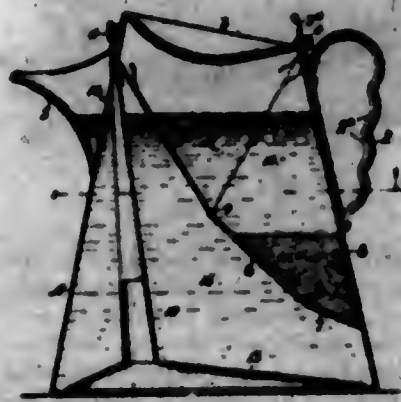
4. A tool having a handle provided with spaced sides and a slitted back, a substantially U-shaped cross piece

extending across the space between the sides and spaced from the back and having its ends engaged with the outer faces of the sides, a spring connected to the cross-piece, a



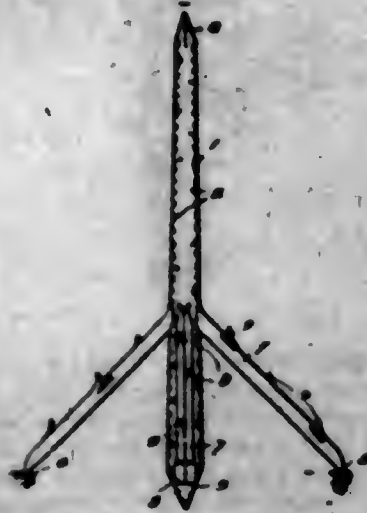
stop operating in the slot and in said space between the cross-piece and back, and a pivoted tool tensioned by the spring and cooperating with the stop.

1,305,822. COFFEE-POT. CHESTEN TORREN MADSEN, Oakland, Calif. Filed Oct. 30, 1918. Serial No. 200,231. 9 Claims. (Cl. 53-2.)



1. A coffee pot comprising a container, a pocket formed interiorly of said container for the reception of coffee, said pocket having a perforated bottom, a screen cover hinged to the upper end of the pocket for swinging to either side of the center of the coffee pot to divide the same into two variable sized chambers, and means arranged exclusively within one chamber for maintaining a circulation of water through said screen and the perforated bottom formed in the pocket for the reception of the coffee.

1,305,823. HAY STACKING AND CURING DEVICE. WILKIN H. MAYBERRY, Kennett, Mo. Filed May 14, 1918. Serial No. 284,414. 3 Claims. (Cl. 98-26.)



2. A device of the character described including a tubular perforated pole having the lower end designed to be anchored in the ground and provided medially of its ends with a circle of openings, a plurality of tubular braces having their upper edges split and the adjacent portions bent to form opposed ears, an angularly disposed tongue on the upper edge of the brace positioned opposite to the ears and designed to be engaged over the lower edge of the adjacent opening in the pole, the ears being arranged in shuttling relation with the outer surface of the pole, a plurality of upwardly inclined tongues struck out from the

upper surface of each brace, and the lower ends of the braces being fluted and bent to provide anchoring feet for engagement with the ground subsequent to the engagement of the upper ends of the braces with the pole.

1,305,824. ROTARY-METER BEARING. CHARLES P. MAYER, Elizabeth, N. J., assignor to Rotary Meter Company, a Corporation of New York. Original application filed Sept. 10, 1918, Serial No. 49,916. Divided and this application filed Jan. 19, 1918. Serial No. 212,587. 12 Claims. (Cl. 64-25.)



1. In a machine, a spindle having a pocket as a fixed part at its lower end and inclosing and holding assembled as a part of the spindle structure an axially centered ball; a pivot for engaging said ball; and an oil duct leading from near the top of said spindle into said pocket.

1,305,825. KETTLE-LID. EDWARD F. MELLINGER, Canton, Ohio. Filed Oct. 20, 1916. Serial No. 126,727. 1 Claim. (Cl. 53-9.)

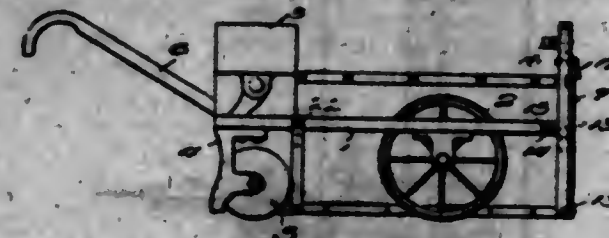


In a device of the character described, in combination, a kettle having a filling opening in its top, a strip of metal having one end portion secured to the top of the kettle in proximity to the opening, upstanding apertured lugs formed on opposite sides of the inner extremity of the strip, a lid for closing the opening in the kettle swingably mounted between the lugs, a knob on the lid, the remaining portion of the metal strip extending outwardly therefrom and in a horizontal direction and the extreme free end portion of the strip being folded upwardly and inwardly upon itself to form a rest for the knob when the lid is in an open position.

1,305,826. FENDER FOR SEEDERS AND PLANTERS. FARRILL C. MENDENHALL, Farmland, Ind. Filed Feb. 17, 1919. Serial No. 277,519. 3 Claims. (Cl. 97-12.)

2. A fender of the character described including a substantially U-shaped body formed of sheet metal, the free edges of which are rolled upon themselves to provide vertically disposed braces, bracing members secured to the inner surface of the body near the upper and lower edges thereof, a supporting head piece secured vertically of the inner surface of the intermediate portion of the body and the bracing bars, attaching brackets adjustably

connected vertically of the inner surface of the head piece, a device carried by the upper projecting portion of the head piece, attaching arms having their inner ends secured to the lower bracing members near the free ends



thereof and arranged in opposed relation with each other and positioned vertically of the body and having the upper attaching portions provided with vertical series of openings, and fastening means engageable with any of the openings.

1,305,827. GREASE-DISPENSING PUMP. CHARLES R. MILLER, Collinsville, Tex. Filed Feb. 22, 1919. Serial No. 279,668. 5 Claims. (Cl. 108-75.)



2. A grease dispenser comprising a pump barrel in communication with a supply source of grease and provided with an intake port and an exhaust port in the lower part thereof, a sliding hollow valve adapted to open one of said ports and close the other simultaneously and vice versa, a plunger and a plunger rod therefor, means operatively connected with said plunger rod and with said valve for actuating said valve, and means for gauging the stroke of said plunger for predetermining the quantity of grease to be dispensed.

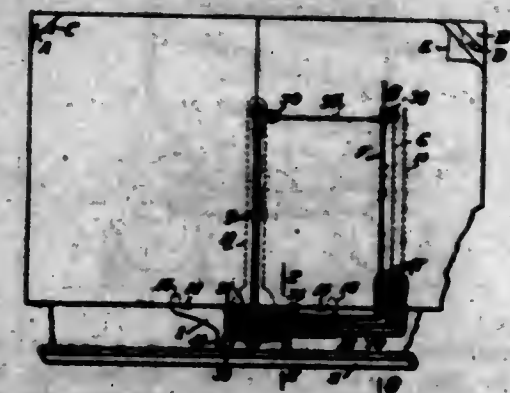
1,305,828. EAR-PROTECTOR. FRANK E. MILLER, New York, N. Y. Filed Apr. 24, 1918. Serial No. 230,422. 5 Claims. (Cl. 128-182.)



2. An instrument for protecting the human ear against damage by sound-concussions comprising, a rigid closure for the external meatus; a rigid barrier for covering the auricle; a movable diaphragm spaced outwardly from said barrier; and a yieldable rim mounting said diaphragm upon said barrier.

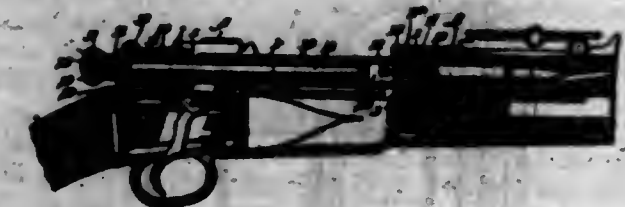
283 O. G.-5

1,305,829. SHEET-MUSIC TURNER. WALLER U. MOWILL, Kingston, and ALFRED T. PALMER, Medford, Mass.; said Palmer assignor to said Mowill. Filed Nov. 8, 1916. Serial No. 130,167. 4 Claims. (Cl. 84-185.)



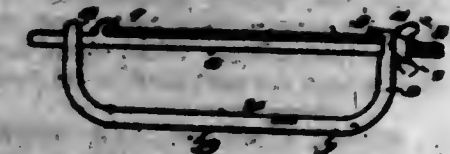
1. A sheet music turner comprising a frame; an arm pivotally mounted in connection with said frame; a casing inclosing said pivotal mounting and provided with a slot for the projection of the free end of said arm; a notch near one end of said slot; a key on said arm and movable in relation thereto; an attachment for securing said key to said arm, said attachment being adapted to occupy said notch; and means for swinging said arm when said key is manipulated to free said attachment from said notch.

1,305,830. RIFLE-BOLT. THOMAS O. MUDD, Laredo, Tex. Filed Oct. 2, 1916. Serial No. 123,435. 5 Claims. (Cl. 42-16.)



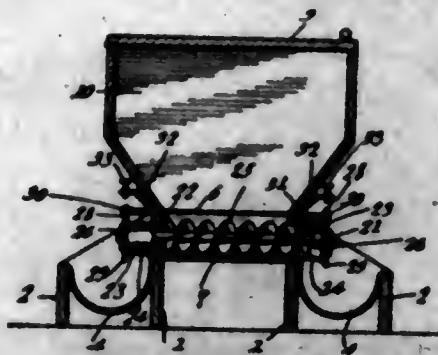
5. In a rifle bolt, the combination with locking lugs on the forward end of the bolt; a bolt head secured in the forward end of the bolt, arms extending rearwardly from said head, an extractor mounted on and carried by said head, a firing pin bar, a fast member extending forwardly from said bar and seated between said arms, a striker secured to said member, a cocking sleeve movably mounted on the rear end of the bolt, a cocking piece interlocking with the firing pin bar and cocking sleeve, whereby the cocking sleeve is locked with the said bar.

1,305,831. SAW-CARRYING DEVICE. JAMES C. MUNKINS, Falls City, Oreg. Filed Jan. 11, 1919. Serial No. 270,759. 3 Claims. (Cl. 224-45.)



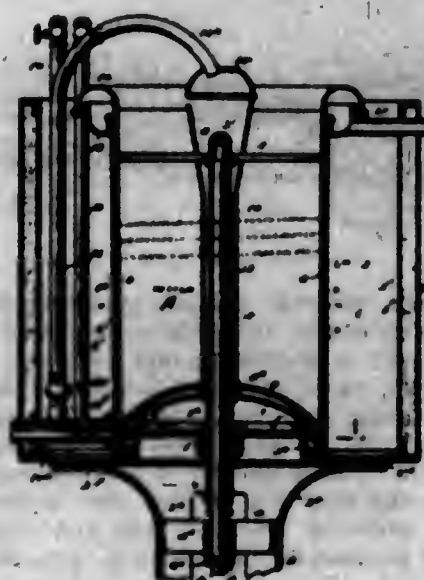
1. A saw carrying device including a U-shaped frame forming a grip consisting of an intermediate portion, spaced side arms terminating in loops, a rigid jaw formed on the looped terminal of one of the side arms, a saw engaging rod slidably mounted in the loop terminals of the arms, a rigid jaw on the rod for coacting with the other rigid jaw, and clamping means engageable with the rod and coacting with the grip for releasably maintaining the jaws in clamping relation.

1,305,832. AUTOMATIC HOG-FEEDER. FRANK J. PATTERSON, Waverly, Iowa. Filed Aug. 9, 1918. Serial No. 249,109. 3 Claims. (Cl. 119-54.)



1. In a device of the class described, a frame; a trough carried by the frame; a chute discharging into the trough; a conveyor operating in the chute; an actuating member accessible from the trough; means for mounting the actuating member for right-line up and down reciprocation on the frame; an operative connection between the actuating member and the conveyor; and adjustable frame-supported means in the path of the actuating member and normally spaced therefrom for limiting the upward movement of the actuating member.

1,305,833. PASTEURIZER. LEROY S. PROCTOR, Canton, Ohio, assignor, by mesne assignments, to The Miller Pasteurizing Machine Company, Canton, Ohio, a Corporation of Ohio. Original application filed Jan. 25, 1909, Serial No. 474,128. Divided and this application filed Mar. 27, 1916. Serial No. 87,016. 6 Claims. (Cl. 257-111.)

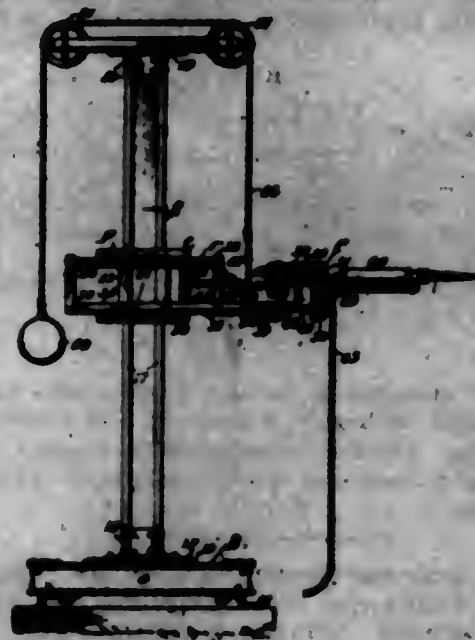


1. In a liquid treating apparatus, the combination of an outer vessel, an inner vessel, an intermediate vessel, and a pair of cooperating annular supporting members between the bottoms of the outer vessel and intermediate vessel, the supporting member on the outer vessel being elevated above the bottom thereof and of smaller diameter than said intermediate vessel and the supporting member on the intermediate vessel being arranged intermediate its axis and the periphery of its bottom.

1,305,834. STONE CUTTING AND SURFACING MACHINE. RICHARD G. RAND, Winston-Salem, N. C. Filed July 7, 1916. Serial No. 107,962. 8 Claims. (Cl. 125-8.)

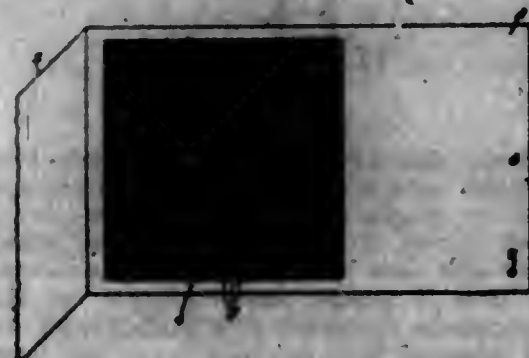
1. A stone cutting and surfacing machine comprising a base, a vertical standard supported upon the base for angular adjustment rotatably, a frame engaged with the standard for vertical movement, means for counterbalancing the frame, a frame engaged with the first named frame and slidable horizontally, means connecting said frames for moving the second frame relative to the first frame, said second named frame being mounted ex-

teriorly of the first named frame and provided with arm extensions, a horizontal guide way carried by said



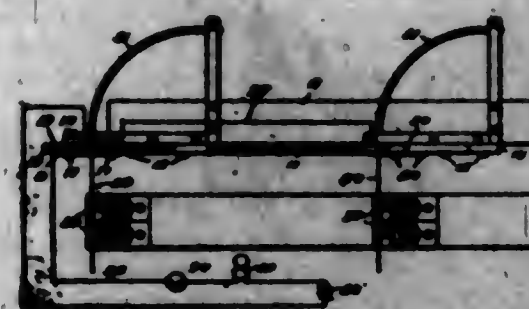
arm extensions at right angles to said slidable frame and standard and a horizontal overhanging tool carriage support movably mounted on said guide way for lateral adjustment thereon.

1,305,835. CHANGEABLE PICTURE. CHARLES W. SAALBORN, Richmond Hill, N. Y., assignor to Animated Picture Products Company, a Corporation of Delaware. Filed July 10, 1917. Serial No. 179,609. 15 Claims. (Cl. 88-19.)



7. A plurality of superimposed leaves carrying pictures in spaced strips so arranged that the strips of each picture register with the spaces in the other picture.

1,305,836. SIGNAL. FERDINAND L. SCHONHINE, Brooklyn, N. Y. Filed July 16, 1917. Serial No. 181,834. 1 Claim. (Cl. 177-811.)



The combination with a wire stitching machine of a stationary contact plate included in a normally open electric circuit, said plate being provided with apertures for the passage of the stitching wire, means for guiding the wire to prevent contact with the edge of the apertures when the wire is feeding simultaneously, an alarm included in the electric circuit whereby the accidental dis-

alignment of the stitching wire will cause the latter to contact with said plate to complete the circuit and sound the alarm.

1,305,837. INTERIOR REFLECTOR FOR INCANDESCENT LIGHTS. RAFAEL DIAS SUDANO, Habana, Cuba. Filed Nov. 14, 1918. Serial No. 262,468. 1 Claim. (Cl. 70-34.)



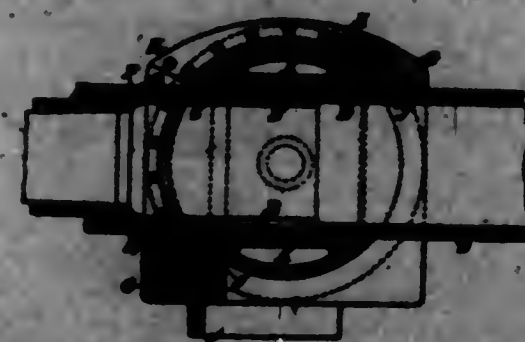
A device of the character described including a bulb, a stem projecting into the bulb and provided with an annular groove, leading-in wires extending through the stem, a filament supported within the bulb and in electrical connection with the leading-in wires, a reflector plate extending transversely across the bulb and perforated to receive the stem, the edges of the plate engaging the bulb, a helical spring compressible in the groove of the stem and adapted to engage the reflector plate to hold the same firmly in position.

1,305,838. INNER DOOR FOR CARS. EDWARD J. SMUR, New Orleans, La. Filed Nov. 11, 1916. Serial No. 129,814. 1 Claim. (Cl. 20-32.)



The combination of a body having a door opening, vertically-disposed guide members fixed to the body, at opposite sides of said opening, and an inner, vertically-slidable door comprising spaced, horizontally-disposed and vertically movable slats having their ends disposed and movable in the guide members, and hinges interposed between and connecting the spaced slats and having opposed members and pintles; the said opposed members and the pintles being disposed between the slats to effect the flexible connection thereof and maintain the slats in spaced relation to afford ventilation.

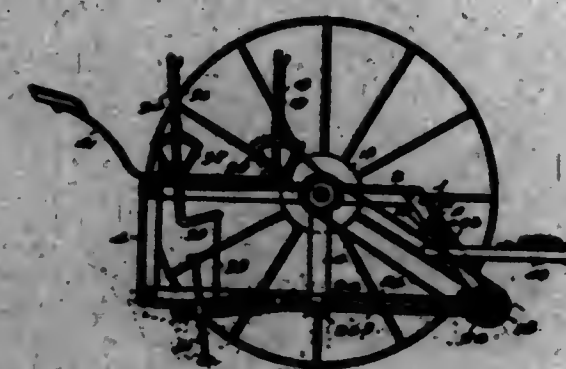
1,305,839. GUN-MOUNTING. GUNNAR SIMON, British Navy, assignor of one-half to Sir W. G. Armstrong, Whitworth and Company, Limited, Newcastle-upon-Tyne, England. Filed Sept. 21, 1917. Serial No. 182,508. 6 Claims. (Cl. 80-57.)



1. In a gun mounting, the combination of a cylindrical block capable of partial rotation about its own axis, a

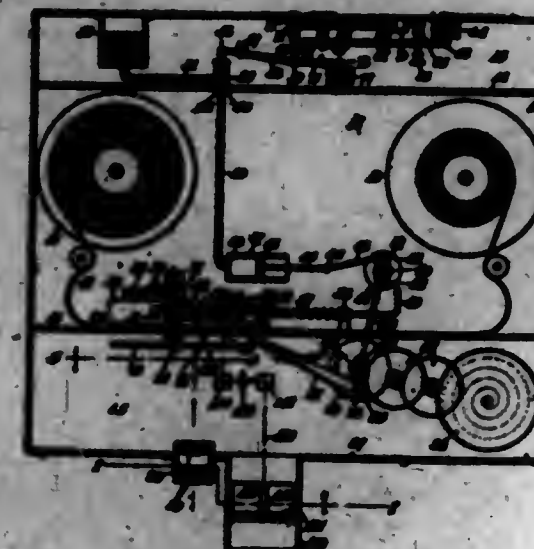
casing fitting watertight around the block, a cradle fixed in a diametral hole in the block and means for rotating the block within the casing.

1,305,840. COTTON-CHOPPING MACHINE. JAMES O. THORNHILL, Jelle, Minn. Filed May 2, 1917. Serial No. 168,877. 1 Claim. (Cl. 87-46.)



In a cotton chopping machine, a wheel mounted frame structure, a plurality of substantially U-shaped frames having forwardly directed terminals pivoted to said frame structure, a power transmitting shaft supported by the frame structure having connection with the wheels thereof, universally jointed shafts connected to the power transmitting shaft and supported on the frame structure, the rear and relatively movable shafts being journaled in the web portions of the U-shaped members, brace rods connecting the parallel portions of the U-shaped members, hand levers pivotally supported upon the frame structure, means connecting the hand levers with the brace rods to effect manual adjustment of the U-shaped frames, and cotton chopping means secured on portions of said universally jointed shafts intermediate the joint and the web portion of the U-shaped frame.

1,305,841. CAMERA. LOUIS H. TOLHURST, Los Angeles, Calif. Filed May 24, 1917. Serial No. 170,669. 9 Claims. (Cl. 88-18.)

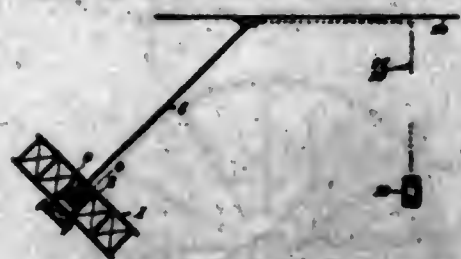


1. In a camera for air craft, film guiding means, means for intermittently moving the film, means for intermittently exposing successive portions of the film, and said means for automatically varying the length of the time intervals between exposures according to the altitude of the camera.

1,305,842. AMUSEMENT DEVICE. JAY TOWSE, Omaha, Neb. Filed Jan. 23, 1919. Serial No. 272,644. 8 Claims. (Cl. 46-40.)

1. An amusement device comprising a tubular member having means at one end for rigidly connecting

same to an overhead support, a second member rotatably supported within the tubular member, continuously co-operating electrical contacts on the tubular and rotatable members, flexible electric conductors secured to the



rotatable member and in electrical connection with the contacts thereof respectively, and a motor propelled aerial toy suspended by said conductors and having its motor electrically connected therewith.

1,305,848. TONGUE-TRUCK. ISAAC TROLLAY, Poughkeepsie, N. Y., assignor to Moline Plow Company, a Corporation of Illinois. Filed July 22, 1916. Serial No. 110,606. 2 Claims. (Cl. 21-92.)



1. In combination with a frame member, a guide tongue pivoted thereto both on a horizontal axis and a vertical axis, a tongue truck also pivoted to the frame on a vertical axis, a slide sustained by the guide tongue and movable longitudinally thereof, and two links pivoted at their forward ends independently of each other to said slide, and operatively connected at their rear ends to the truck at points respectively on opposite sides of its vertical axis.

1,305,844. SIGNALING DEVICE. NELSON H. TUNES, Lima, Ohio. Filed Jan. 11, 1917. Serial No. 141,940. 7 Claims. (Cl. 40-67.)



1. A signaling device comprising a reflecting chamber having a tubular neck or sleeve adapted to removably fit over the lens end of a standard flash-light lamp so as to dispose said chamber in the path of the light rays emitted from the bulb in said lens end; and numeral-bearing indicating means movable into and out of said chamber to be illuminated by said rays.

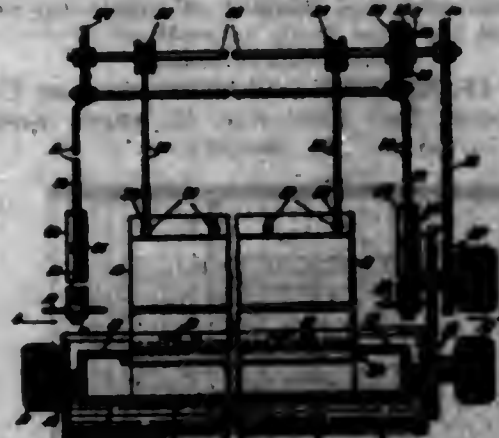
1,305,845. NITROSTARCH EXPLOSIVE. CHARLES E. WALLER, Allentown, Pa., assignor to Independent Non-Frezing Powder Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 22, 1918. Serial No. 2,782. 6 Claims. (Cl. 53-3.)

1. A granular nitro-starch explosive whose sole detonating ingredient is nitro-starch; the percentage of nitro-starch present being such that the explosive is incapable of detonation in non-granular bulk form under ordinary conditions.

1,305,846. NITROSTARCH EXPLOSIVE. CHARLES E. WALLER, Allentown, Pa., assignor to Independent Non-Frezing Powder Company, Newark, N. J., a Corporation of New Jersey. Filed Dec. 30, 1915. Serial No. 60,447. 3 Claims. (Cl. 53-3.)

1. A blasting explosive containing non-colloided nitro-starch, in admixture with mononitronaphthalene, the mononitronaphthalene being present to the extent of substantially one-third the amount by weight of the nitro-starch.

1,305,847. STENCIL-CUTTING MACHINE. ORLANDO B. WATTS, Camden, N. J. Filed Mar. 8, 1918. Serial No. 221,224. 3 Claims. (Cl. 197-180.)



2. A stencil device comprising a fluid-containing trough, a rotatable cylinder in said trough, an apron around said cylinder, means for removably holding the apron in connection with the cylinder, a stencil sheet for connection with the apron to come in contact therewith, whereby the fluid in the trough will act upon the stencil sheet, a supplementary frame, tensioning means on the supplementary frame and connecting with the stencil sheet, and means for insuring unwinding of the stencil sheet relative to said cylinder and the retraction of the tension thereon.

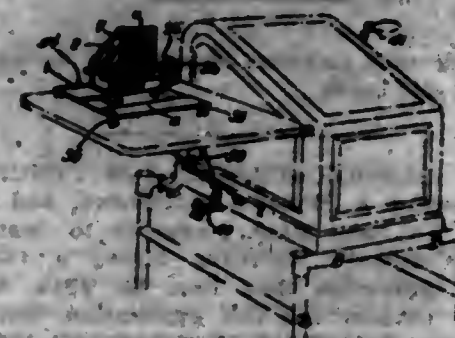
1,305,849. APPARATUS FOR THE MANUFACTURE OF SUBSTITUTE HIDE-LEATHER. EMIL WEINHEIM, New York, N. Y. Filed Feb. 9, 1918. Serial No. 216,318. 1 Claim. (Cl. 91-31.)



In apparatus for manufacturing substitute hide leather, two endless non-compressible, metallic aprons having extensive portions contiguous and parallel one or both of which has or have perforations; means for feeding a fibrous batt between said contiguous portions; means for effecting a continuous forward movement of said con-

tiguous portions to carry between them said fibrous batt; a dope-tank; means for guiding said contiguous portions through said dope-tank; squeeze rollers directly engaging the outer faces of said contiguous portions for indirect operation upon said fibrous batt; and scrapers for removing dope from said aprons.

1,305,840. PRINTING-MACHINE. FRANK E. WEISS, Baltimore, Md. Filed Jan. 30, 1919. Serial No. 273,983. 17 Claims. (Cl. 103-301.)



1. A printing machine comprising a drive shaft, a type carrying carriage swingingly and slidably mounted, and means mounted on the shaft and on the said carriage to transmit swinging and sliding movement to the carriage when the said shaft is actuated.

1,305,850. COMBINED SEEDING AND CULTIVATING ATTACHMENT FOR PLOW. WILLIAM R. WHITE and ARTHUR B. ACMA, Fleet, Alberta, Canada. Filed Nov. 12, 1918. Serial No. 131,108. 9 Claims. (Cl. 111-1.)



1. A combined seeding and cultivating attachment for a plow comprising a main frame, a seed hopper mounted upon said main frame, tubes depending from said hopper, sleeves adjustable upon said tubes and having reduced opened lower ends, planting shoes connected with said sleeves, means for suspending said shoes from said main frame, a main adjusting lever, connections between said main lever and said suspending means, forward standards depending from said main frame, a harrow mounted upon said standards, adjusting means for said harrow, connections between said adjusting means and said main lever, an independent adjusting lever connected with said adjusting means, a roller, rear standards depending from said frame to support said roller, means for adjusting said roller upon said rear standards, connections between the last mentioned adjusting means and said main lever, and means for locking said main lever in adjusted position.

2. A combined seeding and cultivating attachment for a plow comprising a frame, a hopper positioned upon said frame, planting tubes depending from said hopper, means for controlling the admission of seeds to said tubes, rods pivoted to said frame and having furrow producing members formed on their lower ends, sleeves connected with said members and slidably mounted upon said tubes, connections between said sleeves and said members, an adjusting lever pivoted to said frame, a swinging member mounted in said frame and connected with said lever, a

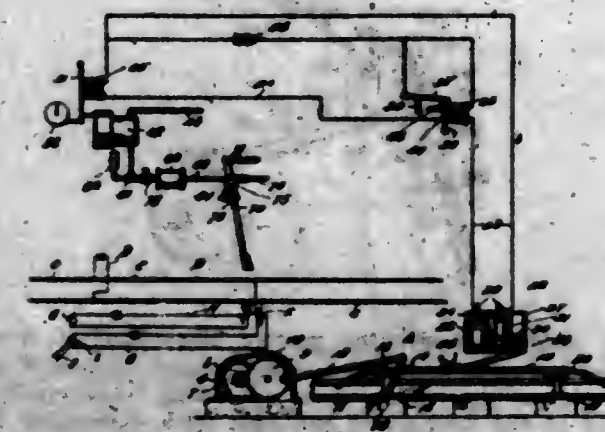
plate carried by said swinging member, resilient connections between said plate and each of said rods, and means for locking said lever in adjusted position.

3. A combined seeder and planter comprising a frame, seed dropping means carried thereby, furrow opening elements connected with said seed dropping means and adjustably suspended from said frame, roller and harrow elements adjustably suspended from said frame, a transversely extending shaft equipped at its opposite ends with cross bars having the upper extremities thereof pivoted to the frame, means connected with said shaft to adjust said furrow opening element, means connected with the lower ends of said cross bars to adjust said roller and harrow elements, and a swinging lever rigid with said shaft to effect simultaneous adjustment of the furrow opening, roller and harrow elements.

4. In combination, a frame, seed dropping means carried thereby, furrow opening shoes connected with said seed dropping means and equipped with suspending rods having the upper ends thereof pivotally secured to said frame, a transversely extending shaft suspended from said frame and movable longitudinally thereof, a plate carried by said shaft and provided with a plurality of openings, a plurality of adjusting rods pivotally secured at one end to said shoe supporting rods and having the opposite ends thereof extended through the openings in said plate, springs surrounding said adjusting rods and engaging said plate to resist movement of the rods through said openings, and an operating lever connected with said rod to move the plate along the length of the adjusting rod against the tension of said spring for the purpose of adjusting said shoes.

5. In combination, a frame, seed dropping means carried thereby, standards depending from the forward and rearward corners of the frame, vertically adjustable collars supported on said standards, a harrow carried by the forward collars, a roller carried by the rearward collars, a main operating lever, and connections between said lever and collars adapted to move the latter longitudinally of said supporting standards to effect simultaneous adjustment of the harrow and rollers.

1,305,851. TRAIN-CONTROLLING MECHANISM. WILLIAM T. WHITE, Philadelphia, Pa. Filed Nov. 10, 1916. Serial No. 130,686. 3 Claims. (Cl. 246-188.)



3. In train controlling apparatus, the combination of a normally closed primary circuit including an electro-magnet; means including a track element and a train carried element to open said circuit; a normally open secondary circuit including an electro-magnet; means controlled by the first named electro-magnet to close the secondary circuit when the primary circuit is opened; fluid pressure actuated throttle governing mechanism; a cylinder having an inlet duct, a duct connected to said inlet duct and to the opposite ends of the cylinder, an escape port, a port connected to the governing mechanism, and a second escape port; a piston and a head connected thereto and arranged to simultaneously move in the cylinder, said head forming also a slide valve and controlling the said connection with the throttle governing mechanism and the second named

escape port; a valve to control the said cylinder duct and the first named escape port, and an armature operated by the electro-magnet of the secondary circuit to operate said valve.

1,305,852. **ELECTRIC-LAMP SUPPORT.** CHRISTIAN U. WIDMER, Upland, Calif. Filed Aug. 5, 1918. Serial No. 248,855. 6 Claims. (Cl. 240—50.)



1. A device of the class described comprising a substantially conical shaped shade having a tubular extension adapted to receive an electric light bulb, a substantially conical shaped lens supporting member fitting within the shade in advance of the electric light bulb, clips secured to the interior wall of the shade and engaging the lens supporting frame for holding the latter in position, and means for supporting the shade.

1,305,853. **BOOK-SUPPORT.** CHRISTIAN U. WIDMER, Upland, Calif. Filed Aug. 6, 1918. Serial No. 248,866. 8 Claims. (Cl. 45—50.)



1. A holder for reading matter comprising a frame, shoulder engaging members secured to and adjustable longitudinally of the frame, a bar extending transversely of one end of the frame and provided with depending portions, feet carried by and adjustable longitudinally of the depending portions of the transverse bar, means for detachably securing the transverse bar to the frame, a standard pivotally mounted for movement in a plane at substantially right angles to that of the frame, means for securing the standard in different positions of adjustment, and a rack carried by said standard.

1,305,854. **FORGING-BLOCK.** MILTON F. WILLIAMS, St. Louis, Mo., assignor to Williams Patent Crusher & Pulverizer Co., St. Louis, Mo., a Corporation of Missouri. Filed Dec. 18, 1918. Serial No. 267,826. 3 Claims. (Cl. 78—60.)

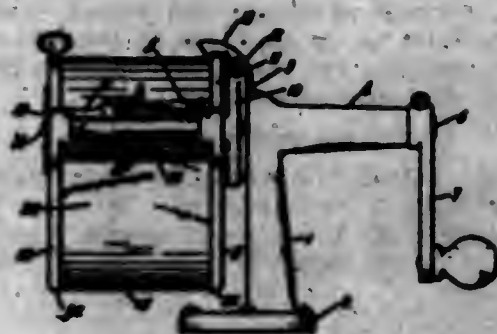
1. A forging block comprising a block having a substantially horizontal top, and a back that is inclined downward

and backward from said top, and having a groove in said top and back,—the function of the upper and back groove



being curved,—and an insert of relatively harder material provided at said curve.

1,305,855. **CHIP-RECEPTACLE FOR PENCIL-POINTERS.** ROBERT A. WILSON, Watertown, and ALLEN P. WILSON, Waltham, Mass., assignors to Boston Pencil Pointer Company, Waltham, Mass., a Corporation. Original application filed Dec. 15, 1912, Serial No. 808,757. Divided and this application filed July 12, 1917. Serial No. 180,049. 5 Claims. (Cl. 120—66.)



1. A chip receptacle for pencil-pointers comprising a transparent body-portion and non-transparent end portions secured to said transparent body-portion.

1,305,856. **FURNITURE.** WILLIAM B. WINTER, Williamsport, Pa. Filed Nov. 14, 1918. Serial No. 262,479. 3 Claims. (Cl. 156—24.)

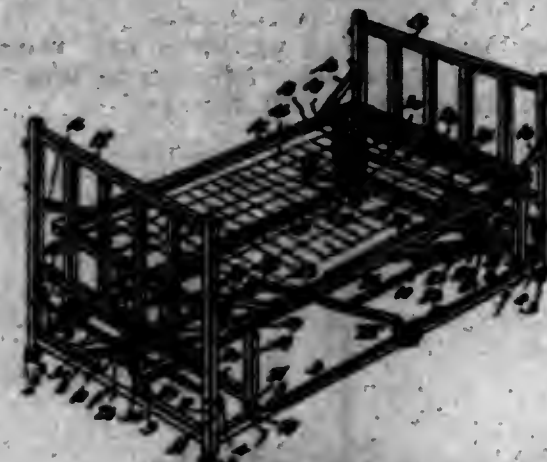


1. In furniture of the character set forth, the combination with a base member and a top member, of means movable transversely between the members for effecting their relative adjustment toward and from each other, and an extensible and contractile connection between the members to bind the same firmly upon the adjusting means and secure said members together.

1,305,857. **FOLDING BED.** GILBERT M. WISMAN, Washington, D. C. Filed Mar. 18, 1918. Serial No. 232,211. 7 Claims. (Cl. 5—58.)

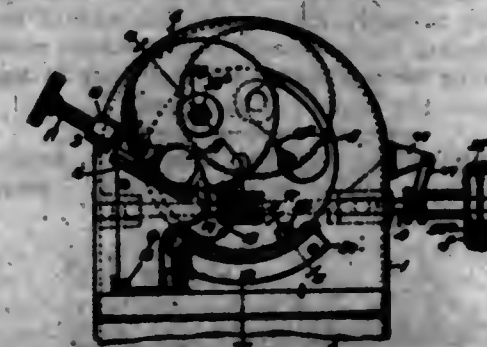
1. In a folding bed, a base frame, head and foot sections hinged to said base frame for downward folding, a mat-

truss frame, means for lowering said mattress frame when said foldable sections are lowered, and for raising said



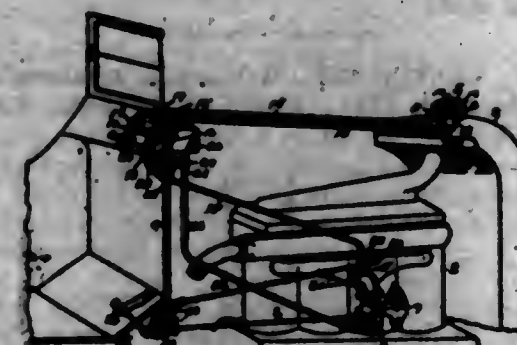
mattress frame when said sections are raised, and foldable legs for supporting said mattress frame from said base frame when the former is elevated for use.

1,305,858. **SAWING-MACHINE.** LUCIEN I. YBOMANS, Chicago, Ill., assignor to Mann Corporation, Kankakee, Ill., a Corporation of Illinois. Filed Aug. 20, 1917. Serial No. 187,164. 13 Claims. (Cl. 29—69.)



1. A sawing machine including an oscillatory cylindrical carrier having a rotatable eccentrically mounted saw, means for supporting the work, means for operating the saw, and means for rotating the carrier to feed the saw into engagement with the work including a ratchet wheel and a bell-crank lever having a pair of pawls thereon and pivotally connected to said saw-rotating means for reciprocation thereby.

1,305,859. **CARBON-ELIMINATOR AND LUBRICATOR FOR GAS-ENGINES.** DEWEY E. YOUNG, Syracuse, N. Y. Filed Nov. 23, 1918. Serial No. 263,093. 5 Claims. (Cl. 122—25.)



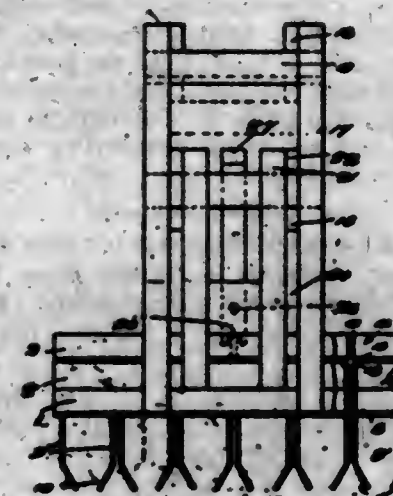
1. A tube adapted to draw steam from the radiator of a gas-engine, a valve adapted to control the admission of the steam into the intake manifold of the engine, a cock connected to said tube between the radiator and said valve adapted to gauge the flow of the steam through said tube independently of said valve, means for indicating the extent said cock is opened, and a rocking lever adapted to open the throttle of the engine and close said valve simultaneously.

1,305,860. **VIBRATING CHURN.** JAMES E. YOUNT, Fort Worth, Tex. Filed Mar. 31, 1918. Serial No. 266,410. 3 Claims. (Cl. 259—113.)



1. A churn, comprising a standard with lateral extensions, a receptacle, plates secured to the top and bottom thereof, springs secured to said plates and extensions, a churn body with dasher, having a stem attached to one of said plates, and means attached to one of the plates for vibrating said receptacle to cause the dasher to be reciprocated.

1,305,861. **DEVICE FOR CANDLING, HANDLING, AND SORTING EGGS.** WILLIAM F. D. ACKERMANN, Kaylor, S. D. Filed Nov. 26, 1918. Serial No. 264,266. 6 Claims. (Cl. 99—6.)



1. A device of the character described including a plurality of superposed frames provided with aligning cells, a plate secured to the lower frame and provided with openings aligning with the cells, rods arranged in the corners of the cells and rockably mounted in the intermediate frame and having the lower ends of their depending portions bent to form retaining portions for cooperating with the openings in the plate, means for operably connecting the upper ends of the rods to the upper frame, and means for shifting the upper frame to actuate the rods.

1,305,862. **AIR-COOLED REFRIGERATOR.** CHARLES T. ADAIR, Tecumseh, N. Mex. Filed Sept. 20, 1918. Serial No. 254,980. 3 Claims. (Cl. 43—123.)

1. In an air cooled refrigerator, the combination with a refrigerator casing, of a skeleton frame insert comprising support legs spaced apart by horizontal struts and shelves built into the frame the whole of said frame non-attached to the casing and removable therefrom, a water vessel ar-

ranged to hold the frame, a sheet of fabric wicking wrapped about the frame and dipped into the vessel, and



air pressure means supplied to evaporate the water from the wick to lower the temperature within the casing.

1,305,863. SKIVING-KNIFE. ALEXANDER M. ALEXANDER, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 8, 1914. Serial No. 860,787. 12 Claims. (Cl. 60-95.)



1. A skiving knife, having in combination, an internal knife holder having a true cylindrical blade engaging surface, a thin tubular knife blade surrounding the holder and sufficiently flexible to conform to the holder, a clamping band wrapped about the outside of the blade and sufficiently flexible at every point in its length to conform to the knife blade, and means for contracting the band to clamp the blade to the holder.

1,305,864. EDGE-SETTING MACHINE. OTIS E. ANSELL, Haverhill, Mass., assignor to Hamel Shoe Machinery Company, a Corporation of Massachusetts. Filed Nov. 12, 1917. Serial No. 301,522. 6 Claims. (Cl. 12-78.)



1. In an edge setting machine a normally stationary support, a tool-holding head pivoted to rock thereon, means

for rocking said head, and manually adjustable means for turning said support thereby to permit selective employment of the tools by the operator.

1,305,865. MILK-BOTTLE RECEPTACLE. WALTON H. ARONSON, Harborton, Ohio. Filed July 22, 1918. Serial No. 246,008. 3 Claims. (Cl. 223-41.)



1. A receptacle of the class described comprising a box having a back wall and a bottom member, a lid hinged to the upper edge of the back wall, a trap door hinged adjacent the back wall a short distance above the bottom member, said lid and trap door having lugs at the sides thereof, rods pivotally connected with the lugs and disposed within the box thereby connecting the lid with the trap-door, a spring normally forcing the free end of the trap door in an upward direction and locking means within the box for securing the free end of the trap door in depressed position against the tension of the spring.

1,305,866. FRICTION-DRIVE. ARTHUR P. ARMINGTON, Wickliffe, Ohio. Filed Sept. 11, 1916. Serial No. 119,359. 6 Claims. (Cl. 186-62.)



1. The combination with a main frame and a supplemental frame attached to the main frame at one side thereof, of a casing attached to said frame, a shaft mounted in said casing and having a friction disk upon one end and a pulley upon the opposite end, said disk and pulley being without the case, a second shaft journaled within the casing, means connecting said shaft, together with means contained within the casing for throwing the first mentioned shaft into and out of operative relation to the second shaft.

1,305,867. CRUTCH-TIP. MAX ATLAS, Jacksonville, Fla. Filed Sept. 14, 1918. Serial No. 264,138. 3 Claims. (Cl. 135-52.)



2. In combination with the rubber tip holder of a crutch, the holder including an enlarged portion project-

ing beyond the crutch; a non-slipping device comprising a socket member disposed upon the tip and bearing against the end thereof with its walls disposed in spaced relation to the sides of the tip, the upper end of said socket terminating short of said enlarged portion, spikes extending from the bottom of said socket member, and a ring threaded upon the upper end of said socket member and provided with an inwardly extending flange slidably engaging the crutch whereby said tip may retain its cushioning action, said flange engaging said enlarged portion for preventing separation of said socket member from said tip.

1,305,868. WATER-VALVE. LOUIS BAUM, Dubois, Pa. Filed Mar. 24, 1917. Serial No. 157,268. Renewed Apr. 24, 1918. Serial No. 292,522. 2 Claims. (Cl. 281-164.)



1. A valve comprising a casing having inlet and outlet ports, a non-corroding valve stem mounted in the casing, a plurality of disk valves reciprocable on the stem and controlling the passage of fluid through the ports, the valves being formed of non-corroding material, and an elliptical elastic spring bearing against each of the valves and normally retaining the same in a seated position.

1,305,869. INK-WELL AND COVER THEREFOR. CLARENCE ELLIS BIRCH, Lawrence, Kans. Filed Nov. 20, 1918. Serial No. 263,378. 5 Claims. (Cl. 120-58.)

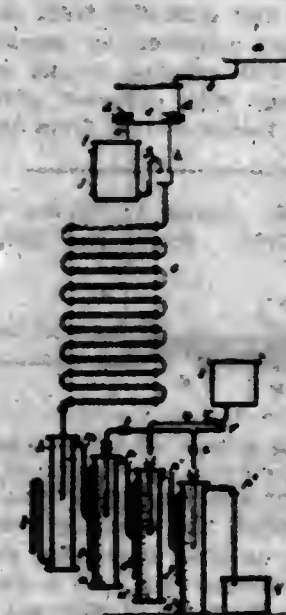


1. An inkwell formed with an opening to afford access to the ink therein, a cover in which said well is slidable to dispose said opening beyond the cover or beneath the latter, and means to fixedly secure said cover to a desk; said cover having an open bottom to receive the inkwell with the latter directly supported on the desk, together with coating means on the cover and well to limit the sliding movement of the well and the cover.

1,305,870. PROCESS AND APPARATUS FOR THE TREATMENT OF BENZOL AND THE LIKE. MEREDITH WYTHE BLYTH and THOMAS VIVIAN MILES, Sheffield, England. Filed Dec. 23, 1918. Serial No. 268,074. 2 Claims. (Cl. 190-36.)

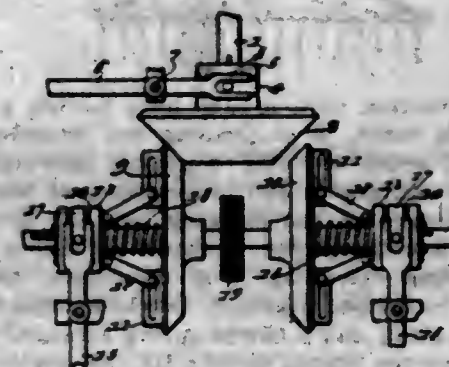
1. A process for treating liquid benzol or the like, which consists in passing the liquid to be treated into a regulating tank, drawing part of said liquid from said tank into a convoluted pipe, drawing another part of said liquid into a vessel containing a purifying agent to displace a predetermined amount of said purifying agent and cause it to mingle with the liquid in said pipe, delivering the mingled liquids from said pipe into a vessel, there causing

separation of the liquid and the reagent by decantation, then conducting the purified liquid to other vessels in



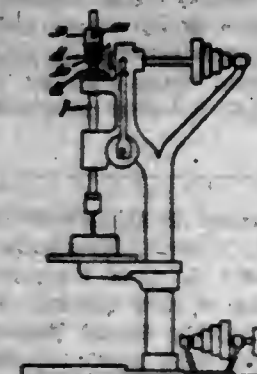
succession, delivering the liquid below the surface of a washing or cleansing reagent in said vessels, and finally separating the purified liquid by decantation.

1,305,871. VARIABLE-SPEED POWER TRANSMISSION. EDWARD C. BOHLMANN, Excelsior, Minn. Filed Nov. 8, 1918. Serial No. 261,647. 3 Claims. (Cl. 74-26.)



1. In a variable speed power transmission, driving and driven shafts, a friction gear splined to the driving shaft, spaced friction gears splined to the driven shaft, independent means for shifting said gears to effect engagement therebetween, the shifting means for gears of the driven shaft including resilient elements engaging the gears on the driven shaft to allow relative adjustment between the same and the gear on said driving shaft during shifting of the latter to obtain different speed ratios.

1,305,872. MICROMETER DRILLING-GAGE. BENJ. BOLLIE, Aurora, Ill. Filed June 17, 1918. Serial No. 240,410. 4 Claims. (Cl. 77-55.)



1. In a gaging attachment for a spindle, a micrometer comprising a body having an index thereon and being pro-

vided with means to lock it to and release it from the spindle at different points along the spindle, and a body having a scale thereon and provided with a separate means to lock it to and release it from the spindle, these bodies being secured together by means that permits them to be moved with relation to one another to cause the index to register with different parts of the scale when either of the bodies is free from the spindle.

1,305,873. **PLIERS.** JASON A. BATESON, Wesleyville, Pa. Filed Oct. 29, 1918. Serial No. 200,170. 1 Claim. (Cl. 81-48.)



Pliers comprising a pair of lever arms pivotally connected in crossed relation, jaws formed integrally upon said arms, said lever arms and jaws being formed entirely of insulating material, the opposing sides of said jaws being recessed for an area extending around the pivot point and to the extreme ends and working faces of the jaws, and metallic liner plates disposed within said recess and having edges terminating flush with and conforming to the edges of the working faces of the jaws.

1,305,874. **RAKE-CLEANING DEVICE.** HENRY F. BROCKMAN, Lincoln, Calif. Filed Apr. 23, 1918. Serial No. 230,274. 1 Claim. (Cl. 55-146.)



The combination with a rake head having a plurality of depending teeth, of a cleaning bar provided with a longitudinal series of teeth engaging openings, central upright and convergent end braces integral with the opposite side edges of the cleaning bar and having their upper ends joined together, inwardly extending and overlapping flanges extending from the upper ends of the braces and connected together, brackets mounted at the ends of the head, and a bowed spring arranged above the head between the braces having its end portion slidably mounted in the brackets and its medial portion bearing against the under surface of one of the flanges and tensioned to normally hold the cleaning bar in yielding contact with the under surface of the head.

1,305,875. **BALL-CAGE FOR BALL-BEARINGS.** OLOF HENNING BURNELL, Örebro, Sweden. Filed Apr. 3, 1919. Serial No. 287,326. 3 Claims. (Cl. 64-59.)



1. A ball cage for ball bearings consisting of a ring of wire formed with bends or curves extending laterally on each side of a transverse central plane passing through the ball cage, each bend being adapted to receive a ball of the ball bearing, and being formed with a radius less than that of a ball.

1,305,876. **SUBMARINE TORPEDO-TUBE CONSTRUCTION.** ARTHUR L. BRACK, Elizabeth, N. J., assignor to Samuel L. Moore & Sons Corporation, Elizabeth, N. J., a Corporation of New Jersey. Original application filed Oct. 19, 1915, Serial No. 56,056. Divided and this application filed Apr. 14, 1917. Serial No. 162,119. 6 Claims. (Cl. 114-17.)

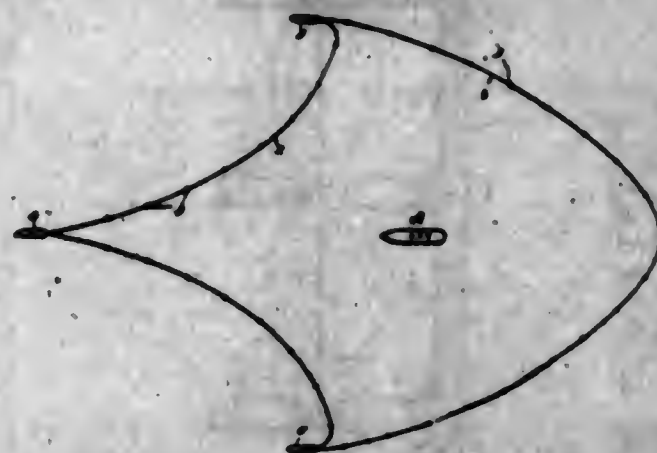
1. In a submarine, the combination of a hull having a general regular curvature, a torpedo tube located within

said hull and closely adjacent the walls thereof along substantially its entire length, that portion of the hull which



incloses said tube being bulged outwardly beyond the general curvature of the hull, to provide a pocket containing said tube.

1,305,877. **SHIP-CONVOY SUBMARINE DEFENSE.** MARIO CARBAU, Montevideo, Uruguay. Filed Apr. 18, 1918. Serial No. 228,697. 10 Claims. (Cl. 114-240.)



1. A submarine defense system of the class described, comprising a towing ship, a cable made up of sections, contact explosive devices between the sections, and flexible connecting elements connecting the sections at the said devices to prevent disruption of the cable when a device is exploded.

1,305,878. **APPARATUS FOR AUTOMATICALLY SETTING TOOLS OR FOR FACILITATING THE SETTING OF THE SAME.** RICHARD HERBERT CARPMAEL and JOHN CLIFFORD BOTHAM, Coventry, England, assignors to The Coventry Ordnance Works, Limited, Coventry, England. Filed Dec. 16, 1918. Serial No. 267,066. 3 Claims. (Cl. 51-4.)



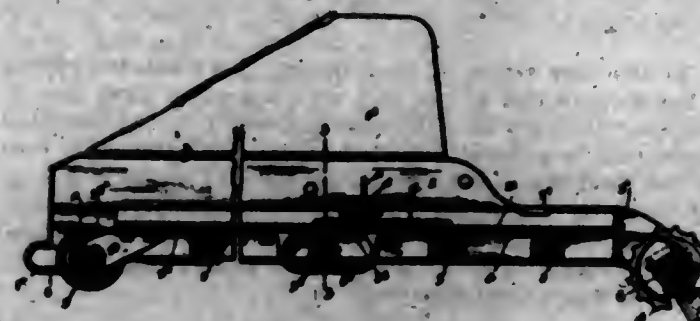
1. Apparatus for facilitating the setting of tools which comprises a tool, a spindle whose end is maintained in contact with the work while the machine is running, a piston connected to the spindle, a cylinder containing liquid, and a passage connecting the cylinder with a tube, the said tube being smaller in cross section than the cylinder.

1,305,879. **ELEVATOR ATTACHMENT FOR GRAIN-BINDERS.** HENRY J. CASS, Poughkeepsie, N. Y., assignor to Molino Plow Company, a Corporation of Illinois. Filed Oct. 30, 1918. Serial No. 58,764. 4 Claims. (Cl. 192-18.)



1. In combination with a harvester frame, an elevator frame provided with elevating mechanism, said elevator frame being pivoted at its inner end to the rear end of the harvester frame on a fore and aft axis and extending upwardly therefrom beyond the side of the harvester, a supporting strut for the elevator frame pivoted at its inner end to the harvester frame on a fore and aft axis and extending upwardly therefrom, a supporting arm connected with the upper end of the strut and extending beneath the elevator frame to support the same, and a sustaining rod connected at its inner end to the harvester frame and connected at its outer end to the supporting arm and acting to sustain the supporting arm, said sustaining rod being adjustable in length to rock the strut on its axis and thereby vary the height of the discharge end of the elevator frame.

1,305,880. **CONVEYING MECHANISM.** HENRY J. CASS, Poughkeepsie, N. Y., assignor to Molino Plow Company, a Corporation of Illinois. Original application filed Oct. 30, 1918, Serial No. 58,764. Divided and this application filed Dec. 14, 1918. Serial No. 136,870. 3 Claims. (Cl. 192-8.)



1. In a conveyor mechanism, the combination of a frame having side boards, a bottom extending between said side boards, two bars resting on said bottom at the side edges of the same and movable endwise longitudinally thereof, a chain support carried by each bar at one end of the frame, endless chains traveling on said bars and passing over said chain supports respectively and provided with conveying means cooperating with said bottom, and an adjusting member for moving the bars longitudinally to adjust the chain supports and thereby vary the tension of the chains.

1,305,881. **INSTRUMENT FOR HANDLING JEWELS.** FRANK CHERRY, Devall Bluff, Ark., assignor of one-half to J. M. McClintock, Devall Bluff, Ark. Filed Oct. 8, 1918. Serial No. 257,844. 5 Claims. (Cl. 81-7.)

1. An instrument for the purpose described, comprising a cylinder, a screw bearing therein, a follower rod on the

screw, a jewel container connected to the cylinder and having a bore for the reception of said rod and jewels, and



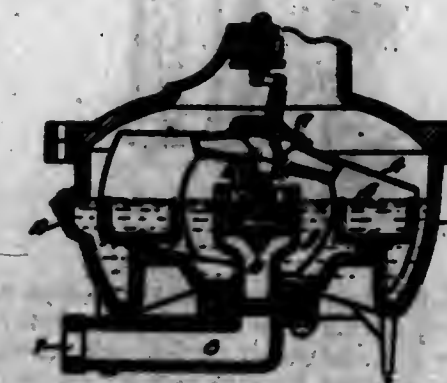
a resilient retainer carried by the container and having an end portion opposed to the forward end of the container.

1,305,882. **SPRING-MOTOR GOVERNOR.** GEORGE T. CHAMBERLAIN, Waukegan, Ill. Filed June 17, 1916. Serial No. 104,827. 6 Claims. (Cl. 264-18.)



5. In a device of the class described, the combination of a rotatable shaft, a plurality of flexible strips mounted on said shaft and substantially parallel thereto, weights on said strips intermediate the ends thereof, and a bell-shaped member mounted on said shaft to rotate therewith and having openings therein through which said flexible strips extend.

1,305,883. **WET GAS-METER.** HORACE CHRISMAN, Edgewood, Pa., assignor to Pittsburgh Meter Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 30, 1917. Serial No. 178,025. 3 Claims. (Cl. 73-1.)



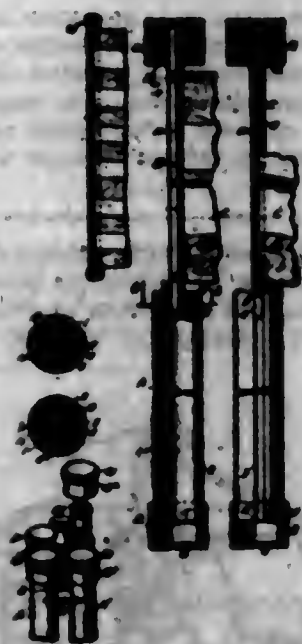
1. In combination in a meter, a casing inclosing a liquid seal chamber, a measuring drum located within said casing, a pedestal secured to the casing and projecting into said seal chamber and having a gas delivery passage formed therein which terminates within said meter casing in an annularly disposed discharge passages opening well above the normal level of sealing liquid within said chamber, a bearing support formed on the pedestal and submerged by the sealing liquid within said chamber, and a bearing for said drum mounted on said support.

1,305,884. HITCHING DEVICE. GEORGE CHERMY, Stewart, Minn. Filed Feb. 17, 1919. Serial No. 277,488. 1 Claim. (Cl. 24-120.)



In a device for the purpose set forth, a block or casting having its lower portion provided with spaced arms and its upper portion arranged at an angle with respect to the arms and bifurcated, the upper wall at the said bifurcated end of the block being rounded in one direction and being provided with transverse teeth, a jaw extending angularly from the said wall, of a less width than the wall and provided with transverse teeth defining straight shoulders and angle surfaces between the shoulders, a jaw pivoted in the bifurcated portion of the block above the first mentioned jaw and overlying the other, said last mentioned jaw having teeth defining straight shoulders and the shoulders of the last mentioned jaw being disposed over the angle surfaces between the shoulders of the first mentioned jaw, spring means for holding the jaws in contacting engagement, a handle formed outward of the pivot of the last mentioned jaw arranged angularly with respect to the said jaw and having a rounded portion between the lower edge of the said handle and the said jaw, all as and for the purpose set forth.

1,305,885. EXTENSION-STAFF AND CONTAINER FOR FLAGS. ADDISON CO., Jersey City, N. J., assignor of one-half to Frederick Berensbrock, Union, N. J. Filed July 24, 1918. Serial No. 246,550. 8 Claims. (Cl. 116-12.)



1. A flag staff comprising a tubular section having a longitudinal slot open at one end, a flag-carrying section slidable in the first-mentioned section, and having a key slidable in the slot and adapted to move out of the slot when the flag-carrying section is fully inserted, whereby the sections can relatively turn, and a flag on the flag-carrying section adapted to enter the slot and to be drawn through the slot during the winding of the flag by the relative turning of the two sections.

1,305,886. AUXILIARY RIBBON-HOLDER. WILLIAM A. DE LOU, JR., Plainfield, N. J. Filed Dec. 26, 1918. Serial No. 266,306. 5 Claims. (Cl. 197-181.)

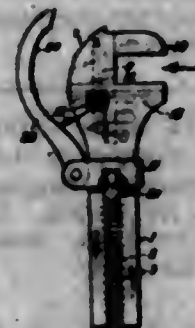
1. An apparatus as characterized comprising a short section of color-filled material; a frame operatively con-

nected therewith; and means for manipulating said frame to place said color-filled material in the path of the printing character of the usual type-writing machine and the paper being imprinted thereby, said means embodying a



crane-like structure having a reach bar pivotally mounted at the rear of said machine and supporting said frame at the forward end thereof in superposed relation to the printing point of the type bars of said machine.

1,305,887. WRENCH. WILLIAM DE ROOY, New York, N. Y. Filed Aug. 27, 1918. Serial No. 251,006. 5 Claims. (Cl. 81-111.)



2. As a new article of manufacture, a wrench embodying a handle provided at one end with a head, a fixed jaw on the head having a smooth inner face and a curved, serrated outer face, a movable jaw cooperating with the inner face of the fixed jaw, means for mounting said movable jaw on the head so that it may travel in a path either in alignment with the axis of the handle or at right angles thereto, and a pivoted, curved, serrated jaw cooperating with the serrated face of the fixed jaw.

1,305,888. CURRENT-WHEEL. WINFIELD S. DRISCOLL and WALTER F. DAVIS, Gretna, Neb. Filed Sept. 30, 1918. Serial No. 264,179. 5 Claims. (Cl. 170-121.)



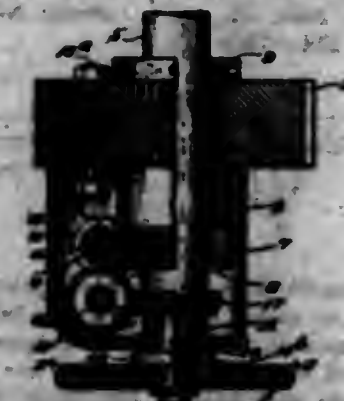
1. A current wheel having vanes normally lying substantially at right angles to the wheel and collapsible under current pressure, a ring carried by the wheel and shiftable relatively thereto, and connections between said vanes and said ring.

1,305,889. DOUBLE CUFF. ABRAHAM FISHER, New York, N. Y. Filed Feb. 19, 1919. Serial No. 277,949. (Cl. 2-79.)



The combination with a sleeve of a cuff structure formed with three sections, each section having an aperture at each end, and means for connecting the cuff structure to said sleeve along the juncture of the first and second sections whereby the first section may act as a stiff cuff and the remaining sections may be folded thereover to act as a soft cuff.

1,305,890. TEXTILE-PRINTING MACHINE. LORENZ FLICK, Saylesville, R. I., assignor, by means assignments, to Frank A. Sayles, Charles O. Read, and Kenneth F. Wood, Pawtucket, R. I. Filed July 31, 1918. Serial No. 247,612. 5 Claims. (Cl. 101-248.)



1. The combination with a roll, a wheel, and angular-adjustment gear connecting said roll with the said wheel, of means for reversibly actuating said angular-adjustment gear to effect angular change of relationship between the roll and the wheel, comprising a handle providing for manual actuation thereof and lost-motion connections intermediate said handle and said gear.

1,305,891. TEXTILE-PRINTING MACHINE. LORENZ FLICK, Saylesville, R. I., assignor, by means assignments, to Frank A. Sayles, Charles O. Read, and Kenneth F. Wood, Pawtucket, R. I. Filed Aug. 1, 1918. Serial No. 247,742. 5 Claims. (Cl. 101-248.)



1. The combination with a roll, a wheel, and angular-adjustment gear intermediate the two, including a worm-wheel concentric with the axis of the roll, and a worm engaging said worm-wheel, of an adjustment-handle for

said gear that is worked manually in a plane at an angle with the planes of rotation of the roll and wheel, and reversible motion-transmitting connections between said handle and said worm.

1,305,892. HOOK. DAVID FLOOD and ANTON FRANKSON, Lindsborg, Kans. Filed May 4, 1918. Serial No. 232,637. 3 Claims. (Cl. 21-79.)



2. A hook extending forwardly, laterally in one direction, rearwardly, laterally in the opposite direction under the forwardly extending portion, up and over the said forwardly extending portion, and in the said first lateral direction and forwardly.

1,305,893. TYPE-WRITING MACHINE. MAX GABREL, Chicago, Ill. Filed May 2, 1918. Serial No. 232,016. 6 Claims. (Cl. 197-25.)



1. In a type bar action for typewriting machines, the combination with a longitudinally reciprocable type bar provided with a rack consisting of a plurality of teeth consecutively and horizontally arranged along one side of the type bar, a key lever, a pivoted sub-lever provided with a curved toothed segmental portion engaging the teeth of the rack on the type bar, a stationary guide adjacent the toothed portion of the type bar for preventing lateral movement thereof, cooperating means on the sub-lever and type bar adjacent the engaging portions thereof for preventing lateral relative movement between the said sub-lever and type bar, and means for operatively connecting the key lever with the sub-lever.

1,305,894. INTERNAL-COMBUSTION ENGINE. WALDO G. GERHARDT, Chicago, Ill., assignor, by means assignments, to Gerhardt Motor Corporation, Chicago, Ill., a Corporation of Illinois. Filed June 18, 1917. Serial No. 175,277. 17 Claims. (Cl. 122-33.)



1. In an internal combustion engine comprising a combined cylinder and combustion chamber, a longitudinally movable piston in said cylinder, an air inlet port, a valve and means to yieldingly hold said valve closed on

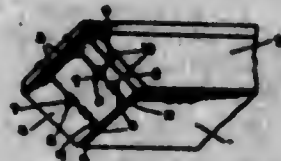
said inlet port, the combination of a fuel passageway, a fuel depository in said passageway and means to deposit fuel in said depository, a chamber adapted to contain fluid under pressure, a combined compression piston and sleeve valve and a pump piston arranged to obtain a compression chamber between them, said pump piston provided with an annular groove, a passageway communicating with said combustion chamber, said compression piston and sleeve valve provided with ports adapted to put said annular groove in communication with said fluid chamber and with said passageway communicating with said combustion chamber when said combined compression piston and sleeve valve, and said pump piston are in predetermined positions, a passageway in communication with said compression chamber and provided with a port at the discharge end thereof and an additional port in said combined compression piston and sleeve valve adapted to register with said discharge end port and with said fuel passageway, when said combined compression piston and sleeve valve and said pump piston are in said determined positions.

1,305,905. MINER'S CAP. MICHAEL J. GIBSON, Shenandoah, Pa. Filed Dec. 6, 1918. Serial No. 265,584. 2 Claims. (Cl. 2—117.)



1. In combination with a miner's cap, of a strap arranged over the top thereof having a central widened portion and angle sides secured to the sides of the cap, said angle sides having transverse loops, a yieldable disk adapted to be arranged on the top of the cap, cushioning means between the center of the disk and the widened portion of the strap, and fingers on the disk adapted to be received in the loops of the strap.

1,305,896. BOAT OR VESSEL. SAMUEL GOLDEN, New York, N. Y., assignor to Hullfin Boat Company, Inc., New York, N. Y., a Corporation of New York. Filed Feb. 18, 1918. Serial No. 217,480. 4 Claims. (Cl. 114—67.)



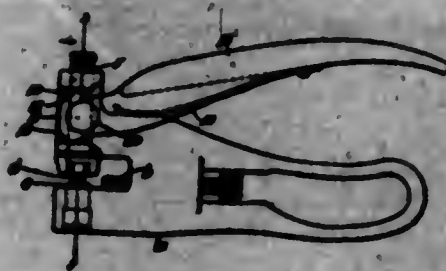
1. A ship or vessel having a substantially flat bottom, a channel in said bottom at substantially the point where the stem and bottom meet, means for overcoming the suction or partial vacuum created by the movement of the vessel through the water, said means comprising a plurality of air pipes, the upper ends of which open into the air above the waterline and the lower ends of which open into the channel in the bottom of the vessel, and branch pipes leading from the suction pipes to openings in the sides of the vessel.

1,305,897. CHAIN. WILLIAM A. HAGEN, Texhoma, Okla. Filed Jan. 25, 1918. Serial No. 218,745. 1 Claim. (Cl. 50—81.)



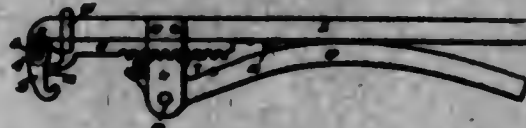
A chain composed of links having side portions provided with openings and having outstanding flanges located at the edges of the side portions.

1,305,900. HAND-PUNCH. PAUL E. HANNEBACH, Southington, Conn. Filed May 17, 1918. Serial No. 235,066. 8 Claims. (Cl. 164—130.)



1. Is a tool of the character described, a frame provided with upper and lower jaws, a shoulder at the side of the upper jaw, a punch mounted within the upper jaw and adapted for longitudinal movement therein, a lever the end of which is provided with a cam surface adapted for cooperation with said shoulder, and a pin connecting said lever with said punch.

1,305,899. HAND-TOOL. GEORGE W. HARRIS, Camden, N. J., assignor, by mesne assignments, to Hazel Safety Nut Company, Philadelphia, Pa., a Corporation of Delaware. Filed Mar. 21, 1914. Serial No. 826,228. 3 Claims. (Cl. 284—78.)



1. A tool comprising a bar, a hook pivotally mounted on the end of the same, and a cam carried by said hook to limit its inward movement, a cooperating member slidably mounted with respect to said bar and having a projection on the end nearest the hook, said projection pointing toward said hook, and means for actuating said cooperating member in a line parallel to said bar, to bring its projection into operative position with respect to said hook.

1,305,900. ASSORTING-CONVEYER. HARRY E. HARRIS, Philadelphia, Pa. Filed Mar. 20, 1918. Serial No. 235,062. 20 Claims. (Cl. 83—62.)

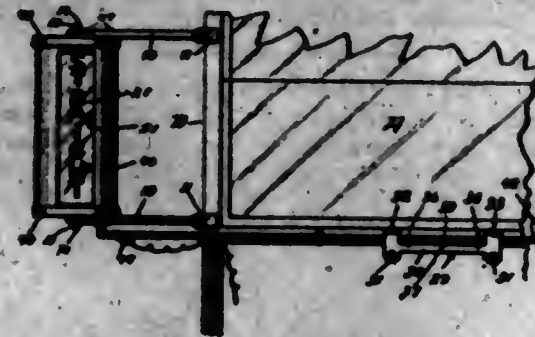


1. The combination of a slotted table, rails extending longitudinally of the table adjacent the slots, chain conveyers movable over such table; said chains being disposed adjacent said rails whereby the heads of rivets, bolts and the like may be disposed between the rails and the chains, means for moving the chains, and guiding means for delivering the bolts, rivets and the like which fall through the slots at different places.

1,305,901. AUTO DIRECTION-SIGNAL. BENJAMIN INTROWITZ, Chippewa Falls, Wis.; Anna Introwitz, administratrix of said Benjamin Introwitz, deceased. Filed Mar. 20, 1918. Serial No. 235,562. 1 Claim. (Cl. 40—77.)

In an automobile signaling device comprising a revolvable casing bearing indicia, means for rotating said casing to the desired degree, comprising a rod connected

with said casing, a guide bracket comprising a plate, upstanding lugs on said plate provided with openings for the passage of said rod, a lug on the lower side of said



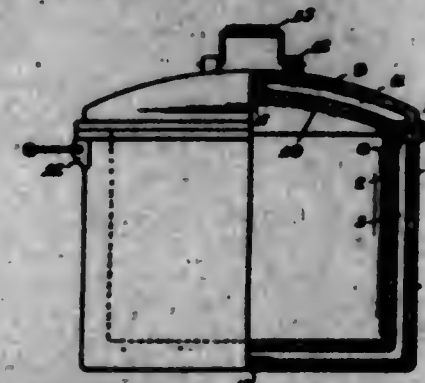
rod engageable selectively within notches in the upper side of said plate, and springs disposed within the openings in said lug and bearing upon said rod for resiliently holding said lug in engagement with said notches.

1,305,902. GLOVE-CLEANING MACHINE. ELIAS JAQUES, Beverly Hills, Calif., assignor to James West, Jamaica Plain, Mass. Filed Nov. 27, 1917. Serial No. 304,205. 8 Claims. (Cl. 8—8.)



1. Apparatus for cleaning gloves or the like comprising a tub having a cylindrical body and a bottom exhibiting a continuous concave curve in vertical section, a removable cover for the tub, and a shaft journaled in said cover to extend through the tub, said shaft having thereon an agitating blade fitting closely the wall of the tank and presenting smooth continuous edges and surfaces throughout, said blade having relatively narrow slots therethrough for the passage of cleansing liquid, the dimensions of said slots being adapted to prevent gloves or the like small articles from wedging or catching therein.

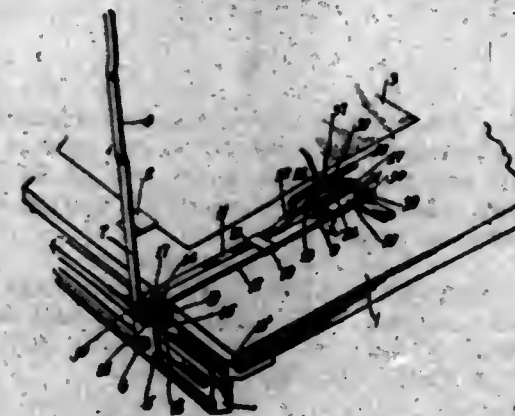
1,305,903. HEAT-INSULATED RECEPTACLE. EARL W. JOHNSTON, Detroit, Mich. Filed Feb. 20, 1919. Serial No. 278,243. 2 Claims. (Cl. 217—118.)



1. A double walled vessel made of molded material and having a vacuum space within the same, one of the

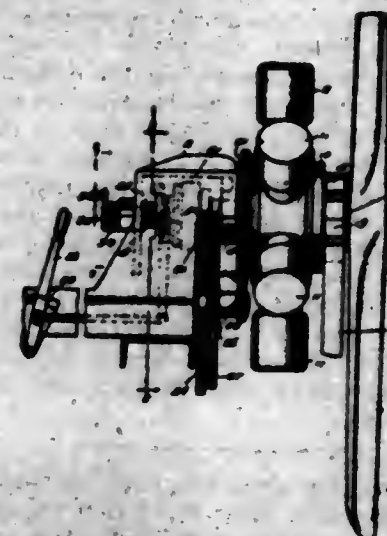
walls being provided with a valve comprising a metal seat, the outer edge of which is molded and embedded in the wall, and a plug cooperating with said seat.

1,305,904. REGISTER-GUIDE AND GRIPPER. MAYNARD T. JOY, New York, N. Y. Filed Mar. 9, 1918. Serial No. 221,541. 7 Claims. (Cl. 101—414.)



2. A gripper arm and guide comprising an arm structure connected with the gripper arm, a guide structure including a frame and a pusher member, a hinge for connecting the frame with the gripper arm, said hinge being in line with the pivotal support of the gripper bar whereby the frame is not moved as the gripper bar swings back and forth, a second hinge connected with said gripper bar and extending therefrom substantially as a continuation thereof, and means connected with said last mentioned hinge and with the pusher member for moving the pusher member as the gripper arm is moved to an operative position.

1,305,905. MECHANISM FOR FACILITATING THE STARTING OF INTERNAL-COMBUSTION ENGINES. CHARLES Y. KNIGHT, Pasadena, Calif., assignor to The Knight American Patents Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 17, 1918. Serial No. 258,527. 16 Claims. (Cl. 123—44.)



1. In combination, a motor mounted to rotate and having a shaft arranged to be driven thereby, means for preventing rotation of said shaft while other parts of said motor continue to rotate to cause relative movement of said shaft and rotating parts for the purpose of starting the operation of said motor.

1,305,906. ADJUSTABLE SLICING-KNIFE. CHARLES H. KRAFF, Brooklyn, N. Y. Filed July 5, 1917. Serial No. 178,617. 1 Claim. (Cl. 30—20.)

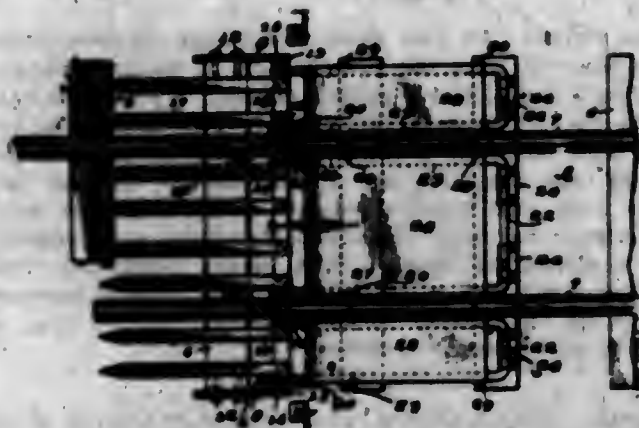
An adjustable slicing knife comprising in combination a handled knife blade provided with apertures adjacent the back near the ends of the blade, bolts engaging the said apertures and having heads seated on the rear face of the knife blade, the bolts projecting from the front

face of the knife blade, lock nuts screwing in the said bolts and against the outer face of the blade to securely hold the bolts in place on the knife blade, wing nuts screwing on the outer ends of the said bolts, a gage rod disposed parallel to one side of the cutting edge of the



knife blade, and having upturned ends terminating in eyes slidably engaging the said bolts, and springs coiled on the bolts and having their inner ends seated on the said lock nuts and having their outer ends bearing against the inner faces of said eyes.

1,305,907. CATTLE-GUARD. WILLIAM A. LAND, Hewins, Kans., assignor of one-third to Marshall H. Taylor, Hewins, Kans. Filed Feb. 12, 1917. Serial No. 148,967. 1 Claim. (Cl. 35-18.)



In combination with a railway track, a gate therefor and a depressible platform having a flexible connection with the gate and designed when pressure is exerted thereon to swing the gate to one position, and means for normally retaining the gate in another position, said gate having outwardly extending trunnions at the bottom thereof, brackets, sleeves formed on one of the corners of each of the brackets receiving the trunnions of the gate, the body of each of the brackets having a longitudinally extending slot, the upper wall of the said slot having spaced teeth and the body of each of the brackets designed to be arranged in contacting engagement with the ends of one of the supporting ties for the track, and securing elements embedded in the ends of the tie and passing through the slots in the brackets whereby certain of said securing elements are received between the teeth of the brackets and others contacting with the lower walls provided by the slots, whereby said brackets are sustained adjusted both longitudinally and angularly on the ends of the tie.

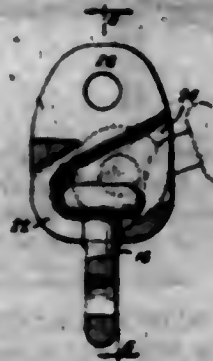
1,305,908. PACKAGE FOR ICE-CREAM CONES. LEWIS H. LANIER, Newport, Ky. Filed Oct. 11, 1917. Serial No. 196,041. 6 Claims. (Cl. 217-26.)



1. A package for ice cream cones or the like, comprising an outer casing with a series of boards having

spaced openings therein of a size to receive a cone, and of less diameter than the mouth of the cone, said openings protected by bent-over tabs at the edges thereof, the boards being loosely supported in the casing by the top edges of the cones immediately below.

1,305,909. SWIVEL CONNECTION. JOEL S. LAWSON, St. James, N. Y., assignor to The E. Thomas and Sons Company, New York, N. Y., a Corporation of Ohio. Filed Nov. 15, 1917. Serial No. 202,162. 5 Claims. (Cl. 50-95.)



1. In a swivel joint for suspension insulators and the like, a socket member having at one end fastening means and at its other end a swivel chamber with slot opening thereto from one side of its axis to permit the shank of a swivel pin to pass therethrough, and an aperture of greater diameter than the slot and opening to said chamber from the opposite side of said axis to permit the entry of the head of said pin into the chamber.

1,305,910. FISHING-REEL. FRED E. LIDDELL, Laporte, Ind., assignor to George W. Upton, Warren, Ohio. Filed Apr. 23, 1918. Serial No. 22,223. 4 Claims. (Cl. 242-84.5.)



1. In a fishing reel having end plates connected by cross bars parallel to its axis, and spool flanges adjacent to said end plates; the combination with said parts of a movable, resilient brake positioned on one of said bars and means for clamping it to said bar.

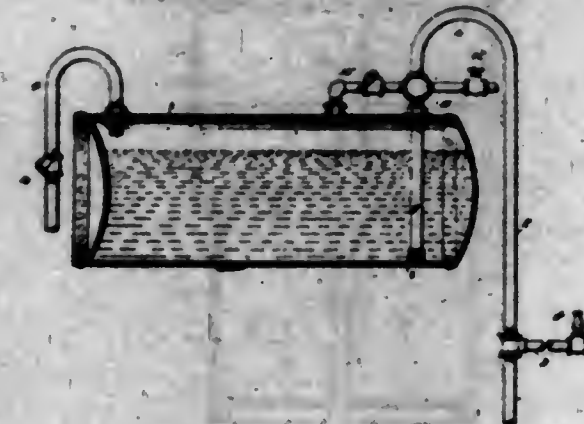
1,305,911. GARMENT. MARILETTA LINDBERG, Ocean Grove, N. J. Filed May 15, 1918. Serial No. 234,625. 8 Claims. (Cl. 2-122.)



8. In a bloomer, front and back skirt-like elements extending between the bloomer legs and attached to the

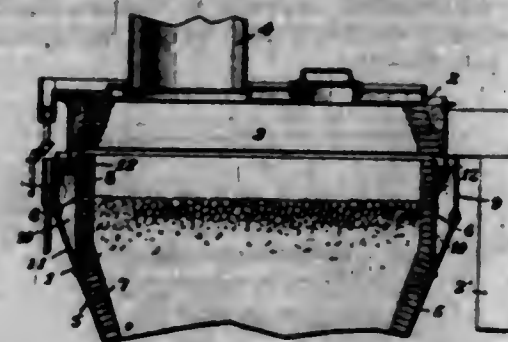
bloomer body above the crotch, each element being secured at its lower outer side margins to the inside of the bloomer legs below the crotch, the lower portions of said skirt-like elements being of greater width than the upper portions thereof.

1,305,912. AUTOMATIC SPRINKLER SYSTEM. ALBERT J. LOWMEYER, Edgewood, R. I., assignor to General Fire Extinguisher Company, Providence, R. I., a Corporation of New York. Filed Aug. 26, 1916. Serial No. 116,962. 6 Claims. (Cl. 109-25.)



1. An automatic sprinkler system comprising a closed gravity tank, a sprinkler pipe system including a supply pipe, a siphon connecting the upper portion of the supply pipe with said tank and having its short leg terminating below the normal level of the liquid therein, and means for admitting air to the top of the tank.

1,305,913. GAS-PRODUCER. CHARLES W. LEMMIS, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Jan. 27, 1918. Serial No. 4,650. 3 Claims. (Cl. 48-87.)



1. In a gas producer, a shell providing a gas producing chamber, said shell comprising a water chamber open at the top and surrounding said gas producing chamber in the zone of greatest heat thereof, and an interposed lining of firebrick between said water chamber and the contents of said gas producing chamber of sufficient thickness to permit the conduction of heat therethrough to said water chamber at a rate calculated to maintain the temperature below the fusion temperature of said firebrick.

1,305,914. WASHER FOR WELL-SCREENS. JAMES O. MACK, Houston, Tex. Filed Jan. 24, 1919. Serial No. 272,952. 4 Claims. (Cl. 166-5.)

1. A washer for well screens, including a fluid conducting tube, adapted to be let down into a well, a perforated section carried by the lower end thereof, a tubular blank section adapted to fit over said perforated section, a valve seat having a central opening carried by the lower end of said perforated section, a spider carried by the lower end

of said blank section, a valve stem whose lower end is secured to said spider and whose upper end projects



through said opening, a valve carried by the upper end of said stem and adapted to close said opening, and a yieldable member interposed between said spider and seat.

1,305,915. WELL-SCREEN. JAMES O. MACK, Houston, Tex. Filed Feb. 5, 1919. Serial No. 275,091. 5 Claims. (Cl. 166-8.)

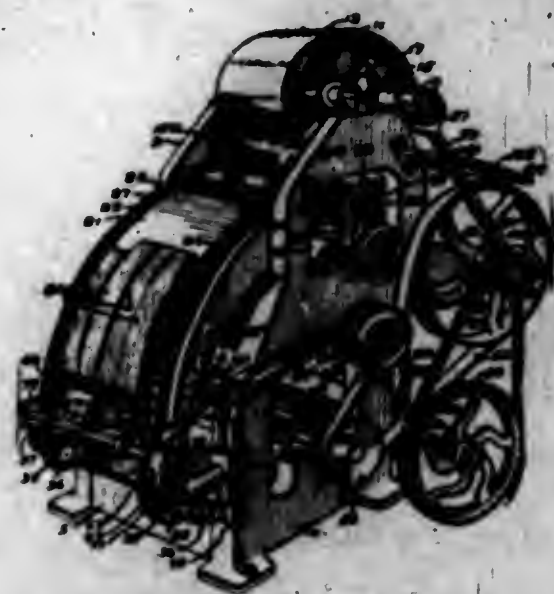


1. A well screen, including a tubular perforated jacket, screen sections, each being formed of perforated pipe, the perforations thereof being covered with screening, said sections being fitted together and enclosed by said jacket, and being removable independently therefrom.

1,305,916. SANDING-MACHINE. KARL F. G. MAIER, South Ashburnham, and ELLIOTT J. MCKNIGHT, Gardner, Mass., assignors to L. G. McKnight & Son Company, Gardner, Mass., a Corporation of Maine. Filed Oct. 31, 1918. Serial No. 260,424. 10 Claims. (Cl. 51-5.)

1. In a machine for sanding surfaces of curved strips, the combination of a support having side frames, a curved table for supporting the strips, bearings on said side frames, a sanding roll for treating the strips having horizontal shaft portions journaled in said bearings, a plurality of pressure fingers opposed to said roll, means

independently to press said fingers toward said roll, and endless carriers mounted on said support having



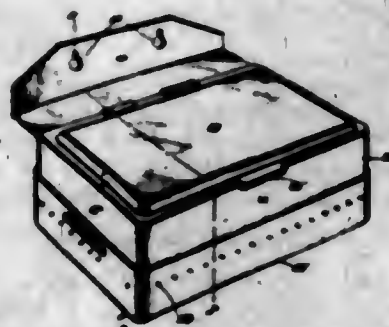
members to engage ends of the strips and feed the same over the curved table between said sanding roll and pressure fingers.

1,305,917. MESSAGE DEVICE. JERARD R. MARRICO, Brooklyn, N. Y. Filed Feb. 18, 1916. Serial No. 79,153. 5 Claims. (Cl. 128-49.)



4. In a message instrument, the combination with a frame, a magnet carried thereby, and an armature supported by the frame and vibrated by the magnet; of a rocker pivoted at one end to the frame, an applicator supported by the shank of the rocker, and a link pivotally connecting the other end of the rocker with the armature.

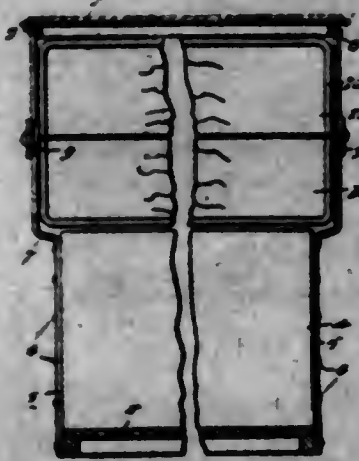
1,305,918. SOAP-HOLDER. CHARLES L. MAY, Houghton, Mich. Filed Oct. 13, 1917. Serial No. 196,508. 1 Claim. (Cl. 45-28.)



A soap holder comprising a soap containing receptacle having a perforated bottom, a substantially L-shaped bracket forming an integral part of the receptacle whereby the latter may be attached to a fixed support in spaced relation thereto, a cover hingedly mounted upon the receptacle, the opposed walls of the receptacle having bulged portions, a tray arranged beneath the receptacle and partly receiving the latter, the corresponding walls of the tray being outwardly bulged to provide grooves into

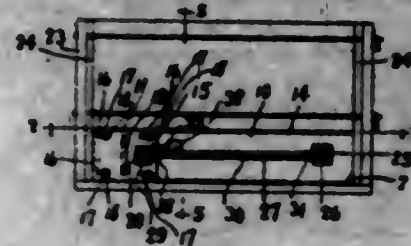
which the said bulged portions of the receptacle are adapted to snap whereby the tray is detachably associated with the receptacle, and said tray having a plurality of openings lying in a plane beneath the bottom of the receptacle.

1,305,919. WIND-SHIELD HOLDER. FREDERICK MEYERS, Bardsley Park, Conn. Filed Mar. 23, 1917. Serial No. 157,045. 1 Claim. (Cl. 21-148.)



The combination with an automobile including a body frame, a dash and a top, of a pair of braces having their lower ends secured to the body frame and to each edge of the dash and extending throughout the entire height thereof for reinforcing the dash and firmly securing the same to the body frame, said braces being offset outwardly and upwardly at the upper edge of the dash, said braces having their upper ends connected to the top for supporting said top to the dash, and ears secured to the outer faces of the braces and disposed laterally thereto for supporting a windshield between the offset portions and the upper ends of the braces.

1,305,920. END-GATE. ANDREW R. MILLER, Northwood, N. D. Filed Feb. 10, 1919. Serial No. 276,006. 1 Claim. (Cl. 21-21.)



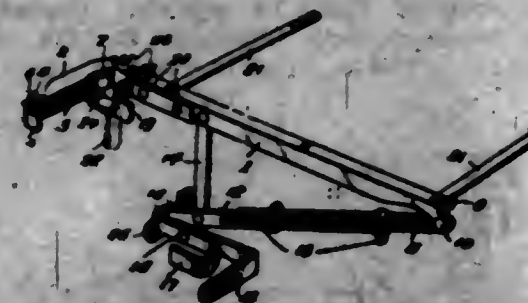
An end-gate comprising a stationary section constructed of wood having metallic strips on the edges thereof terminating adjacent one end of the said section and the inner ends of the said strips having notched corners, and a movable section comprising a metal plate arranged over the outer face of the stationary section at one end thereof, said movable section having its ends flanged to overlap the edges of the stationary section and the said flanges having their inner corners notched to co-engage with the notched plates of the stationary section, means for holding the slidable section against the stationary section and for limiting the movement of said slidable section, and a handle on said slidable section, a link pivoted to the outer face of said section, a rod pivoted to the stationary section and having its free end offset and provided with a handle, said link being pivotally connected to the rod outwardly of the pivotal connection of the rod with the said stationary section, a rotatable disk having an outstanding angle portion that is notched to receive the rod to lock the same against the end-gate.

1,305,921. CLOTHES-PIN-MAKING MACHINE. NORMAN M. MIMS, Seville, Fla. Filed May 20, 1917. Serial No. 171,779. 1 Claim. (Cl. 140-102.)



A clothes pin making machine including a standard having a transverse opening, a rotary shaft extending through the said opening and provided at one end with a tubular head of greater diameter than the shaft and projecting from such end of the same and forming an inner exterior shoulder or stop to fit against the said standard, said shaft also forming a shoulder interiorly of the said head, a wooden plug or block driven into the head and fitting against the shoulder formed by the shaft, eccentrically arranged pins embedded in the block within said head and projecting beyond the same for engaging a wire, and means for rotating the shaft.

1,305,922. BRACKET. HILDING MOLLER, Youngstown, Ohio, assignor to F. W. Perry, Youngstown, Ohio. Filed Mar. 8, 1918. Serial No. 221,225. 2 Claims. (Cl. 20-57.)

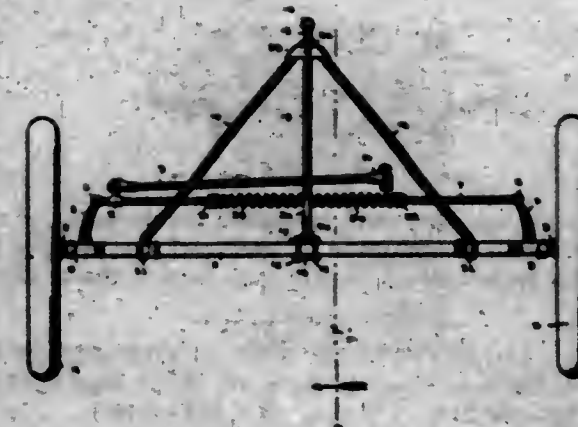


1. A bracket comprising a supporting member having a hook at its inner end, an inclined member composed of a pair of slotted links adjustably connected together, one link being pivotally connected to the outer end of the supporting member, a hook at the end of the other link, said hooks being oppositely arranged, a link pivotally connecting the hooked ends together, and a pair of connecting links pivoted to the supporting member and adapted to be swung under the same.

1,305,923. SELF-STEERING AND REINFORCING DEVICE FOR AUTOMOBILES AND THE LIKE. PRATT C. MERRITT, Thomasville, Ga., assignor of one-half to Charles W. Cooper, Thomasville, Ga. Filed June 18, 1917. Serial No. 174,225. 3 Claims. (Cl. 21-300.)

1. In a vehicle, the combination with an axle provided with link-connected steering knuckles and a V-shaped radius rod, of an auxiliary radius rod extending from sub-

stantially the apex of the V-shaped rod to the center of the axle, and a spring device acting upon the steering



knuckle connecting link and reacting upon the auxiliary radius rod and arranged to yieldingly hold said steering knuckles in straight ahead position.

1,305,924. SPARK-PLUG. LAROT C. MONISMITH, Glenvil, Nebr. Filed Sept. 12, 1918. Serial No. 254,024. 1 Claim. (Cl. 123-109.)



A spark plug comprising an outer shell provided at one end with a threaded portion, a plurality of spaced inwardly extending projections formed on the inner periphery of said shell and arranged in circumferential series, an insulating core of porcelain molded within said body and engaging the entire internal periphery thereof and having both ends extending beyond the ends of the body, the end projecting beyond the threaded end of said shell being a section of a sphere, a contact member extending centrally of and embedded within said core and having its active end extending an appreciable distance beyond the partially spherical end of said core, a retaining flange formed on said central contact member intermediate its ends whereby longitudinal displacement thereof will be prevented, and a contact member extending from said shell and having a laterally directed end extending toward the side of said first named contact member adjacent its end.

1,305,925. SHAFT-COUPLING. GUSTAF THEODORE MASON, Orange, Tex., assignor of one-half to Oscar S. Tam, Orange, Tex. Filed Dec. 23, 1918. Serial No. 267,904. 2 Claims. (Cl. 64-61.)

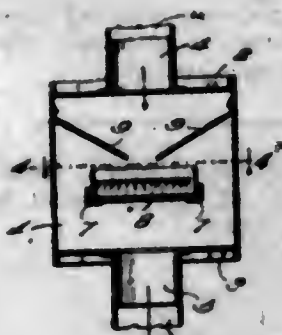
1. A shaft coupling comprising a block having recesses in its ends, said recesses being square in cross section and having rounded bottoms, the shaft sections having heads engaging the recesses and shaped to fit the same loosely, each head being tapered toward the shaft section

to permit angular movement of the shaft with respect to the block, and means connecting each head to the block.



said means comprising pins extending transversely of the block and head, the opening in the head for the pin increasing in cross section toward each face of the head.

1,305,926. AIR-MOISTENER AND DUST-COLLECTOR. JOHN S. NELSON, Sioux Falls, S. D. Filed May 3, 1917. Serial No. 160,213. 1 Claim. (Cl. 261-119.)



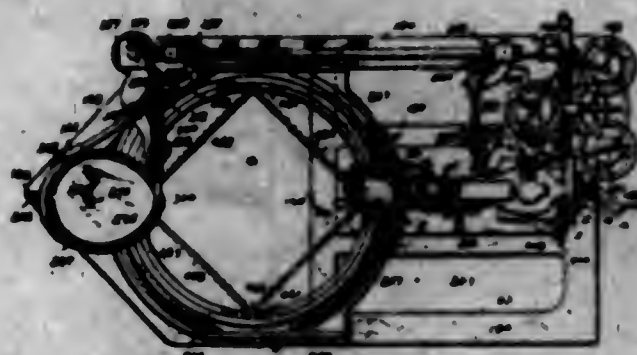
An air moistening and cleansing device comprising a casing having an inlet opening at the center of the top and having an outlet opening at the center of its bottom, a water pan supported in said casing and extending from one to the other of two opposed vertical sides thereof, said water pan being spaced from all other sides of said casing and having its center in alignment with the centers of said inlet and outlet openings, and a pair of deflector plates each extending from one to the other of said opposed vertical sides, said plates being downwardly inclined from the other opposed vertical sides of the casing and having their lower edges spaced apart, said edges being disposed above and adjacent to the center of said water pan and the distance between said edges being less than the diameter of the inlet opening, whereby the air current is flattened prior to its contact with the water in said water pan, said flattened current dividing into two thin flat currents and passing beneath said plates along the surface of the water, whereby to absorb maximum moisture from the latter and to deposit all dust and the like therein.

1,305,927. EMBROIDERY-MACHINE. WILLIAM N. PARKER, Brooklyn, N. Y., assignor to L. S. E. Co. Inc., Brooklyn, N. Y., a Corporation of New York. Filed Dec. 19, 1913. Serial No. 807,783. 19 Claims. (Cl. 112-102.)

1. In a machine, a stitch forming mechanism comprising a vertically reciprocating and laterally vibrating needle, a work moving mechanism provided with means for holding a piece of material or fabric in an extended position, means for producing a relative lateral movement between the laterally vibrating needle and the work moving mechanism, a thread carrying looper, and means for operating said looper to loop its thread around links of the needle thread.

2. In a stitching machine having a rotating shaft and a vertically reciprocating needle, a work carrier frame adapted to reciprocate, a work carrier adapted to revolve mounted on the frame, mechanism adapted to reciprocate the frame and rotate the work carrier, and gear connections only for transmitting movement from the rotating shaft to the operating parts of said mechanism, all said

actuating mechanism being continuously positively connected during the operation of the machine.

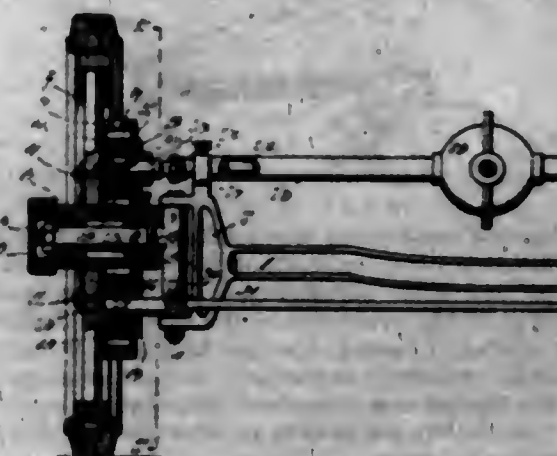


10. In a stitching machine, a work moving mechanism comprising a work carrier, means whereby when the machine is operated the work carrier is revolved continuously in a given direction, a stop motion device, and means whereby when the movement of the work carrier is reversed the movement of the stop motion device is also reversed.

13. In a sewing machine, a work carrier mechanism comprising a work carrier operating shaft, a work carrier frame, a revolving work carrier mounted on said frame, means for revolving the work carrier mounted on the frame, a connection between said means and the work carrier operating shaft, a cam operated by said means, a lever mounted separate from said frame one end of which is in engagement with said cam, a second lever in engagement with said first lever, and means whereby said second lever is operated from the movement of the work carrier shaft.

15. In a stitching machine, stitch forming operating mechanism, work moving mechanism comprising a revolving work carrier, means intermediate the stitch forming operating mechanism and the work moving mechanism comprising a revolving shaft for transmitting power to the work moving mechanism, and means for disconnecting said shaft from the stitch forming operating mechanism that drives it so it may be revolved separately from said stitch forming operating mechanism.

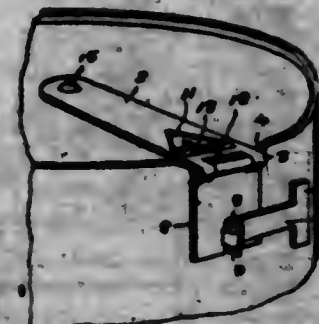
1,305,928. MOTOR-VEHICLE DRIVE. HERBERT L. PARNISH, Oklahoma, Okla. Filed Feb. 12, 1918. Serial No. 216,740. 2 Claims. (Cl. 74-101.)



1. In a motor vehicle drive, the combination with a fixed axle having a knuckle, a spindle having a steering knuckle pivoted to said first named knuckle, a wheel rotatable on said spindle and having an internal gear, an idle pinion at the center of the wheel and rotatable relatively to said wheel, a driving pinion meshing with said internal gear and with said idle pinion, a drive shaft carrying said driving pinion, a third pinion meshing with said internal gear and with said idle pinion, and a stub

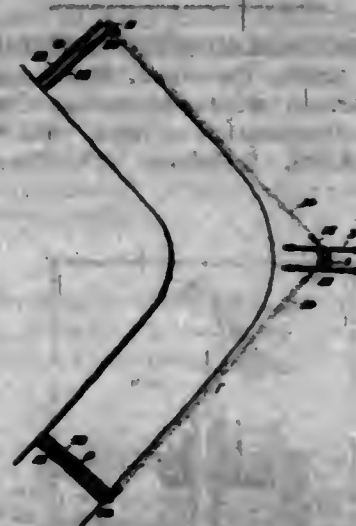
shaft upon which said third pinion is rotatably mounted, said stub shaft being rigidly carried on said steering knuckle.

1,305,929. CAN-OPENER. EUGENE E. PARNIER, Mat-tawa, Ontario, Canada. Filed Dec. 18, 1918. Serial No. 267,270. 3 Claims. (Cl. 220-47.)



1. The combination with a can, of a can opener embodying a radius bar pivotally attached to the top of the can at a central point, an extension bar hinged to the outer end of said radius bar and movable to an arc of substantially ninety degrees, an operating handle hinged to said extension bar and adapted to be swung to an arc of substantially ninety degrees and a spring pressed cutter, having a hinged connection with said radius bar adjacent to the edge of the can.

1,305,930. DANGER-SIGNAL. JOHN W. PROST, Bel-winkle, Calif. Filed Dec. 18, 1918. Serial No. 267,286. 10 Claims. (Cl. 244-298.)



1. In a signal installation, the combination of a movable signal, and an organized signal actuating mechanism located at a point remote from the signal; the said organized mechanism comprising a movable element connected with the movable signal and adapted to actuate the latter, two trigger members, and controlling means actuatable by one of the trigger members; the said controlling means being constructed and arranged to normally rest between one trigger member and the element that is connected with the signal, and being connected with the other trigger member, whereby when the latter trigger member is first actuated the controlling means will be displaced to prevent operation of the other trigger member from being attended by movement of the movable element.

1,305,931. SAFETY-HOIST. HOWARD PHILLIPS and JAMES GREENWALD, Detroit, Mich. Filed Mar. 15, 1918. Serial No. 282,970. 3 Claims. (Cl. 187-52.)



1. In combination with the draw bars of an elevator shaft, of guiding members for said bars, gates guided in said members and shoe engaging pawls carried by said gates and adapted to engage portions of the draw bars for causing the gates to move with the said draw bars.

1,305,932. ADJUSTABLE MOUNTING FOR TRACTOR-CONTROLLING MECHANISM. ANDREW H. REED, Kansas City, Mo., assignor of one-half to H. Sahler, Kansas City, Mo. Original application filed Apr. 11, 1917, Serial No. 161,156. Divided and this application filed Mar. 15, 1918. Serial No. 222,606. 5 Claims. (Cl. 180-77.)



1. In a tractor, the combination with a frame member of a bar adjustably fixed to and bodily supported by said frame member, and tractor control devices mounted on said bar and movable therewith to an adjusted position in the rear of the tractor.

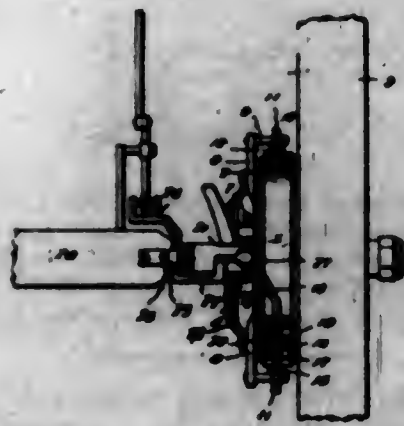
1,305,933. TRANSMISSION MECHANISM FOR WIND-MILLS. GEORGE N. EBBE, Kansas City, Mo. Filed Aug. 23, 1915. Serial No. 46,784. 2 Claims. (Cl. 74-27.)



1. In wind mill mechanism, a suitable frame, a vertically reciprocative cross-head, a plunger connecting rod depending from said cross-head, a pitman pivoted to said cross-head and projecting upward therefrom, an irregular shaped internal gear formed integral with and within said pitman, the pitch line of the teeth of said internal gear forming a semi-circle at the upward end and the lower end thereof, the pitch line of the sides of said gear positioned upright and in parallel relations, a shaft journaled in said frame and passing through said pitman,

a pinion on said shaft within said pitman, a guideway in said pitman above said pinion, a roller in said guideway and journaled on a pin fixed in said frame, said roller positioned to at all times retain said pinion in mesh with said gear and cause said pitman to oscillate on the pivotal connection to said cross-head, and said roller and said pinion so positioned as to retain the pitch line of one side of said gear in alignment with said plunger connecting rod during each alternate reciprocating stroke of said pitman and cross-head and plunger connecting rod.

1,305,934. STEERING-WHEEL BRAKE. JOSEPH C. RHODES, GEORGE E. GUFFY, and JAMES G. SHERMAN, Danville, Ky. Filed Dec. 29, 1917. Serial No. 200,503. 2 Claims. (Cl. 21-4.)



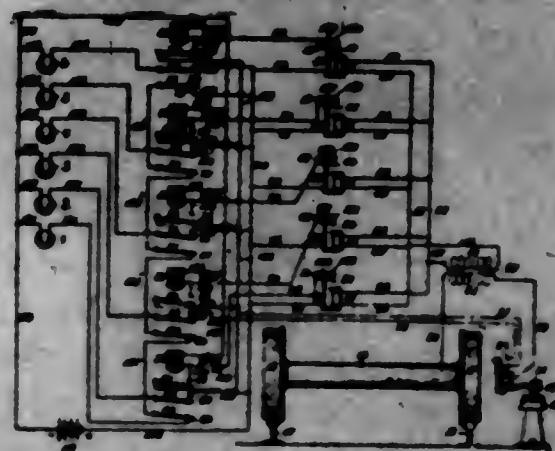
1. In front wheel brake mechanism for motor vehicles, means for supporting an external contracting brake band in constant working relation to a brake drum on said wheel, said means consisting of a hanger having an open center frame portion adapted to embrace and receive the adjacent steering knuckle, said hanger also having means to support the brake band.

1,305,935. ANGULARITY-INDICATOR. WALTER C. RISSMAN, Philadelphia, Pa. Filed Jan. 29, 1918. Serial No. 214,366. 1 Claim. (Cl. 32-300.)



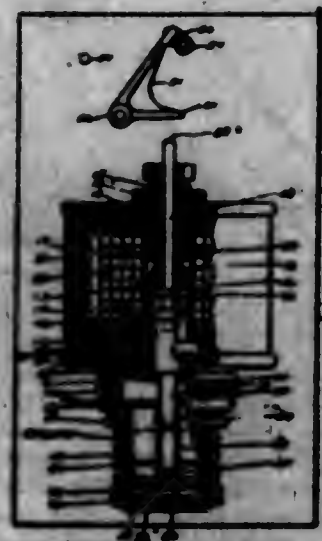
The combination of an instrument board having an opening, a narrow casing fixed in the opening in the board and extending at right angles to the board and open at its end adjacent thereto, a scale plate closing said open end of the casing and having upper and lower notches, a tube, and an indicating fluid in the tube; the tube including an upright portion in front of the plate, an angularly disposed portion at the upper end of the upright portion and extending through the upper notch of the plate, and a leg reaching upwardly from the lower end of the upright portion and extending through the lower notch of the plate and having a reservoir elevated relatively to said end and also having a constriction at an intermediate point between the reservoir and the lower end of the upright portion and spaced from said reservoir and end.

1,305,936. SIGNAL SYSTEM FOR MOVING VEHICLES. LUTHER RINSON, Buffalo, N. Y., assignor to The Standard Automatic Railway Signal Company, Buffalo, N. Y., a Corporation of Arizona. Filed Mar. 6, 1917. Serial No. 182,524. 8 Claims. (Cl. 246-40.)



2. In combination, a railway, a train adapted to be moved thereon, more than three signals on the train, a series of signal rails arranged along the railway, alternating current generators of substantially different frequencies for energizing the signal rails, means for independently operating the signals corresponding to the different kinds of current supplied thereto, including a single shoe carried by the vehicle and adapted to contact with the signal rails in succession, and means on the vehicle for automatically maintaining any particular signal in operation after such shoe has ceased to contact with the particular signal rail from which said signal received the current by which it was originally actuated, a danger signal on the vehicle and means controlled by the contact shoe for energizing the danger signal when the vehicle passes a deenergized rail.

1,305,937. ELECTROMAGNETIC OVERLOAD DEVICE. CHARLES H. RIPP, Cleveland, Ohio, assignor to The Electric Controller & Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 6, 1917. Serial No. 178,928. 3 Claims. (Cl. 175-341.)



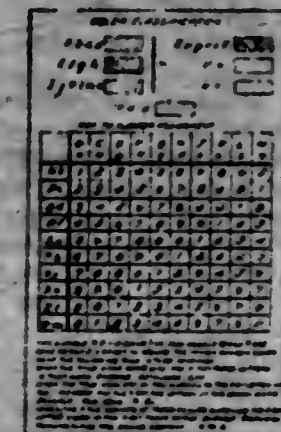
1. In an electromagnetic device, a magnetic circuit, an energizing winding thereon, a cylindrical core member in the circuit, there being a cylindrical working air-gap for the core member, and a magnetic member surrounding the gap and tapered externally in the direction opposite that which the movable member takes while closing the gap.

1,305,938. COLLAR-BUTTON. ROBERT VINTON SAMPSON, Denver, Colo. Filed Feb. 15, 1918. Serial No. 277,156. 3 Claims. (Cl. 24-101.)



2. A collar button comprising a body formed of wire bent for producing a head in the form of an eye, a neck extending from said head, and a base extending from one side of the neck, and retaining means loosely swinging over said eye.

1,305,939. METHOD OF FILING UNITS OF INTELLIGENCE. WILLIAM F. SCHMIDT, Ridgewood, N. J. Original application filed May 1, 1916, Serial No. 94,659. Divided and this application filed June 18, 1917. Serial No. 175,269. 6 Claims. (Cl. 129-15.)



1. The method of filing units of intelligence which comprises first the grouping of such units in accordance with the alphabetic character thereof into main divisions and assigning a distinguishable symbol to each of such main divisions and then independently identifying isolated alphabetic characters of said unit with numbers and filing the unit of intelligence in accordance with said symbolic and numeric designations.

1,305,940. STONE-GATHERING MACHINE. JOHN W. SCHMOEDER, Zurich, Mont. Filed Oct. 8, 1918. Serial No. 257,574. 7 Claims. (Cl. 55-17.)



1. A stone gathering machine comprising gathering means, a hopper, a roller for moving the stones from the gathering means to the hopper, a box and means for moving the hopper to dumping position over the box.

6. A stone gathering machine comprising a wheeled frame, inclined bars carried thereby, plow bars carried by said inclined bars, plow points at the ends of said plow bars, the heel of each plow extending to a greater depth than the point thereof and means for adjusting the depth the plows will enter the ground.

7. A stone gathering machine comprising a wheeled frame, a pair of inclined bars secured thereto, plow means carried by said bars, elevator means located adjacent said plow means, wings projecting from each of said bars and hook members carried by said wings.

1,305,941. COMBINED CHECK, CHECK-BOOK HOLDER, AND CUTTER. JOHN F. SHOSMAKER, Des Moines, Iowa, assignor, by mesne assignments, to Protective Corporation, Chicago, Ill., a Corporation of Delaware. Filed Nov. 7, 1916. Serial No. 129,990. 2 Claims. (Cl. 283-58.)



1. In a device of the class described, the combination of a check book comprising a plurality of checks each having on its face columns of figures arranged in successively increasing amounts, means for securing said checks together, a holder, means for securing said checks in said holder in a certain position with relation to the holder, said holder having flexible ends, a cutter on one of said ends, the parts being so arranged that when the checks are installed in the holder the cutter may be readily moved to a variety of positions above the numbers on the top check, said flexible ends being provided with coacting fastening devices so arranged that when the ends are fastened by said fastening devices, the checks and the free end of the flexible end, which carries the cutter, will be within the holder.

1,305,942. ORCHESTRION. GEORGE P. SMITH, Boley, Okla., assignor of one-third to James C. Jackson, Langston, Okla. Filed Dec. 29, 1917. Serial No. 209,500. 3 Claims. (Cl. 84-10.)



2. In an orchestrion, a pivoted pedal, a plurality of clappers, shafts supporting the clappers, an arm carried by one of the shafts, a triangle in position to be struck by the arms, means connecting said pedal with one of the shafts to rotate the latter, means for transmitting the rotary movement of said shaft to the other shaft, a stationary tambourine, and means operated by the pedal to strike the tambourine.

1,305,943. HUMIDIFIER. RAYMOND D. SMITH, Arlington, Mass., assignor to Tremont Products Company, Boston, Mass. Filed July 24, 1918. Serial No. 246,622. 21 Claims. (Cl. 201-120.)

1. In a bubbling apparatus including a container for a body of liquid; a conduit for leading air beneath the sur-

face level of said liquid, and a submerged air-sprayer arranged to receive the air from said conduit and disposed to liberate said air into the liquid, the combination with



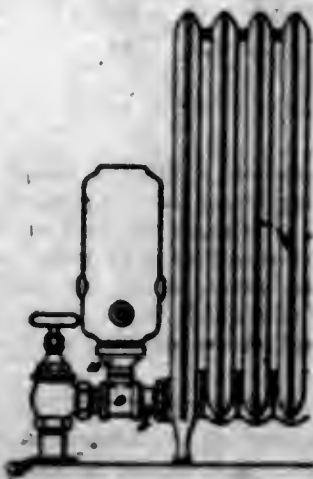
said sprayer of a downwardly converging element positioned above the same for spreading the bubbles of air rising therefrom.

1,305,944. HUMIDIFIER APPARATUS. RAYMOND D. SMITH, Arlington, Mass., assignor to Tremont Products Company, Boston, Mass. Filed July 29, 1918. Serial No. 247,211. 17 Claims. (Cl. 261—120.)



1. In humidifier apparatus, in combination, a container for a body of liquid, a float buoyed but submerged air sprayer with means extending into the liquid to guide the rising and falling movements of the air sprayer while submerged and as caused by the alterations in the depth of said liquid, and a mobile air conduit connected at one end with a stationary source of air supply and at the other end with said sprayer at a point submerged in said body liquid and adapted thereby to follow the vertically guided movements of said float buoyed sprayer while delivering air thereto.

1,305,945. HUMIDIFIER. WILLIAM G. SMITH, Scarsdale, and JOSEPH P. LISK, Brooklyn, N. Y. Filed May 11, 1918. Serial No. 233,908. 1 Claim. (Cl. 237—78.)



A humidifier comprising a vertically arranged water evaporating chamber having a water inlet port and an open top, and a heating chamber projecting upwardly into

the evaporating chamber and surrounded thereby, said heating chamber having a vertically arranged inlet at its bottom and a laterally arranged outlet port at its top leading through the evaporating chamber.

1,305,946. PREPARATION OF COLLOID BODIES. WALTER O. SNELLING, Allentown, Pa. Filed Aug. 14, 1917. Serial No. 186,310. 5 Claims. (Cl. 52—3.)

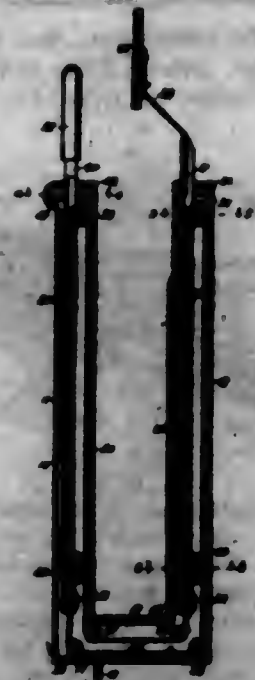
1. In the manufacture of colloids, the process which comprises mixing with nitrostarch an agent which does not colloid the nitrostarch during the period of mixing in the cold, and subsequently causing the agent to bring about the colloidization of the nitrostarch.

1,305,947. NECKTIE-FASTENER. JOHN A. BOWENSTROM, Chicago, Ill., assignor of one-half to Jacob Zagel, Chicago, Ill. Filed May 2, 1918. Serial No. 232,178. 8 Claims. (Cl. 2—82.)



8. In a necktie fastener, the combination with a substantially rigid curved member, of a spring member also curved, means for securing the spring member to the rigid member, and a close fitting covering of cloth over each of the extremities of the curved spring member whereby to protect the metal of the spring member from contact with the folds of a collar to which the same is adapted to be attached by the insertion of the collar folds between the rigid member and the spring member, there being notches in the lateral edges of the spring member on each side thereof adjacent its extremities, said notches being covered by the cloth of the said spring covering whereby the spring member may be secured by stitching to the material of the tie, said stitching passing through the cloth covering of the spring member in that portion thereof covering said notches in the spring member.

1,305,948. WINDOW-CLEANER. LEO BORSEBROOK, New York, N. Y., assignor of one-half to William Meyer, New York, N. Y. Filed June 8, 1918. Serial No. 238,547. 4 Claims. (Cl. 15—59.)



2. A window cleaner, comprising a hollow frame approximately U-shaped, a wiper having a bar slidable in one of the side arms of the said frame, a handled bar

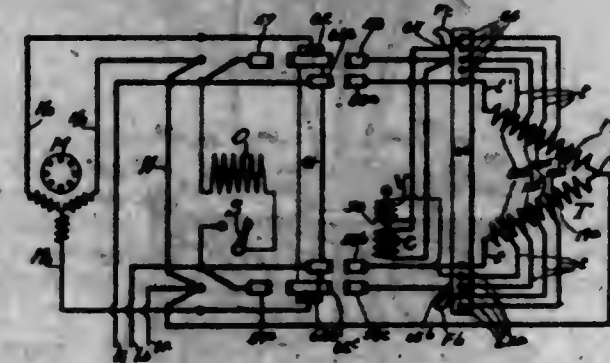
slidable in the other side arm of the said frame, a single flexible connection within the said frame and connecting the said bars with each other, and guide rollers journaled in the said frame and guiding the said flexible-connection to move the wiper bar inward or outward on imparting a corresponding inward or outward movement to the said handled bar.

1,305,949. PLAYING-CARDS. AVERY M. STOUTER and WILLIAM EHRLER, Stockton, Ill. Filed Mar. 13, 1916. Serial No. 88,948. 1 Claim. (Cl. 46—25.)



An educational device for instructing in the subject of anatomy comprising a set of cards including a number of books each of which consists of a like number of cards, all of the cards of a given book having similar pictorial illustrations of a given anatomical structure, and each card having the name of different elements of the illustrated subject thereon, one of the names being more distinctively displayed than the others, the distinctive name being different on each card of the entire set of cards.

1,305,950. ELECTRIC CONTROLLER. HARRY F. STRATTON, Cleveland, Ohio, assignor to The Electric Controller & Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 28, 1917. Serial No. 188,008. 11 Claims. (Cl. 172—289.)

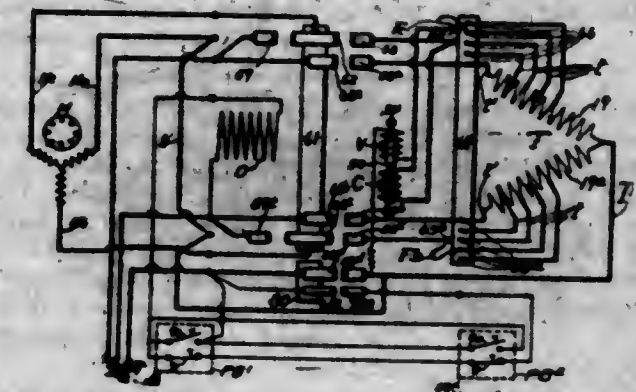


1. In an electric control system, a source of electromotive force, a receiving circuit, an electro-responsive device for controlling the circuit, a voltage-reducing means for supplying a reduced voltage to the circuit and to the device, and means whereby the amount of voltage reduction may be changed, and whereby, when the voltage on the receiving circuit is changed, the voltage on the electro-responsive device is thereby automatically changed proportionally to the change of voltage on the receiving circuit.

1,305,951. ELECTRIC CONTROLLER. HARRY F. STRATTON, Cleveland, Ohio, assignor to The Electric Controller & Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 7, 1917. Serial No. 205,915. 71 Claims. (Cl. 172—289.)

1. In an electric controller, a source of voltage supply, two sets of stationary contacts, a set of movable contacts, electro-responsive means for causing the movable contacts to successively engage the two sets of stationary contacts and for responding protectively upon failure

of the voltage supply, and means for preventing its response upon a recurrence of voltage supply, the second means including contacts closed by the electro-responsive



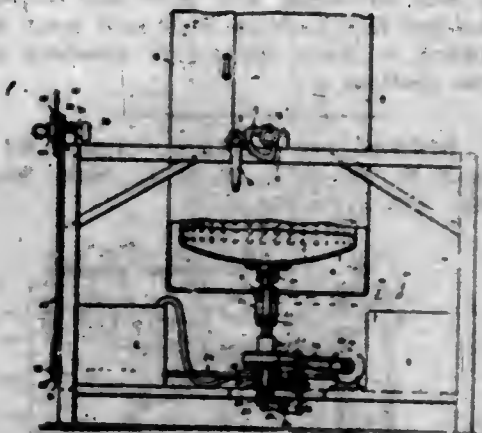
means when the set of movable contacts are in engagement with the first set of stationary contacts and remaining closed when the movable contacts engage the second set of stationary contacts.

1,305,952. GOLF-CLUB. ASA B. SUZMAN, Springfield, Mass. Filed Mar. 31, 1917. Serial No. 159,008. 4 Claims. (Cl. 46—4.)



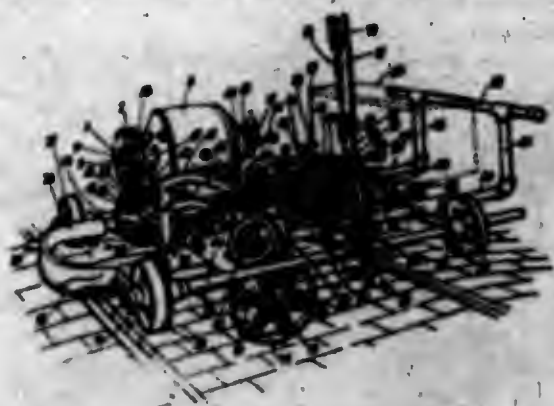
1. A golf club having at the upper portion of the shaft a grip member which is revoluble relatively to the shaft.

1,305,953. POWER WASHING-MACHINE. HERMAN H. TOLL and FRANK C. DUFF, Clarinda, Iowa. Filed Dec. 22, 1917. Serial No. 208,461. 3 Claims. (Cl. 74—21.)



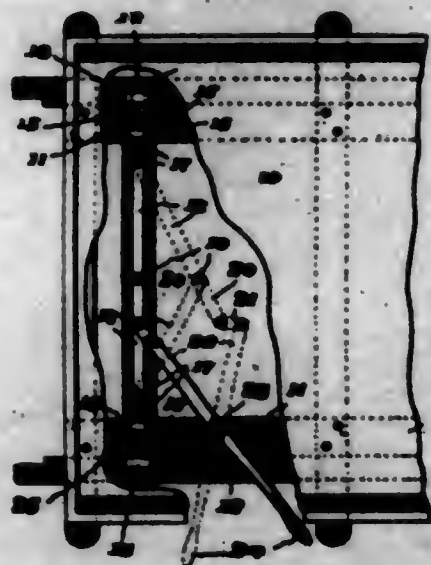
2. A machine of the class described comprising a cylinder, a rotatable drum therein, a shaft movable axially, means between the shaft and drum for connecting and disconnecting them, a pulley on the shaft, a belt for driving the pulley, a motor for driving the belt, a belt tightener, and means for axially moving the shaft and simultaneously operating the belt tightener.

1,305,954. TRACK-GRINDING MACHINE. FRANK J. VERNING, Cincinnati, Ohio. Filed June 22, 1917. Serial No. 176,397. 30 Claims. (Cl. 51-12.)



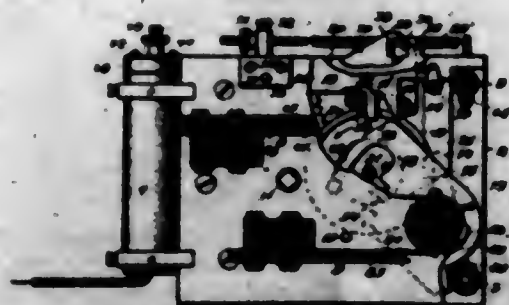
1. In a track grinding machine, grinding means, a truck to run on the track, a support for the grinding means pivoted on said truck to swing transversely of the track, and transfer means mounted on the support.

1,305,955. LOCKING MECHANISM. NATHAN D. WALDEN, David City, Nebr. Original application filed June 25, 1918, Serial No. 241,860. Divided and this application filed Nov. 8, 1918. Serial No. 261,613. 1 Claim. (Cl. 16-63.)



A locking mechanism including opposite sliding bolts, toggle members having a pivot joint and having their opposite ends pivoted to said bolts, an operating lever pivoted near one bolt, one toggle member having an extension projecting beyond the pivot joint, and a link connecting said extension and lever and swingable toward a straight line position with said lever when the lever is swung to move the toggle members toward a straight line position.

1,305,956. SIGNALING DEVICE. JOHN W. WHITE, Brooklyn, N. Y. Filed Jan. 23, 1917. Serial No. 144,300. 42 Claims. (Cl. 177-364.)



1. The combination of a signal transmitting circuit, a plurality of sets of switch contacts in the circuit, a signal wheel operating on one set of switch contacts to control

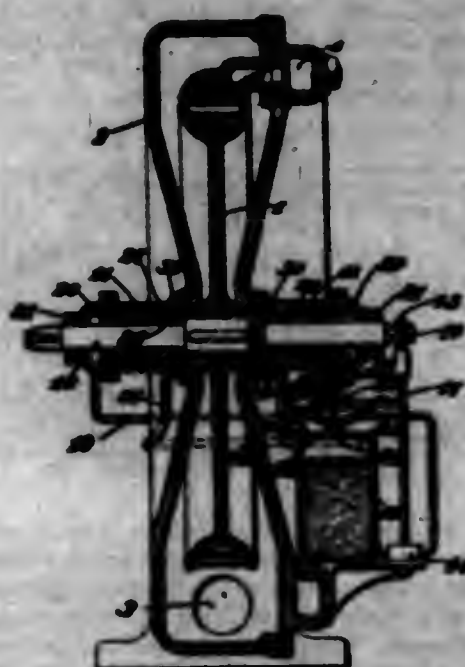
the circuit for transmitting a succession of signal calls, and means movable with the wheel to operate on the other set of switch contacts to transmit, a "trouble" call, and a device operating on the said means to hold the same inoperative after it has once operated.

1,305,957. TIRE-PROTECTOR. AGAPITO AVARIL, Manila, Philippine Islands. Filed Jan. 6, 1919. Serial No. 209,884. 2 Claims. (Cl. 152-16.)



1. A tire protector comprising a strip-like body of flexible material, means attached to said body for securing the same around a tire and also fastening said body in fixed relation to a vehicle, and a plurality of malleable tread strips secured to said body and extending centrally and longitudinally thereof, said tread strips being arranged in spaced and parallel relation to each other, and formed with transversely aligned channels in their outer faces.

1,305,958. LUBRICATING SYSTEM FOR CONDENSING-TURBINES AND THE LIKE. OLIVIER D. H. BARNETT, Roslindale, Mass., assignor to B. F. Sturtevant Company, Hyde Park, Mass., a Corporation of Massachusetts. Filed Aug. 20, 1917. Serial No. 188,880. 4 Claims. (Cl. 184-9.)

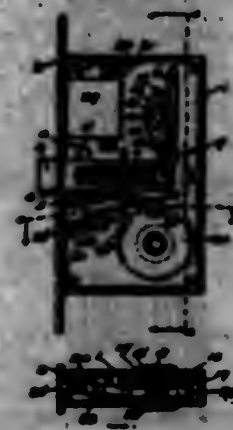


1. The combination with the casing and shaft of a condensing steam turbine or the like and a shaft-bearing subject at the inner end to the less than atmospheric pressure in the casing, of means for supplying lubricant to the bearing and for withdrawing the lubricant from within the bearing and adjacent the inner end thereof under less than atmospheric pressure.

1,305,959. DOOR-LOCK. NELSON O. BILLINGS, Eugene, Ore., assignor of one-half to Casper A. Billings, Astoria, Ore. Filed July 16, 1917. Serial No. 179,982. 3 Claims. (Cl. 70-53.)

1. A lock of the character referred to comprising a casing, a bolt slidable therein, a spring normally holding said

bolt extended through said casing, a bolt moving member pivotally connected at one end to said bolt and at its other end provided with a hook-like portion, a series of combination disks provided with notches to receive said hook-like portion when said notches are in register, a knob with combination mechanism for operating said combination disks, an operating lever above said bolt and connect-



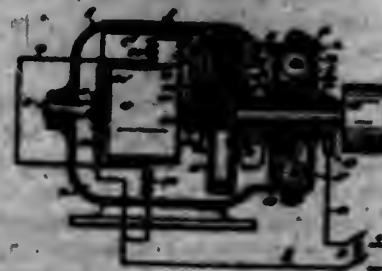
ed therewith at one end for moving the same without interfering with the movement of said bolt by said bolt moving member, and a hand knob at a different location in said casing with connections for operating said operating lever and said bolt independently of said first mentioned knob, whereby said bolt can be operated thereby at any time, substantially as described.

1,305,960. COTTON-PICKING DEVICE. JAMES H. C. BORE, Oklahoma, Okla. Filed Feb. 1, 1918. Serial No. 215,530. 3 Claims. (Cl. 56-32.)



1. In a cotton picking device, a body, a tubular member axially and rotatably mounted in said body, a fan structure mounted around said tubular member, and a ball bearing supporting mechanism around the outer edge of said fan, secured thereto, and operating between said fan and said body for revolvably supporting said tubular member.

1,305,961. SPEED-CONTROLLED RHEOSTAT. HUMER A. BUNNOS, Seattle, Wash. Filed Dec. 5, 1917. Serial No. 205,633. 3 Claims. (Cl. 173-238.)



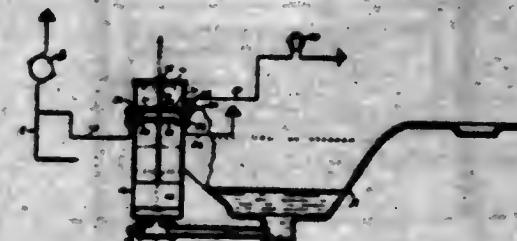
1. In apparatus of the class described, the combination with an electric machine having magnetic windings, a shaft driven by the armature of said machine, a drum mounted on said shaft to rotate in unison therewith, a sleeve loosely mounted on said shaft, means to resiliently connect said sleeve to said drum for limited relative movements, a series of resistance coils provided in said drum, the respective terminals of said series of coils being electrically connected with said windings, a switch finger

carried by said sleeve and electrically connected with said windings, and governing devices influenced by the speed of said shaft whereby the switch finger is regulated by changes in the speed of said shaft to vary the effective power of said resistance coils with respect to the supply of current to said windings.

1,305,962. COLORED IMAGE AND PROCESS OF PRODUCING THE SAME. JOHN I. CRAWFORD, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 25, 1917. Serial No. 144,557. 17 Claims. (Cl. 95-63.)

17. The method of producing a color photographic image consisting in copper-toning a silver image and subjecting it to a bath of soluble dye capable of being selectively mordanted by the copper image.

1,305,963. OIL-GAGE SIGNAL AND CIRCUIT-BREAKER. HERBERT M. DICKERSON, Evansville, Ind., assignor, by direct and mesne assignments, of twenty-two and one-half one-hundredths to Charles S. Wigginton and seventy-seven and one-half one-hundredths to Adolph C. Froelich, Evansville, Ind. Filed May 10, 1917. Serial No. 167,002. 5 Claims. (Cl. 200-34.)



5. An oil gage for internal combustion engines, comprising in combination with the oil retainer of an engine, a casing having communication with the oil retainer whereby an equal surface level of oil will be maintained in the casing and retainer, a float within the casing, a contact fixedly connected to said float for adjusted movement therewith, a second contact movably supported by said float and normally held in an inoperative position by said fixed contact, upper and lower pairs of circuit terminals projecting into the casing, said float being adapted to fall with the consumption of oil from the retainer and to deposit said movable contact upon the upper terminals for primarily closing a circuit therethrough when the fixed contact falls below the upper circuit terminals, and finally depositing the fixed contacts upon the lower terminal to close a shunt circuit therethrough.

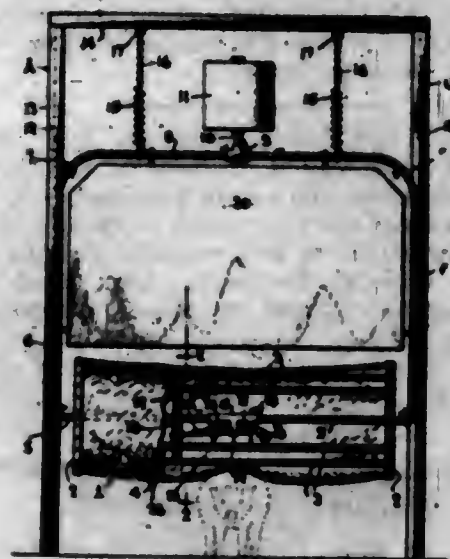
1,305,964. POP-VALVE. JAMES T. DICKSON, Los Angeles, Calif., assignor to F. C. Kingston, Los Angeles, Calif. Filed Nov. 14, 1917. Serial No. 201,976. 6 Claims. (Cl. 137-53.)



1. A pop valve comprising a casing having an outlet port and an inlet port for a medium under pressure, said

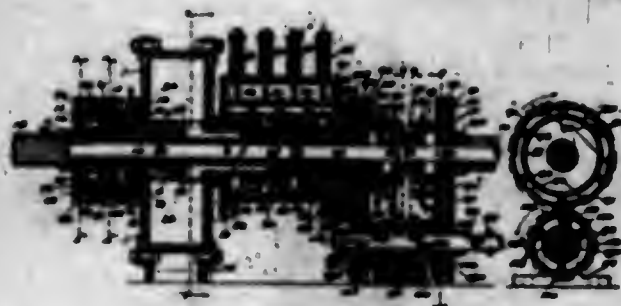
inlet port being of greater area than said outlet port, and a normally seated valve for the inlet port, whereby accumulated and reduced pressure is successively attained in the casing at the outlet side of the valve to cause vibration of the latter to and from its seat when the pressure of said medium rises above a predetermined point.

1,305,965. AUTOMATIC HOG OILER AND DISINFECTANT. NICHOLAS M. DOTT, Alcester, S. D. Filed Oct. 11, 1917. Serial No. 195,956. 1 Claim. (Cl. 119-157.)



A machine of the character specified comprising a rotatable oiling or disinfecting cylinder having a body of cloth or other absorbent material, a supply tank for the oil or disinfectant arranged above said cylinder and a stationary valve arranged within the cylinder and controlling the discharge of the oil or disinfectant, the operation of said valve being dependent on the rotation of the oiling or disinfecting cylinder and means for adjustably and resiliently supporting the oiling or disinfecting cylinder and associated parts and a cam carried by and rotatable with the oiling or disinfecting cylinder for opening the valve at pre-determined intervals during the rotation of the latter and a spring for closing the valve.

1,305,966. ROTARY GAS-ENGINE. JAMES WILLIAM GARNER, Portland, Oreg. Filed Dec. 22, 1916. Serial No. 135,397. 10 Claims. (Cl. 123-11.)



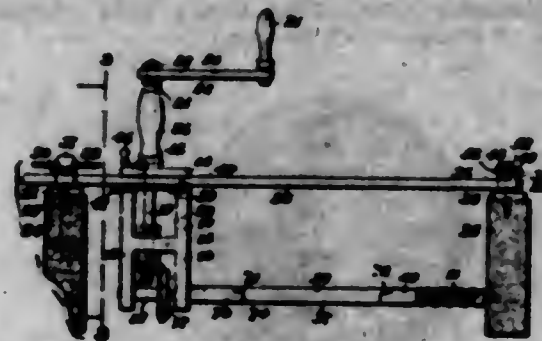
1. In a rotary engine, a piston casing, pistons arranged in crossed relationship therein and adapted to move forwardly step by step alternately, means for holding said pistons against backward movement, said pistons having hub portions extending from the sides of said casing, one of said hub portions having combination inlet and exhaust passageways extending longitudinally therethrough from within the casing to a position outside of said casing, and controlling mechanism outside of said casing for controlling the inlet and exhaust action of said engine, substantially as described.

1,305,967. EXPLOSIVE SHELL. EDWARD A. HAWES, Detroit, Mich. Filed May 22, 1918. Serial No. 235,921. 6 Claims. (Cl. 103-39.)



2. The combination with an explosive shell, of a powder charge therein, a lead comprising a series of rods arranged longitudinally of the shell, and means for spreading said rods upon the explosion of the shell.

1,305,968. HOUSE-WIRING APPARATUS. GILBERT H. INMAN, Taunton, Mass., assignor of one-fifth to Leland D. Wood, Taunton, Mass. Filed June 29, 1918. Serial No. 106,711. 5 Claims. (Cl. 144-105.)



1. An apparatus for use in house wiring having, in combination, a boring machine, means for slidably supporting the machine between two adjacent beams, and an angle indicating device connected with the machine supporting means having provision whereby the angular displacement of holes to be bored obliquely to the beams may be determined, a bit, and an extension joint connecting the bit with the machine whereby succeeding beams may be reached and bored.

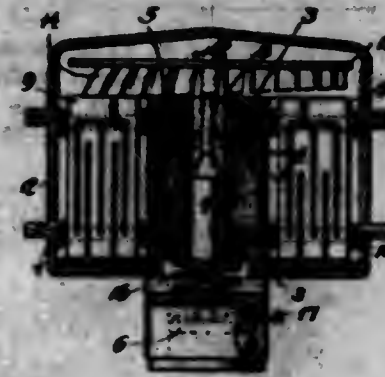
1,305,969. PROCESS OF EXTRACTING METALS FROM SILICATES. LOUIS L. JACKSON, New York, N. Y., assignor of one-half to Odus C. Herney, New York, N. Y. Filed June 28, 1916. Serial No. 106,338. 2 Claims. (Cl. 75-18.)

1. The process of extracting from siliceous minerals the heavy metallic constituents thereof which are insoluble in an alkali and water, as compounds containing such metallic constituents, which consists in subjecting the minerals, while mixed with an alkali and water, to heat and pressure, then separating the solution, and then treating the residue to recover, as a soluble salt or salts, the heavier metal or metals.

1,305,970. CAR-LIGHTING SYSTEM. PATRICK KENNEDY, Brooklyn, N. Y., assignor to Consolidated Railway Electric Lighting and Equipment Company, New York, N. Y., a Corporation of Maine. Filed Dec. 1, 1916. Serial No. 134,346. 3 Claims. (Cl. 171-230.)

6. In a regulator for electric circuits, a sectional resistance, a plurality of contact pieces electrically con-

nected to the resistance sections, a solenoid responsive to electrical variations in the circuit to be regulated, a plunger actuated by said solenoid, a contact member carried entirely by said plunger and provided with flexible



contact fingers, so arranged that the plane of the contact surfaces of the fingers is inclined to the contact pieces whereby the number of fingers engaging the contact pieces may be greatly increased or decreased by gradually varying the contact pressure.

1,305,971. APERTURE-PLATE AND FILM GUIDE AND TENSION DEVICE. MILTON L. PARRISH, Marshalltown, Iowa. Filed Jan. 8, 1918. Serial No. 210,910. 1 Claim. (Cl. 88-17.)



In a moving picture machine, a frame having a light aperture therein, said frame having a pair of spaced, parallel vertical ribs on opposite sides of the light aperture, and having adjacent to one of said ribs a shoulder, and adjacent to the other of said ribs a rabbet, a second frame adapted to fit adjacent to said ribs, having a rib designed to fit into said rabbet, and means for yieldingly moving the second frame toward said first frame.

1,305,972. PUNCHING AND RIVETING MACHINE. FRANK Y. PEARNE, Los Angeles, Calif. Filed May 11, 1916. Serial No. 96,822. 6 Claims. (Cl. 78-51.)

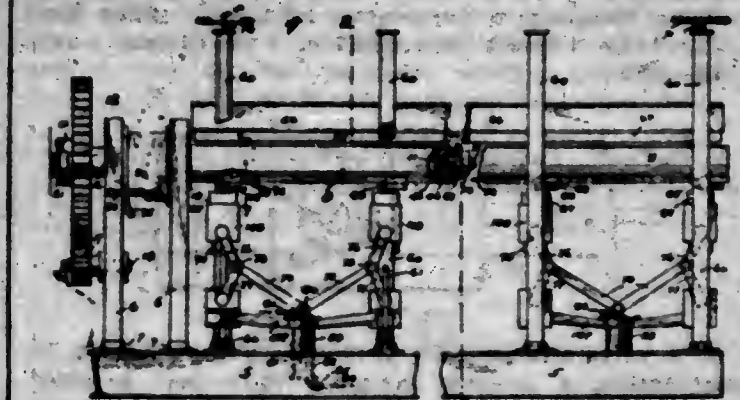


1. A punching tool carrier, comprising in combination with a press adapted to reciprocate said carrier, of a carrier, intermeshing gears mounted therein, and a plurality of tools mounted in said carrier and so connected by said intermeshing gears that said tools may be alternately thrown into or out of operative position.

1,305,973. RIVETING-MACHINE. FRANK Y. PEARNE, Los Angeles, Calif. Filed Jan. 29, 1917. Serial No. 145,201. 6 Claims. (Cl. 78-51.)

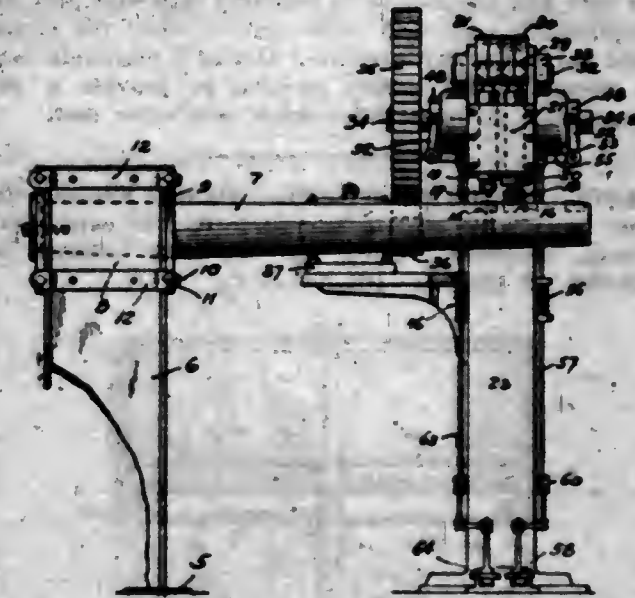
1. A machine of the class described in combination with a supporting frame, of a stake formed of sections

provided with longitudinal grooves on their proximate faces to form a substantially hollow structure, a shaft



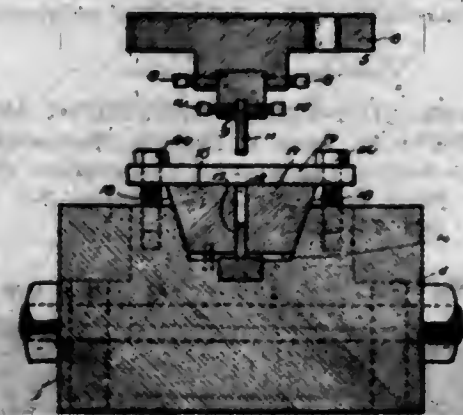
adapted to rotate in said stake, and a reciprocating riveting member adapted to be operated by said shaft.

1,305,974. RIVETING AND PUNCHING MACHINE. FRANK Y. PEARNE, Los Angeles, Calif. Filed Apr. 5, 1917. Serial No. 100,298. 14 Claims. (Cl. 78-51.)



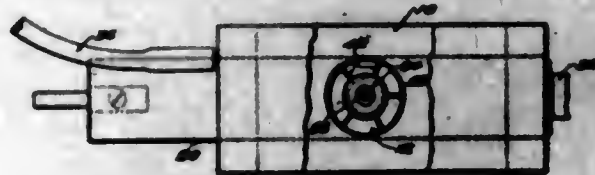
1. In a machine of the class described, in combination with a stake supporting member, of a stake mounted thereon, and extending into the operating zone of a punching and riveting carrying member, a punching and riveting carrying member independent of said stake supporting member, having the operating parts separately controlled and means to separately control said punching and riveting members.

1,305,975. METHOD OF COMPRESSING TUNGSTEN POWDER. CARL PFANSTIEL, Highland Park, Ill., assignor to Pfanstiel Company, Inc., North Chicago, Ill., a Corporation of New York. Original application filed Oct. 9, 1916, Serial No. 124,504. Divided and this application filed Jan. 26, 1918. Serial No. 213,906. 4 Claims. (Cl. 29-148.)



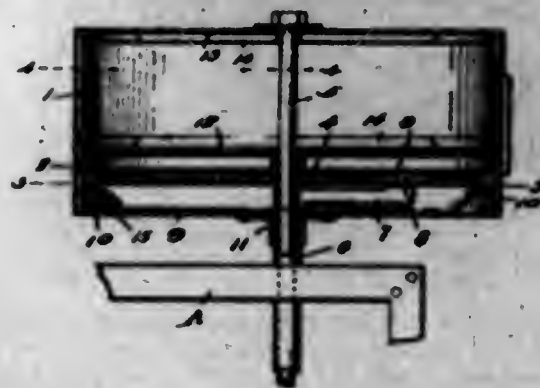
1. The method of compressing tungsten powder which consists in applying pressure to the powder and then relieving pressure therefrom so as to permit the compressed powder to expand substantially equally in all directions.

1,305,976. VALVE STRUCTURE. WILLIAM C. STREPHENSON, Woburn, Mass., assignor to Vose & Sons Piano Company, a Corporation of Maine. Filed Feb. 12, 1918. Serial No. 216,726. 14 Claims. (Cl. 84-156.)



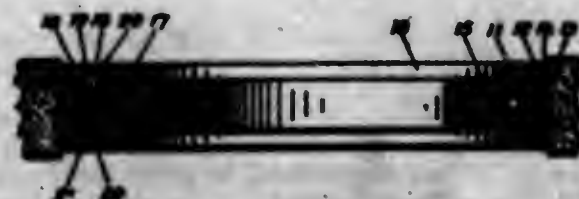
3. A valve structure for pneumatic players having, in combination, a housing having a valve port provided with a rounded seat, a pneumatically operated floating valve member of resilient material normally adapted to rest within said housing and having a convex substantially spherical segmental portion normally partially protruding into said valve port to provide a smooth annular opening between said valve member and the rounded valve seat and adapted to be actuated into said port and in engagement with said valve seat to effect the closure of said port, said valve member having a relatively large open recess in its convex portion to provide a thin resilient wall to intimately engage said valve seat.

1,305,977. TRACTION-WHEEL. HENRY STRAIN, Tre-lear, Mo.; Alma Strain administratrix of said Henry Strain, deceased. Filed Apr. 1, 1918. Serial No. 225,994. 2 Claims. (Cl. 74-7.)



1. In a device of the class described, the combination of a truck wheel, an axle on which the wheel is rotatably mounted, the wheel having a wall adjacent the vehicle, the remaining portion of the wheel being removable from said wall without removing gears or axle sleeve, an annular gear member secured to the inside of the truck wheel in proximity to the side of the truck wheel adjacent the vehicle, a vehicle frame, an axle sleeve rigidly attached to said frame and loosely mounted over the axle, an arm carried by the axle sleeve, a gear mounted on said arm, the gear engaging the annular gear member, and a third gear rigidly attached to the axle and engaged by said second gear, substantially as described.

1,305,978. ABRASIVE-WHEEL CENTERING AND BALANCING DEVICE. JOHN C. SPANCA, Worcester, Mass., assignor to Norton Company, a Corporation of Massachusetts. Filed Sept. 27, 1917. Serial No. 193,596. 8 Claims. (Cl. 74-6.)



3. A balanced wheel comprising a body, a balancing member connected thereto and comprising a web dis-

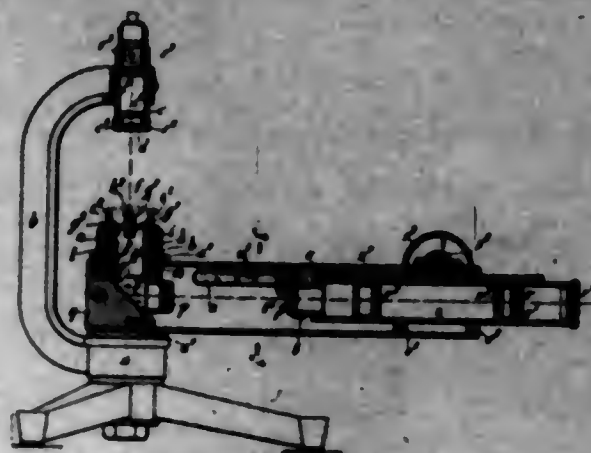
posed in the central plane of the wheel, a pair of balancing weights on opposite sides of the web and screw-threaded means passing through the web and engaging the blocks to hold them adjustably but rigidly in place.

1,305,979. FASTENER. HARRY H. COON, Boston, Mass., assignor to Bird Ring Sales Company, Buffalo, N. Y., a Corporation of New York. Filed June 28, 1917. Serial No. 177,881. 5 Claims. (Cl. 24-211.)



1. A separable fastener of the type comprising a stud member and a socket member provided with two similarly-shaped stud-retaining members, each presenting a body portion and each having a recess in one side adapted to receive the stud-engaging portion of the other stud-retaining member, characterized in that each stud-engaging portion is so shaped as to present a stud-engaging edge which meets and engages that of the other stud-engaging portion when the two stud-retaining members are in operative engagement with the stud, and each stud-engaging portion has a notch to partially embrace the stud.

1,305,980. APPARATUS FOR TESTING LENS SYSTEMS. OTTO HENKEL, Jena, Germany, assignor to the Firm of Carl Zeiss, Jena, Germany. Filed May 23, 1914. Serial No. 840,005. 3 Claims. (Cl. 88-86.)

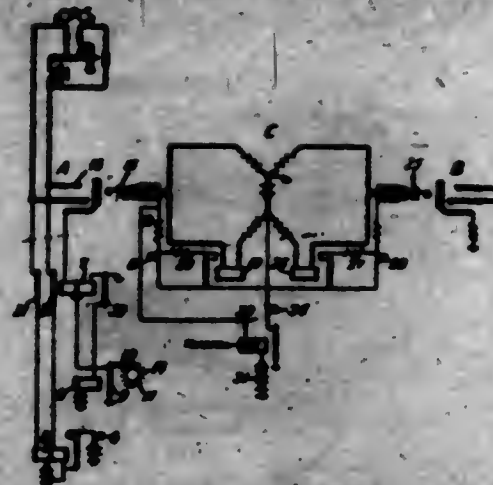


1. Apparatus for testing lens systems, comprising a collimator adapted to present an image of its sighting mark, a collective system fixed to the apparatus, which is adapted to form along with the lens system to be tested a real image of the said image, a terrestrial ocular adapted for ascertaining the position of the said real image and supporting means for the lens system to be tested, comprising a fixed stop adapted to contact with the vertex of the said lens system.

1,305,981. TELEPHONE SYSTEM. HOWARD R. HIRNICHOW, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed May 23, 1917. Serial No. 176,207. 9 Claims. (Cl. 178-8.)

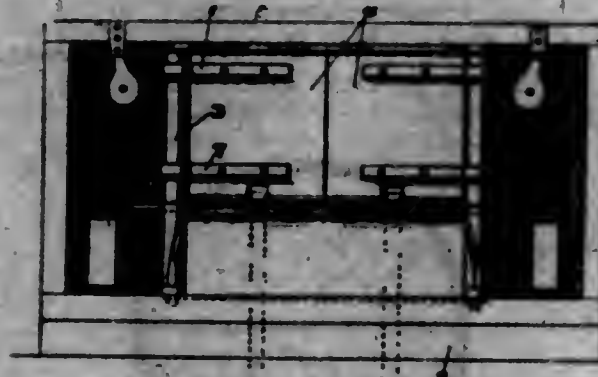
1. A telephone system comprising a telephone line, a service meter therefor, a link circuit for extending the line, an electromagnet partially energized upon connection of the link circuit with the line, a switch actuated to further energize the electromagnet, a second electro-

magnet energized upon the further energization of the first to activate the service meter and a circuit estab-



lished upon the operation of the second electromagnet to maintain said first electromagnet energized.

1,305,982. AUTOMATIC DOOR. JASPER J. SAMIN, Yakima, Wash. Filed Jan. 29, 1919. Serial No. 273,746. 3 Claims. (Cl. 200-9.)



2. In combination with a passageway having a transverse bulkhead provided with a door opening, of vertically pivoted posts having spiral slots, a transverse counterweighted bar extending through the slots at its ends for rotating the posts when the bar is moved vertically, the posts carrying doors, a counterbalance for lifting the bar, and a plate depending from the bar and moving therewith to close the space below the same when the bar is lifted.

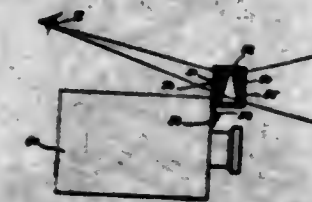
1,305,983. BOX-DESK. WAYNE WILLS, Chicago, Ill., assignor, by mesne assignments, to American Seating Company, a Corporation of New Jersey. Filed Jan. 17, 1918. Serial No. 742,668. 7 Claims. (Cl. 45-6.)



1. In a device of the class described, parallel standards, a box supported thereon, said box having its bot-

tom wall notched in from its sides, a sheet metal housing projecting up through each such notch with a flange at its lower edge secured to the under side of the bottom of the box, said standards projecting up through such notches, and said housings together with the side walls of the box completely inclosing said standards.

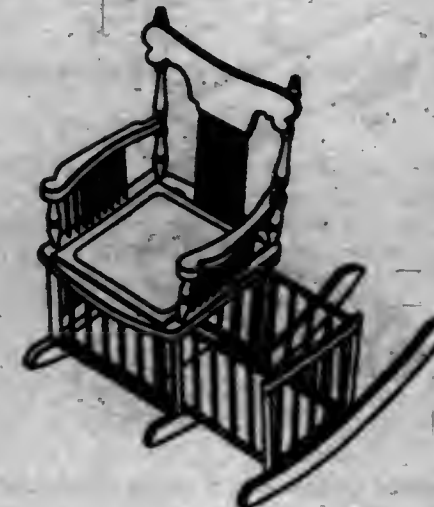
1,305,984. FINDER. JOSEPH BECKER, Washington, D. C. Filed Aug. 7, 1918. Serial No. 248,807. 4 Claims. (Cl. 88-15.)



1. The combination with a photographic camera, of a finder therefor comprising a divergent eccentric lens formed by dividing a full lens on a meridian plane of such full lens; the field of such finder being made to correspond in form and extent with the camera field.

DESIGNS.

53,392. ROCKING-CHAIR AND CRADLE ATTACHMENT. SAMUEL STEPHEN ARNOLD, Toronto, Ontario, Canada. Filed July 10, 1918. Serial No. 244,328. Term of patent 3 1/2 years.



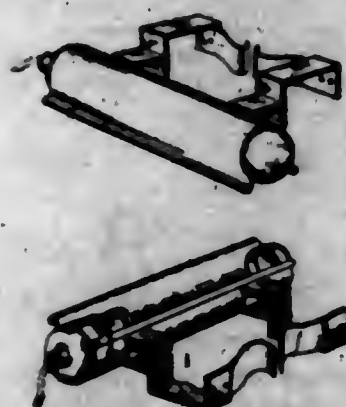
The ornamental design for a rocking chair and cradle attachment as shown.

53,393. CASING FOR THERMOSTATIC VALVES. EUGENE S. CALDWELL, Philadelphia, Pa. Filed Mar. 17, 1916. Serial No. 15,069. Term of patent 14 years.



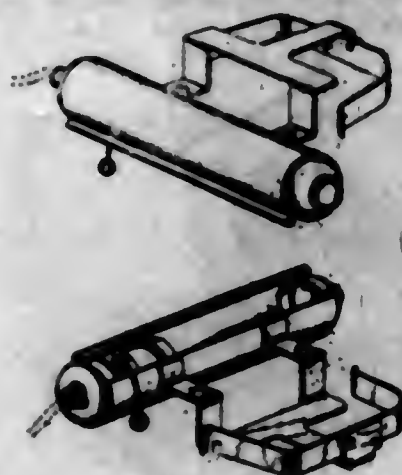
The ornamental design for a casing for thermostatic valves, as shown.

53,394. PIANO-LAMP AND BRACKET. CLEBURN ESEBART, Jr., Buffalo, N. Y., assignor to Play-O-Lite Co., Inc., Buffalo, N. Y., a Corporation of New York. Filed Jan. 23, 1917. Serial No. 144,047. Term of patent 14 years.



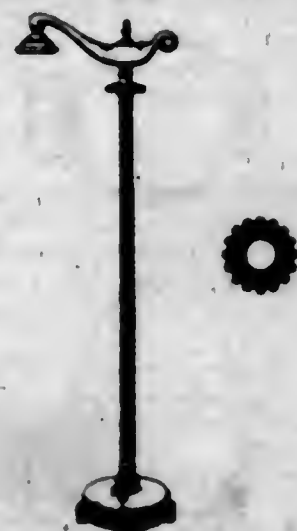
The ornamental design for a piano lamp and bracket, as shown.

53,395. PIANO-LAMP AND BRACKET. ALLAN FRASER, Buffalo, N. Y., assignor to Play-O-Lite Company, Buffalo, N. Y., a Corporation of New York. Filed Feb. 7, 1917. Serial No. 147,265. Term of patent 14 years.



The ornamental design for a piano lamp and bracket, as shown.

53,396. ELECTRIC-LAMP STANDARD. JACOB M. HANSEN, Chicago, Ill., assignor to Hartmann-Maleom Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 19, 1919. Serial No. 278,070. Term of patent 14 years.



The ornamental design for an electric lamp standard, as shown.

53,397. ASH-TRAY. ARTHUR S. MACDONALD, Great Neck Station, N. Y., assignor to The Speed & Co. Iron Works, Jersey City, N. J., a Corporation of New Jersey. Filed Dec. 4, 1918. Serial No. 265,301. Term of patent 7 years.



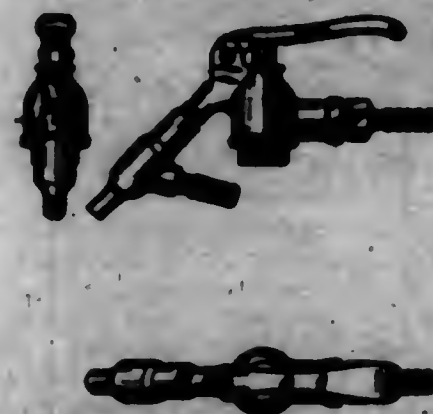
The design for an ash tray substantially as herein shown.

53,398. POWDER-PUFF. ALEX. MARCUS, Brooklyn, N. Y. Filed Jan. 25, 1919. Serial No. 273,180. Term of patent 14 years.



The ornamental design for a powder puff, as shown.

53,399. AIR-BLAST CLEANING DEVICE. GEORGE R. PICKER, New Haven, Conn., assignor to The Malleable Iron Fittings Company, Branford, Conn., a Corporation of Connecticut. Filed Feb. 24, 1919. Serial No. 278,998. Term of patent 14 years.



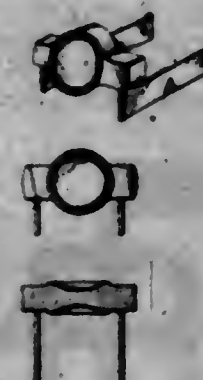
The ornamental design for an air blast cleaning device, substantially as shown.

53,400. PACKAGE-DELIVERY-CAR BODY. ROBERT G. PILKINGTON, Chicago, Ill., assignor to Dodge Manufacturing Company, Mishawaka, Ind., a Corporation of Indiana. Filed Feb. 23, 1917. Serial No. 150,585. Term of patent 14 years.



The ornamental design for a package delivery car body, as shown.

53,401. ELECTRIC-SWITCH HANDLE. CLARENCE D. PLATT, Bridgeport, Conn. Filed Mar. 8, 1919. Serial No. 281,541. Term of patent 14 years.



The ornamental design for an electric switch handle substantially as shown.

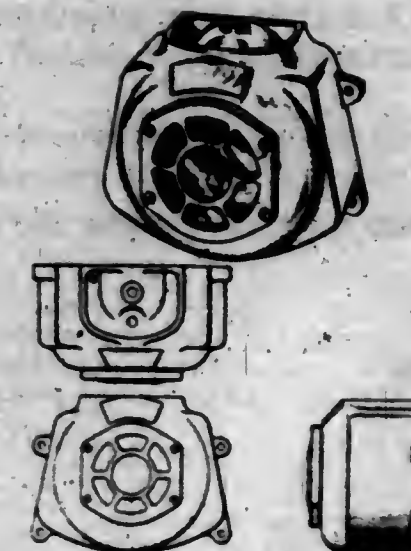
53,402. LAMP-STANDARD. JOSEPH L. RONKO, Cleveland, Ohio. Filed Mar. 7, 1919. Serial No. 281,321. Term of patent 7 years.



The ornamental design for a lamp standard substantially as shown.

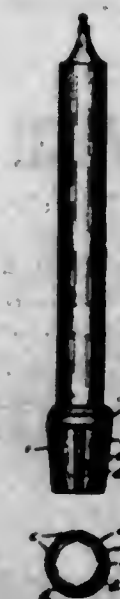
283 O. G.—10

53,403. HUMIDIFIER. RAYMOND D. SMITH, Arlington, Mass., assignor to Tremont Products Company, Boston, Mass. Filed Oct. 11, 1918. Serial No. 257,902. Term of patent 14 years.



The ornamental design for a humidifier as shown.

53,404. CANDLE. HAROLD H. WILL, Syracuse, N. Y., assignor to The Will & Baumer Co., Syracuse, N. Y., a Corporation of New York. Filed Aug. 29, 1916. Serial No. 117,547. Term of patent 14 years.



The ornamental design for a candle, substantially as shown and described.

TRADE-MARKS

OFFICIAL GAZETTE, JUNE 3, 1919.

[PUBLISHED JUNE 6, 1919.]

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

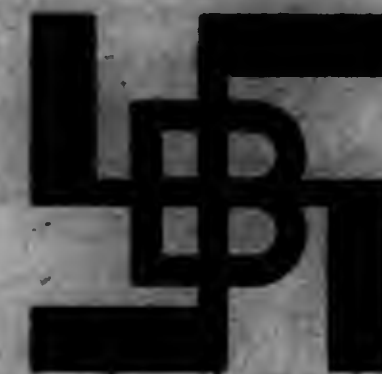
As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 102,739. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES D. HOFFER, Louisville, Ky. Filed Apr. 5, 1917.

Hof-far-Lax

Particular description of goods.—A Laxative Compound.
Claims use since on or about Sept. 1, 1916.

Ser. No. 104,164. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) BAYLEY MANUFACTURING COMPANY, Milwaukee, Wis. Filed May 31, 1917.



Particular description of goods.—Steam-Generators, Steam-Radiators, Centrifugal Fans, and Blowers, All for Heating or Ventilating Purposes, and Drying Apparatus Adapted for Drying by Means of a Current of Air.
Claims use since on or about Mar. 1, 1915.

Ser. No. 105,039. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DOMINGO MARTI Y TORES, Barcelona, Spain. Filed July 14, 1917.



The word "Martí" is disclaimed.
Particular description of goods.—Olive-Oil.
Claims use since October, 1908.

Ser. No. 106,682. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WEST COAST SOAP CO., Oakland, Calif. Filed Oct. 8, 1917.



No claim is made to the word "Soap" apart from the mark shown in the drawing.
Particular description of goods.—Laundry Soap.
Claims use since Jan. 22, 1917.

Ser. No. 107,475. (CLASS 39. CLOTHING.) THE OHIO RUBBER CO., Cincinnati, Ohio. Filed Nov. 19, 1917.

IDEAL

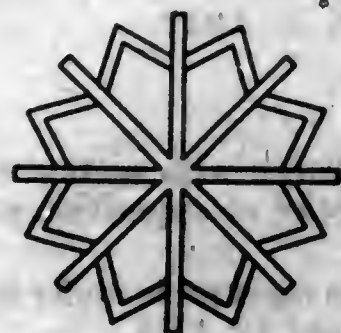
Particular description of goods.—Bathing-Caps.
Claims use since March, 1915.

Ser. No. 108,902. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) KIMBLEY-CLARK CO., Neenah, Wis. Filed Apr. 1, 1918.

CELLCOTTON

Particular description of goods.—A Fibrous Material Made from Paper-Stock in the Form of a Very Tenuous Web and Used for Surgical Dressings.
Claims use since on or about Nov. 14, 1917.

Ser. No. 109,998. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) GEORGE WINKLER, New York, N. Y. Filed Apr. 4, 1918.



Particular description of goods.—Tooth, Nail, Hair, Mustache, Artists', Clothes, and Bathing Brushes. Claims use since Jan. 1, 1891.

Ser. No. 110,111. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) GOODLASS WALL & COMPANY LIMITED, Liverpool, England. Filed Apr. 11, 1918.

EMPIRE

Particular description of goods.—Oils for Mixing with Dry Paint-Pigments, Oils for Mixing with Paint in the Paste State, and Turpentine for Use in the Manufacture of Varnishes.

Claims use since the 14th day of June, 1876.

Ser. No. 110,203. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EARLY DAY CO., Kansas City, Kans. Filed Apr. 15, 1918.



Particular description of goods.—An Eye Preparation. Claims use since Apr. 8, 1918.

Ser. No. 110,446. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FINE DEANER, New York, N. Y. Filed Apr. 26, 1918.

MI-O-NA

Particular description of goods.—Mayonnaise Dressing. Claims use since Sept. 1, 1912.

Ser. No. 111,805. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN HOMINY COMPANY, Indianapolis, Ind. Filed June 26, 1918.

**QUICK
MALT**

Particular description of goods.—A Breakfast-Cereal in Flake Form.

Claims use since October, 1891.

Ser. No. 112,458. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CAVERLY-PLUMER COMPANY, Lynn, Mass. Filed Aug. 1, 1918.



Particular description of goods.—Compound Cream of Tartar.

Claims use since Mar. 12, 1912.

Ser. No. 112,455. (CLASS 36. CLOTHING.) LINNMAN-COROVER COMPANY, Worcester, Mass. Filed Sept. 27, 1918.

LCC

Particular description of goods.—Corsets, Corset-Waists, and Brassieres. Claims use since 1905.

Ser. No. 112,507. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FEDERAL CONDENSED MILK COMPANY, Seattle, Wash. Filed Oct. 19, 1918.



Particular description of goods.—Evaporated Milk. Claims use since Mar. 1, 1918.

[Vol. 299. No. 1.]

Ser. No. 112,998. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) W. R. GRACE & Co., New York, N. Y., and San Francisco, Calif. Filed Oct. 26, 1918.



Particular description of goods.—Textile Fabrics Consisting of Cotton Piece Goods.

Claims use since Sept. 1, 1916.

Ser. No. 112,902. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) W. R. GRACE & Co., New York, N. Y., and San Francisco, Calif. Filed Oct. 26, 1918.



Particular description of goods.—Textile Fabrics Consisting of Cotton Piece Goods.

Claims use since Sept. 1, 1916.

Ser. No. 114,044. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) LOUIS BUDMEYER, St. Louis, Mo. Filed Nov. 4, 1918.



No claim being made to the representation of a pipe or the word "Pipe" and the phrase "Smoker's Extra Dry" when used apart from the mark shown in the drawing.

Particular description of goods.—Tobacco-Pipes.

Claims use since the 16th day of October, 1918.

[Vol. 299. No. 1.]

Ser. No. 114,221. (CLASS 43. THREAD AND YARN.) NAAMLOOZE VENNOOTSCHAP: J. A. CARP'S GARENFA-BRIJEN, Helmond, Netherlands. Filed Nov. 18, 1918.



The lining on the drawing is not intended to indicate color. No claim is made to the name "Carp" apart from the mark shown on the drawing.

Particular description of goods.—Thread and Yarn.

Claims use since the 17th of July, 1917.

Ser. No. 114,222. (CLASS 43. THREAD AND YARN.) NAAMLOOZE VENNOOTSCHAP: J. A. CARP'S GARENFA-BRIJEN, Helmond, Netherlands. Filed Nov. 18, 1918.



The lining on the drawing is not intended to indicate color. No claim is made to the name "Carp" apart from the mark shown on the drawing.

Particular description of goods.—Thread and Yarn.

Claims use since the 17th of July, 1917.

Ser. No. 114,223. CLASS 42. THREAD AND YARN.) NAAMLOOZE VENNOOTSCHAP: J. A. CARP'S GARENFA-BRIJEN, Helmond, Netherlands. Filed Nov. 18, 1918.



The lining on the drawing is not intended to indicate color. No claim is made to the name "J. A. Carp" apart from the mark shown on the drawing.

Particular description of goods.—Thread and Yarn.

Claims use since the 17th of July, 1917.

[Vol. 299. No. 1.]

Ser. No. 114,224. (CLASS 43. THREAD AND YARN.)
NAAMLOOSE VENNOOTSCHAP: J. A. CARP'S GARNFA-
BRICKEN, Helmond, Netherlands. Filed Nov. 18, 1918.



The lining on the drawing is not intended to indicate color. No claim is made to the name "Carp" or to the representation of goods apart from the mark shown on the drawing.

Particular description of goods.—Thread and Yarn.
Claims use since the 17th of July, 1917.

Ser. No. 114,225. (CLASS 43. THREAD AND YARN.)
NAAMLOOSE VENNOOTSCHAP: J. A. CARP'S GARNFA-
BRICKEN, Helmond, Netherlands. Filed Nov. 18, 1918.



No claim is made to the name "Carp" apart from the mark shown on the drawing.

Particular description of goods.—Thread and Yarn.
Claims use since the 17th of July, 1917.

Ser. No. 114,227. (CLASS 43. THREAD AND YARN.)
NAAMLOOSE VENNOOTSCHAP: J. A. CARP'S GARNFA-
BRICKEN, Helmond, Netherlands. Filed Nov. 18, 1918.



The lining on the drawing is not intended to indicate color. No claim is made to the name "Carp" apart from the mark shown on the drawing.

Particular description of goods.—Thread and Yarn.
Claims use since the 17th of July, 1917.

[Vol. 303. No. 1.]

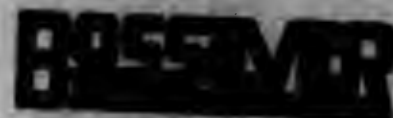
Ser. No. 114,228. (CLASS 43. THREAD AND YARN.)
NAAMLOOSE VENNOOTSCHAP: J. A. CARP'S GARNFA-
BRICKEN, Helmond, Netherlands. Filed Nov. 18, 1918.



No claim is made to the name "Carp" apart from the mark shown on the drawing.

Particular description of goods.—Thread and Yarn.
Claims use since the 17th of July, 1917.

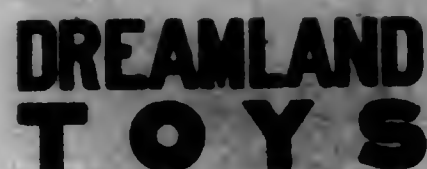
Ser. No. 114,473. (CLASS 6. CHEMICALS, MEDI-
CINES, AND PHARMACEUTICAL PREPARATIONS.)
ALMERION F. SEVERSON, Sonquehanna, Pa. Filed Dec.
3, 1918.



Particular description of goods.—A Preparation for the
Treatment of Chapped Hands and Lips, Cold-Sores, Cuts,
Bruises, Burns, Corns, Bunions, Piles, Frost-Bites, Lam-
Back, Sore Lungs, Earache, Cold on Lungs, Croup, Dis-
eases of the Hoof, Contraction of Corda, Collar-Bottle, Galls,
Sprains, Scratches, Rheumatism.

Claims use since May 2, 1918.

Ser. No. 114,496. (CLASS 22. GAMES, TOYS, AND
SPORTING GOODS.) JESSIE MILES LEWIS, Los An-
geles, Calif. Filed Dec. 5, 1918.



No claim being made to the word "Toys" apart from
the trade-mark as shown.

Particular description of goods.—Wooden Toy Animals
and Wooden Toy Birds Mounted on Wheels.

Claims use since the 16th day of November, 1918.

Ser. No. 114,517. (CLASS 16. PAINTS AND PAINT-
ERS' MATERIALS.) AMERICAN ZINC, LEAD & SWEET-
ING CO., Boston, Mass., and St. Louis, Mo. Filed Dec. 7,
1918.

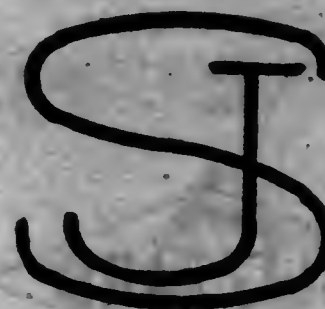


No claim is made to the exclusive use of the words and
characters "American Zinc L. & S. Co." apart from the
other features shown.

Particular description of goods.—Zinc Oxide for Use as
Paint-Pigments.

Claims use since about Nov. 21, 1918.

Ser. No. 114,553. (CLASS 44. DENTAL, MEDICAL,
AND SURGICAL APPLIANCES.) J. SELAR MANUPAC-
TURING CO., Brooklyn, N. Y. Filed Dec. 14, 1918.



Particular description of goods.—Surgical, Dental, and
Veterinary Instruments—Namely, Tweezers, Hemostats,
Speculums, Forceps, Cutters, Punchers, Chisels, Gages,
Hammers, Donches, Retractors, Depressors, and Saws.

Claims use since Sept. 30, 1918.

Ser. No. 114,711. (CLASS 4. ABRASIVE, DETERGENT,
AND POLISHING MATERIALS.) EUGENE VELLNER,
Philadelphia, Pa. Filed Dec. 18, 1918.



Particular description of goods.—Soaps for Cleaning
and Scouring Textiles.

Claims use since December, 1917.

[Vol. 303. No. 1.]

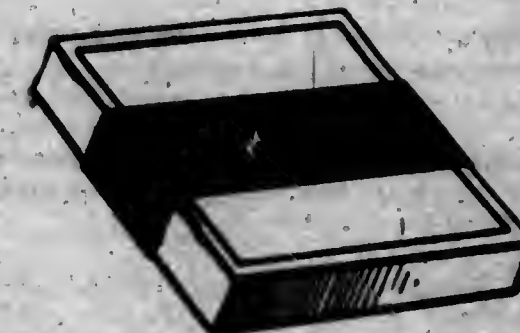
Ser. No. 114,712. (CLASS 44. DENTAL, MEDICAL,
AND SURGICAL APPLIANCES.) LAMBORN & Co., New
York, N. Y. Filed Dec. 19, 1918.



The lining on the drawing is for shading only.
Particular description of goods.—Sanitary Absorbent
Gauze.

Claims use since April, 1918.

Ser. No. 114,720. (CLASS 6. CHEMICALS, MEDI-
CINES, AND PHARMACEUTICAL PREPARATIONS.)
SMITH, KLING & FRENCH CO., Philadelphia, Pa. Filed
Dec. 19, 1918.

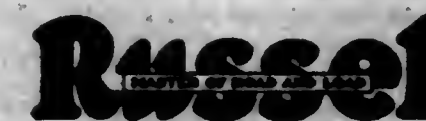


The central band being colored red and the representa-
tion of the box forming no part of the mark.

Particular description of goods.—Aspirin Tablets.

Claims use since Mar. 1, 1917.

Ser. No. 114,751. (CLASS 10. VEHICLES, NOT IN-
CLUDING ENGINES.) RUSSAL MOTOR AXLE COMPANY,
North Detroit, Mich. Filed Dec. 20, 1918.



No claim being made to the phrase "Master of the Road
and Load" except in connection with the trade-mark as
shown.

Particular description of goods.—Drive-Axles.

Claims use since Jan. 1, 1915.

Ser. No. 114,953. (CLASS 30. CLOTHING.) KOPS
DAOS, New York, N. Y. Filed Jan. 2, 1919.



Particular description of goods.—Corsets and Bras-
sieres.

Claims use since Dec. 1, 1918.

[Vol. 303. No. 1.]

Ser. No. 115,171. (CLASS 12. CONSTRUCTION MATERIALS.) R. J. DARNELL, INCORPORATED, Memphis, Tenn. Filed Jan. 14, 1919.



Particular description of goods.—Milled Lumber.
Claims use since about Jan. 14, 1917.

Ser. No. 115,172. (CLASS 12. CONSTRUCTION MATERIALS.) R. J. DARNELL, INCORPORATED, Memphis, Tenn. Filed Jan. 14, 1919.



Particular description of goods.—Milled Lumber.
Claims use since about Jan. 14, 1917.

Ser. No. 115,312. (CLASS 37. PAPER AND STATIONERY.) COMPARATIVE X-RAY COMPANY, New York, N. Y. Filed Jan. 20, 1919.

DUO-GRAPH

Particular description of goods.—Photographic Mounts for Holding X-Ray Films and Photographic Reproductions Thereof.

Claims use since about Jan. 1, 1919.

[Vol. 263.

Ser. No. 115,622. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LESHER, WHITMAN & CO., INC., New York, N. Y. Filed Feb. 4, 1919.



Particular description of goods.—Piece Goods—viz., a Fabric Made with a Cotton Warp and a Filling of Mohair or Wool or Alpaca, Singly or Combined.
Claims use since Dec. 24, 1918.

Ser. No. 115,919. (CLASS 39. CLOTHING.) G. SOMMER & CO., St. Paul, Minn. Filed Feb. 12, 1919.

NOBBY

Particular description of goods.—Hosiery for Men, Women, and Children.
Claims use since October, 1915.

Ser. No. 115,912. (CLASS 39. CLOTHING.) GREENBERG-KANTOR CO., Kansas City, Mo. Filed Feb. 17, 1919.



Particular description of goods.—Men's Flannel Work-Shirts, Overcoats, Sheepskin-Lined Overcoats, Blanket-Lined Overcoats, and Mackinaws.
Claims use since Aug. 1, 1917.

Ser. No. 116,033. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) GEORGE R. LYMAN, Minneapolis, Minn. Filed Feb. 20, 1919.

Q D

Particular description of goods.—Luggage-Carriers for Automobiles, Comprising Straps and Mechanical Securing Means.

Claims use since December, 1915.

No. 1.]

Ser. No. 116,049. (CLASS 39. CLOTHING.) TOM WIE, Inc., Winchendon, Mass. Filed Feb. 21, 1919.



Particular description of goods.—Knit Jackets, Sweaters, Jerseys, Caps, Neckscarfs for Winter Wear, Swimming and Bathing Suits, Knitted Underwear for Men, Women, and Children, Afghans, Mittens, Stockings.
Claims use since January, 1918.

Ser. No. 116,062. (CLASS 39. CLOTHING.) RACINE AUTO TIRE COMPANY, Racine, Wis. Filed Feb. 21, 1919.

HORSESHOE
GOOD LUCK NEEL



RACINE AUTO TIRE CO

No trade-mark claim being herein made to the word "Heel" per se nor to the corporate name or title.

Particular description of goods.—Molded Rubber and Composition Cushion-Heels and Heel-Lifts for Attachment to Shoes and the Like.
Claims use since the 9th day of January, 1919.

Ser. No. 116,123. (CLASS 37. PAPER AND STATIONERY.) ARROWHEAD MILLS, INC., Fulton, N. Y. Filed Feb. 25, 1919.



Said Arrowhead Mills, Inc., hereby disclaims the word "Fabric" as an essential part of the trade-mark.

Particular description of goods.—Writing-Paper, News-Print Paper, and Wrapping-Paper.
Claims use since Jan. 31, 1919.

Ser. No. 116,131. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORTMANN & HUFFMANN CO., Passaic, N. J. Filed Feb. 25, 1919.

Vellouise

Consisting of the word "Vellouise."
Particular description of goods.—Woolen Piece Goods.
Claims use since Feb. 1, 1919.

[Vol. 263.

Ser. No. 116,136. (CLASS 39. CLOTHING.) GEO. FOX & CO. INC., New York, N. Y. Filed Feb. 25, 1919.

Artcraft

The letters being printed in red.
Particular description of goods.—Men's Dress and Negligée Shirts Made of Silk or Cotton or a Mixture of Silk and Cotton and Men's Underwear Made of Textile Fabrics.
Claims use since Jan. 1, 1919.

Ser. No. 116,178. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J., and New York, N. Y. Filed Feb. 27, 1919.

Kookie Top
Krystals

The right to the exclusive use of the word "Krystals" except when used in connection with the words "Kookie-Top" is hereby disclaimed.

Particular description of goods.—Sugar.
Claims use since Feb. 21, 1919.

Ser. No. 116,182. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE GRASSELLI CHEMICAL COMPANY, Cleveland, Ohio. Filed Feb. 27, 1919.

SALABAR

Particular description of goods.—Sal-Ammoniac.
Claims use since about Jan. 2, 1919.

Ser. No. 116,184. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) DR. T. J. KING-CLARENCE W. KING D. D. S. INC., Boston, Mass. Filed Feb. 27, 1919. Under ten-year proviso.



Particular description of goods.—Artificial Denture, (False Teeth).
Claims use since 1894.

Ser. No. 116,220. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STODDARD, GILBERT & CO. INC., New Haven, Conn. Filed Feb. 28, 1919.

HERMITAGE

Particular description of goods.—Coffee, Peanut-Butter, Maple-Syrup, Olives, Mustard, and Mayonnaise.
Claims use since Aug. 1, 1913.

No. 1.]

Ser. No. 116,235. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) COHN HALL MARK CO., New York, N. Y. Filed Mar. 1, 1919.

BUSTER

Consisting of the word "Buster."
Particular description of goods.—Cotton Piece Goods.
Claims use since Feb. 15, 1919.

Ser. No. 116,312. (CLASS 17. TOBACCO PRODUCTS.) STODDARD, GILBERT & CO. INC., New Haven, Conn. Filed Mar. 3, 1919.

YALE CAMPUS

No claim is made to the word "Yale" apart from the mark shown in the drawing.
Particular description of goods.—Cigars.
Claims use since 1903.

Ser. No. 116,346. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NECTOLA FOOD PRODUCTS CO., New York, N. Y. Filed Mar. 6, 1919.

Nectola

Particular description of goods.—Food-Flavoring Extracts and Gelatin.
Claims use since Feb. 20, 1919.

Ser. No. 116,452. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) SCOTT PAPER COMPANY, Chester, Pa. Filed Mar. 10, 1919.

ZORBIK

Particular description of goods.—Gauze and Absorbent Paper Constituting a Surgical Dressing.
Claims use since June 21, 1918.

Ser. No. 116,461. (CLASS 12. CONSTRUCTION MATERIALS.) H. W. JOHNS MANVILLE CO., New York, N. Y. Filed Mar. 11, 1919.

ASBESTONE

Particular description of goods.—Felt Roofing.
Claims use since the 28th day of February, 1919.

Ser. No. 116,468. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LAIRD LINGER CORPORATION, New York, N. Y. Filed Mar. 11, 1919.

ROYAL RUSSIA

The term "Russia" being disclaimed as an essential part of the trade-mark except in the particular form and relation shown in the drawing.
Particular description of goods.—Crashes, Toweling, and Towels.
Claims use since 1901.

Ser. No. 116,479. (CLASS 4. ABRASIVE DETERGENT, AND POLISHING MATERIALS.) AGRIPPA MANUFACTURING CORPORATION, New York, N. Y. Filed Mar. 12, 1919.



The portrait shown being intended to represent some likeness of the Roman statesman, Marcus Vipsanius Agrippa, deceased.
Particular description of goods.—Belt-Dressing.
Claims use since Jan. 20, 1919.

Ser. No. 116,551. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PENICK & FORD, LTD., New Orleans, La. Filed Mar. 13, 1919.



Particular description of goods.—Molasses and Table-Syrups.
Claims use since Jan. 2, 1907.

Ser. No. 116,563. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) THE CROWN CORK AND SEAL COMPANY OF BALTIMORE CITY, Baltimore, Md. Filed Mar. 14, 1919.

Gunmet

Particular description of goods.—Closures for Bottles and the Like.
Claims use since Dec. 23, 1918.

[Vol. 263. No. 1.]

Ser. No. 116,608. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MACANDREW & FORDS COMPANY, Camden, N. J. Filed Mar. 15, 1919.

SHIP BRAND



No claim being made to the word "Brand" appearing on the drawing apart from the other feature of the mark.
Particular description of goods.—Coffee.
Claims use since about Dec. 1, 1918.

Ser. No. 116,636. (CLASS 39. CLOTHING.) THE AMERICAN HAT MFG. CO., INC., Norwalk, Conn. Filed Mar. 17, 1919.

THE DAVIS PIPED WELT

No claim being made to the exclusive use of the words "The" and "Piped Welt" apart from the mark as shown in the drawing.

Particular description of goods.—Hats for Men and Boys.
Claims use since Feb. 15, 1919.

Ser. No. 116,704. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) EDWARD R. LADSW COMPANY, INC., Glen Cove, N. Y. Filed Mar. 21, 1919.



Particular description of goods.—Leather Belting.
Claims use since the year 1915.

Ser. No. 116,809. (CLASS 39. CLOTHING.) CONN. GOLDWATER COMPANY, Los Angeles, Calif. Filed Mar. 22, 1919.

PALMDAYL

Particular description of goods.—Girls' Dresses.
Claims use since Jan. 3, 1919.

[Vol. 263. No. 1.]

Ser. No. 116,820. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE PAQUIN-SNYDER CO. INC., Jamestown, N. Y. Filed Mar. 22, 1919.

Goody-Ns

Particular description of goods.—Coffee.
Claims use since on or about Sept. 1, 1917.

Ser. No. 116,901. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) G. A. REUTER COMPANY, Chicago, Ill. Filed Mar. 25, 1919.

BUMBAR

No claim is made to the word "Bar" apart from the mark as shown.
Particular description of goods.—Candles.
Claims use since 1916.

Ser. No. 116,902. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) G. A. REUTER COMPANY, Chicago, Ill. Filed Mar. 25, 1919.

NUT KRACKLINS

No claim is made to the word "Nut" apart from the mark as shown.
Particular description of goods.—Nut-Candles.
Claims use since November, 1918.

Ser. No. 116,909. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Mar. 25, 1919.

KLINGHER

Particular description of goods.—Rat and Mouse Traps.
Claims use since June 5, 1908.

Ser. No. 116,913. (CLASS 39. CLOTHING.) WM. B. THREAPLETON'S SONS, Philadelphia, Pa. Filed Mar. 25, 1919.



GRASSHOPPER

Particular description of goods.—Hosiery for Men, Women, and Children.
Claims use since Mar. 14, 1919.

Ser. No. 116,975. (CLASS 39. CLOTHING.) ROYAL WORCESTER CORSET CO., Worcester, Mass. Filed Mar. 27, 1919.



The representation of a clasp and the word "Clasp" shown in the drawing, being descriptive, are not claimed as a part of the trade-mark.

Particular description of goods.—Corsets.
Claims use since Nov. 1, 1917.

Ser. No. 117,021. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) MOLLIE E. OSHERMAN, Chicago, Ill. Filed Mar. 29, 1919.

Medo

Particular description of goods.—Sanitary Bloomers.
Claims use since Mar. 26, 1919.

Ser. No. 117,037. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRED DEGNES, INC., New York, N. Y. Filed Mar. 31, 1919.



Particular description of goods.—Marshmallow Cream.
Claims use since about Sept. 1, 1912.

Ser. No. 117,065. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) W. J. SHAW & SONS (LIMERICK) LIMITED, Limerick, Ireland. Filed Mar. 31, 1919.



All exclusive rights in the words "Shaw & Sons" and "Limerick" apart from other features of the mark being disclaimed.

Particular description of goods.—Bacon and Hams.
Claims use since 1866.

Ser. No. 117,065. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE RIDGELY TRIMMER COMPANY, Springfield, Ohio. Filed Apr. 1, 1919.



Particular description of goods.—Painters' and Decorators' Tools and Supplies—to wit, Glue-Melting Gas and Oil Stoves, Blow-Torches.
Claims use since Mar. 1, 1907.

Ser. No. 117,201. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SOUTHERN SALES CORPORATION, New York, N. Y. Filed Apr. 5, 1919.



Particular description of goods.—Wheat-Flour.
Claims use since Feb. 1, 1919.

Ser. No. 117,235. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARTIN KAUFMAN, New York, N. Y. Filed Apr. 7, 1919.

"SHIC"

Particular description of goods.—Cream or Paste for Eyebrows and Eyelashes.
Claims use since Feb. 15, 1919.

Ser. No. 117,244. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) T. NOONAN & SONS COMPANY, Boston, Mass. Filed Apr. 7, 1919. Under ten-year proviso.

DR. MARSHALL'S

Particular description of goods.—Camphor Cream.
Claims use since on or about Jan. 1, 1904.

Ser. No. 117,275. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MUSHEN & COMPANY, INCORPORATED, Washington, D. C.; Baltimore, Md., and San Diego, Calif. Filed Apr. 5, 1919.

POMPEIAN.

Particular description of goods.—Canned Fresh, Dried, and Smoked Fish.

Claims use since about Mar. 28, 1919.

Ser. No. 117,280. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHUTTER-JOHNSON CANDY CO., Chicago, Ill. Filed Apr. 8, 1919.

Shurity
THE SURE-PURE LINE

No claim is made to the phrase "The Sure-Pure Line" aside from the mark as shown.

Particular description of goods.—Candies.
Claims use since Feb. 1, 1919.

Ser. No. 117,342. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) JANNEY & BURROUGH, INC., Philadelphia, Pa. Filed Apr. 10, 1919.



Particular description of goods.—Sole-Leather.
Claims use since 1872.

Ser. No. 117,343. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) JANNEY & BURROUGH, INC., Philadelphia, Pa. Filed Apr. 10, 1919.



Particular description of goods.—Sole-Leather.
Claims use since 1901.

Ser. No. 117,414. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STANDARD CHEESE CO. INC., Middletown, N. Y. Filed Apr. 12, 1919.



Particular description of goods.—Cheese.
Claims use since the 1st day of November, 1918.

Ser. No. 117,430. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WORMER CHEMICAL COMPANY, Sumner, Iowa. Filed Apr. 12, 1919.

WORMOCINE

Particular description of goods.—Hog Remedies. Said Hog Remedies are Remedies for Such Diseases and Disabilities of Hogs as Intestinal and Stomach Worms and Kidney and Bronchial Worms and are also a Tonic and Conditioner.
Claims use since Dec. 15, 1918.

Ser. No. 117,435. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CECIL CANDY & CHOCOLATE CO., Camden, N. J. Filed Apr. 14, 1919.



Particular description of goods.—Candy and Chocolate.
Claims use since March, 1910.

Ser. No. 117,442. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CAROTINA CHEMICAL COMPANY, St. Louis, Mo. Filed Apr. 14, 1919.



Particular description of goods.—A Dental Preparation for All Forms of Mouth and Teeth Infection.
Claims use since November, 1915.

Ser. No. 117,482. (CLASS 12. CONSTRUCTION MATERIALS.) WM. ENDERS MANUFACTURING COMPANY, Walden, N. Y. Filed Apr. 15, 1919.



Particular description of goods.—Felt-Asphalt Roofing.
Claims use since May 28, 1914.

Ser. No. 117,501. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES B. PLATZER, Baltimore, Md. Filed Apr. 15, 1919.

AEROPLANE

Particular description of goods.—A Remedy for Head-aches.
Claims use since on or about Oct. 1, 1916.

Ser. No. 117,511. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Apr. 15, 1919.

BIRD

Particular description of goods.—Bicycles.
Claims use since June 17, 1915.

Ser. No. 117,534. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BASIL MIDDLETON, Culver, Ind. Filed Apr. 16, 1919.



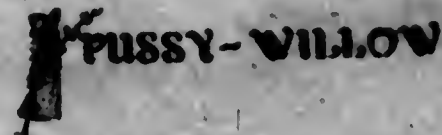
Particular description of goods.—A Liquid Chemical Composition Used to Dissolve the Residuum of Smokeless Powder from Gun-Barrels and to Preserve the Barrel from Rust and Corrosion.
Claims use since July 1, 1914.

Ser. No. 117,538. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) NATIONAL FRUIT PRODUCT COMPANY, INC., Alexandria, Va. Filed Apr. 16, 1919.



Particular description of goods.—Apple-Cider Vinegar.
Claims use since September, 1906.

Ser. No. 117,541. (CLASS 43. THREAD AND YARN.) HOWARD F. SALISBURY, Providence, R. I. Filed Apr. 16, 1919.



Particular description of goods.—Hand-Knitting Yarns Made from Wool and Mohair.
Claims use since Feb. 15, 1918.

Ser. No. 117,640. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EAST WHITTIER CITRUS ASS'N, East Whittier, Calif. Filed Apr. 21, 1919.

Pic-nic

Particular description of goods.—Fresh Citrus Fruits—Namely, Oranges and Lemons.
Claims use since Jan. 1, 1918.

Ser. No. 117,651. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EAST WHITTIER CITRUS ASS'N, East Whittier, Calif. Filed Apr. 21, 1919.

Butter cup

Particular description of goods.—Fresh Citrus Fruits—Namely, Oranges and Lemons.
Claims use since Jan. 1, 1918.

Ser. No. 117,653. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JAS. H. FENNELL & COMPANY, St. Louis, Mo. Filed Apr. 21, 1919.

GoodWill

Particular description of goods.—Coffee.
Claims use since July 16, 1918.

[Vol. 298. No. 1.]

Ser. No. 117,664. (CLASS 25. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GRAYTON & KNIGHT MANUFACTURING COMPANY, Worcester, Mass. Filed Apr. 21, 1919. Under ten-year proviso.



Particular description of goods.—Leather Belting.
Claims use since Jan. 1, 1895.

Ser. No. 117,665. (CLASS 25. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GRAYTON & KNIGHT MANUFACTURING COMPANY, Worcester, Mass. Filed Apr. 21, 1919.



Particular description of goods.—Leather Belting.
Claims use since the year 1900.

Ser. No. 117,672. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) P. E. HARRIS & CO., Seattle, Wash. Filed Apr. 21, 1919.

ANGLER

Particular description of goods.—Canned Salmon.
Claims use since Mar. 7, 1918.

Ser. No. 117,676. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HENRY KEMPERICH, Portland, Ore. Filed Apr. 21, 1919.

PRESTOLOG

Particular description of goods.—A Device Used to Determine Profits from Cost and Selling Prices, Known as an Arithmetical Computing-Disk.
Claims use since Sept. 17, 1918.

[Vol. 298. No. 1.]

Ser. No. 117,679. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MILITARY TRACT CONSERVE CO., Bushnell, Ill. Filed Apr. 21, 1919.

WAY-WE-CAN

Particular description of goods.—Canned Tomatoes.
Claims use since Nov. 10, 1918.

Ser. No. 117,690. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OXNARD CITRUS ASS'N, Huachuca and Oxnard, Calif. Filed Apr. 21, 1919.

OK

Particular description of goods.—Fresh Citrus Fruits—Namely, Lemons.
Claims use since Oct. 15, 1918.

Ser. No. 117,699. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WM. T. REYNOLDS & CO. INC., Poughkeepsie, N. Y. Filed Apr. 21, 1919.



Particular description of goods.—Poultry and Stock Feeds.
Claims use since Jan. 10, 1917.

Ser. No. 117,731. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) MAYFLOWER RUBBER WORKS COMPANY, Braintree, Mass. Filed Apr. 22, 1919.



Particular description of goods.—Hot-Water Bottles, Fountain-Syringes, Face-Bottles, and Combination Hot-Water Bottles and Syringe-Bags.
Claims use since November, 1917.

[Vol. 298. No. 1.]

Ser. No. 117,734. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) MAYFLOWER RUBBER WORKS COMPANY, Braintree, Mass. Filed Apr. 22, 1919.

MAYFLOWER

Particular description of goods.—Hot-Water Bottles, Fountain-Syringes, Face-Bottles, and Combination Hot-Water Bottles and Syringe-Bags.
Claims use since November, 1917.

Ser. No. 117,754. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VAN SANT & CO., San Francisco, Calif. Filed Apr. 22, 1919.

OTEECO

Particular description of goods.—Canned Tomato Paste, Canned Pimientos, and Canned Salmon.
Claims use since Jan. 15, 1919.

Ser. No. 117,755. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WHITTIER CITRUS ASSOCIATION, Whittier, Calif. Filed Apr. 22, 1919.



Particular description of goods.—Fresh Citrus Fruits—Namely, Oranges, Lemons, and Grape-Fruit.
Claims use since about June 1, 1901.

Ser. No. 117,756. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WHITTIER CITRUS ASSOCIATION, Whittier, Calif. Filed Apr. 22, 1919.

PICO



The portrait being that of Don Pio Pico, deceased.
Particular description of goods.—Fresh Citrus Fruits—Namely, Oranges, Lemons, and Grape-Fruit.
Claims use since about June 1, 1901.

Ser. No. 117,859. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN FLOUR CORPORATION, New York, N. Y. Filed Apr. 26, 1919.

MONTE ROSA

Particular description of goods.—Wheat-Flour.
Claims use since Feb. 1, 1919.

Ser. No. 117,860. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN FLOUR CORPORATION, New York, N. Y. Filed Apr. 26, 1919.

ENDURO

Particular description of goods.—Wheat-Flour.
Claims use since Feb. 1, 1919.

[Vol. 903. No. 1.]

TRADE-MARK REGISTRATIONS GRANTED

JUNE 3, 1919.

125,603. CANNED FRUITS AND CANNED VEGETABLES. W. F. ASSAU CANNING CO., Baltimore, Md. Filed November 27, 1918. Serial No. 114,389. PUBLISHED FEBRUARY 11, 1919.

125,606. FIELD-SEEDS. THE ATLANTIC SEED COMPANY, INC., Philadelphia, Pa. Filed December 9, 1918. Serial No. 114,552. PUBLISHED FEBRUARY 4, 1919.

125,607. LARD. AUGUSTINE & KYR, Seattle, Wash. Filed November 2, 1918. Serial No. 90,807. PUBLISHED FEBRUARY 11, 1919.

125,608. ELECTRICALLY-OPERATED FANS, MOTORS, AND BLOWERS FOR VENTILATING PURPOSES. BATTERMAN TRUST COMPANY, Chicago, Ill. Filed November 15, 1917. Serial No. 107,882. PUBLISHED JANUARY 28, 1919.

125,609. MASSAGING INSTRUMENTS ADAPTED TO BE WORKED BY THE FINGERS OF THE USER. PEZANT BRANCHOURIAN, Cambridge, Mass. Filed August 5, 1918. Serial No. 112,518. PUBLISHED DECEMBER 17, 1918.

125,610. MINE-CARS OR PIT-CARS AND THE WHEELS AND COUPLERS WHICH ARE USED THEREWITH. THE BONNET FLOYD COMPANY, Columbus, Ohio. Filed December 1, 1917. Serial No. 107,700. PUBLISHED FEBRUARY 11, 1919.

125,611. HAIR, HAT, CLOTH, BONNET, HAND, AND TOOTH BRUSHES WITH HANDLES AND BACKS OF PYROXYLIN. GEORGE BONNEVET & CO., New York, N. Y. Filed December 7, 1918. Serial No. 114,525. PUBLISHED FEBRUARY 18, 1919.

125,612. SPARK-PLUGS. BLOMSTER AND SCHAREN, Algonquin, Iowa. Filed September 5, 1918. Serial No. 113,023. PUBLISHED JANUARY 28, 1919.

125,613. AUTOMOBILE-TRUCKS. BROOKLYN AUTOMOBILE COMPANY, Brooklyn, N. Y. Filed December 4, 1918. Serial No. 114,477. PUBLISHED FEBRUARY 11, 1919.

125,614. FLAVORING COMPOUNDS FOR USE IN FOODS AND CONFECTIONS. JOSEPH BUNNETT COMPANY, Boston, Mass. Filed August 1, 1918. Serial No. 112,456. PUBLISHED FEBRUARY 11, 1919.

125,615. FRESH CITRUS FRUITS—NAMELY, ORANGES, GRAPE-FRUIT, AND LEMONS. BRYN MAWR FRUIT-GROWERS ASSOCIATION, Brynmawr and Redlands, Calif. Filed November 25, 1918. Serial No. 114,332. PUBLISHED FEBRUARY 11, 1919.

125,616. SPUN SILK YARN, MACHINE-TWIST, KNOTTING-SILK, REELED SILK, AND SEWING-SILK. CHERRY BROTHERS, South Manchester, Conn. Filed December 20, 1918. Serial No. 114,736. PUBLISHED FEBRUARY 11, 1919.

125,617. SPUN SILK YARN, MACHINE-TWIST, KNOTTING-SILK, REELED SILK, AND SEWING-SILK. CHERRY BROTHERS, South Manchester, Conn. Filed December 20, 1918. Serial No. 114,732. PUBLISHED FEBRUARY 11, 1919.

125,618. PNEUMATIC RIVETING-HAMMERS. CHICAGO PNEUMATIC TOOL COMPANY, Chicago, Ill. Filed December 16, 1918. Serial No. 114,663. PUBLISHED FEBRUARY 4, 1919.

125,619. PNEUMATIC RIVETING-HAMMERS. CHICAGO PNEUMATIC TOOL COMPANY, Chicago, Ill. Filed December 16, 1918. Serial No. 114,663. PUBLISHED FEBRUARY 4, 1919.

125,620. AUTOMOBILES AND AUTOMOBILE-TRUCKS. CHICAGO PNEUMATIC TOOL COMPANY, Chicago, Ill. Filed December 16, 1918. Serial No. 114,662. PUBLISHED FEBRUARY 11, 1919.

125,621. PNEUMATIC RIVETING-HAMMERS. CHICAGO PNEUMATIC TOOL COMPANY, Chicago, Ill. Filed December 16, 1918. Serial No. 114,664. PUBLISHED FEBRUARY 4, 1919.

125,622. DEMONSTRATION-MOTORS, DEMONSTRATION-DYNAMOS, LAMP-RHEOSTATS, RESISTANCE-BOXES, RESISTANCE-BOARDS, AND COMMUTATORS. CHICAGO APPARATUS COMPANY, Chicago, Ill. Filed December 24, 1918. Serial No. 114,806. PUBLISHED FEBRUARY 4, 1919.

125,623. PEANUT-OIL FOR SALADS AND COOKING. THE E. CLARKE COMPANY, Baltimore, Md. Filed December 9, 1918. Serial No. 114,557. PUBLISHED FEBRUARY 11, 1919.

125,624. POWDER PREPARATION FOR CLEANING, RESTORING COLOR, AND REMOVING GREASE-SPOTS IN CARPETS, RUGS, &c. DAVID B. CONCLIN, Cincinnati, Ohio. Filed November 21, 1918. Serial No. 114,265. PUBLISHED FEBRUARY 11, 1919.

125,625. CERTAIN NAMED FOODS. FRANK E. DAVIS COMPANY, Gloucester, Mass. Filed April 19, 1917. Serial No. 103,105. PUBLISHED JANUARY 14, 1919.

125,626. FRESH, SALTED, SMOKED, PICKLED, AND CANNED FISH. DAVIS BROS. FISHERIES, INC., Gloucester, Mass. Filed September 28, 1918. Serial No. 113,464. PUBLISHED FEBRUARY 11, 1919.

125,627. ELECTRIC-LAMP SOCKETS. DESPARD & GORDON COMPANY, Chicago, Ill. Filed October 28, 1918. Serial No. 113,913. PUBLISHED JANUARY 28, 1919.

125,628. FLAGS. JOHN C. DETTRA & COMPANY, INC., Oaks, Pa. Filed December 23, 1918. Serial No. 114,776. PUBLISHED FEBRUARY 11, 1919.

125,629. ROOFING MADE FROM ASPHALT AND WOOL FELT. THE DIEM AND WING PAPER COMPANY, Cincinnati, Ohio. Filed November 19, 1918. Serial No. 114,285. PUBLISHED JANUARY 28, 1919.

125,630. CERTAIN NAMED METALS AND METAL CASTINGS AND FORGINGS. DRIVER-HARRIS COMPANY, Harrison, N. J. Filed September 21, 1918. Serial No. 113,289. PUBLISHED JANUARY 28, 1919.

125,631. GUMMED PAPER IN SHEET FORM ON WHICH LABELS ARE TO BE PRINTED. DUBOC PAPER COMPANY, Chicago, Ill. Filed April 29, 1918. Serial No. 110,519. PUBLISHED FEBRUARY 11, 1919.

125,632. DUPLICATING-MACHINE. DUPLICATOR MANUFACTURING COMPANY, Chicago, Ill. Filed December 30, 1918. Serial No. 114,890. PUBLISHED FEBRUARY 4, 1919.

125,632. STOCK FEED. EDGAR-MORGAN COMPANY, Memphis, Tenn.
Filed December 31, 1917. Serial No. 108,226. PUBLISHED OCTOBER 1, 1918.

125,634. BLANKS OR FORMS UPON WHICH TO INSCRIBE TALK OR CONVERSATION WHICH HAS BEEN RECORDED PHONOGRAPHICALLY. THOMAS A. EDISON, INCORPORATED, West Orange, N. J.
Filed May 1, 1918. Serial No. 86,314. PUBLISHED JANUARY 21, 1919.

125,635. PERIODICAL PUBLICATIONS ISSUED MONTHLY. THE ENGINEERING MAGAZINE COMPANY, New York, N. Y.
Filed May 24, 1918. Serial No. 111,166. PUBLISHED FEBRUARY 11, 1919.

125,636. BUTTONS FOR WEARING-APPAREL GENERALLY, SAID BUTTONS BEING MADE FROM PLASTIC MATERIAL. FEDERAL BUTTON COMPANY, Newark, N. J.
Filed December 24, 1917. Serial No. 108,123. PUBLISHED FEBRUARY 11, 1919.

125,637. MOTOR-CYCLES AND BICYCLES. EXCELSIOR MOTOR MFG. AND SUPPLY CO., Chicago, Ill.
Filed May 11, 1918. Serial No. 110,835. PUBLISHED FEBRUARY 18, 1919.

125,638. MOTOR-CYCLES AND BICYCLES. EXCELSIOR MOTOR MFG. AND SUPPLY CO., Chicago, Ill.
Filed May 11, 1918. Serial No. 110,836. PUBLISHED FEBRUARY 11, 1919.

125,639. VEGETABLE SHORTENING. W. S. FORBES & CO., INC., Richmond, Va.
Filed September 26, 1918. Serial No. 113,427. PUBLISHED FEBRUARY 11, 1919.

125,640. FOOD-JAR RUBBERS. FRIANT BROS. RUBBER CO., Baltimore, Md.
Filed October 15, 1918. Serial No. 113,743. PUBLISHED FEBRUARY 11, 1919.

125,641. WINTER-PRESSED COTTON-SEED SALAD-OIL FLAVORED SLIGHTLY WITH PURE OLIVE-OIL. GAVALLA & BARNER, New York, N. Y.
Filed May 24, 1918. Serial No. 111,173. PUBLISHED FEBRUARY 11, 1919.

125,642. ICE-CREAM CONES AND ICE-CREAM WAFERS. MAX GOLDBERG, Chicago, Ill.
Filed July 29, 1918. Serial No. 112,383. PUBLISHED FEBRUARY 11, 1919.

125,643. FLOWER, FIELD, AND VEGETABLE SEEDS. H. W. GORDINIER & SONS CO., Troy, N. Y.
Filed September 26, 1918. Serial No. 113,429. PUBLISHED FEBRUARY 4, 1919.

125,644. MARGARIN COOKING COMPOUND. KING R. GRAHAM, INC., New York, N. Y.
Filed August 20, 1918. Serial No. 112,900. PUBLISHED FEBRUARY 11, 1919.

125,645. WHEAT-FLOUR. FRED H. HARTMAN, Ottumwa, Iowa.
Filed March 4, 1918. Serial No. 109,364. PUBLISHED FEBRUARY 11, 1919.

125,646. CANNED PINEAPPLES. HAWAIIAN PINEAPPLE CO. LTD., Honolulu, Territory of Hawaii.
Filed May 14, 1917. Serial No. 103,783. PUBLISHED FEBRUARY 11, 1919.

125,647. SHOCK-ABSORBER FOR FORD CARS. ROBERT H. HASLER, INC., Indianapolis, Ind.
Filed July 22, 1918. Serial No. 112,276. PUBLISHED NOVEMBER 26, 1918.

125,648. CANNED PINEAPPLES. HAWAIIAN PINEAPPLE CO. LTD., Honolulu, Territory of Hawaii.
Filed May 14, 1917. Serial No. 103,784. PUBLISHED FEBRUARY 11, 1919.

125,649. MULE-SHEARS. MARY E. HARMERDINGER, Louisville, Ky.
Filed December 30, 1918. Serial No. 114,922. PUBLISHED FEBRUARY 4, 1919.

125,650. CANNED ASPARAGUS. R. HICKMOTT CANNING CO., San Francisco and Orwood, Calif.
Filed February 12, 1918. Serial No. 108,953. PUBLISHED APRIL 23, 1918.

125,651. CORE COMPOUND USED IN METAL-FOUNDRIES AND THE LIKE. THE HILL AND GRIFFITH COMPANY, Cincinnati, Ohio.
Filed July 3, 1918. Serial No. 111,932. PUBLISHED FEBRUARY 4, 1919.

125,652. PORCH-SHADES. HITS, JACOB & COMPANY, New York, N. Y.
Filed October 28, 1918. Serial No. 113,917. PUBLISHED JANUARY 14, 1919.

125,653. WHEAT-FLOUR. THE HOLLEY MILLING COMPANY, Ogden, Utah.
Filed December 3, 1918. Serial No. 114,465. PUBLISHED FEBRUARY 11, 1919.

125,654. ELECTRICALLY-OPERATED SIGNAL DEVICE FOR AUTOMOBILES AND OTHER VEHICLES TO INDICATE DIRECTION OF TRAVEL. CHARLES L. HYDE, Plainfield, N. J.
Filed December 1, 1917. Serial No. 107,706. PUBLISHED JANUARY 28, 1919.

125,655. CERTAIN NAMED FOODS. IDEAL MARKETERIA COMPANY, Lockport, N. Y.
Filed October 9, 1918. Serial No. 113,631. PUBLISHED FEBRUARY 25, 1919.

125,656. RUBBER TIRES AND TUBES FOR PNEUMATIC TIRES. THE IDEAL TIRE & RUBBER COMPANY, Cleveland, Ohio.
Filed December 17, 1918. Serial No. 114,687. PUBLISHED FEBRUARY 4, 1919.

125,657. CERTAIN NAMED FOODS. H. A. JOHNSON CO., Boston, Mass.
Filed May 17, 1917. Serial No. 103,901. PUBLISHED FEBRUARY 11, 1919.

125,658. ARTIFICIAL TEETH. H. D. JUSTI & SON, Philadelphia, Pa.
Filed December 11, 1918. Serial No. 114,599. PUBLISHED JANUARY 28, 1919.

125,659. COTTON-SEED SALAD-OIL. HERMAN KIENZLER CO., New York, N. Y.
Filed August 8, 1918. Serial No. 112,632. PUBLISHED DECEMBER 17, 1918.

125,660. GAS-OPERATED WATER-HEATERS AND GAS-OPERATED HEATING-STOVES. LAWSON MANUFACTURING COMPANY, Pittsburgh, Pa.
Filed November 14, 1917. Serial No. 107,371. PUBLISHED FEBRUARY 11, 1919.

125,661. CIGARS, CIGARETTES, CHEROOTS, AND MANUFACTURED TOBACCO. LEDGER SONS & CO., London, England.
Filed August 13, 1918. Serial No. 112,691. PUBLISHED FEBRUARY 4, 1919.

125,662. CIGARS, CIGARETTES, CHEROOTS, AND MANUFACTURED TOBACCO. LEDGER SONS & CO., London, England.
Filed August 3, 1918. Serial No. 112,498. PUBLISHED FEBRUARY 4, 1919.

125,663. VALVE-OPERATING TOOLS FOR INTERNAL-COMBUSTION ENGINES. THE LOOMIS-BRANDLEY MFG. CO., Columbus, Ohio.
Filed March 5, 1918. Serial No. 109,301. PUBLISHED JANUARY 28, 1919.

125,664. CATALOGUES AND MONTHLY MAGAZINES. MICHIGAN STATE AUTO SCHOOL, INC., Detroit, Mich.
Filed August 2, 1918. Serial No. 97,667. PUBLISHED AUGUST 27, 1918.

125,665. TABLETS USED AS A MOUTH AND THROAT ANTISEPTIC. HENRY MCCARTHY, Los Angeles, Calif.
Filed December 2, 1918. Serial No. 114,654. PUBLISHED FEBRUARY 25, 1919.

125,666. PUNCTURE-SEALING COMPOSITIONS FOR PNEUMATIC TIRES. DOMINICK S. MUMFORD, New Orleans, La.
Filed October 23, 1918. Serial No. 113,963. PUBLISHED FEBRUARY 4, 1919.

125,667. JAPANESE FOOD CONSISTING OF A PASTE OR BUTTER MADE FROM WHEAT AND BEANS. KENTARO NAKAMURA, Los Angeles, Calif.
Filed July 24, 1918. Serial No. 112,308. PUBLISHED FEBRUARY 25, 1919.

125,668. EVAPORATED MILK. J. F. O'BRIEN, Cincinnati, Ohio.
Filed October 17, 1918. Serial No. 113,779. PUBLISHED FEBRUARY 25, 1919.

125,669. NATURAL AND ARTIFICIAL VANILLA FLAVORING EXTRACTS AND VANILLA FLAVORING-POWDERS FOR FOOD PRODUCTS. HENRY H. OTTENS MFG. CO., INC., Philadelphia, Pa.
Filed December 4, 1918. Serial No. 114,462. PUBLISHED FEBRUARY 11, 1919.

125,670. WALL-PLASTER, COMPOSED OF GYPSUM, RETARDER, SAND, HAIR, OR WOOD FIBER. GEO. W. PACK & SON, INC., Syracuse, N. Y.
Filed September 23, 1918. Serial No. 113,380. PUBLISHED JANUARY 14, 1919.

125,671. ONION-SETS, GARDEN-SEEDS, BULBS, AND PLANTS. EVERETTE R. PRACOCK CO., Chicago, Ill.
Filed September 28, 1918. Serial No. 113,473. PUBLISHED FEBRUARY 4, 1919.

125,672. CERTAIN NAMED RECEPTACLES MADE OF PYROXYLIN. JOHN W. PICKERING, Loomister, Mass.
Filed June 14, 1918. Serial No. 111,574. PUBLISHED JANUARY 28, 1919.

125,673. MOTOR-VEHICLES—NAMELY, PASSENGER-AUTOMOBILES AND MOTOR-TRUCKS. THE PIERCE-ARROW MOTOR CAR COMPANY, Buffalo, N. Y.
Filed December 23, 1918. Serial No. 114,564. PUBLISHED FEBRUARY 11, 1919.

125,674. MOTOR-VEHICLES—NAMELY, PASSENGER-AUTOMOBILES AND MOTOR-TRUCKS. THE PIERCE-ARROW MOTOR CAR COMPANY, Buffalo, N. Y.
Filed December 23, 1918. Serial No. 114,565. PUBLISHED FEBRUARY 11, 1919.

125,675. FABRIC AND RUBBER TIRE-PATCHES. W. M. PRINCE, Tacoma, Wash.
Filed October 28, 1918. Serial No. 113,920. PUBLISHED FEBRUARY 4, 1919.

125,676. WHEAT-FLOUR. JACOB ROSENSTEIN, New York, N. Y.
Filed January 11, 1919. Serial No. 115,123. PUBLISHED FEBRUARY 25, 1919.

125,677. GARDEN, FIELD, AND FLOWER SEEDS. JOHN A. SALKER SEED COMPANY, La Crosse, Wis.
Filed November 26, 1918. Serial No. 114,353. PUBLISHED FEBRUARY 4, 1919.

125,678. TIRE-PATCH. LOUIS H. SCOTT, Oklahoma, Okla.
Filed November 30, 1918. Serial No. 114,437. PUBLISHED FEBRUARY 11, 1919.

125,679. TENNIS-RACKETS. FRANK LOON BLANCHARD, New York, N. Y.
Filed October 24, 1918. Serial No. 113,975. PUBLISHED JANUARY 14, 1919.

125,680. TALKING-MACHINE CABINETS AND PHONOGRAPH-CABINETS. SONORA PHONOGRAPH CORPORATION, New York, N. Y.
Filed January 12, 1917. Serial No. 100,593. PUBLISHED FEBRUARY 4, 1919.

125,681. CANNED TOMATOES. STEELE PACKING COMPANY, San Diego, Calif.
Filed December 31, 1918. Serial No. 114,927. PUBLISHED FEBRUARY 11, 1919.

125,682. GAS-GENERATORS USING CALCIUM CARBIDE AND GENERATOR-CARTRIDGES CONTAINING CALCIUM CARBIDE USED WITH SAME. THE THERMALGENE COMPANY, Chicago Heights, Ill.
Filed September 13, 1915. Serial No. 89,174. PUBLISHED JANUARY 28, 1919.

125,683. AUTOMOBILES, WAGONS, TRUCKS, TRAILERS, AND VEHICLE-WHEELS, RUNNING-GEAR, FRAMES, AND BODIES THEREFOR. THE TURNBULL MOTOR TRUCK AND WAGON CO., Defiance, Ohio.
Filed October 17, 1918. Serial No. 113,782. PUBLISHED FEBRUARY 4, 1919.

125,684. LEATHER BELTING. THE ULMER LEATHER COMPANY, Norwich, Conn.
Filed November 21, 1918. Serial No. 114,280. PUBLISHED FEBRUARY 11, 1919.

125,685. WASHING COMPOUND. A. & A. UNDERBERG, Chicago, Ill.
Filed September 2, 1918. Serial No. 72,006. PUBLISHED JANUARY 28, 1919.

125,686. FRESH CANTALOUPE. UNITED GROWERS ASSOCIATION OF TURLOCK, Turlock, Calif.
Filed October 10, 1918. Serial No. 113,681. PUBLISHED FEBRUARY 11, 1919.

125,687. EGGS. ISADOR A. WALLING, Decatur, Ill.
Filed June 23, 1916. Serial No. 96,097. PUBLISHED JANUARY 30, 1917.

125,688. X-RAY TUBES. WAPPLER ELECTRIC CO., INC., New York, N. Y.
Filed December 19, 1918. Serial No. 114,723. PUBLISHED FEBRUARY 4, 1919.

125,689. CAKES. WARD BAKING COMPANY, New York, N. Y.
Filed October 12, 1918. Serial No. 113,710. PUBLISHED FEBRUARY 11, 1919.

125,690. WHEAT-FLOUR. WASHBURN CROSBY CO., Minneapolis, Minn.
Filed December 13, 1918. Serial No. 114,635. PUBLISHED FEBRUARY 11, 1919.

125,691. WHEAT-FLOUR. WASHBURN CROSBY CO., Minneapolis, Minn.
Filed December 13, 1918. Serial No. 114,636. PUBLISHED FEBRUARY 11, 1919.

125,692. WHEAT-FLOUR. WASHBURN CROSBY CO., Minneapolis, Minn.
Filed December 13, 1918. Serial No. 114,639. PUBLISHED FEBRUARY 25, 1919.

125,693. JELLY-POWDERS. WAUKESHA PURE FOOD COMPANY, Waukesha, Wis.
Filed May 20, 1918. Serial No. 111,075. PUBLISHED FEBRUARY 11, 1919.

125,694. THERMOMETERS. H. WEINHAGEN, New York, N. Y.
Filed October 29, 1918. Serial No. 113,934. PUBLISHED JANUARY 23, 1919.

125,695. THERMOMETERS. H. WEINHAGEN, New York, N. Y.
Filed October 29, 1918. Serial No. 113,935. PUBLISHED FEBRUARY 4, 1919.

125,696. GAS-MANTLES AND GAS-LAMPS. WELLS-BACK COMPANY, Gloucester City, N. J.
Filed November 7, 1918. Serial No. 114,068. PUBLISHED FEBRUARY 11, 1919.

125,697. SURFACE-TANNED, SIDE, AND CUT LACE LEATHER. FRANK B. WILLIAMS, Dover, N. H.
Filed February 24, 1917. Serial No. 101,008. PUBLISHED FEBRUARY 11, 1919.

125,008. CINEMATOGRAPHIC FILMS. WORLD FILM CORPORATION, New York, N. Y.
Filed October 22, 1917. Serial No. 106,901. PUBLISHED FEBRUARY 4, 1919.

125,009. FABRIC LININGS FOR TRANSMISSIONS AND BRAKES. ADVANCE AUTOMOBILE ACCESSORIES CORP., Chicago, Ill.
Filed December 18, 1918. Serial No. 114,007. PUBLISHED FEBRUARY 11, 1919.

125,700. WRITING-PAPER, PRINTING-PAPER, WRAPPING-PAPER, TOILET-PAPER, AND TISSUE-PAPER. AUB & TWITCHELL, Dover, Del., and Philadelphia, Pa.
Filed August 13, 1918. Serial No. 112,702. PUBLISHED FEBRUARY 11, 1919.

125,701. COUGH-DROPS. GEORGE H. DIETZ, Stockton, Calif.
Filed January 9, 1919. Serial No. 115,059. PUBLISHED FEBRUARY 25, 1919.

125,702. RUBBER TIRES. FORD MOTOR COMPANY, Highland Park, Mich.
Filed May 28, 1918. Serial No. 80,953. PUBLISHED JANUARY 21, 1919.

125,703. CERTAIN NAMED FOODS. HAAS, BARUCH & CO., Los Angeles, Calif.
Filed August 22, 1917. Serial No. 105,803. PUBLISHED FEBRUARY 18, 1919.

125,704. CERTAIN NAMED PHARMACEUTICAL PREPARATION FOR TOILET PURPOSES—NAMESLY, FOR HAIR-SHAMPOING. EDWARD OSCAR HEINRICH, Tacoma, Wash.
Filed August 24, 1918. Serial No. 112,800. PUBLISHED FEBRUARY 25, 1919.

125,705. MEDICINAL WAX USED IN THE TREATMENT OF CATARRH, INFLUENZA, AND SORES. JOSEPH KOCHANOWSKI, Donora, Pa.
Filed December 30, 1918. Serial No. 114,883. PUBLISHED FEBRUARY 25, 1919.

125,706. WHEAT-FLOUR. MAMMOTH SPRING MILLING COMPANY, Mammoth Spring, Ark.
Filed January 20, 1916. Serial No. 92,273. PUBLISHED FEBRUARY 25, 1919.

125,707. LEATHER, RUBBER, AND CANVAS MEN'S AND WOMEN'S SHOES. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed November 18, 1918. Serial No. 114,210. PUBLISHED FEBRUARY 11, 1919.

125,708. BAKING-POWDER. NATIVE PRODUCTS CO., Inc., New York, N. Y.
Filed December 9, 1918. Serial No. 114,568. PUBLISHED FEBRUARY 25, 1919.

125,709. EVAPORATED MILK. THE OHIO DAIRY COMPANY, Toledo, Oak Harbor, and Lima, Ohio, and Moreland, Mich.
Filed December 20, 1918. Serial No. 114,747. PUBLISHED FEBRUARY 25, 1919.

125,710. MEDICINE FOR LIVE STOCK, FOR WORMS, GERMS, AND GENERAL CONDITION. PARSON'S CHEMICAL WORKS, Grand Ledge, Mich.
Filed December 31, 1918. Serial No. 114,923. PUBLISHED FEBRUARY 25, 1919.

125,711. OINTMENT COMPOSED OF OIL OF MUSTARD FOR THE TREATMENT OF CERTAIN NAMED AILMENTS. ROMULUS P. RIMO, Trenton, N. J.
Filed November 29, 1918. Serial No. 114,424. PUBLISHED FEBRUARY 25, 1919.

125,712. LEATHER BELTING. THE ULMER LEATHER CO., Norwich, Conn.
Filed March 16, 1918. Serial No. 109,613. PUBLISHED FEBRUARY 11, 1919.

125,713. CIGARS. UNITED CIGAR MANUFACTURERS COMPANY, (now by change of name General Cigar Co., Inc.), New York, N. Y.
Filed August 24, 1918. Serial No. 97,482. PUBLISHED FEBRUARY 25, 1919.

125,714. FLAT OAK-TANNED LEATHER BELTING AND CUT LACE-LEATHER. FRANK B. WILLIAMS, Dover, N. H.
Filed February 24, 1917. Serial No. 101,065. PUBLISHED FEBRUARY 11, 1919.

125,715. LOCAL ANESTHETICS. THE WINGATE CHEMICAL COMPANY LIMITED, Montreal, Quebec, Canada.
Filed December 28, 1918. Serial No. 114,872. PUBLISHED FEBRUARY 25, 1919.

TRADE-MARK REGISTRATIONS RENEWED.

16,442. A CLEANING AND POLISHING COMPOUND. EMMA J. AUSTIN, Carthage, N. Y., by marriage Emma J. A. Oliver.
Registered April 2, 1889. Renewed April 2, 1919.

16,842. FLOUR. ESTATE OF GEORGE V. HECKER, New York, N. Y.; Hecker-Jones-Jewell Milling Company, assignee.
Registered July 23, 1889. Renewed July 23, 1919.

16,947. FLOUR. ESTATE OF GEORGE V. HECKER, New York, N. Y.; Hecker-Jones-Jewell Milling Company, assignee.
Registered August 20, 1889. Renewed August 20, 1919.

Registered August 20, 1889. Renewed August 20, 1919.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Seventh Circuit. LIQUID CARBONIC CO. et al. v. GILCHRIST CO.

Decided January 2, 1919; rehearing denied March 11, 1919; on petition for modification May 1, 1919.

[258 Fed. Rep., 54.]

1. PATENTABILITY—NEW USE—ENLARGEMENT IN SIZE AND FURTHER MODIFICATION MAY BE INVENTION.

While one who by enlarging the size of a patented article makes it suitable for a new use is not entitled to a patent, yet where the inventor combines a new element with the old device, whereby a new and useful result is obtained, there is "invention," which is patentable.

2. CLAIMS—CONSTRUCTION OF TERMS "FIT" AND "SECURED TO."

The word "fit" does not necessarily mean a tight fit, as a piston in a cylinder; nor does "secured to" mean rigidly secured to, and a claim using these terms is infringed by a similar device in which a like part is loosely fitted and another part is rigidly secured, which answers to the requirement "secured to."

3. VALIDITY—INFRINGEMENT.

The Berman patent, No. 962,300, for a dispensing apparatus for use at bars and soda-fountains to contain straws for drinking purposes, held valid and infringed as to claim 2, invalid as to claim 1.

4. EXCESSIVE CLAIM—DISCLAIMER PRIOR TO BRINGING SUIT NECESSARY TO RECOVER COSTS.

Where, through inadvertence, etc., a patentee has claimed that of which he was not the first inventor, he cannot, under Revised Statutes, section 4922, (Comp. St., 1916, sec. 9468,) recover costs for infringement of the valid portion of the patent where his disclaimer was not filed prior to the beginning of suit.

5. SAME—RIGHT TO RECOVERY DEPENDENT UPON FILING OF DISCLAIMER.

Under Revised Statutes, sections 4917, 4922, (Comp. St., 1916, secs. 9462, 9468,) where a patentee, through inadvertence, etc., claimed that of which he was not the original discoverer, but a disclaimer was not filed before suit, no recovery by the patentee for infringement of the valid portion of the patent can be allowed unless disclaimer be filed within a reasonable time.

APPEAL from the District Court of the United States for the Eastern Division of the Northern District of Illinois.

Suit by the Gilchrist Company against the Liquid Carbonic Company and William J. Eisenhardt. From a decree for complainant, defendants appeal. Reversed, with directions.

STATEMENT OF THE CASE.

The patent involved is for a straw-dispensing device for use at bars, soda-fountains, and the like,

[Vol. 263.

to contain straws used for drinking purposes, so that customers may take some therefrom, leaving the rest covered and protected. A patent therefor, No. 962,300, was issued to Berman June 21, 1910. The device is shown in patent Figure 1.



C is the plate or straw-holder, attached in its center to rod B, which, by grasping the handle H, is moved up or down within the outer cylinder A. Cover M is attached to the upper part of the rod just below the handle, so that, when the holder C is lowered to the bottom of the cylinder, the cover engages the top of the cylinder, closing it to air, dust, flies, etc. Indentations P in the cylinder arrest at the proper point the upward movement of the plate or holder. When the handle is raised, the straws S S are placed in the cylinder, resting on the plate or holder. They naturally spread out at the top and arrange themselves in spiral form, as shown in Fig. 1. Releasing the handle, the holder drops, and with it the straws, which in descending contract together in the cylinder, and when they reach the bottom are wholly contained within it; the cover closing over the top. When it is desired to use a straw, the customer or the attendant at the bar lifts the handle, and when high enough the straws spread out as shown, one or more are withdrawn, and the handle released, whereupon the straws again drop into the cylinder as before.

The two claims of the patent are alleged to be infringed. They are:

1. In a dispensing apparatus, an outer cylinder having a perforation in its bottom, a carrier comprising a central rod, a lower plate arranged to fit within said outer cylinder, an upper plate secured to said rod and constituting a cover for said outer cylinder, and an integral handle projecting upwardly from said cover.

2. In a straw dispensing device, an outer cylinder, a carrier comprising a central rod, a lower plate arranged to fit within said cylinder secured to said rod and constituting a support for the straws, an upper plate secured to said rod and constituting a cover for said cylinder.

No. 1.]

inder, an upwardly projecting handle for said cover, and means carried by said outer cylinder for limiting the movement of the carrier.

The defense is invalidity of the patent, on the prior art, and non-infringement. The district court found both claims valid and infringed, and decreed accordingly.

Mr. George P. Fisher for the appellants.

Mr. Fred Gerlach for the appellee.

Before BAKER, ALSCHULER, and EVANS, Circuit Judges.

ALSCHULER, Cir. J., (after stating the facts as above:)

The nearest citation in the prior art, and the one mainly relied on for reversal, is McIntyre, No. 629,596, 1899. It assumes to be in the "box or case" art, and to relate more particularly to boxes "adapted to receive and hold pencils, penholders, rulers," etc. Fig. 2 of that patent shows the device.



The rod B is connected with the top G, which serves also the purpose of a handle to grasp it; and to the lower disk C. When G is grasped and raised it also raises disk C, bringing up and exposing pencils, etc., which have been placed within the cylinder A, and when C is lowered the contents are retained wholly within the then covered cylinder.

McIntyre's device, used as a "scholar's companion" for holding pencils, etc., clearly presents in reduced form the structure of Berman's claim 1. If McIntyre's device had only to be made on a larger scale, in order to use it as a straw-dispenser, as described in Berman's claim 1, the latter would not be patentable over McIntyre. The fact that a patented article, without addition, subtraction, or reorganization, except to change its size, may be suited to a use wholly different from that contemplated by its inventor, does not entitle the one who so enlarges it, and subjects it to the new use, to a patent for the enlarged device. But if, to adapt the patented device to the new use, an element must be brought in, not found in the patented article, the combining of the new element with the old device, whereby a new and useful result is obtained, generally involves invention, which is patentable.

Unlike McIntyre's device, which was evidently designed for the individual use of its possessor, Berman's contrivance is intended to be placed on bars and counters where the public may operate it, helping themselves to straws as may be required for use in drinking. If just the enlarged McIntyre

[Vol. 263.

box were devoted to this use, it would find serious handicap in the fact that, in lifting the straws, they would frequently be raised too high, thereby causing them to fall out of the cylinder onto the bar or floor, exposing them to unsanitary conditions, subjecting them to breakage, and involving the annoyance and labor of gathering them up and replacing them in the cylinder, perhaps only to be thrown out again by the next user. If Berman may be said to have had the McIntyre device in mind, he not only conceived its possible adaptability to the new use, but realized that to make practical and successful the intended new use would require a limitation on the upward movement of the straws to avoid the danger of spilling them out of the cylinder. This result he achieved by the very simple expedient of making indentations in the cylinder at places where the straws would be prevented from going higher than just high enough to spread them so the customer may withdraw such as he desires, retaining the others in the cylinder, without danger of their being thrown out through being lifted too high.

Appellant maintains that the expedient of an indentation for such a purpose is so old and so simple that its employment would not involve invention. Considered merely as an element in a device this is undoubtedly true. But, simple as it is, it remained for Berman to conceive, not only the possibility of the McIntyre device in this new use, but also the additional element essential to make the new structure practical and desirable for that use. In this we find Berman exercised invention which was patentable, and which is covered by his claim 2. Claim 1 omits this added element. Respecting the validity of the patent, we therefore conclude that claim 2 is valid, and that claim 1 is invalid on McIntyre.

To escape the charge of infringement, it is claimed appellant's device does not show that the lower plate or holder "fits" in the cylinder, as stated in claim 2, and does not have "an upper plate secured to said rod." We do not think that the word "fit," as employed in claim 2, is to be considered as indicating such a fitting of parts as might be implied between a steam-cylinder and its piston, but must be considered with reference to the object of the patent and the function of the plate or holder in such structures. There is no reason why the fit of the plate or holder in the cylinder should be exact, and difference shown in this regard between appellant's and appellee's device is not at all functional or essential. Appellant does not avoid infringement by fitting his plate within the cylinder more loosely than the patentee seems to have done. Appellant's upper plate or lid does not appear to be rigidly secured to the rod, but it is slidably secured to it. The lid could not be removed from the rod without removing screws or cutting the metal. The construction of appellant's device is such that the user must lift a handle at the upper part of the lid. But in lifting this handle he must at the same time lift the rod

No. 1.]

thus slidably secured to it, and in lifting the rod he lifts the lower plate on which the straws repose, and he thus lifts and exposes the straws in the precise manner of Berman's claim 2. Therefore to all intents and purposes appellant's lid is secured to the rod the same as is Berman's. It accomplishes the same result and in the same manner, and does not escape infringement merely because, after his lid is raised, there is the possibility of an additional movement by sliding the lid down the rod. This slidability in appellant's device is protected by a junior patent grant to Eisenhardt, No. 1,195,451, 1916; and, while this may show improvement of decided merit, which is not necessary here to be considered, yet, in so far as appellant's device incorporates the Berman conception of a rod to be lifted at its upper end whether by grasping a handle integral with the rod proper, or a handle on the upper end of the lid, which engages the rod, it infringes in this respect. The alleged infringing device incorporating as it does, also, the indentations in the outer cylinder for arresting at the proper place the upward movement of the plate or straw-holder, we find claim 2 is infringed.

The decree of the district court should be modified, by finding claim 1 invalid, and, as so modified, it is affirmed.

ON PETITION FOR MODIFICATION.

Petition for modification of the order of this court directs attention to sections 4917 and 4922, Revised Statutes of the United States, (Comp. St., 1916, secs. 9462, 9463,) (see margin¹), and it is urged there should be no decree in appellee's favor under valid and infringed claim 2 of the patent, unless claim 1, which we found to be void, was disclaimed as in these statutes provided, and that in no event is appellee entitled to recover any costs.

That under the circumstances indicated in these statutes, benefit of any recovery by the patentee is denied unless or until disclaimer is filed, and that he is entitled to recover no costs where dis-

¹ SEC. 4917. Whenever, through inadvertence, accident, or mistake, and without any fraudulent or deceptive intention, a patentee has claimed more than that of which he was the original or first inventor or discoverer, his patent shall be valid for all that part which is truly and justly his own, provided the same is a material or substantial part of the thing patented; and any such patentee, his heirs or assigns, whether of the whole or any sectional interest therein, may, on payment of the fee required by law, make disclaimer of such parts of the thing patented as he shall not choose to claim or to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent.

SEC. 4922. Whenever, through inadvertence, accident, or mistake, and without any wilful default or intent to defraud or mislead the public, a patentee has, in his specification, claimed to be the original and first inventor or discoverer of any material or substantial part of the thing patented, of which he was not the original and first inventor or discoverer, every such patentee, his executors, administrators, and assigns, whether of the whole or any sectional interest in the patent, may maintain a suit at law or in equity, for the infringement of any part thereof, which was bona fide his own, if it is a material and substantial part of the thing patented, and definitely distinguishable from the parts claimed without right, notwithstanding the specifications may embrace more than that of which the patentee was the first inventor or discoverer. But in every such case in which a judgment or decree shall be rendered for the plaintiff no costs shall be recovered unless the proper disclaimer has been entered at the Patent Office before the commencement of the suit. But no patentee shall be entitled to the benefits of this section if he has unreasonably neglected or delayed to enter a disclaimer.

[Vol. 263. No. 1.]

claimer is not filed prior to the beginning of the suit, appears to be too well settled by the statutes and the decisions applying them, to require further elucidation. (*Sessions v. Romadka*, 145 U. S., 29; 12 Sup. Ct., 799; 36 L. Ed., 609; *Gage v. Herring*, 107 U. S., 640; 2 Sup. Ct., 819; 27 L. Ed., 601; *Seymour v. McCormick*, 19 How., 96; 15 L. Ed., 557; *O'Reilly v. Morse*, 15 How., 62; 14 L. Ed., 601; *Westinghouse v. Cooper*, 245 Fed., 463; 157 C. C. A., 625; *Cummer & Son v. Atlas Dryer Co.*, 193 Fed., 903; 113 C. C. A., 611; *Herman v. Youngstown Car Co.*, 191 Fed., 579; 112 C. C. A., 185; *Novelty Glass Co. v. Brookfield*, 172 Fed., 221; 97 C. C. A., 25; *Fairbanks, Morse & Co. v. Stickney*, 123 Fed., 79; 50 C. C. A., 200; *Metallic Extraction Co. v. Brown*, 110 Fed., 685; 49 C. C. A., 147.)

Claim 1, which we found void, is material and substantial, though it does not appear that the claim was made through "any wilful default or intent to defraud or mislead the public," but rather "through an inadvertence, accident, or mistake." No disclaimer of it appearing to have been entered as in the statutes provided, but no unreasonable delay or neglect therein appearing, the order we heretofore made must be and is set aside, and in lieu thereof we make the following order:

The decree of the district court is reversed, and appellee shall have sixty days after mandate herein is filed in the district court, in which to file there a certified copy of disclaimer of claim 1 of the patent which disclaimer is to be entered in the United States Patent Office; and on the filing of such certified copy of disclaimer the district court shall enter the usual decree for injunction and accounting under claim 2 of said patent, without costs to appellee. Failing to enter and to file such disclaimer as prescribed, the bill shall be dismissed at appellee's costs. Neither party shall recover costs of this appeal.

U. S. Circuit Court of Appeals—Ninth Circuit.

WILLARD et al. v. UNION TOOL CO.

Decided August 5, 1918; rehearing denied October 30, 1918.

[253 Fed. Rep., 48.]

1. DATE OF INVENTION—PATENTS ISSUED TO INDEPENDENT INVENTORS.

"When two patents for the same invention have been issued to independent inventors, the rule is that the dates of their inventions are: (1) the date of the patents; (2) the dates of the applications, provided the application sufficiently describes the invention, and (3) the dates of actual reduction to practice. In the absence of other proof, the filing of the application is taken to be a constructive reduction to practice. In *Kearney v. Lehigh Valley R. Co.* (C. C., 32 Fed., 321, 322) Mr. Justice Bradley said: 'The date of the application, if it describes the invention sufficiently, is conclusive evidence that the invention was made prior to such date.'

2. PRIORITY BETWEEN INVENTORS HAVING CO-PENDING APPLICATIONS—BURDEN OF PROOF.

As between rival inventors whose applications are pending at the same time the burden is on him whose application is second to show that he was first to reduce the invention to practice.

3. SAME—SAME—MEASURE OF PROOF.

In a contest between rival inventors for priority of invention, their applications being pending at the same

time and both inventors having reduced their conceptions to practice, the one whose application is second, in sustaining the burden of proving that he was the first to reduce the invention to practice, is required to establish his priority only by fair preponderance of evidence and not by proof conclusive in character or beyond a reasonable doubt.

4. PATENTABILITY—VALIDITY OF COMBINATIONS.

The mere fact that human agency intervenes in an operation does not render a combination unpatentable. Nor is it necessary that the action of the elements be simultaneous, nor that one of the elements shall so enter into the combination as to change the action of the others; but it is sufficient if there be some joint operation of the elements, producing a result due to their cooperative action.

5. NAME—AGGREGATION—ONE ELEMENT A DETACHED INSTRUMENT.

Alleged combination claims of the Willard and Wilcox patent, No. 1,064,270, represented by claim 2, for elements to be used in connection with a rotary drilling apparatus to facilitate changing from the operation of drilling to the operation of removing the drill-string from the well, and vice versa, are for a mere aggregation, the device for holding the pipe-string being a detached instrument and not a part of a machine.

APPEAL from the District Court of the United States for the Southern Division of the Southern District of California; Edward E. Cushman, Judge.

Suit in equity by Arthur G. Willard and William W. Wilson against the Union Tool Company. Decree for defendant, and complainants appeal. Reversed in part and affirmed in part.

Mr. Raymond Ives Blakeslee for the appellants. Mr. Frederick S. Lyon for the appellee.

Before GILBERT, ROSS, and HUNT, Circuit Judges. GILBERT, Cir. J.:

The appeal in this case involves the decrees of the court below in two suits for infringements of patents, namely, Willard and Wilson against the Union Tool Company, and the same plaintiffs against the Oil Well Supply Company and R. H. Herron. Both suits are upon Patent No. 1,064,270 issued to Willard and Wilcox on June 10, 1913, on an application filed March 11, 1912. Submitted with these cases in the court below was the case of *Griffin et al. v. Wilson et al.*, upon Patent No. 1,067,330, issued July 15, 1913, to T. J. Griffin, on his application which was filed October 5, 1911. From the decree in the latter case which held the Griffin patent void as anticipated by the prior art, no appeal has been taken.

The appellants' patent is for a well-boring apparatus, and relates to well-borers which are provided with rotary tops whereby the rotation of the boring-tool and the string of pipe-sections extending from the same is caused; the rig being employed in raising and lowering the boring-tool and string in performing the operations incident to drilling. The patent contains two general groups of claims. The second group, which embraces claims 6, 7, 8, and 9, will be first considered. The nature of those claims is fairly represented by claim 6, which is as follows:

In improvements of the character disclosed, the combination with a rotary table and a well-boring string; of a bushing fitting within the table and formed to sur-

[Vol. 262.]

round and grip the string and impart rotation from the table thereto; and a member upon the string formed and disposed in a position to engage with said bushing and withdraw the same from the table upon the elevation of the string.

The court below found that all of this combination was covered by the patent to Griffin of July 15, 1913, except the last element, the—member upon the string formed and disposed in position to engage with said bushing and withdraw the same from the table upon the elevation of the string.

and held that, although that element was not mentioned or claimed in the Griffin patent, it was plainly disclosed therein, and that Griffin had the conception of all the claims involved in the patent in suit at the time of the filing of his application which was prior to the application for the appellants' patent, and that the presumption arose therefrom that Griffin had then reduced the same to practice, and held that where the contest is between a patentee or his successors in interest and another person, or his successors in interest, and such other person has been shown to have reduced to practice the combination claimed prior to the filing date of the application of the patentee, the burden rests upon those suing under the patent to show a reduction to practice prior to that of the alleged infringer, and that, since such reduction to practice was not shown by the high degree of proof required, it followed that the claims of the Willard and Wilcox patent were void. In brief, the position of the trial court was, not that the combination described in the appellants' patent did not involve invention and was not patentable, but that Willard and Wilcox were not the first inventors thereof, and that, since Griffin made no claim for that element of the combination which would have rendered his invention patentable, he thereby relinquished the combination to the public, and all were free thereafter to use it.

The contest here does not arise between two rival patentees. It is not between the owners of the patent to Willard and Wilcox, and a manufacturer under the Griffin patent. It is between the owners of the former patent and persons who are admittedly infringers if the claims of that patent are sustainable. It is not claimed that Willard and Wilcox got from Griffin the idea of their combination, or that they were not original inventors of the same.

(1) The contention is that inasmuch as Griffin's application for patent was prior in time and therein the combination was described, although one of its elements was not claimed as part of the invention, it follows that Willard and Wilcox were not the inventors of the combination. If it be assumed that the Griffin invention covers the combination here in question, we have the situation of two independent inventors whose applications were pending at the same time, both of whom, in the absence of proof to the contrary, will be presumed to be original inventors. Where two bona fide applications are pending at the same time, neither is prior in art to the other, for neither can know of the contents of the other's confidential communication on file in the No. 1.]

Patent Office. (*Merpenhauser Linotype Co. v. International Typetting Mach. Co.*, D. C., 229 Fed., 108.)

(2, 3) When two patents for the same invention have been issued to independent inventors, the rule is that the dates of their inventions are: (1) the date of the patents; (2) the dates of the applications, provided the application sufficiently describes the invention; and (3) the dates of actual reduction to practice. In the absence of other proof, the filing of the application is taken to be a constructive reduction to practice. In *Kearney v. Lehigh Valley R. Co.* (C. C., 32 Fed., 321, 322) Mr. Justice Bradley said:

The date of the application, if it describes the invention sufficiently, is conclusive evidence that the invention was made prior to such date.

(4, 5) The date of the Willard and Wilcox patent was prior to that of Griffin, but the latter's application was first in time. There was no evidence that the Griffin invention was ever reduced to practice otherwise than by the filing of his application. There was evidence that the Willard and Wilcox invention was reduced to practice prior to the date of Griffin's application; but the court below held that the evidence was not of that high degree which was required, and applied the rule which the appellee herein contends for, that the evidence must be of that conclusive character which is required to establish the defense of anticipation or of prior public use, to which contention the appellee cites authorities which hold that in suits for infringement of patents the defense of anticipation or prior use must be established by proof, clear, positive, and unequivocal, and that nothing must be left to speculation or conjecture. We cannot agree that the rule is applicable here. We think the rule to be applied is that which governs contests between rival inventors for priority of invention whose applications are pending at the same time, which is that, where both inventors have reduced their conceptions to practice, the burden of proof is on him whose application is second to show that he was the first to reduce the invention to practice, and that in sustaining such burden he is controlled by the ordinary rules of courts of law with respect to the burden of proof, and is required to establish his priority only by a fair preponderance of the evidence, and not by proof conclusive in character, or beyond a reasonable doubt. (*Watts v. Harrington*, 79 O. C., 337; 10 App. D. C., 140; *Sundt Electric Co. v. Interborough Rapid Transit Co.*, 198 Fed., 94; 117 C. C. A., 280; *Evans v. Associated Automatic Sprinkler Co.*, 241 Fed., 282; 154 C. C. A., 172; *Automatic Sprinkler Co. v. Walworth Mfg. Co.*, C. C., 60 Fed., 605.)

On behalf of the appellants, testimony was introduced to show that in the summer of 1911 the Wilson & Willard Manufacturing Company, for the appellants, had manufactured and sold devices which embodied all the features of the second group of the claims of their patent. The witness Madsen, owner of the Madsen Iron Works, made the castings for those devices, and he testified that they were made of such diameter that the collar on the pipe would

[Vol. 262.]

lift the bushing when the stem was raised into the derrick. He produced copies of invoices of castings which he made at different periods between May and September of that year. He testified that the first devices made were not so constructed that the bushing would be lifted when the stem was raised, but that during the summer the change was made, and he was positive that it occurred before September, because on the 1st of September he changed his place of business, and in his memory he associated the making of the devices with his former place of business. E. C. Wilson, the president of the Wilson & Willard Manufacturing Company, testified that one of the devices was so made in the summer of 1911, and that early in the summer it was installed and in operation by the Pacific Light & Power Company in the Salt Lake oil-field west of Los Angeles, under the superintendence of M. L. Thorn, and that he saw it there in use. It was in evidence that, at the time of taking the testimony in the case, Thorn was snow-bound and inaccessible in the mountains of Nevada, and that, while the case was under submission, the appellants made application for leave to take his testimony, presenting his affidavit in which he deposed that in the summer of 1911, and prior to September he as such superintendent purchased from the appellants and used the rotary well-drilling outfit, with a drive-bushing, and that the drive-bushing of that outfit was directly engaged and withdrawn by the collar upon the elevation of the drive-stem. The application was denied for want of diligence, and because the offered testimony was cumulative. W. W. Wilson, vice-president of the Wilson & Willard Manufacturing Company, testified that in August, 1911, he saw in use, under the superintendence of M. L. Thorn, a rotary rig containing the appellants' combination. Charles E. Wilcox, salesman for the Wilson & Willard Manufacturing Company, and one of the patentees, testified that he saw the device in operation by the Pacific Light & Power Company in the spring or summer of 1911, and that it was furnished by the Wilson & Willard Manufacturing Company. Arthur G. Willard, the other patentee, testified that the change in the diameter of the bushing so as to permit it to engage the collar on the stem was made at his direction at the instance of Wilcox from drawings produced by him, and that the first device so made was constructed by the Madsen Iron Works in July, 1911. There was no contradiction of any of this testimony, and it was sufficient we think to sustain the burden of proof and to show that the Willard and Wilcox invention was reduced to practice two or three months before the date of the Griffin application for patent.

Turning to the other group of claims, we find that they are founded on a combination of the drive-bushing device with certain devices called "slips," which are employed for temporarily gripping the string and holding it suspended at any particular point of elevation. The slips are used in the operation of removing the string from the well and in the operation of restoring it thereto. The purpose is to

No. 1.]

hold the string firmly in place in order to permit its disjunction piece by piece, or the reconstruction of the same in a similar manner. In that operation the bushing device suspended on a collar of the stem is raised into the derrick, leaving in the rotating table an inverted conical space, in which space the slips are placed by hand around the suspended string. The slips are adapted when in position to form a cylindrical opening slightly less than the outside surface of the pipe. The inner faces of the slips are cut with transverse serrations adapted to grip the outer surface of the pipe and thereby support the weight of the suspended string. The combination claims are fairly presented in claim 2, which is as follows:

Improvements of the character disclosed comprising in combination with a rotary table, a plurality of means of operative connection between the same and a string and each formed for separate application to the table in substitution for the other, there being interlocking means effective between one of said means of operative connection and the table whereby the string may be rotated upon rotation of the table; the other of said means of operative connection being formed and adapted to coast through the table and with slips to sustain the weight of the string.

The combination claims were held void by the court below on the ground that they present an aggregation and not a patentable combination. Said the court:

When the slips or wedges are removed from the opening to allow the substitution of the drive bushing or nut, they are removed by hand and laid aside, here or there; far or near, as chance and the inclination of the operator may determine, leaving them, for the time, to be a part neither of this or any other machine, becoming a separate tool to be gone in search of when again needed, recovered, returned, and again placed by hand in the opening before assuming any relation to the rest of the machine.

And the court held that the mere fact that the opening in the table may be formed to accommodate in succession both the drive-bushing for rotating the string, and the slips for hauling it up, does not render the table, the stem, the drive-bushing, or the slips any part of one combination.

(6, 7) As we read the Letters Patent, the invention claimed is a combination of elements to be used in connection with a rotary well-drilling apparatus, to facilitate changing from the operation of drilling to the operation of removing the drill-string from the well, and vice versa, and its function is fulfilled in the accomplishment of those results. The actual drilling of a well is only incidental, and is a function aside from that of the combination. It is not therefore a combination of a rotary boring device with a device for holding the boring-pipe in position for disintegration or reconstruction, but it is a combination of certain features only of a boring device with a device for holding the same in position for a designated purpose.

The mere fact that human agency intervenes in an operation does not render a combination unpatentable. Nor is it necessary that the action of the elements be simultaneous. (*Pelton Waterwheel Co. v. Doble*, 190 Fed., 780; 111 C. C. A., 438; *Burdett-Rowntree Mfg. Co. v. Standard Plunger E. Co.*, C. C., 198 Fed., 43; *Novelty Glass Mfg. Co. v. Brookfield*, 170 Fed., 946; 95 C. C. A., 516; *Krell Auto Grand Piano Co. v. Story & Clark Co.*, 207 Fed., 946; 125 C. C. A., 394.) Nor is it necessary that one of the constituent elements shall so enter into the combination as to change the action of the others. (*International Mosaic Co. v. Sievert*, 213 Fed., 225; 129 C. C. A., 569.) It is sufficient if there be some joint operation performed by the elements producing a result due to their cooperative action. (*National Cash Register Co. v. American Cash Register Co.*, 53 Fed., 367; 3 C. C. A., 559; *Toledo Computing Scale Co. v. Moneyweight Scale Co.*, C. C., 178 Fed., 557; *New York Scaffolding Co. v. Whitney*, 224 Fed., 452; 140 C. C. A., 138; *Ohmer Fare Register Co. v. Ohmer*, 238 Fed., 182; 151 C. C. A., 258.) And the result itself need not be new. It is sufficient if an old result be produced in a more "facile, economical, or efficient way." (*New York Scaffolding Co. v. Whitney, supra*; *Pelton Waterwheel Co. v. Doble, supra*.)

(8) But the difficulty in the way of sustaining the appellants' claims is that they do not exhibit a true combination. Under the patent laws protection is afforded to an invention or improvement of an art, machine, manufacture, or composition of matter. In *Yale & Greenleaf Manufacturing Co. v. North* (5 Blatchf., 455; Fed. Cas., No. 18,123) Judge Shipman said:

A combination in mechanism must consist of distinct mechanical parts, having some relation to each other, and each having some function in the organism.

Says Robinson, section 153:

A combination is an instrument or operation formed by uniting two or more subordinate instruments or operations in a new idea of means.

Here the elements are not contained in a unitary structure, and the instrument is not formed by uniting two or more subordinate instruments. The device for holding the pipe-string in position is a detached instrument which is no part of a machine or manufacture. The manual use of a tool or an unattached movable device cannot, we think, be made an element of a combination claim.

The decree as to claims 1, 2, 3, 4, and 5 is affirmed. As to the other claims, the decree is reversed, and the cause is remanded for further proceedings.

[Vol. 263. No. 1.]

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 263—No. 2.

TUESDAY, JUNE 10, 1919.

Price—\$5 per year.

[PUBLISHED JUNE 14, 1919.]

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all communications should be made payable and of whom orders for the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum in advance. Single copies, 15 cents each. Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latest, address the Commissioner of Patents, Washington, D. C.

CONTENTS	
	Page
ISSUE OF JUNE 10, 1919.....	171
INTERFERENCE NOTICES.....	171
APPLICATIONS UNDER EXAMINATION.....	172
PATENTS GRANTED.....	173
REMARKS.....	173
DEMOS.....	173
TRADE-MARKS—REGISTRATION APPLIED FOR.....	211
TRADE-MARK REGISTRATIONS GRANTED.....	227
TRADE-MARK REGISTRATIONS REVIEWED.....	228
COMMISSIONER'S DECISIONS.....	229
Ex parte The Oak Trestle Company.....	229
DECISIONS OF THE U. S. COURTS.....	229
Tiffany v. Paper Products Co.....	229
Brothers v. The United States.....	231
Joseph Schmitt Brewing Company v. Houston Ice & Brewing Company et al.....	233
ADJUDICATED PATENTS.....	233
APPEALS TO THE COURT OF APPEALS OF THE DISTRICT OF COLUMBIA—THREE FOR FEES TRANSMITT—AUTHORITY OF THE COMMISSIONER TO REFUSE.....	234
APPLICATIONS MADE TO THE FEDERAL TRADE COMMISSION FOR LICENSES UNDER EXISTING-CONTROLLED PATENTS AND TRADE-MARKS PURSUANT TO THE "TRADING WITH THE ENEMY ACT".....	234
CHANGES IN CLASSIFICATION.....	234
ADVERSE DECISIONS IN INTERFERENCE.....	234

Issue of June 10, 1919.

Patents.....	694—No. 1,305,005 to No. 1,305,078, inclusive.
Designs.....	24—No. 21,000 to No. 21,000, inclusive.
Trade-Marks.....	88—No. 125,710 to No. 125,778, inclusive.
Reissues.....	11—No. 14,487 to No. 14,487, inclusive.
Total.....	707

Don't try to argue with Benjamin Franklin.
He said:
"It is hard for an empty bag to stand upright."
Just buy another W. S. S.

Interference Notice.
DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 3, 1919.
Joseph Grant Pease, his assigns or legal representatives, take notice:
An interference having been declared by this Office between the application of Charles S. Cohen, 260 South street, Newark, N. J., for registration of a trade-mark and trade-mark registered November 12, 1900, No. 85,800, to Joseph Grant Pease, 23-25 West Forty-second street, New York, N. Y., and a notice of such declaration sent by registered mail to said Joseph Grant Pease at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Joseph Grant Pease, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.
This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.
R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 3, 1919.
J. H. Michener & Co., their assigns or legal representatives, take notice:
An interference having been declared by this Office between the application of John Morrell & Co., Hayne street and Iowa avenue, Ottumwa, Iowa, for registration of a trade-mark and trade-mark registered January 4, 1898, No. 31,006; March 6, 1894, No. 24,300, and February 13, 1894, No. 24,316, to J. H. Michener & Co., 958 North Front street, Philadelphia, Pa., and a notice of such declaration sent by registered mail to said J. H. Michener & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said J. H. Michener & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.
This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.
R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 28, 1919.
Diana Company, their assigns or legal representatives, take notice:
An interference having been declared by this Office between the application of The A. Strassburger Company, Inc., of 928 Fifth avenue, Pittsburgh, Pa., for registration of a trade-mark and trade-mark registered December 26, 1911, No. 64,600, to Diana Company, of 821 East Seventy-ninth street, New York, N. Y., and a notice of such declaration sent by registered mail to said Diana Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Diana Company, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.
This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.
R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 28, 1919.
Rival Saw Manufacturing Company of New Jersey, its assigns or legal representatives, take notice:
An interference having been declared by this Office between the application of Wiggo Astrup, of Copenhagen, No. 15 Nørregade, Denmark, for registration of a trade-mark and trade-mark registered May 9, 1899, No. 82,857, to Rival Saw Manufacturing Company of New Jersey, of Camden, N. J., and a notice of such declaration sent by registered mail to said Rival Saw Manufacturing Company of New Jersey at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Rival Saw Manufacturing Company of New Jersey, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.
This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.
R. F. WHITEHEAD,
First Assistant Commissioner.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business June 6, 1919.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting other action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Closure operators; Fences; Gates; Harrows and Diggers; Plows; Planting; Sowing; Unloaders; Trees, Plants, and Flowers.	Apr. 11	Apr. 20	281
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Paper Fills and Binders; Medicines; Pneumatics; Preserving; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Jan. 17	Feb. 8	688
175	3. Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Forming; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Apr. 9	Dec. 17	163
214	4. Conveyers; Elevators; Excavating; Hoisting; Material or Article Handling; Pneumatic Dispatch; Pushing and Pulling Implements; Railway Mail Delivery; Store-Services; Traversing Hoists.	Feb. 11	May 13	304
167	5. Book-Making; Books, Strips and Leaves; Harvesters; Jewelry; Manufacturing; Music; Printed Matter; Tying Cords or Strands.	Mar. 6	Jan. 10	1173
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Substances Preparation.	Feb. 13	Mar. 18	311
312	7. Educational Appliances; Games and Toys; Optics; Velocipedes.	Apr. 9	Apr. 24	282
131	8. Beds; Chairs; Flexible-Sheet Securing Devices; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Mar. 31	Apr. 19	194
221	9. Air and Gas Pumps; Hydraulic Motors; Injectors and Ejectors; Motors, Fluid; Motors, Fluid-Current; Pumps.	Jan. 9	Apr. 11	379
235	10. Carriages and Wagons; Motor Vehicles.	Feb. 21	Apr. 17	574
184	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Eyes, and Rivet Setting; Harness; Leather Manufacture; Nailing and Napping; Spring Devices; Whips and Whip Apparatus.	Mar. 17	Apr. 18	341
232	12. Journal-Boxes, Pulleys, and Shaking; Machine Elements.	Nov. 28	Dec. 2	988
320	13. Ammunition and Explosive Charge Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Cham, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turnings.	Jan. 14	Apr. 24	648
223	14. Composed Tools; Cutting and Punching Sheets and Bars; Factory; Metal-Bending; Packaging Liquids; Sheet-Metal Ware, Making; Tools; Wire Fabric and Structure; Wire-Working.	Jan. 22	Mar. 11	482
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Jan. 16	Jan. 23	671
112	16. Radiant Energy; Telegraphy; Telephony.	Mar. 28	Apr. 23	340
307	17. Label Fastening and Paper Hanging; Ornamentation; Paper Manufacture; Printing; Type Casting; Sheet Material Associating or Folding; Sheet Feeding or Delivering; Type Setting.	Feb. 13	Apr. 2	312
220	18. Fluid-Pressure Regulators; Liquid Heaters and Vaporizers; Power Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Mar. 15	Mar. 17	373
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels.	Apr. 30	May 3	245
170	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Saws; Undertaking.	Nov. 22	Feb. 19	368
212	21. Brakes and Cams; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Feb. 2	Apr. 28	374
310	22. Aeronautes; Firearms; Ordnance.	Mar. 26	Apr. 14	375
217	23. Acoustics; Coin-Handling; Horology; Records; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Sept. 30	Mar. 4	497
141	24. Apparel; Apparel Apparatus; Garment Supporters; Sewing Machines.	Apr. 28	Apr. 14	148
315	25. Apertures; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	Nov. 14	Jan. 11	614
105	26. Electricity, Generation; Motive Power; Prime Mover and Dynamo Plants.	Mar. 31	Apr. 1	423
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Jan. 27	Mar. 4	540
228	28. Internal-Combustion Engines; Coopering; Fire Engines; Ladders; Rod Joints or Couplings.	Jan. 2	Mar. 7	614
147	29. Boring and Drilling; Chucks or Bores; Coopering; Fire Engines; Ladders; Rod Joints or Couplings; Wheelwright Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Mar. 11	May 20	305
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Feb. 19	Feb. 18	312
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lams; Mineral Oils; Oils, Fats, and Glues; Sugar and Salt.	Dec. 2	Mar. 10	694
278	32. Gas and Liquid Contact Apparatus; Heat Exchange; Refrigeration.	Jan. 25	Feb. 14	287
70	33. Bridges; Hydraulic and Earth Engineering; Masonry and Concrete Structures; Metallic Building Structures; Roads and Pavements; Paving; Roofs.	Mar. 10	Mar. 10	283
304	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Switches and Signals; Railway Tim and Fasteners; Railway Wheels and Axles; Track-Sanders; Vehicle-Fenders.	May 1	May 3	370
57	35. Buckles, Buttons, Clips, Etc.; Card, Picture, and Sign Exhibiting; Signals; Tolls.	Apr. 28	Apr. 18	594
304	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring.	Feb. 6	Feb. 28	643
107	37. Electric Lamps; Electricity; Circuit Makers and Breakers; Electricity, General Applications.	May 9	May 7	139
278	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Mining; Quarrying, and Ice Harvesting; Stationery; Stone-Working; Wells.	Jan. 2	Dec. 7	618
280	39. Joint Packings; Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Valved Pipe Joints or Couplings; Valves; Water Distribution.	Mar. 21	Mar. 24	370
273	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Feb. 21	Mar. 8	287
126	41. Railway Draft Apparatus; Resilient Tires and Wheels.	Feb. 15	Feb. 1	606
114	42. Electricity, Conductors; Electricity-Transmission to Vehicles; Electricity, Conductors; Electric Signaling.	Apr. 6	Mar. 14	117
362	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire Extinguishers; Sewerage; Surgery; Water Purification.	May 14	May	94
253	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Ships.	Mar. 3	Apr. 15	243
379	45. Cutches; Lubrication; Motors; Railway Brakes.			

Oldest new case, Sept. 29; oldest amended, Dec. 2.
Total number of applications awaiting action.....

17,128

103	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Apr. 24	May 26	1344
	Designs.....	Apr. 17	Apr. 26	682
	Labels and Prints.....	May 27	May 20	75

PATENTS

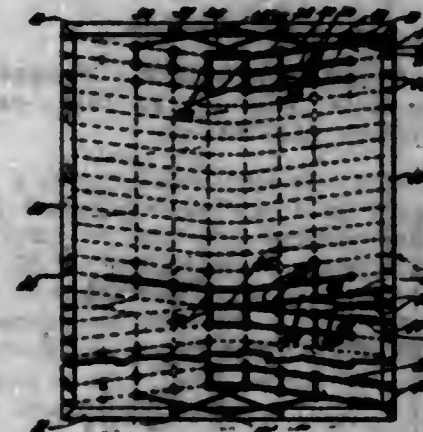
GRANTED JUNE 10, 1919.

1,305,985. SHADE HOLDER OR SUPPORT. LAURIE W. ANDERSON, Waterbury, Conn. Filed May 11, 1917. Serial No. 167,920. 6 Claims. (Cl. 240-115.)



1. As a new article of manufacture a metallic shade support adapted to be arranged upon the interior of a shade, said support being circular in form and having a central opening, said opening being of a size and shape to engage the shoulder of the ferrule of an incandescent lamp.

1,305,986. FABRIC FOR SPRING-BEDS. JOHN B. ANDERSON, Ballston Spa, N. Y. Filed Aug. 17, 1918. Serial No. 250,306. 4 Claims. (Cl. 5-30.)



1. In a bed spring fabric, the combination with a plurality of wire links disposed in longitudinal rows, two or more of the rows adjacent to the center being doubled, and a plurality of wire links arranged in transverse rows, connecting between the ends of said longitudinal links, of gussets extending inwardly at the center between said transverse rows from each side, stress rods engaging the end rows of said transversely disposed links, and springs sized at their outer ends and engaged at the opposite ends of each transverse row of links and with the outer elements of said gussets.

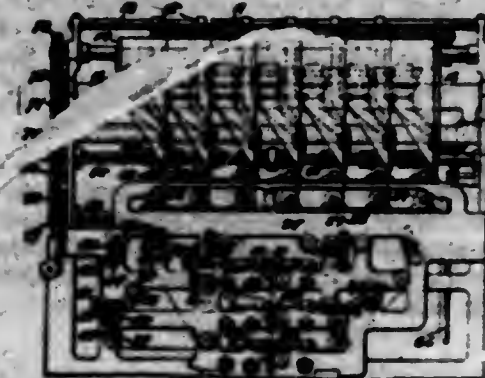
1,305,987. DRAW-BAR CARRIER. RAY G. AVERILL, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Sept. 7, 1917. Serial No. 190,101. 15 Claims. (Cl. 212-42.)



1. A draw bar carrier comprising in combination a

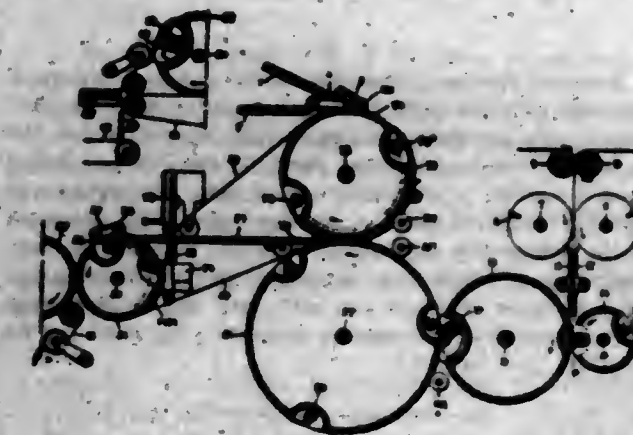
hanger member and a support member for suspending a coupler mechanism from a car body, a spring engaging the hanger member and adapted to yield under strain, a spring connecting member also engaging said spring and a spring interposed between the spring connecting member and the support member and adapted to yield under strain and add to the amount of yield of the first mentioned spring when under strain.

1,305,988. WEB-ASSOCIATING MECHANISM. HOWARD M. BARNES, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed July 18, 1918. Serial No. 100,951. 9 Claims. (Cl. 270-32.)



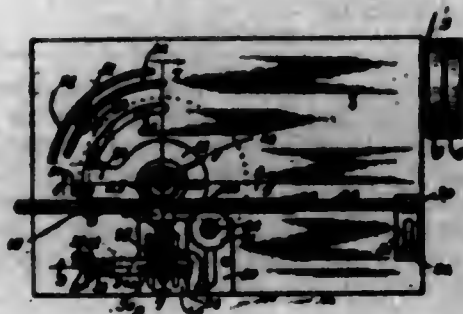
2. Mechanism including a group of individually laterally adjustable slitters for slitting a wide web into narrow webs of different widths, a group of individually laterally adjustable turners, and a group of individually laterally adjustable longitudinally arranged web feeding rolls for simultaneously handling said narrow webs of different widths.

1,305,989. SHEET COLLECTING, ASSOCIATING, AND FOLDING MACHINE. HOWARD M. BARNES, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 28, 1917. Serial No. 151,544. 24 Claims. (Cl. 270-38.)



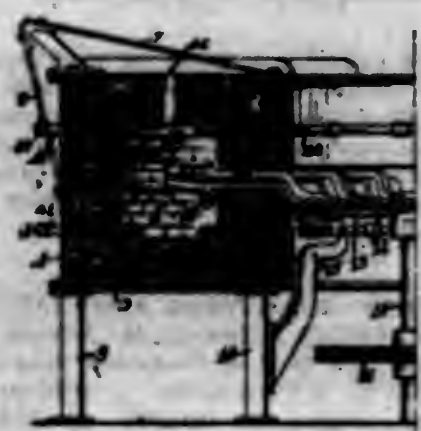
2. Means for collecting and folding a group of sheets, a rotary carrier for associating extra sheets fed from different sources with said folded group of sheets, a common means for feeding the extra sheets successively to the associating means, and means for stitching the so associated sheets together and delivering the same.

1,305,990. BENDING AND FORMING MACHINE. CONNELLY J. HARRY, Chicago, Ill., assignor, by direct and mesne assignments, to Frederick J. Setchell, Chicago, Ill. Filed Apr. 18, 1917. Serial No. 163,025. 5 Claims. (Cl. 153-45.)



1. A machine for bending longitudinal pieces of stock comprising a form, means for holding the longitudinal piece of stock adjacent the form, a movable member for bending the longitudinal piece of stock about the form, and a gage adjustable in a plane transverse to the length of the piece of stock in its operative position, said gage being adapted to bear against an angular portion of the piece of stock for the purpose of causing the new bend to be made in a predetermined relation to the angular portion of the stock.

1,305,991. ANNEALING-FURNACE. JOSEPH J. BUSHMAN, Detroit, Mich., assignor to Standard Fuel Engineering Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 7, 1918. Serial No. 310,637. 7 Claims. (Cl. 263-7.)



1. A furnace for heat treating metal articles comprising a conduit of refractory material annular in form having spaced ends providing an inlet and an outlet for the conduit, means for heating the conduit, the conduit being vented and having a circumferential slot formed in the inner vertical wall thereof, a member rotatably mounted on an axis practically coinciding with the axis of the conduit, and arms projecting laterally in radial relation from said member through the slot into the conduit, the arms being formed at the end to provide a support for an article to be heat treated.

1,305,992. WEIGHING-SCALE. HARRY S. BARON, Toledo, Ohio, assignor to Toledo Scale Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 6, 1913. Serial No. 793,653. 17 Claims. (Cl. 263-62.)

1. In a weighing scale and in combination with the load-receiver and indicating means thereof, a lever, connections from the lever to the indicating means for op-

erating the latter, a cross-bar suspended from the lever and connected thereto at opposite sides of its fulcrum

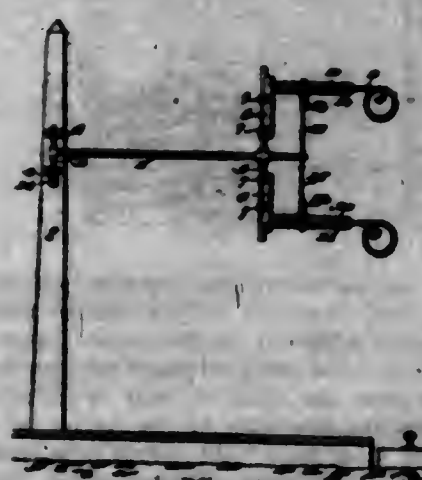


and a connection from the cross-bar at one side of the center thereof to the load-receiver.

1,305,993. INCOMBUSTIBLE AND WATERPROOF PRODUCT FOR USE IN CONSTRUCTIONS. ABELARDO F. CAMPA Y MANSUETI, Habana, Cuba. Filed Nov. 6, 1917. Serial No. 300,466. 2 Claims. (Cl. 166-31.)

1. A process of making building blocks which consists in reducing a fibrous material to a paste, treating the same with a fireproofing solution, pressing out the resulting paste and drying the same, and placing the dried paste in a waterproofing solution and thoroughly heating the same, and then pressing the paste into blocks and subsequently drying them.

1,305,994. TRAIN-ORDER FOLDER. THOMAS ALLEN DAVIS, Medora, N. D. Filed Jan. 22, 1919. Serial No. 272,466. 2 Claims. (Cl. 258-2.)

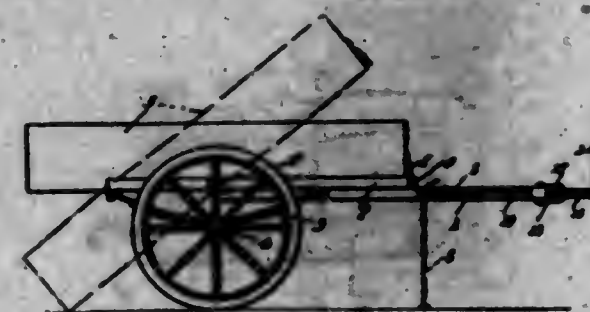


1. A device of the character specified comprising a hinged support mounted to swing in a substantially horizontal plane into and out of operative position, said arm carrying a substantially vertical cross head near its outer end, a pair of jaws connected with each end of the cross head, the innermost members of the pairs being fixed, and the outermost members being hinged to swing toward and from the fixed members, a stirrup connected with the outer member of each pair and through which the inner member passes, and a spring connecting each stirrup to the arm.

1,305,995. TRAILER. JAMES C. DREW, New Orleans, La. Filed Nov. 5, 1918. Serial No. 261,259. 1 Claim. (Cl. 21-30.)

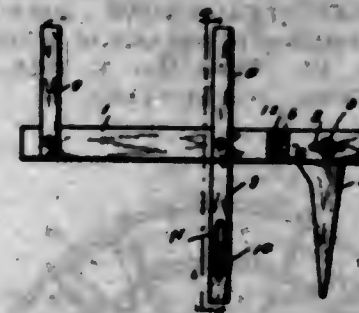
A trailer including a wheel supported frame having a forwardly extending tongue, a body tilably mounted on the frame, a catch carried by the body for engaging the frame to hold the body against tilting, a supporting leg pivotally connected to the tongue and having a projecting

cam end, and means for supporting the leg in elevated position along the tongue with its cam end pressing the



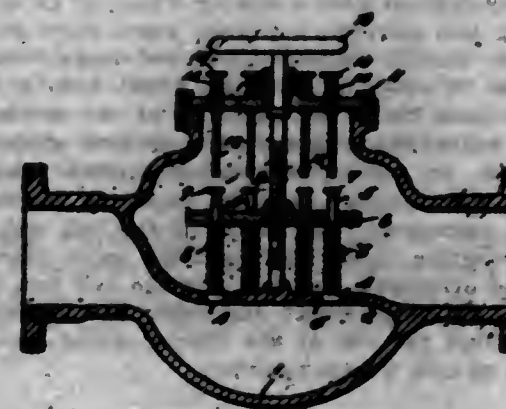
catch into engagement with the frame, said leg, when depending from the tongue constituting a support for the front end of the frame.

1,305,996. GAGE. JOHN C. FAIRWEATHER, Broughton, Ill. Filed Jan. 2, 1919. Serial No. 269,306. 3 Claims. (Cl. 33-62.)



2. In a gage, a bar, a gage arm rigidly secured to the bar and depending therefrom, a marking element carried by the arm and projecting laterally thereof, means carried by the bar for engaging a corner strip so as to force the bar in such direction as to bring the gage arm into tight engagement therewith and force the marking element into biting engagement with the inner edge of said strip, and a gage block carried by said arm and adjustable longitudinally thereof.

1,305,997. VALVE. CHAUNCEY O. FORTNEY, Bowling Green, Ohio. Filed Sept. 26, 1918. Serial No. 255,810. 2 Claims. (Cl. 277-46.)



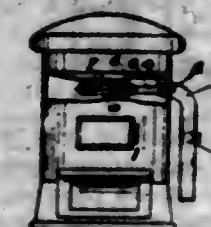
1. The combination with a casing having a plurality of ports and a cover plate, of a member movable toward or from the ports, valves slidably connected to said member and liftable thereby from their seats, setting pins in the cover plate and having spiral threads, said pins being revoluble to feed longitudinally against the respective valves, and yielding means for returning the pins to their initial positions.

1,305,998. ELECTRIC-SWITCH DEVICE. ALBERT LADON FROMAGH and JOSEPH FERDINAND SIX, Montreal, Quebec, Canada. Filed Jan. 17, 1917. Serial No. 142,936. 1 Claim. (Cl. 175-292.)



In a device of the class described, the combination with a casing formed of non-conducting material having an opening in the top thereof, a sliding plate of non-conducting material within said casing immediately below the top thereof adapted to cover and uncover said opening in the casing, a block of non-conducting material supported within the casing at the bottom thereof, and having an integral partition intermediate its ends which extends entire across the casing and upwardly from the block to the underside of said sliding plate and forming a support therefor, said partition dividing the casing into two chambers, one of which only is accessible through the opening in the top of the casing, lugs projecting inwardly from the sides of the casing and bearing against said partition to insure the proper position of the block with respect to the opening in the casing, spaced contact members secured in pairs to said block, a conducting wire connected to each of said contact members when the plate is moved to close the opening in the casing and to break contact between said members when the opening is uncovered.

1,305,999. AIR-FEEDING DEVICE FOR FURNACES. JOHN S. S. FULTON, Chicago, Ill., assignor to Thomas Bates, Toronto, Ontario, Canada. Filed July 19, 1915. Serial No. 40,791. 3 Claims. (Cl. 110-75.)

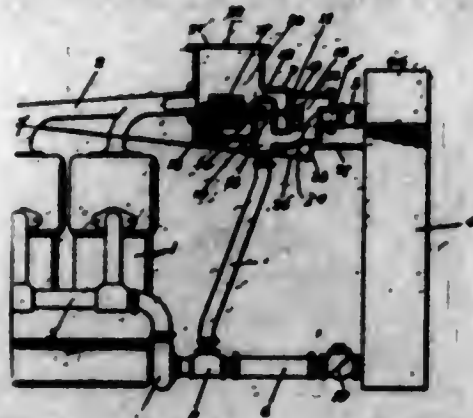


1. In combination with a furnace, a conduit leading into the fire box above the grate, and a plurality of concentric hollow rings located in the fire box, the innermost of which is imperforate and is connected to and communicates with said conduit, the outermost ring having a plurality of foraminous downwardly directed faces, and means establishing communication between the innermost and outermost rings at a point diametrically opposite the point at which said imperforate ring connects with said conduit.

1,306,000. COOLING SYSTEM FOR INTERNAL-COMBUSTION ENGINES. WESTON M. FULTON, JEAN V. GISSLER, and HAL T. PATTON, Knoxville, Tenn., assignors to The Fulton Company, Knoxville, Tenn., a Corporation of Maine. Filed Aug. 19, 1916. Serial No. 115,843. 31 Claims. (Cl. 123-174.)

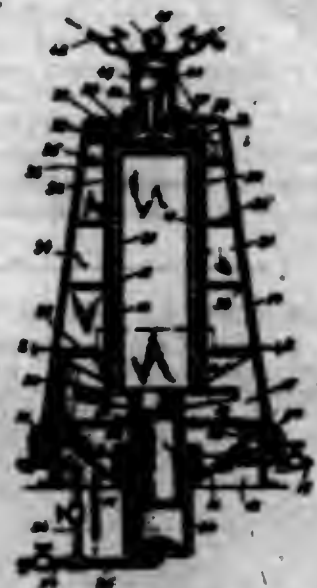
1. In a cooling system for internal combustion engines, the combination of a radiator, means controlling the admission of cooling medium thereto, thermosensitive means

for operating said controlling means, and means whereby the cooling medium is automatically withdrawn from said



radiator when admission of cooling medium thereto is prevented.

1,306,001. VULCANIZING PRESS FOR BATTERY-JARS. JOHN E. GAMMETER, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Apr. 18, 1917. Serial No. 123,044. 10 Claims. (Cl. 18—19.)



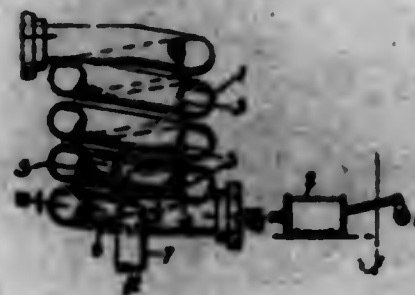
1. In a press, a stationary base and a cover having means for detachably connecting them against axial separation and forming a closed chamber, said cover having mold-contracting lateral wedging means, a longitudinally-acting power device on the base operating within said chamber, and a sectional mold adapted to be forced against the wedging means by said power device.

1,306,002. AEROPLANE-CONTROLLING MECHANISM. WILLIAM H. GETTMY, Jr., Rockford, Iowa. Filed Dec. 3, 1917. Serial No. 205,128. 1 Claim. (Cl. 244—29.)



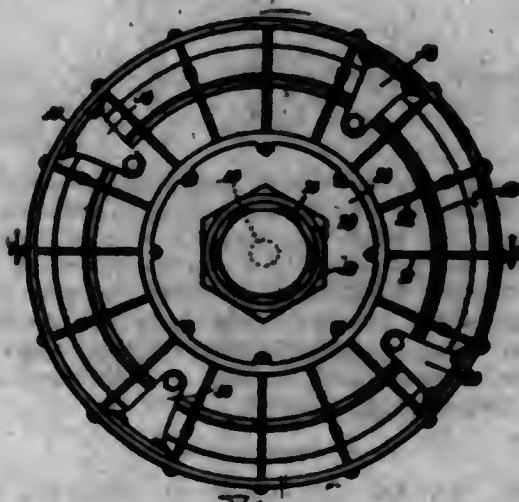
In an aeroplane controlling mechanism, the combination with a fuselage, sustaining planes pivotally mounted at their forward edges to the forward end of the fuselage and movable vertically, a yoke member extending beneath the fuselage and connected at its ends to the sustaining planes whereby said planes will move in unison, levers pivotally mounted in the fuselage, and links connected to the levers and to the inner ends of the sustaining planes,

1,306,003. SEPARATOR. JOHN GOSS, New York, N. Y. Filed Oct. 20, 1915. Serial No. 53,722. 7 Claims. (Cl. 153—3.)



5. A separator comprising a curved, spiral or helical passage having one or more liquid outlets therefor for liquid collecting on the inside curve thereof and being devoid of liquid outlets upon the outside, and means for moving the gas through said passage and the liquid through said outlets at substantially the same pressure.

1,306,004. WHEEL ATTACHMENT. JOHN E. GUMPRIN, Chicago, Ill., assignor of one-half to WILLIAM H. WOOLMAN, Decatur, Ill. Filed May 1, 1918. Serial No. 221,931. 1 Claim. (Cl. 31—312.)



The combination with a driving wheel, of an outwardly projecting hub therefor, a tractor wheel surrounding and attachable to said driving wheel and comprising a hub shaped to fit about the driving wheel hub, a hub nut threaded upon the outer extremity of the driving wheel hub and contacting with the outer surface of the tractor wheel hub, an out-turned circumferential flange upon said hub nut, a collar threaded upon the tractor wheel hub and surrounding the flange of the hub nut, an element projecting interiorly from the outer edge of the collar and overlapping the flange of the hub nut, said hub nut being rotatable within the collar and elements positioned within the rim of the tractor wheel for securing the rims of said wheels together.

1,306,005. TRACTION-WHEEL TRANSMISSION MECHANISM. JOHN E. GUMPRIN, Chicago, Ill., assignor of one-half to WILLIAM H. WOOLMAN, Decatur, Ill. Filed May 4, 1918. Serial No. 222,504. 7 Claims. (Cl. 74—58.)

1. In a motor vehicle, the combination of a driving wheel, high and low speed concentric angular racks fixed to the inner side of the wheel near the plane of the inner edge thereof, a power shaft, high and low speed driving

shafts connectible to the power shaft for actuation thereby, high and low speed driving pinions respectively splined



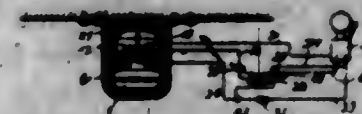
on said driving shafts, and means for selectively meshing said pinions with their respective racks.

1,306,006. THROTTLE MECHANISM FOR INTERNAL-COMBUSTION ENGINES. CHARLES J. GUSTAFSON, Chicago, Ill., assignor to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 20, 1916. Serial No. 123,574. 4 Claims. (Cl. 251—82.)



1. In mechanism of the class described, a casing providing a passageway, oppositely moving cylindrical members set one within the other to throttle said passageway, and an operating lever for each member, both levers being on the same side of said casing and being in mechanical engagement.

1,306,007. THERMOSTAT. CHARLES W. HACK, New York, N. Y. Original application filed Apr. 28, 1917. Serial No. 165,072. Divided and this application filed Nov. 1, 1917. Serial No. 199,634. 18 Claims. (Cl. 200—32.)



18. A thermostat provided with a diaphragm, an electric contact member cooperating therewith, and a fluid expansion chamber carried by said contact member and communicating with the space on one side of the diaphragm by a duct through said contact member.

1,306,008. VULCANIZER. STANLEY W. HARRIS, Akron, Ohio, assignor to The Akron Rubber Mold & Machine Company, Akron, Ohio, a Corporation of Ohio. Filed Mar. 18, 1919. Serial No. 223,205. 11 Claims. (Cl. 18—18.)



1. In a repair vulcanizer the combination with a chambered cavity port having end walls and auxiliary end

walls detachably secured to the aforesaid end walls, said auxiliary end walls being formed of composite layers of asbestos and wood.

1,306,009. SHEET-CUTTER. CARL H. HARTMAN, Toledo, Ohio. Filed Mar. 28, 1918. Serial No. 225,261. 9 Claims. (Cl. 164—66.)



2. In a sheet cutter, a blade, cam members for operating the blade, a coating cutting bar having a channel, the channel having a sloping surface extending from below the coating cutting edge of the bar upward.

1,306,010. LAMP-BURNER. JOE HASS, Pittsburgh, Pa. Filed June 8, 1918. Serial No. 238,853. 1 Claim. (Cl. 67—78.)



In a lamp extinguisher, the combination with a burner having a wick tube and means for raising or lowering a wick therein, of an extinguishing plate adapted to close the upper end of said wick tube, said plate bent outwardly at its lower end, an angularly extending portion formed thereby having a raised center, and containing a transverse slot, a pair of oppositely disposed lugs at opposite sides of said slot, a bracket secured to said wick tube upon which said extinguishing plate is pivoted, a spindle passing transversely through said burner opposite to the means for raising or lowering said wick, and a lever engaged upon said spindle, the upper end of said lever being operatively engaged between said lugs, a pin in the upper portion of said lever adapted to slide below said raised center of the angularly disposed extension for raising said extinguishing plate upon the rotation of said spindle in one direction and for allowing a rotation of said raised portion upon said pin upon the rotation of said spindle in the opposite direction, substantially as described and for the purpose set forth.

1,306,011. AUTOMATIC LIFE-SAVING DEVICE. JEREMIAH HOMAK, Chicago, Ill. Filed July 26, 1917. Serial No. 182,906. 1 Claim. (Cl. 9—19.)



A life-saving device comprising a casing; a coiled inflatable member in said casing; a plurality of gas generating elements; a cylindrical receptacle for one of said ele-

ments; a second cylindrical receptacle mounted eccentrically within said first named receptacle; and mechanism for causing a mingling of said elements within the first named receptacle to generate a gas for said inflatable member, comprising a hammer mounted adjacent to said second receptacle, and means for actuating said hammer including a spring-actuated plunger, said plunger having a head, and means responsive to the action of water for operating said spring-actuated plunger comprising a spring-actuated pivoted disk having an opening substantially larger than said plunger head and an integral slot for normally retaining said head against spring pressure, and a cord adapted when severed to permit the rotation of said disk to bring said opening in alignment with said head whereby said plunger will be released to actuate said hammer and break said second receptacle to cause a mingling of said elements.

1,306,012. CANNON. JOHN JACKSON, Portsmouth, Ohio. Filed Oct. 5, 1918. Serial No. 257,008. 6 Claims. (Cl. 89-20.)



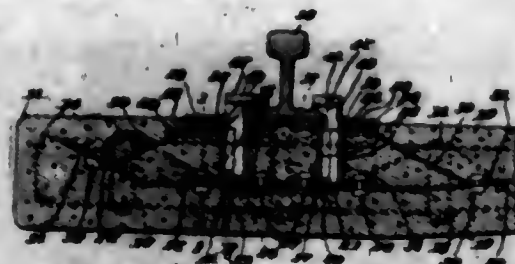
1. A breech block operating mechanism for a gun of the type specified, the same comprising a cylinder, a piston disposed to operate within the cylinder and having the breech block connected thereto, means for supplying a fluid motive medium to opposite ends of the cylinder, and means within the piston for imparting rotary movement to the breech block to effect the locking or an unlocking thereof.

1,306,013. COMBINED PUNCH AND SPACING DEVICE. HENRY KAMMAY, Kearney, N. J. Filed Sept. 3, 1918. Serial No. 252,802. 3 Claims. (Cl. 82-189.)



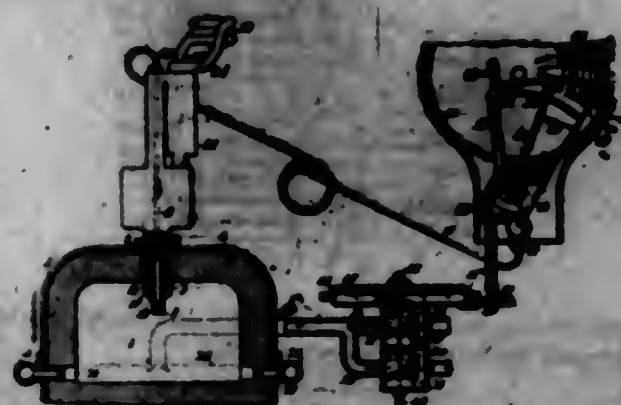
1. A combined punching and spacing device comprising a punching element, a tubular ring punching element mounted to slide upon the punching element, and a stop carried by the punching element to contact with one end of the tubular ring punching element.

1,306,014. RAILWAY-TIE. URIAH O. LONG, Los Angeles, Calif. Filed Sept. 23, 1918. Serial No. 255,221. 3 Claims. (Cl. 238-91.)



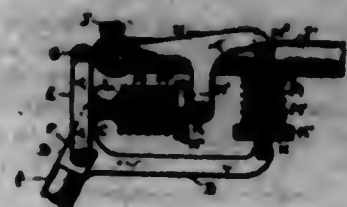
1. A rail tie having a plate, a plate spaced therefrom, means intermediate the plates forming a pocket, means co-operating with the pocket to secure a rail to the tie, and a bracing means extending from the plates.

1,306,015. FURNACE-REGULATING DEVICE. GEORGE F. MACLEST, Elizabeth, N. J. Original application filed Dec. 21, 1914, Serial No. 878,207. Divided and this application filed July 28, 1917. Serial No. 182,962. 10 Claims. (Cl. 288-8.)



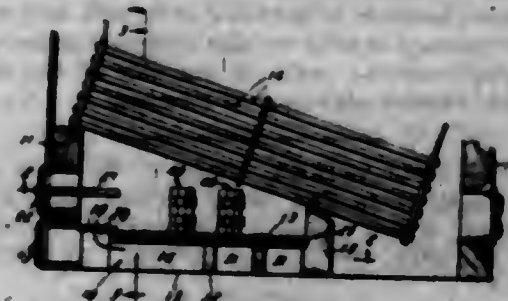
1. The combination with a furnace, of a sheath projecting within said furnace and containing a heat-absorbing medium in the form of a liquid to establish a standard or normal temperature for the sheath far below the heat of the furnace, and to form a protection against the heat of the furnace, and a device for automatically regulating the heat of said furnace, including a part inserted in said sheath to be affected according to the fluctuations of the heat of the furnace.

1,306,016. SHOCK-ABSORBER. JOHN PERCY MACLEAN, Hamilton, New South Wales, Australia. Filed Jan. 12, 1917. Serial No. 141,927. 5 Claims. (Cl. 208-125.)



5. Means for absorbing vibration and shock between two members, comprising a spring disposed between said members and tending to hold them apart, and a spring fixed to one of said members and slidable upon the other, said other member having shoulders to limit the movement of the second spring and bring the same into action.

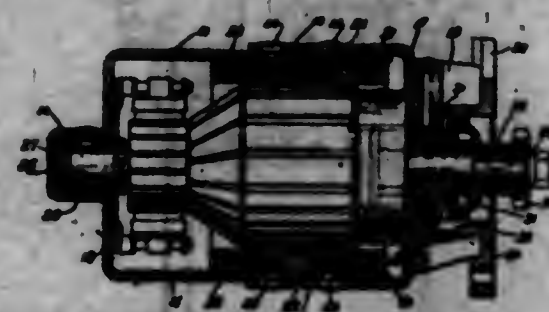
1,306,017. FURNACE. ENNIS ARTHUR MAYNARD and PERRY STANFIELD, Whittier, Calif. Filed Sept. 4, 1918. Serial No. 252,544. 6 Claims. (Cl. 158-7.)



1. In a furnace construction, a furnace comprising side and front and rear walls and a floor, a false floor over the furnace floor, longitudinal walls supporting said false floor and forming beneath that floor a plurality of air passages, means to induct air to the rear ends of said passages, there being openings through the false floor near the front wall of the furnace, so that air flows forwardly through said passages to enter the furnace, burners projecting through the front wall of the furnace over said openings, and brick checker work walls extending

across the furnace above said false floor at a point somewhat rearwardly removed from the front end of the furnace and adapted to spread the flame from the burners over the floor so as to efficiently heat the floor and the air passing through the passages beneath it.

1,306,018. DYNAMO-ELECTRIC MACHINE. WILLIAM B. MOORE, Watertown, Mass. Filed Jan. 8, 1918. Serial No. 210,801. 7 Claims. (Cl. 172-96.)



1. In a dynamo, in combination, a pair of thin shells having ends which are brought together in lapped relationship to form a casing, and pole pieces arranged within the shells opposite lapped portions, said lapped portions being of magnetic conductivity and forming a yoke magnetically connecting the pole pieces.

1,306,019. MACHINE-GUN MAGAZINE FILLER. CHARLES A. NELSON, Utica, N. Y., assignor to Savage Arms Corporation, a Corporation of Delaware. Filed Aug. 16, 1918, Serial No. 115,128. Renewed May 26, 1917. Serial No. 171,294. 20 Claims. (Cl. 42-67.)



1. Apparatus of the kind described, comprising the combination of a self-locking magazine and means for filling it including a support for the magazine adapted to unlock the same.

2. A magazine filler, including a support for a substantially cylindrical magazine, and a cartridge containing device secured to said support and having its outlet disposed substantially radially of the magazine at one end thereof.

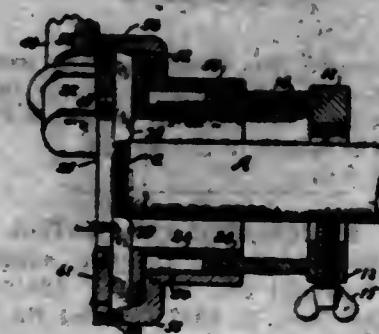
1,306,020. WRENCH. GUSTAV E. NILSON, New York, N. Y. Filed Feb. 24, 1919. Serial No. 278,764. 2 Claims. (Cl. 81-105.)



2. In a wrench, a handle, a head carried thereby and disposed at an angle relative thereto, a fixed jaw carried by the head, said handle and said jaw being provided

with a communicating channel, a movable jaw carried by the head, a rack carried by the movable jaw extending into the channel in said head, a worm in said channel engaging said rack, a threaded spindle within the channel in said handle, a universal joint connecting the threaded spindle and said worm, a nut engaging said threaded spindle, and a guide-member carried by the nut slidably engaging the channel in said handle.

1,306,021. DIE-STOCK. IRA W. NONNEMAN, Warren, Ohio, assignor to The Borden Company, Warren, Ohio, a Corporation of Ohio. Filed Jan. 24, 1918. Serial No. 213,451. 15 Claims. (Cl. 10-120.5.)



10. The combination of a sleeve threaded internally and externally, means for clamping the sleeve to an article to be threaded, a chaser-carrying frame having housings with beveled outer ends and having a sleeve portion extending into the stationary sleeve and provided with external threads engaging it, said external threads having the same pitch as the thread to be cut, chasers carried in the housings and extending therethrough, an abutment sleeve having an internal thread engaging the external thread on the stationary sleeve and having a head which is internally conical and which overhangs the housings and engages the outer ends of the chasers, and means for preventing access to the space between said conical surface and the housings as the abutment sleeve recedes.

1,306,022. RAIL-JOINT LOCK. WILLIAM PAUL, Ramon, Ala. Filed Oct. 31, 1917. Serial No. 199,515. 2 Claims. (Cl. 238-237.)



1. In combination, a rail joint including the abutting ends of a pair of rails, said rails being provided with slots, a tongue projecting longitudinally of each rail and fitting against the side of the other rail, a lug carried by each tongue and interlocking with the slot of the rail, said tongues being provided with longitudinally extending grooves, and a plurality of spaced plates having upwardly extending flanges formed thereon, said flanges being adapted to engage in said grooves, as and for the purpose specified.

1,306,023. OVEN-HEATING SYSTEM. EMILE PINON, New York, N. Y. Filed July 20, 1918. Serial No. 245,900. 2 Claims. (Cl. 202-8.)

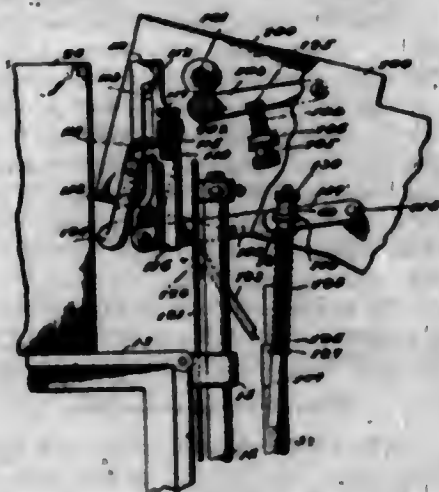
2. A horizontal oven, a series of vertical waste gas flues beneath and adjacent the bottom of the oven and extending parallel with the axis thereof, the waste gas flues being relatively high and narrow in cross-section, a series of vertical combustion chambers adjacent the side wall of the oven and communicating at the bottom with the tops of the waste gas flues, a burner at the upper end of each combustion chamber, a series of vertical air ducts, each having its upper portion located between a pair of the combustion chambers and its lower portion extend-

ing downwardly adjacent the wall of the waste gas space, each air duct being relatively high and narrow in cross-section, and communicating passages between the upper end of each air duct and the upper end of one of the



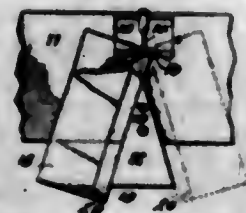
combustion chambers, the communicating passages being constructed and arranged to direct the air into the combustion chamber in a downwardly direction from a point not lower than the mouth of the burner.

1,306,024. PNEUMATIC SEPARATOR. FRANK H. QUADE, Jr., Fresno, Calif. Original application filed Apr. 20, 1917, Serial No. 163,457. Divided and this application filed Nov. 7, 1917. Serial No. 200,806. 4 Claims. (Cl. 271-30.)



1. In an apparatus for the purpose set forth, the combination of a table, a rock shaft disposed below the table, means for actuating said rock shaft, suction tubes disposed above the table, a crank on the rock shaft, a link pivoted to and rising from the said crank, a rock shaft mounted above the table and in advance of the suction tubes, a lost motion connection between the said link and the said last-mentioned rock shaft, and operative connections between the last-mentioned rock shaft and the suction tubes.

1,306,025. WIRE-STITCHING MACHINE. BENJAMIN G. RAND, North Tonawanda, N. Y., assignor to The Rand Company, North Tonawanda, N. Y., a Corporation of New York. Filed Aug. 28, 1916. Serial No. 117,212. 2 Claims. (Cl. 1-15.)



1. In a stitching machine, the combination with fastening mechanism and a table for supporting the articles to be fastened, of a triangular guide mounted on said table with its apex facing the fastening mechanism, the lateral

seawardly-converging edges of said guide forming side guides symmetrically disposed with reference to the fastening mechanism, and the portions of said table on opposite sides of said guide being unobstructed to allow the article to lie flat thereon and against the side edges of the guide.

1,306,026. INDEX. JAMES H. RAND, North Tonawanda, N. Y. Filed Aug. 23, 1916. Serial No. 251,073. 10 Claims. (Cl. 129-136.)



3. An index comprising a frame having inwardly extending flanges forming opposed channels disposed lengthwise of the frame and guide flanges at the outer edges of the channel flanges projecting forwardly from the face of the channel flanges, and a series of cards mounted in the frame in overlapped spaced relation having laterally projecting members extending under and engaged by said channel flanges, and laterally projecting members on the free portion of the cards overlying the outer face of said channel flanges at the inner sides of the guide flanges, whereby the cards will be guided by the guide flanges against lateral displacement.

4. An index frame having inwardly extending flanges forming opposed channels disposed lengthwise of the frame, and guide flanges projecting forwardly from the face of the channel flanges.

1,306,027. GARMENT ATTACHMENT. JOHN P. RAINO, Buffalo, N. Y. Filed Aug. 26, 1918. Serial No. 251,401. 1 Claim. (Cl. 24-73.)

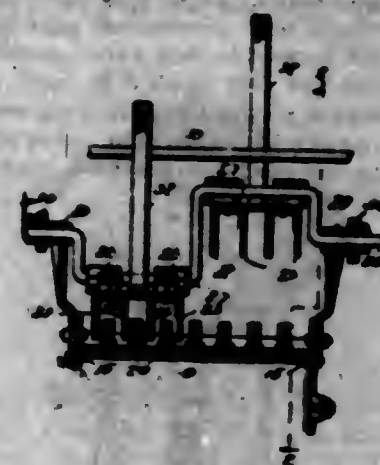


A garment attachment comprising an approximately A-shaped central portion and reversely-extended side-portion forming hook-members with the sides of said central portion and presenting therewith an approximately W-shaped attachment, the cross bar of the A-shaped portion and the rights of said hook-members forming attaching means for the device.

1,306,028. THRESHING APPARATUS. ALBERT E. RAYMOND, Washington, D. C. Filed Sept. 5, 1917. Serial No. 169,729. 6 Claims. (Cl. 129-27.)

2. A threshing apparatus including a concave and approximately horizontal threshing plates movable with respect to said concave, said concave and threshing plates

having alternately rows of teeth projecting toward one another, and said concave having openings therein



through which the threshed material may pass, and means adjacent the said openings to prevent the passage of vines and pods therethrough.

1,306,029. GOLF CLUB. WILLIAM ROBERTSON, New Hartford, N. Y., assignor of one-half to Peter Robertson, New Hartford, N. Y., and one-fourth to William Robertson, Sr., Carnoustie, Scotland. Filed Oct. 24, 1917. Serial No. 199,241. 5 Claims. (Cl. 46-4.)



1. A golf club having a wooden head and a metal sole plate, said sole plate being provided with pockets adapted to be filled with metal plugs for varying the weight of the head.

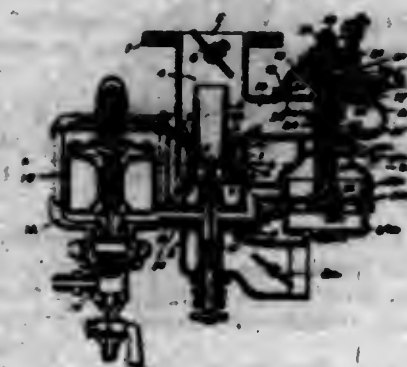
1,306,030. POWER STEERING MECHANISM. ALEXANDER STEWART, Clintonville, Wis., assignor to Topp-Stewart Tractor Co., Clintonville, Wis. Filed Aug. 8, 1918. Serial No. 248,934. 6 Claims. (Cl. 180-81.)



1. The combination with a vehicle including a steering gear, an upstanding steering column, and a shaft in

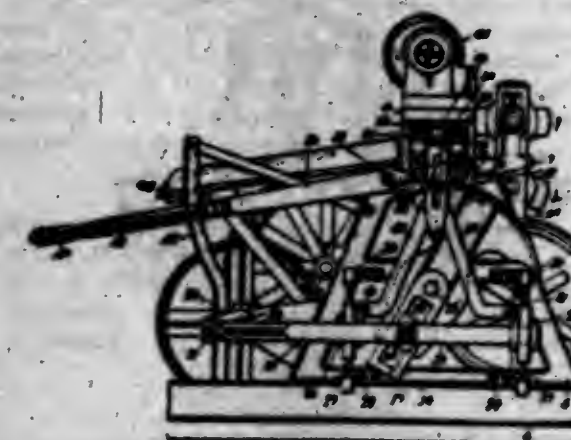
the steering column connected with the steering gear for driving the same, of a pair of gears on the steering column shaft for driving said shaft in opposite directions, and means for procuring selective drive operation of the gears including a control lever pivoted on the steering column.

1,306,031. CARBURETOR. CHARLES W. STIGER, Chicago, Ill., assignor to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed July 12, 1918. Serial No. 89,212. 1 Claim. (Cl. 261-41.)



In a carburetor, a carbureting chamber, a mixture outlet therefor, a throttle valve in said mixture outlet, an air inlet, a Venturi tube leading from said air inlet to said carbureting chamber, a main fuel nozzle feeding into said Venturi tube from a source of supply, and a passageway leading from a point in said carbureting chamber below said throttle where liquid fuel may collect to an auxiliary fuel nozzle feeding into the zone of lowest pressure in said Venturi tube, said auxiliary nozzle being independent of the supply of fuel to said main fuel nozzle.

1,306,032. FLAX-SCUTCHER. BERTRAND S. SUMMERS, Port Huron, Mich. Filed Jan. 8, 1917. Serial No. 141,322. 9 Claims. (Cl. 13-18.)

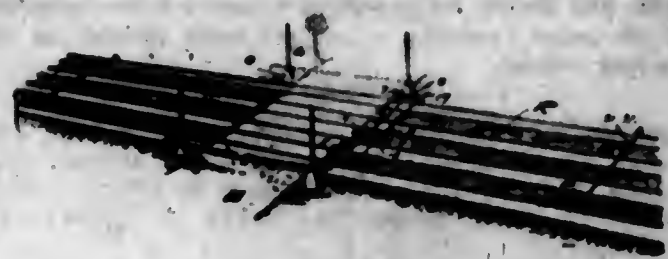


5. In a device of the class described, gripping rolls, a pinion mounted upon the end of one of said rolls, a segment gear engaging said pinion, a wrist pin adjustable substantially radially with respect to said segment, a slide engaging said pin and movable therewith, means for adjusting the slide toward and from the axis of the segment, means for reciprocating the pin to oscillate the segment, and beaters adjacent the bite of the rolls.

1,306,033. CROSSING-GATE. VAN B. TAYLOR, Kingman, Ind. Filed Jan. 2, 1919. Serial No. 269,511. 8 Claims. (Cl. 246-301.)

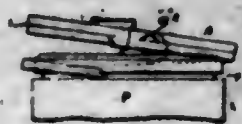
1. In a gate of the type described, the combination with a stand, the gate proper having a long arm and a shorter arm weighted to hold the longer arm normally upright, a pivot through the stand, and a buffer spring carried by

the stand to limit the descent of the longer arm; of a pulley fast on said pivot, and mechanism mounted at a



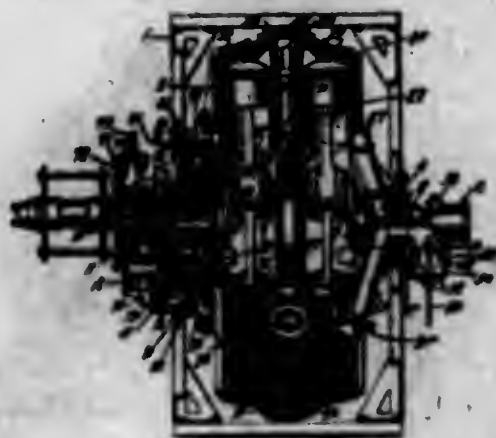
lower point within the stand and connected with said pulley for closing the gate and raising its weighted arm and the reverse.

1,306,034. OBTURATOR. MAURICE TIPS, Woonsocket, R. I. Filed Mar. 6, 1917. Serial No. 152,568. 4 Claims. (Cl. 121-108.)



1. An obturator comprising a split ring having a flange and an offset portion, said flange bearing a perpendicular relation to said offset portion, a second split ring comprising a pair of flanges, one of which receives thereupon the flange of the first named ring, the other flange of the second named ring being in engagement with said offset portion whereupon the expansion of the first named ring will cause an expansion of the second named ring.

1,306,035. INTERNAL-COMBUSTION ENGINE. MAURICE A. TIPS, Woonsocket, R. I., assignor to Tips Aero Motor Company, Inc., Woonsocket, R. I., a Corporation of Rhode Island. Filed Oct. 11, 1917. Serial No. 195,898. 20 Claims. (Cl. 128-44.)

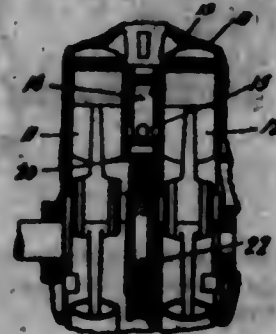


1. An internal combustion engine comprising in combination a stationary frame, a cylinder block supported by, and adapted to rotate within said frame, a gear fixed to said cylinder block, a crank shaft adapted to rotate within said cylinder block, a drive shaft, gearing connecting said drive shaft with said crank shaft, and gearing connecting said drive shaft with the gear fixed to said cylinder block.

1,306,036. VALVE-OPERATING MECHANISM. MAURICE A. TIPS, Woonsocket, R. I., assignor to Tips Aero Motor Company, Inc., Woonsocket, R. I., a Corporation of Rhode Island. Original application filed Oct. 11, 1917. Serial No. 195,898. Divided and this application filed Feb. 11, 1918. Serial No. 216,603. 1 Claim. (Cl. 123-44.)

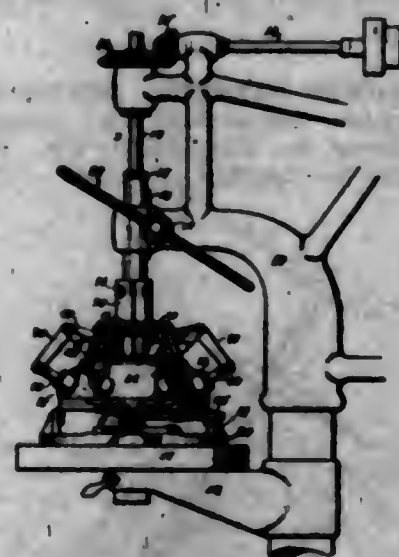
In a prime mover, the combination with a cylinder block having cylinders arranged in pairs and a crank shaft, of

rotating valves interposed between said cylinders, gears carried by said valves, a bearing plate secured to said cylinder block, a valve operating element rotatably mounted upon said bearing plate, said valve operating element being provided with an external gear arranged perpendicularly with respect to said valve operating element and meshing with the gear carried by said valve, an internal gear arranged perpendicularly with respect to said external gear; means to rotate said valve operating element comprising an eccentric mounted upon said crank



shaft, an external gear rotatably mounted upon said eccentric, the last named external gear meshing with said internal gear, a flange carried by the second named external gear, said flange being provided with a series of openings and a series of pins carried by said bearing plate and projected into the openings of said series, said pins being arranged to impart synchronous rotation to the second named external gear with respect to said cylinder block and to permit the second external gear to partake of a revolving movement within said internal gear.

1,306,037. MULTIPLE-DRILLING MACHINE. GEORGE T. TRUNDLE, JR., Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 31, 1916. Serial No. 75,307. 19 Claims. (Cl. 77-26.)



1. The combination, with a drill press having a shiftable sleeve and a rotatable spindle therein, having a tapered socket at its lower end, of a radial drilling device having a plurality of drill spindles and a master driver geared therewith and provided with an actuating member adapted to occupy said socket, said radial drilling device having shifting mechanism for such spindles connected with the shiftable sleeve of the drill press.

1,306,038. COLUMN-RULE. GEORGE T. TRUNDLE, JR., Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 2, 1917. Serial No. 140,028. 10 Claims. (Cl. 101-400.)



1. A column rule consisting of a thin arcuate strip having thin lateral tongues projecting from the strip adjacent to the concave edge at right angles to the body of the strip, the inner surface of said tongues, engaging substantially the same theoretic cylinder as the concave edge of the strip, and the tongues extending only a short distance lengthwise of the strip, whereby they may lie between shanks of type in adjacent lines.

1,306,039. TOOL-HOLDER. JAMES E. TUTTS, Boston, Mass. Filed May 31, 1917. Serial No. 171,810. 8 Claims. (Cl. 29-64.)



7. A tool holder having, in combination, a holding member having a recess therein adapted to receive a tool, said holding member also being provided with a slot intersecting said recess, a clamping lever located in said slot, a pivot connecting said clamping lever to said holding member, said clamping lever having one edge thereof arranged to contact with a tool located in said recess for a substantial distance from the front end of said recess toward a plane extending transversely of and at right angles to the bottom of said recess and containing the medial axial line of said pivot and a screw having screw-threaded engagement with said lever and adapted to bear against the bottom of said slot.

1,306,040. CAR-COUPLING. HANSBERT E. VAN DORN, Chicago, Ill. Filed Sept. 22, 1917. Serial No. 192,633. 10 Claims. (Cl. 213-10.)



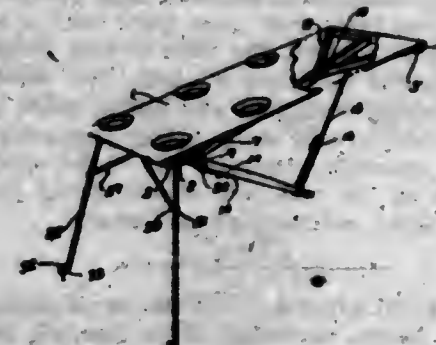
1. In a coupler, a coupler head, a swinging knuckle, a vertically movable lifter, a locking block hung on the lifter so as to be capable of swinging in a transverse plane, a knuckle-opening arm pivoted at one end to the locking block and having its other end lying behind the tail of the knuckle, said knuckle-opening device being constructed and arranged to engage with a stationary part of the coupler head at a predetermined point in the upward movement of the lifter, and cause the lower end of the locking block to swing laterally toward the tail of the knuckle.

1,306,041. CAMP-TOILET. JOSEPH H. WITTMANN, Kansas City, Mo. Filed Oct. 22, 1917. Serial No. 197,825. 6 Claims. (Cl. 4-32.)



6. In a portable toilet, collapsible seat and front members, and a lining having its upper edge clamped between said members and its lower edge turned beneath and attached to said front member, to protect the inner surface of said member.

1,306,042. CAMP FURNITURE. JOSEPH H. WITTMANN, Kansas City, Mo. Filed Oct. 22, 1917. Serial No. 197,826. 4 Claims. (Cl. 5-5.)



1. In combination with a flexible apron, a ground leg connected with one end of the apron, a tension bar connected with the opposite end of the apron and seating on the ground leg to form a supporting frame, and brace legs connected with one end of said frame and having fixed anchorage at their outer ends.

1,306,043. GASKET-RETAINING MEANS. LEONIDAS D. WOODRUFF, Norwood, Ohio, assignor to Union Connector Company, Wilmington, Del., a Corporation of Delaware. Filed Oct. 13, 1916. Serial No. 125,465. 9 Claims. (Cl. 285-63.)



9. In a coupler member having a port therein, the combination of a gasket seat, a gasket having a lateral and an axial flange each adapted to engage said seat, and means for retaining the axial flange and a portion of the lateral flange against the seat while permitting the gasket to yield bodily under pressure on the face of the coupler member.

1,306,044. GAME. AUSTIN H. H. DEB BARRE, New Glasgow, Nova Scotia, Canada. Filed May 27, 1918. Serial No. 226,803. 2 Claims. (Cl. 46-61.)

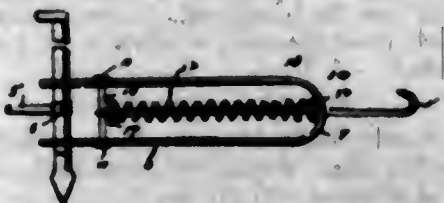
2. A device of the class described comprising a table having a series of pockets, a chute having a base portion

the forward end of which is disposed beneath said table and the rear end of which is curved upwardly to provide a delivery portion, the free end of which is extended downwardly and forwardly to deflect the flight of a ball



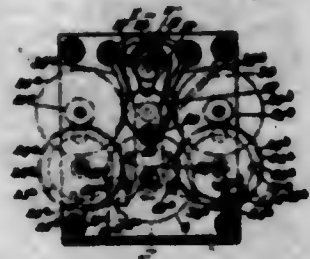
In a similar direction and toward said series of pockets, said table having its rear end arranged forwardly of the free extremity of said delivery portion and in spaced relation thereto.

1,306,045. CHECK-ROW ANCHOR. WILLIAM F. BIERMAN, Wisner, Neb. Filed Jan. 25, 1919. Serial No. 273,193. 1 Claim. (Cl. 265-63.)



In a device of the class described a body portion formed from an elongated plate bent upon itself with a resultant intermediate right portion, the ends of said plate having aligned openings for receiving a stake, the sides of the body portion having elongated and aligned guide slots, an indicator movable in said slots, a rod connected to said indicator and extending through the right portion and having a hook at one end, and a coil spring interposed between said right portion and indicator.

1,306,046. TACHIMETER. FRIEDRICH WILHELM GUSTAV BAUM, Berlin, Germany. Filed Apr. 28, 1918. Serial No. 94,251. 5 Claims. (Cl. 235-104.)



1. A tachimeter comprising two driving gears operating the indicating pointer, a coupling adapted to alternately couple each of said driving gears with the shaft to be examined during each measuring period and a clock work controlling said coupling, said coupling consisting of a pivoted lever, a pair of spaced pins thereon, a spur coupling wheel with fine teeth on said lever and means for rocking said lever to engage said coupling wheel alternately with said driving gears, a cam fitted on a shaft under the control of the escapement wheel of said clock work, said cam continually engaged on opposite sides by said pins, and a measuring wheel in constant engagement with said coupling spur wheel on said coupling lever in constant engagement with the measuring wheel.

1,306,047. ICE-CUTTING MACHINE. EDWARD B. COBURN, Worcester, Mass., assignor of one-half to John B. Hannigan, Worcester, Mass. Filed Mar. 15, 1918. Serial No. 222,003. 6 Claims. (Cl. 262-20.)

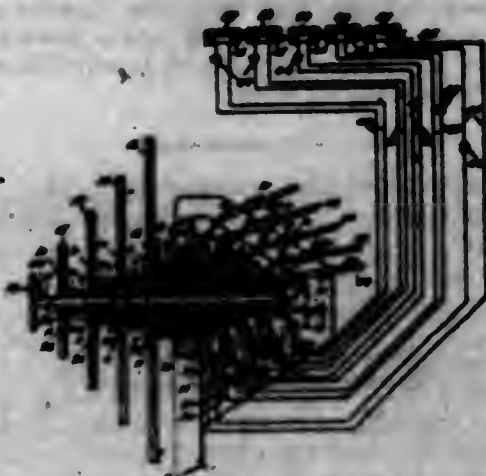
1. In a machine of the class described, a vehicle, a swinging frame supported at one end by the vehicle, a saw shaft journaled in the free end of said frame, a mul-

tiplicity of saws mounted on said shaft, bars pivotally mounted on said swinging frame, means for adjusting



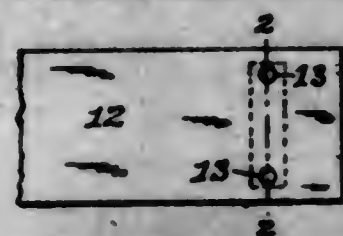
the height of said bars, and a pair of gage rolls supported by said bars having beveled edges and mounted at the rear of and in alignment with two of said saws.

1,306,048. TARGET APPARATUS. DANIEL C. COY, Riverton, Utah. Filed Oct. 4, 1918. Serial No. 256,878. 2 Claims. (Cl. 124-18.)



1. In a target apparatus, the combination with a support, of a plurality of gravity actuated members on said support, a series of target elements mounted on the support and held in normal positions by said gravity actuating members, and means actuated by said target members for closing electric circuits, and indicators in circuit with said means.

1,306,049. METHOD OF MAKING PIN-TONGUES. GEORGE WILLIAM DOVER, Cranston, R. I., assignor to George W. Dover, Incorporated, Providence, R. I., a Corporation of Rhode Island. Filed Dec. 26, 1918. Serial No. 268,298. 3 Claims. (Cl. 163-4.)



1. The method of making pin tongues consisting in forming pin holes in sheet metal stock the required distance apart, cutting out of the stock a twin head blank having a pin hole close to each end, inserting simultaneously a pointed pin through each pin hole in the head blank, cutting the head blank apart, thereby forming a head on each pin, compressing the head blanks to the required thickness thereby swaging the head blanks on to the pins and then forming a transverse pinhole in each head blank.

1,306,050. COFFEE-STRAINER. WARREN R. DUBOIS, Brownville, Mo. Filed Oct. 31, 1918. Serial No. 260,504. 1 Claim. (Cl. 210-16.)

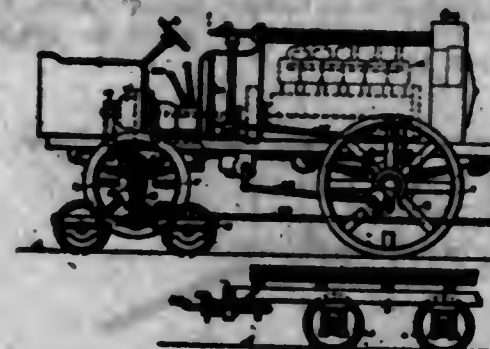
A coffee strainer including a flat strip bent to fit horizontally around and outwardly of the mouth of the pouring spout of a coffee pot, a straining screen secured to

and covering the strip for extension across the mouth of the spout, clamps on the ends of the strips for detachable and embracing engagement with the edge portion of the



mouth of the spout, and a connecting member extending between the clamps within the spout and adjacent the body of the coffee pot.

1,306,051. LIGHT-RAILWAY SYSTEM AND LOCOMOTIVE THEREFOR. FRANK HENRY DUTTON, Johannesburg, Transvaal, South Africa. Filed Feb. 18, 1918. Serial No. 217,970. 9 Claims. (Cl. 105-215.)



1. A light railway system, comprising a two rail track, and two outside road wheelways, a locomotive having one or more four-wheel bogies pivoted to the frame and running on the rail track and one or more differentially driven pairs of driving wheels shod with resilient tires running on the road wheelways, and ordinary rolling stock running wholly on the rail track and attached for traction to the rail bogie of the locomotive.

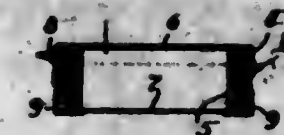
1,306,052. WEIGHING-MACHINE. PETRONELLA BERBAUM, Chicago, Ill. Filed Apr. 12, 1917. Serial No. 161,439. 14 Claims. (Cl. 73-177.)



1. A weighing machine comprising a vertically movable bin in which a predetermined weight of products is adapted to be weighed, a plate which opens the discharge opening in said bin when said weight has accumulated therein, and a receptacle supported in the mouth of said

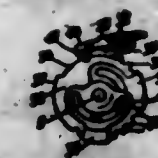
bin which intercepts and collects the products poured into the same while it is discharging and which dumps the products so collected when the discharge opening of the bin is closed.

1,306,053. ASH-SIFTER. MARY J. FRENEY, St. Paul, Minn. Filed Sept. 17, 1917. Serial No. 191,001. 1 Claim. (Cl. 83-60.)



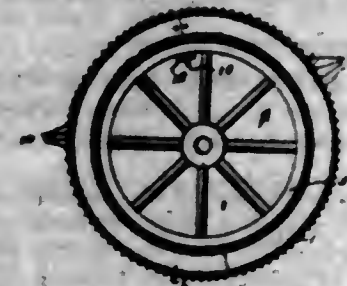
An ash sifter comprising a rotatable, rectangular casing open at its top and bottom, a hinged cover therefor having a foraminous top, a rectangular ash tray disposed within the casing and having an open top and a foraminous bottom, said tray and bottom lying entirely within the body lines of the casing and its cover, and angular brackets secured to a pair of opposite sides of the casing and extending from their lower edges inwardly beneath the tray and in contact with its foraminous bottom to aid in supporting the latter, said tray being slightly less in width and depth than the casing whereby when the casing is rotated the tray will shift laterally in one direction on the brackets and in the opposite direction on the foraminous top of the casing cover.

1,306,054. IMPULSE-TRANSMITTER. JOSEPH C. FIELD, Orange, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed May 10, 1916. Serial No. 96,503. 3 Claims. (Cl. 177-381.)



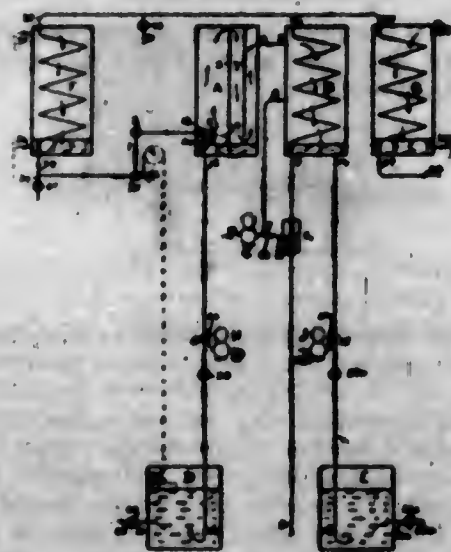
1. In an impulse transmitter, a rotatable toothed wheel, contact springs brought into and out of engagement by the teeth of said wheel, an insulated roller carried by one of said contact springs, a cam segment carried by said wheel for maintaining the contact springs in engagement during a portion of the travel of said wheel, and another cam segment carried by said wheel and engaging said insulated roller during a portion of the travel of said wheel for maintaining said contact springs out of engagement.

1,306,055. AUTOMOBILE-TIRE. WILLIAM C. FLEISHER, Hackensack, Minn. Filed Aug. 23, 1918. Serial No. 281,160. 2 Claims. (Cl. 152-8.)



1. The combination with a wheel felly, of a tire comprising semi-circular tubular sections concentrically of the felly and swingingly connected together, transverse anchor pins within the sections near the detached ends, and a double bill securing member engaged with the pins and in the felly.

1,306,056. DISTILLING APPARATUS. WILFRED FOURNESS, Pasadena, Calif., assignor of one-half to Gardner T. Voorhees, New York, N. Y. Filed Oct. 28, 1914. Serial No. 800,102. 8 Claims. (Cl. 202-5.)



1. The combination of a high pressure steam condenser, a low pressure steam condenser, a separator, a conduit to conduct hot condensing water from the high pressure steam condenser to the separator, means in said conduit to regulate the quantity of hot condensing water passing therethrough, a conduit to conduct steam from the separator to the low pressure steam condenser, means to remove unevaporated water from the separator and means to remove condensed steam from the low pressure steam condenser.

1,306,057. CAMERA-TRIPOD. LINWOOD I. GATTS, Barnard, N. Y. Filed Jan. 18, 1919. Serial No. 271,859. 4 Claims. (Cl. 248-47.)



1. A tripod comprising a supporting means, an object securing device provided with a screw portion and with a leveling weight for the object, an adjusting device in which said object securing device turns between the screw portion and the weight, but is held against axial movement, said adjusting device being adjustable on the supporting means under the action of the leveling weight to permit the screw portion to assume a vertical position.

1,306,058. MECHANISM FOR WATER-CLOSET APPARATUS. WILLIAM U. GRIFFITHS, Philadelphia, Pa. Filed Jan. 12, 1915. Serial No. 1,723. 2 Claims. (Cl. 4-28.)

1. In mechanism for water closet apparatus, the combination of a water supply conduit, a rod in said conduit having a valve secured thereto for closing said conduit and having means at its upper end forming a shoulder, a hollow projection extending laterally from said conduit, a lever situated in said projection and pivoted intermediate its ends, one of its ends having an opening therethrough through which the said rod extends said end being situated immediately underneath said shoulder, and the opposite end of said lever being provided with an opening, a valve rod extending into said hollow projection and having its

lower end projecting through said opening and also having means thereon for engaging said lever to depress the same



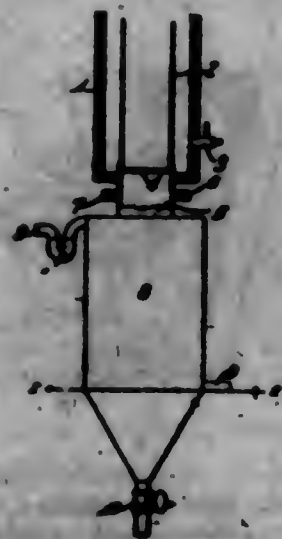
and an operating lever outside of said chamber pivotally supported at one end and having engagement intermediate its ends with the said valve rod for operating the same.

1,306,059. HARROW AND LOCUST-KILLING MACHINE. JUAN JULIAN GURIDI, Manzanillagira, Florida, Uruguay. Filed Aug. 2, 1918. Serial No. 248,170. 3 Claims. (Cl. 42-1.)



1. A combined harrow and locust-killing machine comprising a supporting frame, a series of axes thereon, and a number of disks rotatable on said axes, said disks being alternately provided with detachable tires, a single tire being provided for one disk only, whereby the machine may be used either as a harrow or as a locust-killing machine.

1,306,060. METHOD AND APPARATUS FOR REDUCING METAL TO A FINELY-DIVIDED CONDITION. EVANST J. HALL, New York, N. Y., assignor to Metals Disintegrating Company, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 28, 1918. Serial No. 117,162. 9 Claims. (Cl. 75-197.)



1. The method which consists in continuously passing particles of molten metal through a body of protecting

gas and thence into and through a body of protecting liquid, said bodies of gas and liquid being continuously renewed.

1,306,061. ENVELOP. WILLIAM L. GRAND HAMILTON, Tottenville, N. Y. Filed Dec. 18, 1918. Serial No. 206,531. 2 Claims. (Cl. 229-85.)



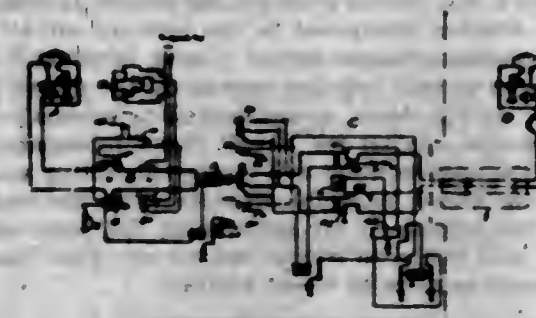
1. An envelop having bottom and end flaps with overlapping portions permanently cemented together and a top flap adapted to be sealed to the other flaps when the envelop is closed, the envelop having a small unobstructed opening between the bottom flap and one of the end flaps spaced a substantial distance from the lower edge, whereby a cutter inserted in said opening engages the outside of the contents of the envelop.

1,306,062. LAMP-CANOPY. SAMUEL HEATH, Roxborough, Pa. Filed Mar. 1, 1917. Serial No. 151,702. 2 Claims. (Cl. 240-96.)



1. In a lamp canopy a frame or cap having a central opening, a sheet of mica situated therein also having a central opening, a perforated plate having a central opening situated in the frame for holding the mica in position, and indentations formed in the flange of the frame for holding the perforated plate in place.

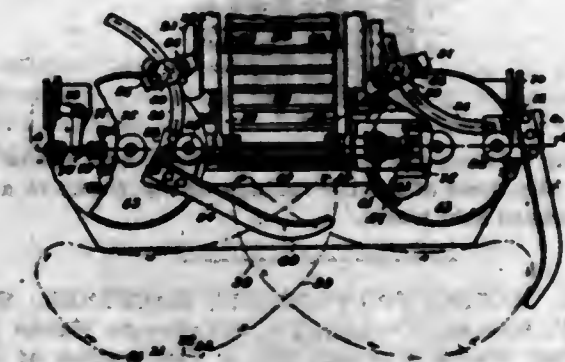
1,306,063. TELEPHONE SYSTEM. LEWIS H. JOHNSON, Bloomfield, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 2, 1918. Serial No. 200,970. 13 Claims. (Cl. 179-27.)



1. A telephone system comprising a trunk circuit including a normally open control conductor extending from a first to a second central office, a telephone line terminating at the second central office, switching apparatus thereat controlled over the control conductor from the first central office for establishing connection between the trunk circuit and the telephone line, a link circuit at the first central office, electromagnetic means operated in response to the connection of the link circuit with the trunk circuit for closing the normally open control conductor, and a relay operating upon connection of the link circuit with the trunk circuit and serving to maintain the electromagnetic means in operated condition.

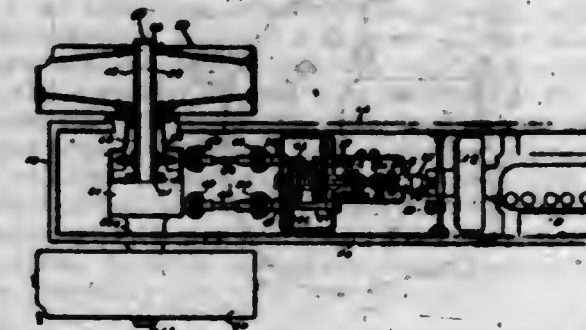
243 O. G.-13

1,306,064. LOADING-MACHINE. JOSEPH F. JOY, Columbus, Ohio, assignor to Joy Machine Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Nov. 18, 1916. Serial No. 132,178. 25 Claims. (Cl. 193-40.)



13. In a loading machine of the class described, a gathering mechanism including a plurality of fingers and means to move the same in reniform orbital paths which cross each other.

1,306,065. DRIVING MECHANISM FOR MOTOR-VEHICLES. EDMUND JOSEPH KANE, Chicago, Ill. Filed Dec. 31, 1917. Serial No. 209,662. 15 Claims. (Cl. 74-99.)



12. In a motor vehicle the combination with a motor and a pair of driving wheels, of power transmitting devices interposed between the motor and the driving wheels comprising transmission gearing and a pair of separated driving shafts arranged at approximately right angles to the axis of the said driving wheels, and a differential gearing device interposed in the power transmitting devices between the motor and the said driving wheels, the said differential gearing device being arranged on a substantially horizontal axis at right angles to the common axis of the said driving wheels.

1,306,066. TESTING APPARATUS. GEORGE KAUPERT, Chicago, Ill., assignor of one-half to Frank P. A'Brunkwick and one-half to Josephine Kaupert, Chicago, Ill. Filed Oct. 17, 1918. Serial No. 258,043. 6 Claims. (Cl. 245-62.)

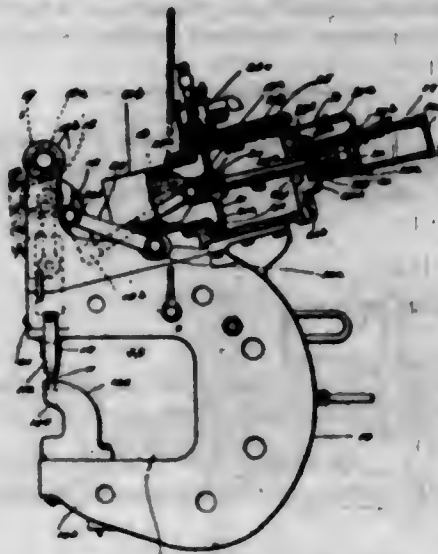
1. In a testing device, the combination of a plurality of coiled springs positioned with their axes in a common plane, a cap bearing upon all of said springs, a bifurcated frame central upon said cap and spring assembly, an overhead brace, said brace adapted for carrying a wheel depending between the arms of the frame, said wheel being

substantially in the plane of the axes of the springs, device whereby a strip of flexible material may be secured to



and swung between the arms of the frame, and means for applying the force of all the springs to the frame in a direction toward said wheel.

1,306,067. ENGINE FOR PUNCHING-MACHINES. WILLIAM P. KRAUSE, Chicago, Ill., assignor to Hanna Engineering Works, Chicago, Ill., a Corporation of Illinois. Filed May 10, 1915. Serial No. 27,310. 8 Claims. (Cl. 121-45.)



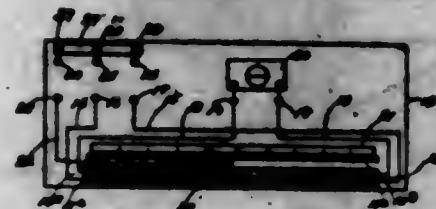
1. In combination with a cylinder having a reciprocable piston, means to check the movement of said piston adjacent one limit of its travel, said means comprising a dash pot and a piston member coacting therewith, and means to introduce fluid under pressure to said dash pot intermediate the limits of travel of said piston member.

1,306,068. HAIR-RETAINING DEVICE. GERTRUDE I. LANDRY, Pawtucket, and GEORGE S. KELLEY, Providence, R. I. Filed Feb. 8, 1919. Serial No. 275,732. 1 Claim. (Cl. 132-18.)



A hair retainer comprising a relatively broad strip of resilient material folded upon itself forming two opposing arms adapted to engage each other with spring pressure, said arms being relatively unyielding laterally, and a hood-shaped guard member pivoted to one arm adjacent its end and adapted to be swung over the end of the other arm to engage, inclose and protect this end and to lock both arms together against springing apart.

1,306,069. METHOD OF AND APPARATUS FOR MAKING ELECTRICAL MEASUREMENTS. ERVAN L. McDONALD, Salt Lake City, Utah. Continuation in part of application Serial No. 837,317; filed May 8, 1914. This application filed July 3, 1916. Serial No. 107,706. 10 Claims. (Cl. 175-182.)

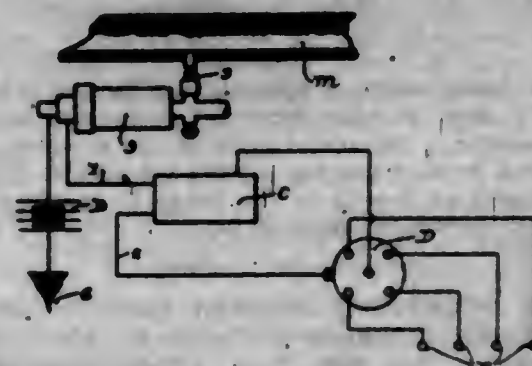


1. The method of comparing the characteristics of electrical elements by connecting said elements in parallel branches of a fluctuating current circuit, each of said elements being in series with a variable portion of a single inductive coil, and varying the number of turns in said portions until the inductive effect of one branch circuit balances that of the other branch circuit.

1,306,070. PROCESS OF MAKING COMPOUNDS OF THE RARE METALS. ROBERT MCKNIGHT, Pittsburgh, Pa. Original application filed Oct. 4, 1912, Serial No. 723,992. Divided and this application filed Apr. 28, 1917. Serial No. 165,108. 7 Claims. (Cl. 75-45.)

1. The process of making compounds of the rare metals such as tungsten, vanadium, uranium, molybdenum, and tellurium and common metals, which consists in melting together a salt of the rare metal and a chloride of one of the alkali metals, and causing such mixture to combine with a molten common metal.

1,306,071. CIRCUIT-BREAKER FOR IGNITION SYSTEMS. GEORGE B. MADOLE, Kansas City, Mo., assignor to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed June 18, 1917. Serial No. 175,391. 13 Claims. (Cl. 123-165.)

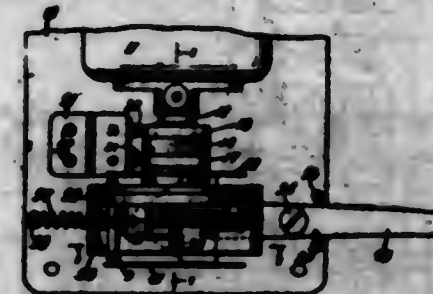


1. In combination, an internal combustion engine having an intake manifold, a battery ignition system for the engine and a coil having primary and secondary windings, a circuit breaker interposed in the primary circuit comprising a spring-actuated circuit closing member, a cylinder, a piston in said cylinder, means on the piston to engage said circuit closer, spring means to normally maintain the piston against the circuit closer to maintain the latter in the open position and means connecting said cylinder to the intake manifold, whereby when the engine is running the subnormal air pressure in the manifold will act upon said piston to release the circuit closer and permit the same to move to closed position.

1,306,072. SPEED-CONTROL GOVERNOR. BENJAMIN F. MANNITT, East Orange, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Oct. 1, 1917. Serial No. 184,148. 4 Claims. (Cl. 175-355.)

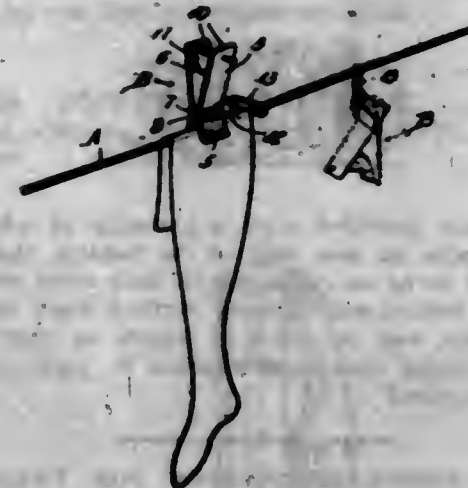
1. In a speed governor, a motor, a rotatable shaft controlled thereby, a movable member adapted to travel with said shaft and to be influenced by centrifugal force, spring

means for opposing the effect of centrifugal force on said movable member, adjustable means for varying the tension of said spring means, contacts controlled by said movable member, means for routing the operating circuit of said



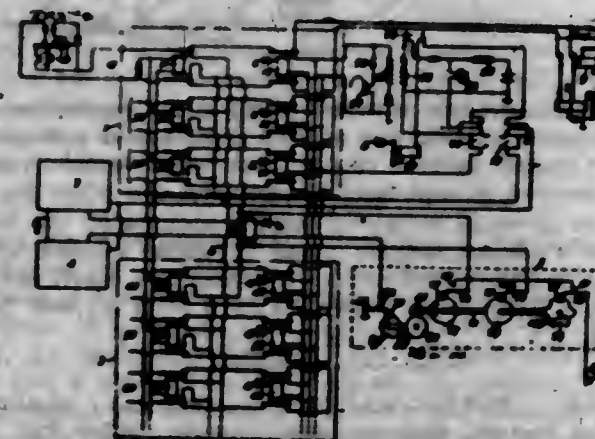
motor through said contacts, manually operated lever means having opposite limits of movement positioned stationary with respect to said shaft, flanges carried by said lever for operatively engaging said adjustable means, and spring means to normally retain said lever at a point intermediate its limits of movement.

1,306,073. CLOTHES-PIN. LOUIS E. MEYER, Oiler, Mich. Filed Nov. 13, 1918. Serial No. 262,340. 2 Claims. (Cl. 24-137.)



2. A clothes pin comprising a jawed resilient clip having a pivot for connecting the jaws and formed with a loop projected to one side of the clip, and a link loosely connected with the loop and adapted to be loosely connected to a clothes line, the loop being gradually widened in a direction away from and angularly with respect to the clip.

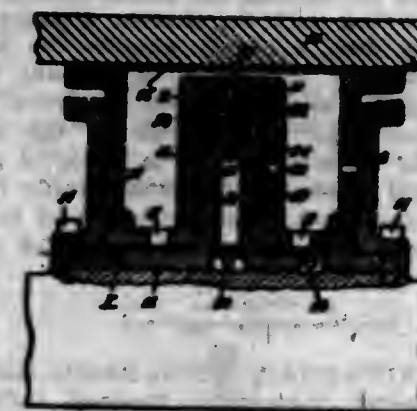
1,306,074. SIGNALING SYSTEM. JOHN F. MORAN, Jersey City, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed June 8, 1917. Serial No. 173,543. 7 Claims. (Cl. 179-5.)



1. In a signaling system, in combination, a plurality of lines extending from stations to a central office, a sig-

nalizing device for each line located at the station thereof, a relay for each line, signal control apparatus for each line located at the central office and connected with the lines through normally closed contacts of the respective relays, a switch operable to cause the energization of the relays to open the normally closed contacts, circuit leads connected with the lines through alternate contacts of the respective relays upon the energization thereof, a plurality of conductors, each conductor being connected with predetermined circuit leads, thereby dividing the circuit leads into groups, a source of signaling current, and switching means adapted when actuated to connect the source of signaling current with predetermined groups of circuit leads in succession to cause the successive operation of the signaling devices by groups.

1,306,075. MOLDING-MACHINE. EDGAR H. MUMFORD, deceased, Plainfield, N. J., by Rose S. Mumford, executrix, Plainfield, N. J. Filed June 17, 1915. Serial No. 24,700. 3 Claims. (Cl. 121-19.)



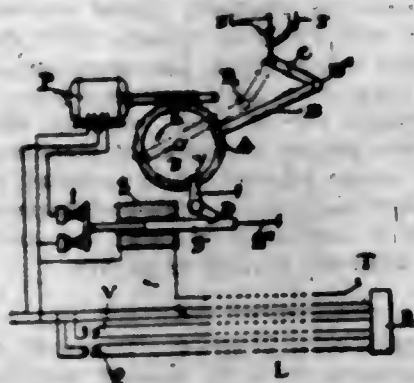
1. An attachment for changing a squeezer molding machine having a base and a squeezer cylinder into a combined jolt and squeezer ramming molding machine, comprising a member adapted to be mounted on the base between the cylinder and the base, said member being provided with an upstanding post, a plunger member adapted to fit said squeezer cylinder and provided with a cylindrical portion adapted to fit said post, and means for introducing fluid pressure under the plunger member for a squeeze operation and between the plunger member and the upstanding post for a jolt operation.

1,306,076. AUTOMATIC MOTOR-SWITCH. WINFRED F. PRISTER, Lepsic, Ohio, assignor to The Temco Electric Motor Company, Lepsic, Ohio, a Corporation of Ohio. Filed Jan. 18, 1918. Serial No. 212,474. 2 Claims. (Cl. 175-310.)



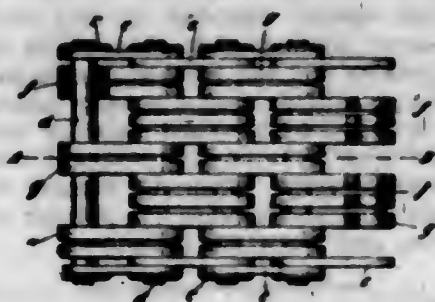
1. In an automatic switch, a pair of stationary semi-circular contact rings separated from each other by small gaps and connected in a circuit, a shaft, a ring having arms and secured to the shaft, contact members extending through the arms, the members having recesses, a pair of pivoted bell crank members having arms extending into the recesses of the contact members, and springs operating upon the bell crank members for pushing the contact members through the last named ring to make contact with the semi-circular contacts.

1,306,077. SHUTTER MECHANISM FOR SEARCHLIGHTS. Gino BRONZI, Milan, Italy. Filed Sept. 24, 1918. Serial No. 245,525. 5 Claims. (Cl. 240-45.2.)



3. A mechanism for operating the shutter of a searchlight comprising a crank disk, a lever system adapted to connect the crank disk with the shutter, a motor for rotating said crank disk, a circuit wherein the motor is included, a solenoid, a solenoid circuit, means for momentarily closing the solenoid circuit, a switch for the motor circuit controlled by the core of the solenoid, means for holding the solenoid core in attracted position, and means on said crank disk for automatically releasing said holding means at each half-revolution of the crank disk to permit the retraction of said core and the consequent opening of the motor switch.

1,306,078. DRIVING-CHAIN. HANS REINOLD and ADRIAN ETHELBERG CARTER, Manchester, England, assignors to HANS REINOLD LIMITED, Manchester, England. Filed Aug. 17, 1917. Serial No. 186,752. 4 Claims. (Cl. 74-32.)

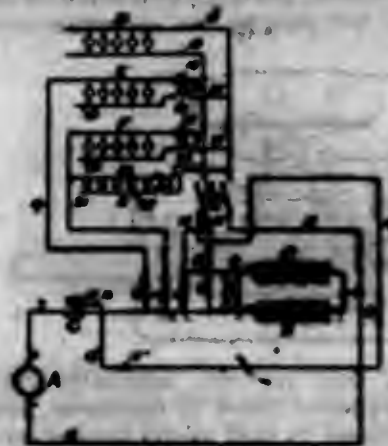


1. A multiple strand driving chain comprising a plurality of separate block units in each pitch thereof, in laterally staggered relation to block units in adjacent pitches, studs connecting the block units of one pitch to those of another, and means for holding the studs in position, each separate block unit including a plurality of gear link plates with stud holes therein slotted at the sides thereof nearest the ends of the links to receive segmental bushes, and a pair of segmental bushes having a force fit in such slot in the outer sides of the stud holes, said segmental bushes terminating flush with the outer side faces of the lateral link plates of the block units.

1,306,079. CAR-LIGHTING SYSTEM. HARRY D. BOWMAN, New York, N. Y., assignor, by mesne assignments, to J. Stone & Company, Limited, Deptford, England. Filed Feb. 20, 1917. Serial No. 140,780. 4 Claims. (Cl. 171-512.)

1. In a car lighting system, the combination of a dynamo, a battery to be charged, a plurality of translating circuits in circuit with the dynamo and the battery, a resistance element for each translating circuit, and circuit closing means adapted to connect the positive leads of the translating circuits to place resistances in parallel

and to connect negative leads of translating circuits and to provide a path for battery E. M. F. around said resistances.



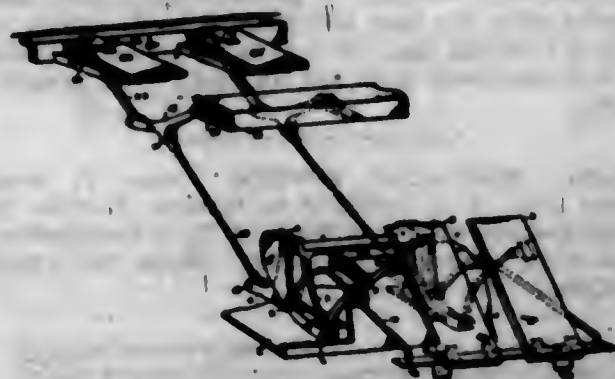
and to connect negative leads of translating circuits and to provide a path for battery E. M. F. around said resistances.

1,306,080. VEHICLE. HIPPOLYTE W. ROMANOFF, New York, N. Y. Filed Jan. 15, 1918. Serial No. 211,960. 9 Claims. (Cl. 21-184.)



1. A vehicle provided with a plurality of wheels arranged in pairs on each side of the vehicle, the wheels of each pair being so connected to each other that both wheels will remain substantially vertical when on an inclined surface, and the pairs of wheels on each side of the vehicle being connected together in pairs; substantially as described.

1,306,081. PEDAL MECHANISM FOR PNEUMATIC DEVICES. JUSTIN O. SCHWAB, New York, N. Y., and GUSTAV BJORKLUND, West New York, N. J. Filed Oct. 8, 1917. Serial No. 185,191. 3 Claims. (Cl. 74-81.)



1. In combination with a folding pedal mechanism, a base bracket therefor, and at each side thereof a substantially Y-shaped pivoted member, one leg of which is pivotally secured to said base bracket and the other leg of which is pivotally connected with a pneumatic, the stem of said Y-shaped member being pivotally secured by a lever to a pedal-board at one end, and the other end of said pedal-board being connected by a lever to said base support.

1,306,082. FLYING-MACHINE. CHARLES SIMANIK, Calder Station, Saskatchewan, Canada. Filed Feb. 15, 1919. Serial No. 277,374. 1 Claim. (Cl. 244-6.)

A flying machine comprising a plurality of rectangular frames having forwardly and rearwardly bounding ends,

diagonal braces rigidly connecting the said frames, the frames being arranged in rectangular formation, gas bags in the frames, a flying machine body equidistantly spaced from the said frames, and rigidly secured in position relatively thereto, a pair of shafts in the body arranged in



alignment, coupling means on the shafts, propeller shafts in alignment with the said shafts, gearing operatively connecting the first said shafts and the propeller shafts, and vertically disposed rudders at the front and rear of the machine, and rotatably supported from the said frames, as and for the purpose specified.

1,306,083. POCKET FOR GOLF-BAGS. JOHN HUNTER SMITH, Chicago, Ill. Filed Nov. 1, 1916. Serial No. 128,927. 1 Claim. (Cl. 224-45.)

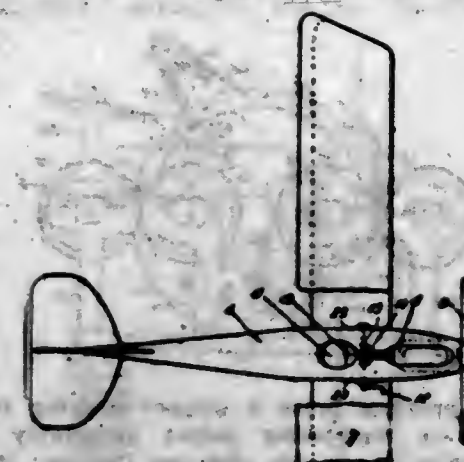


A pocket comprising a wire mesh frame having an open front, and opposite side walls integrally connected at the bottom by a curved portion, front and rear cross pieces connecting the side walls at the top, and a covering for said frame, with a transparent cover in the open front thereof.

1,306,084. AEROPLANE. GREGORY J. BROWN, East Orange, N. J., assignor to The Motor-Compressor Company, a Corporation of Delaware. Filed Aug. 10, 1918. Serial No. 250,426. 4 Claims. (Cl. 244-51.)

1. An aeroplane having a body provided with a cockpit and a seat within the cockpit, an internal combustion engine for propelling the aeroplane mounted within the body lengthwise thereof and adjacent to the cockpit, and a manually operated starting mechanism for starting the engine provided with a handle which is

adapted to be connected to the engine shaft for starting the engine and which is mounted upon the side of the



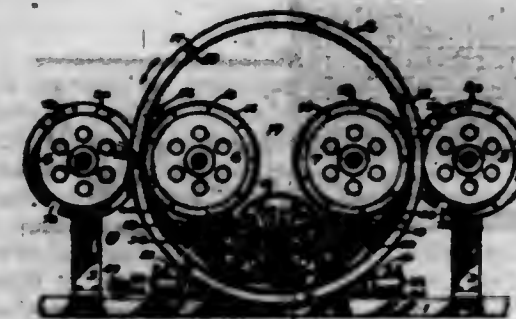
body so that it may be turned by the operator either while standing beside the body of the aeroplane or while in the cockpit.

1,306,085. ELECTRIC REGULATING RESISTANCE. ERNST ALBERT EMANUEL TONNEMAN, Helsingfors, Sweden. Filed Oct. 14, 1918. Serial No. 258,090. 1 Claim. (Cl. 219-60.)



An electric regulating resistance comprising elastic elements with surfaces of contact facing each other and at one end connected with each other, the opposite ends being connected with an electric circuit, a tongue, of another material than the elements, at one end fastened between the ends of said resistance elements where these are connected with each other and at the opposite end projecting freely between said elastic elements.

1,306,086. SHEET-CONTROLLING DEVICE FOR PRINTING-PRESSES. FREDERICK M. TURCK and BRUCE CLARK WHITE, New York, N. Y. Filed Aug. 29, 1917. Serial No. 188,763. 29 Claims. (Cl. 101-183.)



24. In a printing press, a rotatable sheet-carrier provided with rotating means and having grippers engaging the leading edge of the sheet; perforated sheet-supporting means fixed in the path of said carrier; and suction means acting inwardly through the perforations of said sheet-supporting means to engage the sheet and exert a tension thereon in opposition to the movement thereof.

1,306,087. SHEET-FEEDING DEVICE FOR PRINTING-PRESSES. FREDERICK M. TURCK and BRUCE CLARK WHITE, New York, N. Y. Filed Aug. 29, 1917. Serial No. 188,764. 12 Claims. (Cl. 101-183.)



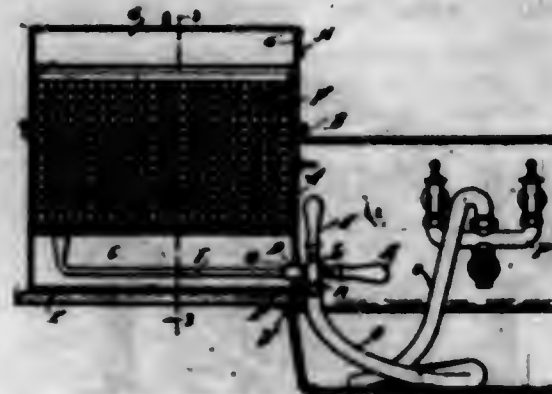
1. In a printing press a gripper-carrying feed arm; sheet-stops or registering guides adjustably mounted upon a vertically movable slide-bar thereon; links from said slide-bar to fixed centers located eccentric to the center of the shaft upon which the feed arm swings.

1,306,088. SHEET-DELIVERING DEVICE FOR PRINTING-PRESSES. FREDERICK M. TURCK and BRUCE CLARK WHITE, New York, N. Y. Filed Aug. 29, 1917. Serial No. 188,765. 15 Claims. (Cl. 271-82.)



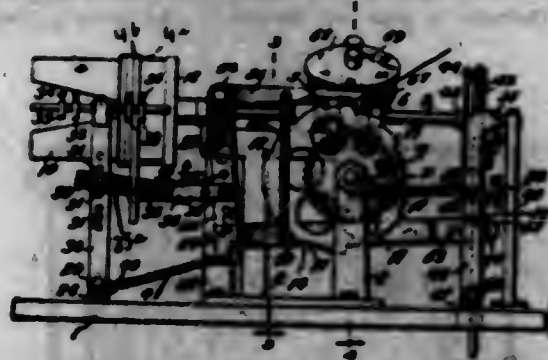
7. In a printing press, a sheet-carrier having grippers arranged to engage the leading edge of a sheet; a sheet support comprising a series of tapes aligned in the path of said carrier to receive the body of said sheet; means for driving said carrier and supporting tapes at a common speed; means for releasing the grippers of said carrier; and means for deflecting the path of said supporting tapes for the delivery of the sheet.

1,306,089. DISH-WASHER. MARY WAGNER, Akron, Ohio. Filed Sept. 9, 1918. Serial No. 119,186. 7 Claims. (Cl. 141-9.)



2. In a dish washer the combination with a receptacle having an opening therein, of a cover for said receptacle, a basket adapted to be contained within said receptacle, an elongated tubular nozzle passing through said opening, the inner end of said tubular nozzle being bent at a right angle and having a restricted discharge orifice, a water supply connection for said nozzle, said nozzle being movable back and forth through the opening and turntable upon its axis from side to side.

1,306,090. WINDING AND MEASURING MACHINE. GEORGE W. WILSON, New York, N. Y. Filed Apr. 26, 1918. Serial No. 230,713. 10 Claims. (Cl. 242-55.)



4. In a winding machine the combination with a card holder, of a distributing device, means comprising a rotary element provided with a double series of steps for actuating said distributing device after a predetermined number of revolutions of the card holder in two ways, for the purpose of laying a series of folds on the card from right to left and from left to right substantially as shown and described.

1,306,091. BUCKLE. BINDORA H. WHITE, Chicago, Ill. Filed Dec. 4, 1916. Serial No. 134,922. 1 Claim. (Cl. 24-196.)



A buckle comprising a rectangular open frame the ends of the upper transverse bar of which are provided with shoulders, a laterally disposed vertically movable transverse clamping-plate having suitable guides on its ends that are slidably mounted on the vertical sides of said frame, and fingers projecting upward from said guides that are adapted to engage the shouldered ends of the upper transverse bar of said frame.

1,306,092. PUSH-BUTTON. ARNE FERDINAND OLSSON WILCK, Stockholm, Sweden. Filed Feb. 6, 1919. Serial No. 275,997. 1 Claim. (Cl. 24-224.)

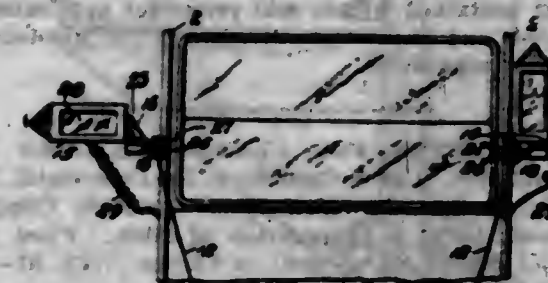


In push buttons the combination of two separate button parts, an opening in the bottom of the one part, a circular spring portion fastened in the same, a spring tongue extending obliquely from said circular spring portion, a hook member in the other button part adapted to be introduced through said opening, the spring tongue being located in such a manner that it exerts a pressure on the hook both to the side, so as to press it against the edge of the opening, and downward so that the button parts are automatically separated by displacing one button part to the side against the action of the spring.

1,306,093. DIRECTION-INDICATOR. HELENA H. BAKER, Ames, Iowa. Filed July 17, 1918. Serial No. 245,351. 2 Claims. (Cl. 110-31.)

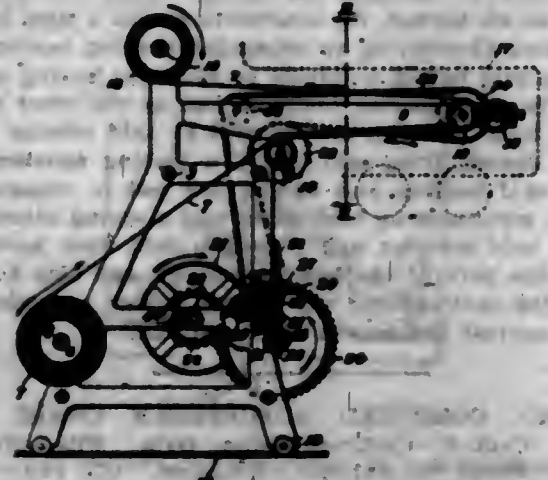
2. In an apparatus of the class described, the combination with the body of an automobile and a wind shield

frame, of a lamp bracket detachably secured at its inner end to the wind shield frame, a signalling lamp pivotally mounted upon the outer end of said bracket, a spring attached to the bracket between the bottom of said lamp and the upper portion of the bracket, for normally pivoting the lamp to a horizontal signalling position, and spring-held, foot-operated shading carried by the body and connected to the inner end of the bottom of the signalling lamp for normally holding the signalling lamp in a vertical position and compressed against the spring carried by the bracket.



ing the lamp to a horizontal signalling position, and spring-held, foot-operated shading carried by the body and connected to the inner end of the bottom of the signalling lamp for normally holding the signalling lamp in a vertical position and compressed against the spring carried by the bracket.

1,306,094. RE-SLIP ROLL AND RE-SLIPPING MACHINE. GEORGE W. BRADLEY, Stamford, Conn. Filed Feb. 14, 1919. Serial No. 277,011. 13 Claims. (Cl. 34-1.)



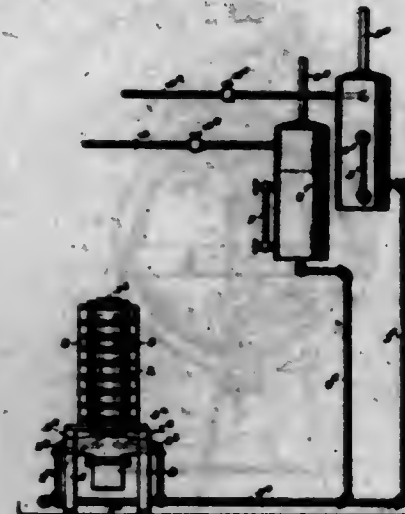
1. A re-slipping machine, comprising a frame-work, a supply-drum and a winding-drum journaled thereon, a continuous web of re-slip material whose ends are connected respectively to said drums, two horizontal arms projecting freely from said frame-work, and web-feeding devices located at the end of said arms whereby an unobstructed horizontal length of said web is presented along substantially the plane of said arms.

1,306,095. BLANKET-CYLINDER FOR PRINTING-PRESSES. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Original application filed Apr. 28, 1916. Serial No. 93,695. Divided and this application filed June 13, 1917. Serial No. 174,585. 7 Claims. (Cl. 101-407.)



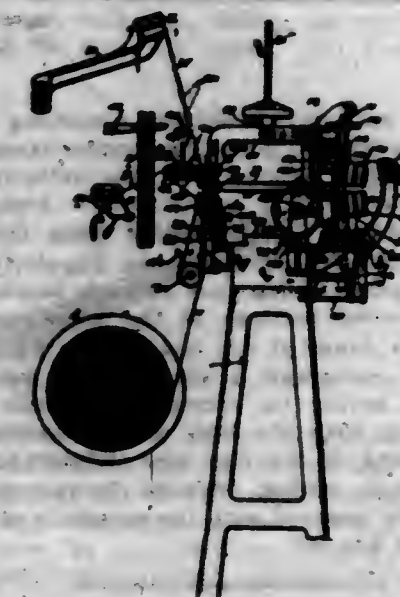
2. In combination with a press frame and bearings; of an impression cylinder having an end journal of substantially the same diameter as the body of the cylinder; and blanket adjusting devices extending through the journal of the cylinder and the bearing, and accessible from the outer side of the bearing and frame.

1,306,096. STEREO-TYPE-PLATE-CASTING-BOX-COOLING APPARATUS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed July 22, 1917. Serial No. 182,181. 10 Claims. (Cl. 23-4.)



1. In apparatus for cooling stereotyped plate casting boxes and the like, a casting box, a pair of independent fluid reservoirs, and separate pipe connections between each reservoir and the interior of said casting box.

1,306,097. MACHINE FOR OPERATING UPON WARPS. THOMAS BENNET BINGHAM, Manchester, England, and EARLE D. PARKER, Rockford, Ill., assignors to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business as Barber-Colman Company, Rockford, Ill. Filed May 10, 1915. Serial No. 26,997. 20 Claims. (Cl. 130-95.)



1. A machine for operating upon warps having, in combination, a machine frame, a carriage movably mounted on said frame, a toothed bar extending along the path of movement of the carriage, a carriage-feeding element on the carriage arranged to engage said toothed bar, a drive shaft carried by the machine frame and extending parallel with the path of movement of the carriage, a clutch arranged to connect said shaft with the carriage-feeding element, and a hand lever on the carriage for operating said clutch.

1,306,098. TIRE-UNWRAPPING MACHINE. CHARLES BROWN, Knoxville, Tenn., assignor of one-third to Benjamin F. Lively and one-third to Frank J. Lively, Lenoir City, Tenn. Filed Jan. 7, 1918. Serial No. 210,799. 10 Claims. (Cl. 242-6.)

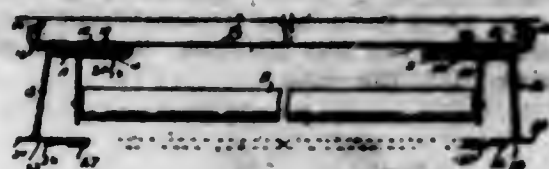
1. A tire unwrapping machine, comprising a stationary circular frame, a ring revolvably mounted in said frame, a

pair of disks movable with said ring and rolling upon said frame, an axle supporting said disks, a member piv-



oted to said ring and engaging said axle, and a tension device engaging said member and pivotally connected with said ring.

1,306,099. WINDOW SHADE AND CURTAIN BRACKET. ROBERT J. BROWN, Springfield, Ill. Filed Sept. 14, 1918. Serial No. 254,046. 2 Claims. (Cl. 156-22.)



1. A shade and curtain bracket consisting of a single length of wire bent to provide a middle, straight portion and approximately parallel legs, the extremities of the legs being bent to form sharp pointed hooks, then extended longitudinally, then re-bent upon themselves in approximate parallel relation, then angularly bent outward, a base plate having eyes through which said longitudinally extended portions of the wire pass, the base plate having a flange at one end perforated for the passage of an attaching nail, a window shade bracket having a base plate having its extremities formed to provide beads engaging with the first named longitudinally extending portions of the legs and slidable therealong, a coiled contractile spring designed to support a curtain and operatively engaged with the extremity of the straight portion of the bracket.

1,306,100. CONNECTING DEVICE. LEE S. CHADWICK, Cleveland, Ohio, assignor to The Cleveland Metal Products Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 2, 1915. Serial No. 31,784. 4 Claims. (Cl. 85-1.)



1. In combination with a pair of members, the first having a slot and the second a bore, a device for connecting the members and comprising an element that extends through the bore of the second member and has a head that is of a greater transverse dimension than the width of a portion of the slot, said head being adapted to be inserted through said slot and arranged

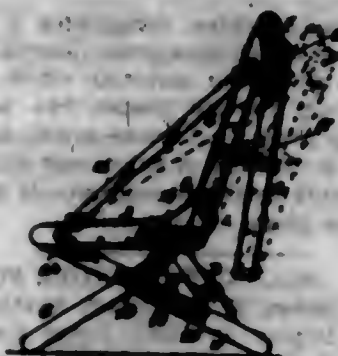
across the same, means for holding the element against rotation with respect to the first member, the end of the element remote from the head being threaded, and the second member having a recess into which the head opens and into which the threaded end of the element projects, and a nut contained within said recess for application to the threaded end of the element whereby the members are held against separation.

1,306,101. LAMP FOR FLAME-SPREADERS AND WICK-SETTERS. LEO S. CHADWICK, East Cleveland, Ohio, assignor to The Cleveland Metal Products Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 7, 1915. Serial No. 49,400. 3 Claims. (Cl. 67-68.)



1. In an oil burner, the combination with a wick holder and a wick therein, of an elongated tubular bearing attached to said holder, a spindle in said tube having at one end means for engaging the wick and at the other end a serrated hand wheel, a disk carried by said tubular bearing and spaced from said wheel, a locking member carried by said bearing and having one end in engagement with the serrations on said wheel and a spring interposed between said member and the disk, said disk having a stop in the path of the locking member and also a latch for holding said member out of engagement with the serrations against the tension of the spring.

1,306,102. COMBINED ADJUSTABLE CHAIR AND COT. CARL C. CHITTUR, Salem, Ohio. Filed Mar. 9, 1919. Serial No. 281,045. 5 Claims. (Cl. 158-8.)



5. In an article of the character set forth, collapsible side members, a leg section pivoted at one end to the collapsible side members, a second leg section detachably connected to the opposite ends of the side members and having adjustable pivotal connection with the first mentioned leg section, a cross piece detachably connecting the ends of the members comprising a second leg section, and a brace section having pivotal connection with the side members and detachable connection with the members of the second leg section.

1,306,103. SHUTTER MECHANISM FOR ENDLESS CONVEYERS AND THE LIKE. ROBERT S. CHERRY, Chicago, Ill., assignor to Brown Specialty Machinery Co., Chicago, Ill., a Corporation of Illinois. Filed Jan. 22, 1918. Serial No. 198,008. 1 Claim. (Cl. 190-8.)

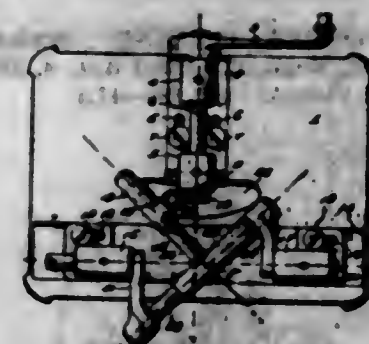
The combination of an endless conveyor having a side feed opening, an incline leading to said opening, said in-

cline forming the bottom of a chute, a screen at the top of said chute, a shutter controlling said side feed opening,



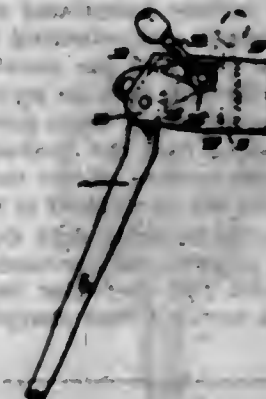
and a second side opening in said conveyor, said second side opening affording communication between the interior of said chute and the interior of the conveyor.

1,306,104. MECHANICAL MOVEMENT. ALBERT H. DU VOY, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Sept. 11, 1918. Serial No. 233,546. 9 Claims. (Cl. 74-14.)



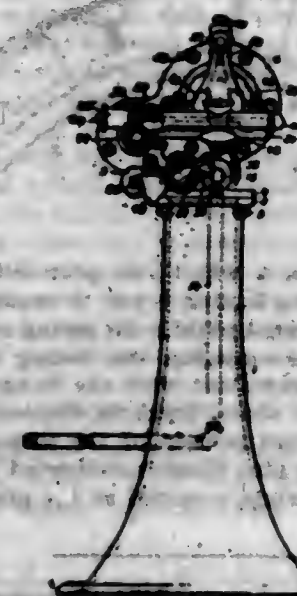
1. In a mechanical movement, in combination, a driving shaft and a driven shaft each provided with a crank-member whose axis is inclined to the axis of its shaft, an operative connection between and maintained solely by said crank-members adapted to positively rotate the driven shaft in a direction determined by the direction of rotation of the driving shaft and at accelerated and retarded speeds with respect to the speed of said driving shaft.

1,306,105. SWITCH-STAND LOCK. JOHN JAMES DILLON, Sault Ste. Marie, Ontario, Canada. Filed Dec. 6, 1918. Serial No. 265,564. 4 Claims. (Cl. 246-412.)



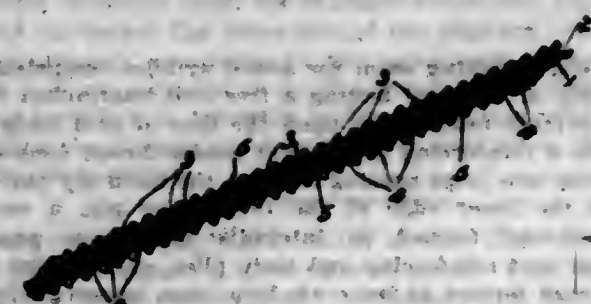
2. The combination with a switch stand lever, of locking means adapted to engage and hold the same in a down position, manually operable releasing means for the locking means adapted to be engaged and moved from releasing position by the switch stand lever when moving to a given up position.

1,306,106. DRILL-STEEL-PINNING DEVICE. JESSE DUNN, Littleton, Colo., assignor to The J. Geo. Layner Engineering Works Company, Littleton, Colo., a Corporation of Colorado. Filed June 30, 1917. Serial No. 178,029. 4 Claims. (Cl. 76-5.)



1. In a fluid operated pinning out device for rock drills, a vice having jaw members, a piston operating the members of said vice, an independent piston operating a pin, a lever, and means whereby the lever may be moved first in one direction and then in another for controlling the movements of both pistons.

1,306,107. PACKAGING-FASTENER. WILLIAM E. ELIOTT, Grand Rapids, Mich., assignor to American Button & Fastener Company, a Corporation of Maine. Filed Jan. 17, 1916. Serial No. 72,652. Renewed June 3, 1918. Serial No. 238,062. 10 Claims. (Cl. 1-56.)



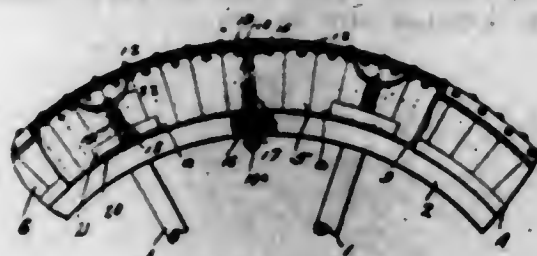
1. In combination, a mount comprised of elongated strips of thin flexible material located one over the other and secured together at the edges thereof, and articles passed through said strips, portions of said strips immediately adjacent the articles being crimped to engage frictionally against said articles, substantially as described.

1,306,108. LAST. KARL ENGEL, Arlington, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Original application filed Dec. 2, 1914. Serial No. 875,126. Divided and this application filed Oct. 13, 1917. Serial No. 196,360. 9 Claims. (Cl. 12-133.)



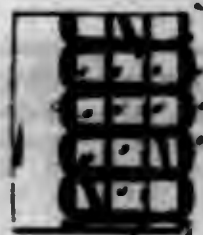
1. A last having a clenching plate separated from its tread surface over an area extending over more than half the length of the last.

1,306,109. SPRING-TIRE. ELLIS B. ESTHER, Lebanon, Mo. Filed Mar. 10, 1919. Serial No. 281,607. 4 Claims. (Cl. 152-8.)



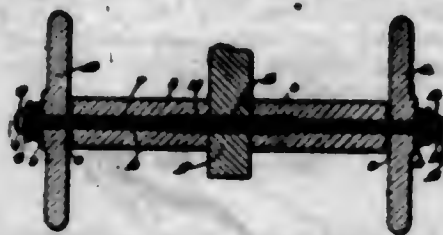
3. In combination, a wheel rim provided at its edges with flanges, a casing having beads to engage the flanges of the rim, shoes located within the casing and having opposite edge portions engaging the casing to retain the beads thereof in engagement with the flanges of the rim, pins attached to the shoes, brackets disposed against the inner side of the tread portion of the casing and having the outer ends of the pins slidably connected therewith and expandible helical springs mounted on the pins between the shoes and brackets.

1,306,110. SEAM FOR SEWED ARTICLES. GORDON S. GATCHELL, Roselle Park, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Feb. 6, 1918. Serial No. 215,081. 1 Claim. (Cl. 112-34.)



An edge-finishing seam for sewed articles comprising a main ply of material having a free and unattached marginal portion folded back upon the face of said main ply to form a reinforcing ply, a first needle-thread formed at intervals into loops passing through the main ply only adjacent the inner edge of the reinforcing ply, a second needle-thread formed at intervals into loops passing through said reinforcing and main plies, and a third needle thread formed at intervals into loops substantially at the line of fold, said seam including upper and lower thread portions extending transversely of the line of seam-formation and held in contact relation with said main and reinforcing plies.

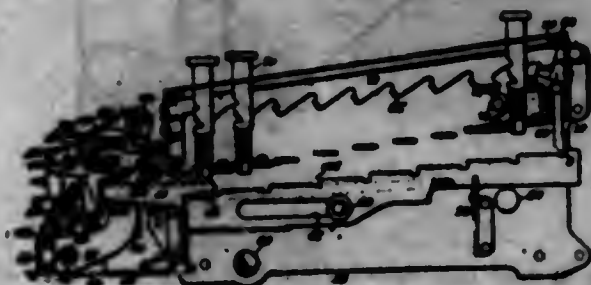
1,306,111. TOY. HARRY G. GOULD, Oshkosh, Wis., assignor to Gould Manufacturing Company, Oshkosh, Wis., a Corporation of Wisconsin. Filed Feb. 10, 1919. Serial No. 276,154. 2 Claims. (Cl. 206-105.)



1. In a wheeled toy, the combination, with the body, of an axle passing through a part of said body and provided with threaded portions, wooden clamping members mounted on said axle and screwable upon said threaded portions into clamping engagement with said body part, and wheels

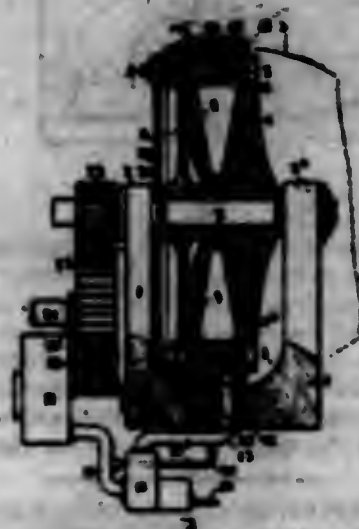
mounted on the ends of the axle, said members surrounding those portions of the axle between the body part and the wheels.

1,306,112. ADDING-MACHINE. OLIVER D. JOHANTSON, Chicago, Ill., assignor, by mesne assignments, to The Victor Adding Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 16, 1917. Serial No. 168,982. 24 Claims. (Cl. 236-183.)



13. In an adding machine, the combination with the register, a spring actuated carrying member and a lock for the carrying member, of means for moving the carrying member to a position in which it is independent of the lock and means for setting the carrying member while in the said position.

1,306,113. EXPLOSIVE-TURBINE. WESLEY HANST JOHN, Richmond, England. Filed Apr. 4, 1918. Serial No. 226,678. 2 Claims. (Cl. 60-41.)

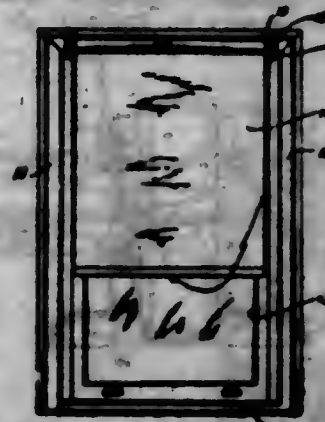


1. An explosion turbine comprising a stator provided with combustion chambers terminating in discharge nozzles, with ducts for receiving the working fluid and discharging the same through suitable ports and with ducts for a scavenging gas current, a rotor provided with means whereby the gas issuing from the combustion chambers by way of the discharge nozzles effects the rotation of the rotor, and a charging device adapted to receive charges of working fluid from the working fluid ducts in the stator and to convey the same to the combustion chambers and to communicate with the ducts for the scavenging gas currents after each working fluid charge so conveyed has been ignited.

1,306,114. SHADE-BRACKET. MARTIN M. KOVAL, Heliwood, Pa. Filed Mar. 21, 1919. Serial No. 284,019. 3 Claims. (Cl. 106-34.)

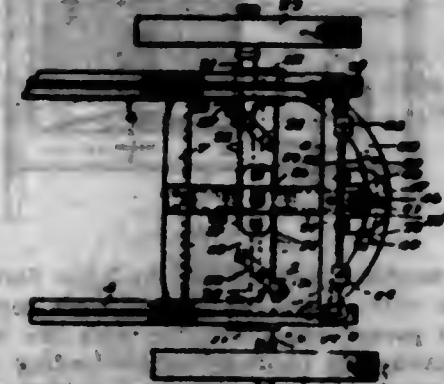
1. A window shade fixture comprising a hollow casing, a lever pivoted therein, an arm extending from said lever outwardly through said casing, links connected at the ends of said lever, a second pair of levers pivoted in said

casing pivoted to said links, grab hooks formed on the opposite end of said second pair of levers adapted to engage



with a support when said lever arm is turned horizontally, and to be released from engagement when said lever arm is raised.

1,306,115. VEHICLE-AXLE. THOMAS R. MCKENRY, Aurora, Ill., assignor to Western Wheeled Scraper Company, Aurora, Ill., a Corporation of Illinois. Filed June 14, 1918. Serial No. 24,021. 2 Claims. (Cl. 21-5.)



1. The combination with a main frame, of an extensible axle centrally pivoted to the frame, stirrups depending from the sides of the main frame, sleeves embracing the axle and supported by said stirrups, a curved bar having its ends connected to said sleeves, a rack on said bar, and a shaft mounted on the frame and having a pinion engaging the rack whereby through the curved bar and sleeves the axle may be turned about its pivot.

1,306,116. IGNITION APPARATUS. WILLIAM B. MOORE, Brookline, Mass., assignor to Gray & Davis Inc., Cambridge, Mass. Filed Jan. 17, 1918. Serial No. 73,406. 27 Claims. (Cl. 123-106.)



1. In apparatus of the character described, in combination, a casing containing two sets of interrupter contacts adapted to be arranged in a primary circuit, and means adapted to actuate contacts of the respective sets simul-

taneously, the arrangement of parts being such that one set is closing while the other is opening providing a brief period in which the primary circuit is open through both sets.

2. In apparatus of the character described, in combination, a primary circuit, two sets of interrupter contacts arranged in multiple in said circuit, means adapted to open said circuit by opening one said set of contacts while the other is open, and means for moving said other set of contacts to closed position while the first said set is open.

3. In apparatus of the character described, in combination, a casing, two sets of interrupter contacts, each set comprising a fixed contact element and a movable contact element, the movable contact elements being pivotally mounted with their axes in alignment, means for actuating the movable contacts to open position, and means cooperating with said last means for starting one of said movable contacts on its return to closed position during the period of opening movement of said other movable contact.

1,306,117. END-GATE FASTENER. NELA K. NELSON, Lake Mills, Iowa. Filed June 25, 1917. Serial No. 176,004. 1 Claim. (Cl. 21-21.)



In combination with a wagon body having plates connected thereto, said plates being provided with lateral slots in the ends thereof, an end gate mounted in said body having grooved strips secured thereto, a rod slidably mounted on one side of the end gate, a link slidably mounted on the opposite side, a securing lever provided with spaced inwardly directed ears pivotally secured to the said link at the inner end thereof, said lever being further provided with an integral projection and apertured to receive the inner end of the said rod, fastening rods pivotally connected to the outer ends of the said link and rod adapted to be slidably received within the slots provided in the ends of the plates, and means for holding the fastening rods within the slots when the lever is forced inwardly.

1,306,118. DIRECTION-INDICATOR FOR MOTOR-CARS. CHARLES A. OTT, Ottawa, Kans. Filed Aug. 15, 1918. Serial No. 249,982. 4 Claims. (Cl. 177-327.)



1. A direction indicator for motor cars comprising a staff pivoted for swinging transversely of the line of travel, a pair of shouldered slide rods connected to be moved endwise back and forth by said staff, means for normally locking the staff against oscillatory movement by intercepting the paths of outward movement of the shoulders of said rods, and electro-magnetic means for tripping said last-named means from the path of said shoulders.

1,306,119. LEVER. GORDON C. PHARO, Marysville, Calif. Filed Feb. 26, 1918. Serial No. 219,192. Renewed Oct. 25, 1918. Serial No. 250,717. 9 Claims. (Cl. 74-5.)

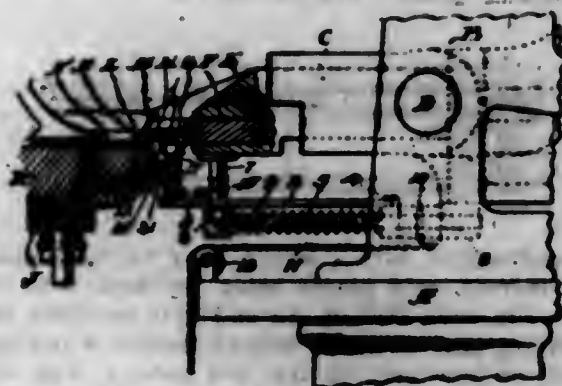
1. A lever formed of sheet material, and comprising sides formed by bending the material upon itself in a plane transversely of its edges, and having aligned apertures formed in the sides and slots extending from said

apertures to the bent end, said bent end being formed to receive clamping means.



5. A lever of sheet metal formed by bending a blank over upon itself to produce sides having at the bent end a way to receive a bolt, said sides having aligned holes and slots extending therefrom to the bent end, a rod extending through said holes, and a clamping bolt located in said way and having a nut threaded thereon and resting upon the adjacent edge of the bent portion of the lever.

1,306,120. MACHINE FOR PLACING LASTING-BINDERS. CHARLES F. PYM, Detroit, Mich., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed July 2, 1913. Serial No. 776,927. 94 Claims. (Cl. 12-14.)



53. The combination with means for engaging a toe binder at opposite sides of the toe of a shoe, of operating mechanism for causing said engaging means to move along the binder to lay the binder into binding position progressively along said opposite sides of the toe simultaneously by engagement successively with different portions of the binder extending substantially from the toe end of the shoe rearwardly along the sides.

54. The combination with means for working an upper into lasted relation to the side faces of the toe of a last, of means for rolling a binder into binding relation to the upper around the toe.

1,306,121. LASTING-BINDER. CHARLES F. PYM, Detroit, Mich., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed May 9, 1913, Serial No. 766,472. Renewed Sept. 5, 1916. Serial No. 118,548. 15 Claims. (Cl. 12-107.)

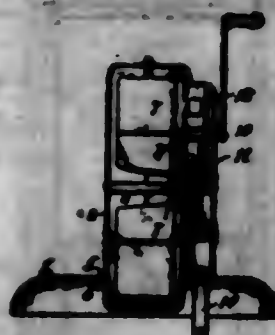


14. A binder for use in retaining an upper in conformity to the contour of the end portion of a last comprising a flexible band adapted to extend around the end of the shoe exteriorly of the shoe bottom and having at its ends projecting flanges adapted to be secured in overlapping relation to the shoe materials on the bottom of the last to fasten the binder in place.

1,306,122. HAIR-DRIER. GEORGE QUALMAN, Toledo, Ohio. Filed Jan. 23, 1919. Serial No. 272,005. 2 Claims. (Cl. 34-26.)

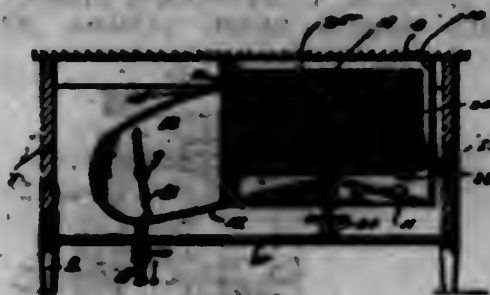
1. In a device of the described character, a base having a downwardly projecting rim, the base and the rim

being of sufficient dimension to cover a common stove-hole, a fan-casing secured to said base and projecting



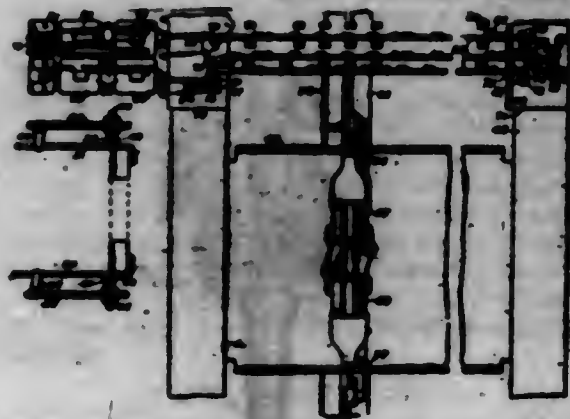
into its cavity, means for driving said fan, and means for detachably securing the base to the margin of such stove-hole.

1,306,123. DISH-WASHER. FRANK W. REYNOLDS, New Washington, Ohio. Filed Mar. 25, 1918. Serial No. 234,574. 4 Claims. (Cl. 141-9.)



1. In a washing machine of the type described, the combination with a tub having a conical bottom, a radially offset pocket communicating with one side of the same and having an inclined bottom leading away from the periphery of said conical bottom, a fresh water inlet to the tub, and an outlet from the lowest point in said pocket; of an upright rotary shaft through the apex of the conical bottom of the tub, a spider carried thereby, a wire basket removably carried by the spider, a horizontal rotary shaft through said pocket, a paddle fast thereon within the pocket, and means for rotating both shafts.

1,306,124. LINE-SWITCH. JOHN NEWBERRY REYNOLDS, Greenwich, Conn., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Oct. 26, 1916. Serial No. 127,944. 14 Claims. (Cl. 179-27.5.)



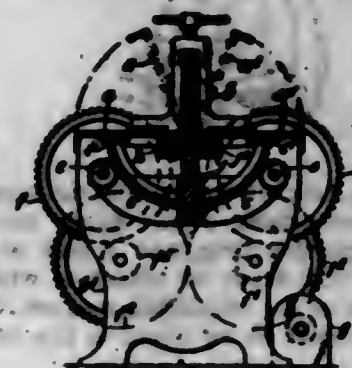
1. In a switching mechanism, switch bars, cooperating sets of contacts on said bars vertically and horizontally separated from each other, and means for moving one of said bars at right angles to and in the direction of its length in a continuous movement upon the arc of a circle.

1,306,125. AIRCRAFT DRIVING MECHANISM. HARRY RALPH REEVE, London, England. Filed Oct. 30, 1917. Serial No. 195,253. 3 Claims. (Cl. 74-2.)



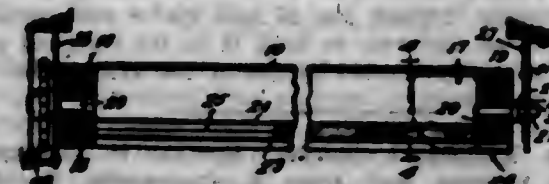
1. Aircraft driving mechanism, including in combination, a casing, a crank shaft therein, a hollow nose piece rigidly carried by said casing, a propeller hub rotatably mounted on said piece and held against axial movement, a separate resilient floating shaft disposed within said piece, means loosely connecting one end of said latter shaft with the crank shaft and means loosely connecting the other end to said hub.

1,306,126. BENDING-MACHINE. HENRY FREDERICK FARRAR SUDGOWICK, Millwall, London, England. Filed Mar. 6, 1918. Serial No. 220,840. 3 Claims. (Cl. 153-15.)



1. In a machine for bending metal sheets or for like purposes, the combination of a frame, a stationary V-shaped presser-bar having its ends supported in said frame, two flaps adapted to fold down into line with each other, stationary hinge blocks distributed at intervals along the bed of the machine and arranged alternately with movable blocks distributed along the flaps, a rigid supporting bar carrying said stationary hinge blocks, projecting annular tongues on certain of said blocks engaging in annular grooves in the other blocks, toothed quadrants of equal diameter secured below the flaps and toothed gearing for raising and lowering said flaps, substantially as described.

1,306,127. SHADE-ROLLER. JOHN A. SHARPS and ISHMAEL GUY CUTRIGHT, Buckhannon, W. Va. Filed July 8, 1916. Serial No. 243,239. 2 Claims. (Cl. 186-29.)



1. The herein described shade roller comprising a tubular body made up of a blank of sheet metal rolled and having its edges turned inward into flanges spaced to

leave a longitudinal slot along one side of said body, a blank fixed in one end of said body and having an axial opening adapted to receive a shaft, and a shoe adjustable in the other end of said body and including a cylindrical block with a notch along one side, a trunnion projecting from the axis of said block, and a metal plate wider than the block is thick and secured around said block with one edge flush with the outer face of the block, its ends terminating alongside the notch therein and its other edge carried beyond the inner face of the block and having its corners rounded to produce a skirt adjustably mounted in the open end of said body and held therein by friction.

2. A shade roller comprising a tubular member, a block rigidly secured in one end and forming a head therefor, said block having an axial opening therethrough of polygonal cross section and of gradually increasing width from without inwardly, said opening adapted to engage a shaft of similar cross section adapted to be rotated for rotating the roller, said opening by its diverging shape, permitting the roller to be moved angularly on said shaft relatively to its axial line.

1,306,128. DUMPING BUTTER-MOLD. RUTH A. BRADDOCK, Oakland, Calif. Filed June 28, 1918. Serial No. 242,870. 5 Claims. (Cl. 31-25.)



1. A receptacle from which the contents are readily dumped, comprising a rectangular bottom, sides secured at their lower ends to said bottom, their upper ends being capable of moving inwardly and outwardly relative to each other, parallel clamping rods each extending through parallel sides and prevented from moving from one of said sides toward the other, a device secured upon each of said rods adjacent to the latter side, and a clamp rotatable around each rod and engaging said device in its rotation to press the latter side toward the former.

1,306,129. CLIP FOR REINFORCING-BARS FOR CONCRETE CONSTRUCTION-WORK. KENNETH D. STRAWART, Youngstown, Ohio. Filed Nov. 29, 1916. Serial No. 264,699. 3 Claims. (Cl. 72-122.)



1. A device of the class described, comprising a strand of wire bent at its center into a loop, the connecting section between the two arms of the loop being arched slightly upward, and the outer or free end of each arm being provided with an inwardly turned hook member disposed substantially at right angles to the plane of the loop, and each of said arms being bent downward at a point intermediate its end and then doubled back upon itself to form a double-strand leg member disposed substantially at right angles to the plane of the loop, the remaining section of the arm being then turned into the original plane of the loop, and the lower or outer end of said leg member being turned outwardly substantially at right angles to form a foot member.

1,306,130. INNER TUBE FOR TIRES. Lewis D. Tinsley, Clayton, Wash. Filed Nov. 13, 1918. Serial No. 262,324. 3 Claims. (Cl. 162-8.)



3. An inner tube for tires comprising a tubular woven body of uniform diameter having one end reduced at right angles to form a shoulder facing the other end and a reduced portion, a band on the reduced end, and a band in the other end engaged over the reduced end and the band thereon to abut said shoulder, said bands being secured together.

1,306,131. SOUND REPRODUCING AND RECORDING APPARATUS. Eugene T. Turner, New York, N. Y., assignor of one-half to Ernest C. Wilcox, Meriden, Conn. Filed Jan. 4, 1919. Serial No. 260,550. 7 Claims. (Cl. 274-85.)



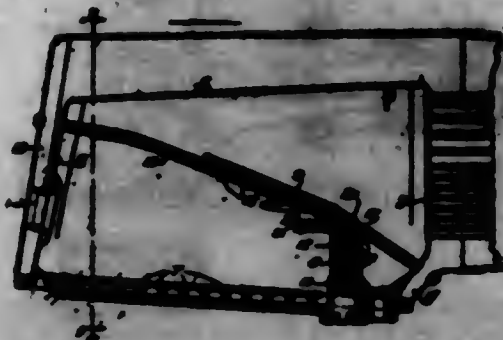
1. In an instrument of the character described, a diaphragm, a vibratory needle bar wholly on one side of said diaphragm, a flexible connection between said bar and said diaphragm whereby a pulling movement upon said connection will positively flex said diaphragm in both directions.

1,306,132. FOLDING CHICKEN OR POULTRY COOP. James M. Upton, Sabinal, Tex. Filed June 29, 1918. Serial No. 106,665. 1 Claim. (Cl. 220-8.)



A foldable crate including a base, side and end members hingedly connected to said base at their lower edges, a cover provided with depending side and end flanges surrounding the upper edges of said side and end members, fastening members engageable with said end members and cover to retain said end members in an upright position, a plurality of twisted links loosely secured to the upper edge of one of said side members, and a plurality of transverse rods extending through said links and through the depending side flanges of the cover, said rods engaging the upper edge of the side members, and said fastening members being adjustable to increase the pressure of the rods upon said side members.

1,306,133. LOCOMOTIVE-BOILER FURNACE. Almond H. Willert, West New York, N. J., assignor to American Arch Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 28, 1917. Serial No. 193,670. 6 Claims. (Cl. 110-61.)



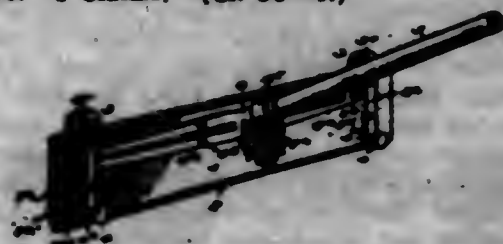
5. In a locomotive boiler furnace, an inclined fire arch, a cross wall provided with a metallic top member adapted to receive the downward thrust of the arch, said metallic member being protected at least on the fire-bed side thereof from combustion action.

1,306,134. MOUNTING FOR MAGNETO-IGNITER. Arthur E. Baker, Indianapolis, Ind., assignor to Hercules Electric Company, Indianapolis, Ind., a Corporation of Indiana. Filed July 20, 1918. Serial No. 245,850. 8 Claims. (Cl. 123-149.)



1. A supporting bracket for oscillating magnetos and igniter contacts, comprising a bolt flange having a projecting igniter-supporting plug, and a pair of arms projecting from said bolt flange to cooperate with and support the cross arm of an oscillating magnet, the ends of said arms being turned at an angle to the body of said arms.

1,306,135. GROUTING TOOL. James G. Bricker, Cleveland, Ohio. Filed Nov. 6, 1918. Serial No. 129,790. 4 Claims. (Cl. 94-8.)



2. In a tool of the character described, the combination with a pair of separate spaced plates, means for holding the plates in their spaced relation with the space between the same unobstructed at all four edges comprising a plurality of narrow rigid spacing members fastened to the plates, a section of material adjustably secured between the plates and projecting beyond the lower edges thereof, devices passing through one of said plates and engaging said section of material to hold it in its adjusted position, and a handle carried by one of the said plates.

1,306,136. FOLDING CRATE. Edward P. Carpenter, Elmira Heights, and John L. Carpenter, Potsdam, N. Y. Filed May 8, 1918. Serial No. 94,174. 1 Claim. (Cl. 220-8.)

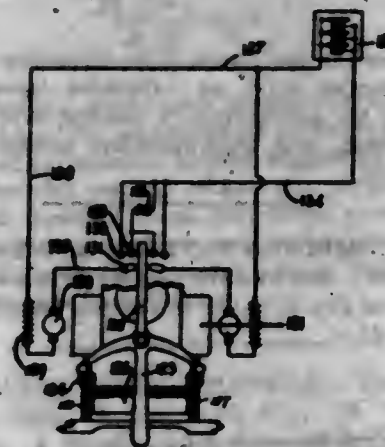
A folding crate comprising a bottom having end members arranged to fold thereon, a front member arranged

to fold upon the end members and having a pair of vertically spaced staples, a back member arranged to fold with its outer face against the under face of the bottom, a top member arranged to fold with its under face in the direction of the inner face of the back member and having an angularly arranged flange of such extension and arrangement to depend over the front member when the



crate is set up and to project beyond the front member when the crate is folded as stated, and a haup carried by the flange and having a pair of openings therethrough disposed to receive the staples respectively when the crate is set up and to receive in the outer one of them the upper one of the staples when the crate is folded as specified.

1,306,137. ENGINE STARTING SYSTEM. William A. Chavert, Dayton, Ohio, assignor to The Dayton Engineering Laboratories Company, a Corporation of Ohio. Original application filed Sept. 30, 1915, Serial No. 53,264. Divided and this application filed July 16, 1917. Serial No. 180,334. 6 Claims. (Cl. 290-38.)

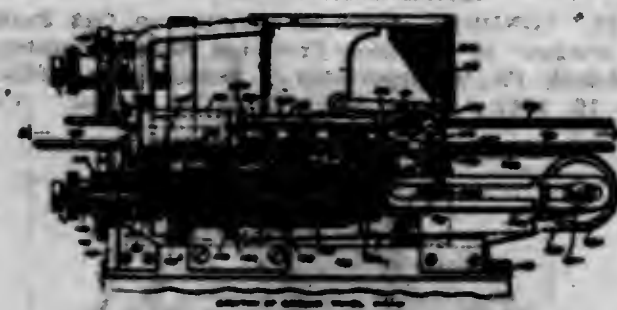


1. In an engine starting system, the combination with a reversible engine; of a plurality of starting motors normally at rest and disconnected from the engine; and a common controlling element operable to one position to connect one of said motors to the engine to crank the engine in one direction, and to another position to connect another of said motors to the engine to crank said engine in a reverse direction; and means operable upon the release of the common controlling element for disconnecting one of said motors from the engine, and to restore the controlling element to inoperative position, whereby the engine may run free of any connections with the starting motor.

1,306,138. WARP-HANDLING MACHINE. Howard D. Colman, Rockford, Ill., assignor to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business as Barber-Colman Company, Rockford, Ill. Filed Feb. 14, 1918. Serial No. 78,133. 18 Claims. (Cl. 130-86.)

1. A warp-untilting machine having, in combination, a thread-uniter, for uniting the end portions of two warp threads, means for moving warp threads to the uniter,

means providing a slight opening adjacent to the path of the warp threads, the thread-moving means being ar-



ranged to pause when the thread is adjacent to the slight opening, and indicating means visible through the slight opening.

1,306,139. ATTACHMENT FOR BEAN-VINE FORKERS. John E. Cornwell, Ionia, Mich. Filed Nov. 28, 1917. Serial No. 204,373. 2 Claims. (Cl. 55-51.)



1. A forking attachment for a bean vine puller including a frame adapted for detachable connection with the pulling machine, an endless conveyor carried by the frame, a V-shaped member carried by and extending forwardly from the lower end of the frame, forwardly diverging gathering blades secured to the V-shaped member, sifting bars carried by the V-shaped member and extending upwardly and rearwardly above the conveyor, and means for delivering the collected vines in a single row at the rear of the frame.

1,306,140. WATCH. Charles L. Drpollner, Brooklyn, N. Y. Filed Dec. 6, 1918. Serial No. 263,495. 3 Claims. (Cl. 58-88.)



1. In a watch case, the combination of a case member and a protecting plate secured to the case member and heat insulation interposed between the case member and the plate.

1,306,141. ELECTRICAL SWITCH. William Ellwood Stiles, London, England. Filed May 27, 1918. Serial No. 226,901. 3 Claims. (Cl. 175-282.)



1. In an electrical switch of the type specified, the combination with a base and a detachable housing, of an operating key having a recess in which is a square-shaped socket, a spindle for the operating mechanism having a square-shaped head adapted to engage the square-shaped recess in said key, a flanged nipple mounted in said housing and having a concentric depression on the under side of its flange, and an annular cup-shaped ring mounted in

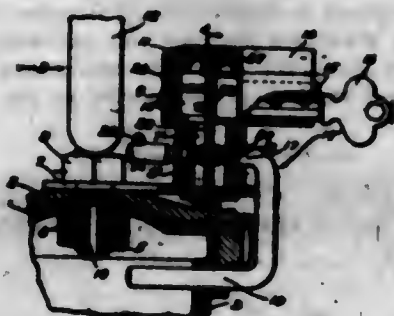
the rooms in the under side of the operating bay and having a concentric projection adapted to engage the concentric depression in the flange of the nipple.

1,306,142. CONDUIT. JOHN M. FRYDMAN, Oak Park, Ill., assignor to Asbestos Protected Metal Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 15, 1917. Serial No. 174,990. 3 Claims. (Cl. 247-8.)



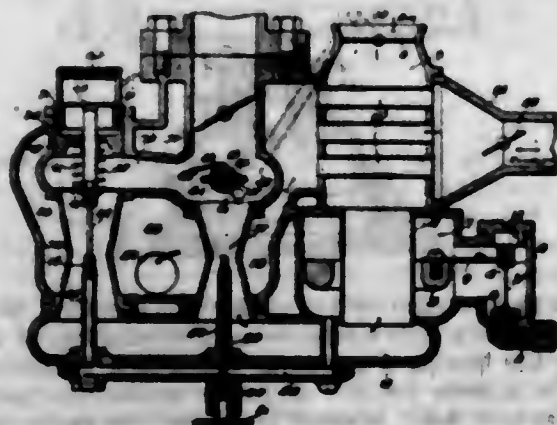
2. A conduit of the character described, comprising a substantially trough-shaped trunk member having a bottom wall and side walls extended therefrom and composed of sheet metal and fire and weather-resisting layers adhesively affixed to the inner and outer surfaces of said sheet metal, and a substantially trough-shaped cap member having a top wall and side walls extended therefrom and composed of sheet metal and layers of fire and weather-resisting layers adhesively affixed to the inner and outer surfaces of the sheet metal of said cap member, said cap member cooperating with said trunk member to close the latter at its top and have the fire and weather-resisting layers of the side walls of said members in contact to form weather-tight joints between said side walls.

1,306,143. MOTOR-METER AND RADIATOR-CAP LOCK. WILLIAM A. FLOWEN and LOUIS H. WILHELMSEN, Fresno, Calif. Filed May 31, 1918. Serial No. 237,600. 4 Claims. (Cl. 70-90.)



4. The combination of a radiator filling nipple; a removable cap thereon; a motor meter mounted on the cap having a rigid base; and a means including a bolt for locking said base and said cap to the nipple.

1,306,144. CARBURETER. WARD R. GOODALE and MAURICE L. BULLARD, Manchester, N. H., assignors, by direct and mesne assignments, to Isothermal Carburetor Company, Portsmouth, N. H., a Corporation of Maine. Filed Mar. 23, 1917. Serial No. 156,841. 2 Claims. (Cl. 261-41.)



1. A carburetor, having in combination, a mixing chamber, a primary fuel nozzle located in the mixing chamber,

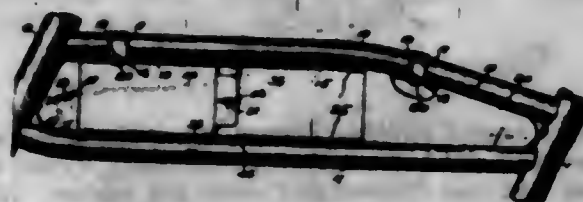
a secondary fuel nozzle supported at the same height as the primary nozzle, an auxiliary air valve controlled by the suction within the intake manifold, a spring for normally retaining the air valve closed, a dash pot for retarding the movements of the air valve and a needle valve operated by the air valve and controlling the flow of fuel through the secondary nozzle.

1,306,145. AERIAL FOR AUTOMOBILE TORPEDOES. JOHN HAYS HAMMOND, Jr., Gloucester, Mass. Filed Mar. 15, 1912. Serial No. 664,972. Renewed Oct. 30, 1918. Serial No. 300,879. 23 Claims. (Cl. 250-23.)



1. In an aerial for automobile torpedoes, the combination of a pivoted mast, an extension telescoped in said mast, means for automatically raising said mast into an upright position, and fluid-operated means for actuating said extension.

1,306,146. COMBINED BATTERY AND TOOL BOX FOR VEHICLES. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Feb. 5, 1917. Serial No. 146,055. 11 Claims. (Cl. 208-45.)

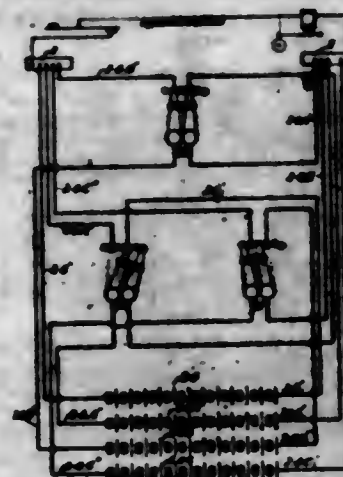


1. The combination of a supporting frame forming an inclosure having lateral openings, a box disposed in said inclosure and having a partition dividing its interior into two chambers, each having a lateral opening leading to the exterior of said box, a common closure for the last-mentioned openings, said closure extending across said partition, and means supported by said partition for fastening said closure in place.

1,306,147. BATTERY ARRANGEMENT. SIMON B. HESS, New York, N. Y. Original application filed Dec. 26, 1914. Serial No. 579,049. Divided and this application filed May 4, 1918. Serial No. 95,367. 5 Claims. (Cl. 171-314.)

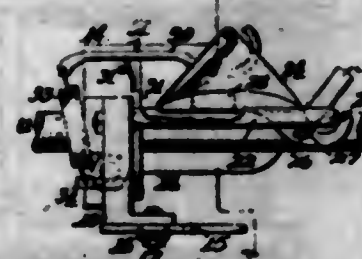
3. In a system of the class described, in combination, a work circuit, and means for furnishing current thereto, said means including a predetermined plurality of individual sources and manually adjustable instrumentalities

for at will arranging said sources in series or in parallel; said instrumentalities including a plurality of four-con-



tact switches, the number of said switches being one less than the number of said sources.

1,306,148. YARN-TENSION MECHANISM. LEWIS T. HOUGHTON, Worcester, Mass. Filed Mar. 24, 1916. Serial No. 86,524. 7 Claims. (Cl. 242-153.)



3. A yarn tension mechanism comprising spaced parallel fixed rods mounted in substantially horizontal position, a weighted retarding member loosely supported on said rods and adapted to rest on and retard the yarn passing over said rods, said member being held from rotation on said rods, and a yielding tension arm cooperating with said retarding member to temporarily relieve the drag on the yarn under abnormal conditions.

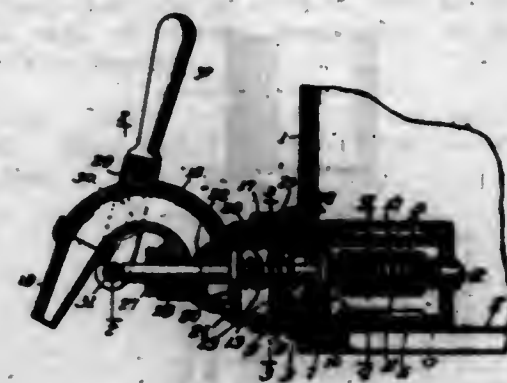
1,306,149. CARRYING-BAG HANDLE. FRED L. JOHNSON, Sioux Falls, S. D. Filed Sept. 19, 1918. Serial No. 284,796. 4 Claims. (Cl. 229-52.)



1. A bag comprising a bag body, and a pair of reinforcing members secured in opposing relation to the inner side thereof adjacent its upper edge, said upper edge of the bag body being turned inwardly and downwardly over the reinforcing members, said body and reinforcing members being provided with coinciding semi-circular slits to form flaps depending from superposed cross bars, said flaps folded inwardly and upwardly over the downward-turned upper edge of the body and against the cross bars to constitute handle bars, the flaps of the bag body covering the inner sides of the handle bars to effect a neat finish both inside and outside.

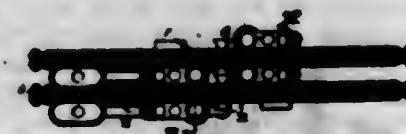
203 O. G.-14

1,306,150. DRAW-OFF DEVICE FOR EXPLOSIVE LIQUIDS OR THE LIKE. LOUIS KASLER, Chicago, Ill., assignor to Non-Explosive Can and Tube Company, Chicago, Ill., a Corporation of Illinois. Filed June 23, 1916. Serial No. 103,391. 5 Claims. (Cl. 221-16.)



3. In a device of the kind described, a main chamber constructed to admit fluid thereto and provided with an outwardly seating valve seat thereon, a longitudinally movable valve stem slidingly supported within the chamber, a cooperating valve for the valve seat carried by the stem, and resilient means arranged to normally hold the valve to its seat, in combination with an outer chamber into which the main chamber discharges provided with a discharge spout, an outwardly seating valve seat between the chamber and spout, a valve stem slidingly supported and extending into the chamber, arranged in its inner movement to contact with and longitudinally move the first valve stem, a cooperating valve mounted upon the seat, resilient means for normally holding the valve to its seat, and external means for longitudinally moving the second valve stem.

1,306,151. ELECTROLYTIC APPARATUS. PHILIP J. KROLL, Pittsburgh, Pa. Filed Nov. 5, 1917. Serial No. 200,345. 6 Claims. (Cl. 204-5.)



1. In an electrolytic apparatus, the combination of a plurality of cell units, each including a pair of separate plates forming electrodes, said plates being insulated from each other and in the assembly of the apparatus being arranged side by side, and means between each pair of adjacent cell units for detachably connecting both structurally and electrically the anode plate of one cell unit to the cathode plate of an adjacent cell unit, whereby each unit may be separately detached from the assembly of units.

1,306,152. PLANTING-MACHINE MARKER. ALVARO S. KNOTZ, Janesville, Wis., assignor to Janesville Machine Company, Janesville, Wis., a Corporation of Wisconsin. Filed Oct. 14, 1918. Serial No. 257,960. 10 Claims. (Cl. 97-53.)



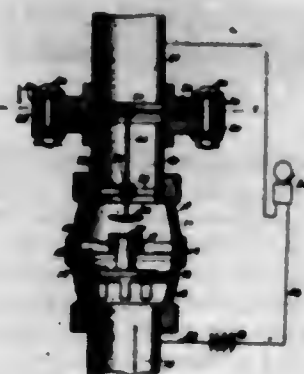
4. In a planting machine, a pair of oppositely arranged marker arms, means to hinge the arms on the machine, swinging supports for said arms, adapted and arranged to cause the arms to raise when swung toward the machine, and a connection between said arms.

1,303,153. PLANTER VALVE MECHANISM. ALVARO S. KNOTZ, Janesville, Wis., assignor to Janesville Machine Company, Janesville, Wis., a Corporation of Wisconsin. Filed Oct. 15, 1918. Serial No. 258,198. 11 Claims. (Cl. 111-51.)



11. In a planter having a boot for connecting the seed-dropping mechanism above with the runner below, a valve at the upper end of said boot, a valve at the lower end thereof, an intermediate valve, and operating devices connected to the intermediate valve to control all three valves, said upper and lower valves being formed in part by a pivoted tube, and a spring applied to said tube for simultaneously closing the two valves.

1,306,154. WATER-FLOW ALARM. LOUIS LEITMAN, Mount Vernon, N. Y. Filed May 3, 1918. Serial No. 232,360. 3 Claims. (Cl. 200-27.)

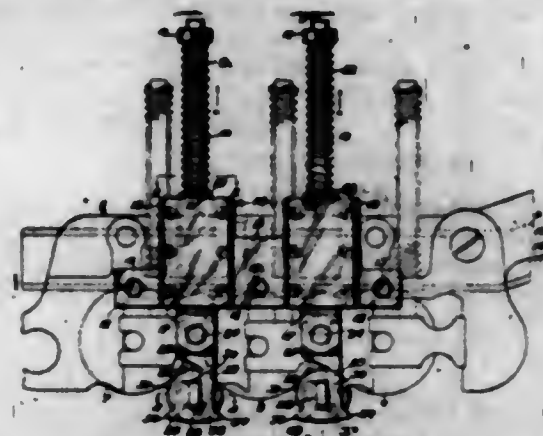


1. In a circuit closer for water flow alarms, the combination with a support comprising a plurality of sections connected to each other with insulation between them, of a metallic contact member leading from one support section across the joint of insulation into the other support section, and a movable contact member carried by the latter section normally spaced from the first mentioned contact member.

1,306,155. ROLLER-SUPPORTING DEVICE. EDWARD J. McCauley, Philadelphia, Pa. Filed Feb. 14, 1919. Serial No. 270,935. 4 Claims. (Cl. 101-359.)

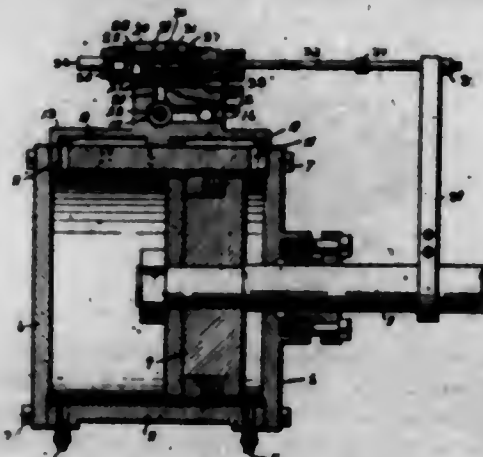
1. The combination with a printing press having a form-carriage and form inking rollers mounted on said carriage; of two spring-pressed bars slidably supported on said form-carriage; members swingably connected to said spring-pressed bars; and an ink distributing roller ro-

tatably supported in said swingably connected members whereby said ink distributing roller is pulled into contact



with two adjacent form inking rollers; substantially as described.

1,306,156. VALVE. WILLIAM A. MURRAY and CHARLES E. PUTNAM, Chisholm, Me. Filed July 1, 1918. Serial No. 242,820. 3 Claims. (Cl. 126-10.)



1. In combination with a cylinder and piston reciprocating therein, means for alternately supplying a pressure fluid to the opposite ends of the cylinder including a slide valve, a casing for said valve provided with an exhaust, said valve being provided with a bore in communication at opposite ends with the interior of the casing, and means carried by the piston to automatically actuate said valve at each end of the piston stroke.

1,306,157. ORGANIZED THRUST-BEARING AND REDUCTION-GEARING. WILLIAM W. SMITH, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 3, 1915. Serial No. 43,409. 7 Claims. (Cl. 74-7.)

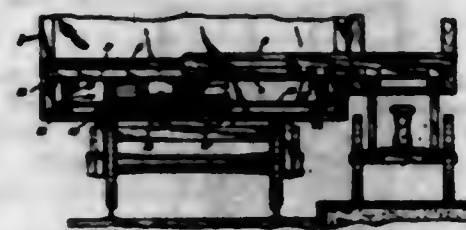


1. In combination with a casing and bearing support of a reduction gearing, a thrust bearing mounted on the bearing support and forming a substantially integral unit with the casing and bearing support.

1,306,158. LOADING AND UNLOADING APPARATUS. FRANKLIN R. WALKER, Pittsburgh, Pa. Filed Aug. 2, 1918. Serial No. 248,021. 4 Claims. (Cl. 214-38.)

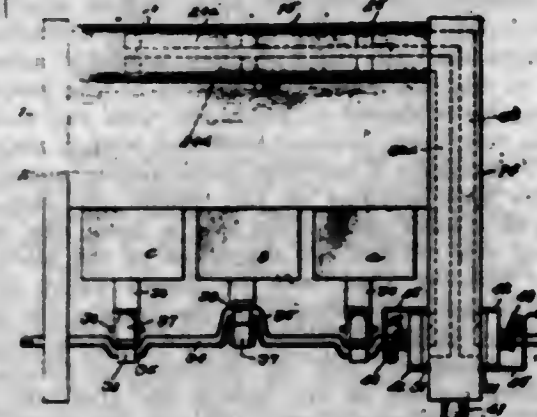
1. The combination with a car provided with a floor comprising a plurality of horizontally disposed laterally

separated bars, of a load moving apparatus comprising a platform constructed of a plurality of bars arranged in the spaces between said floor bars, a motor, driving connections between said motor and platform for moving said



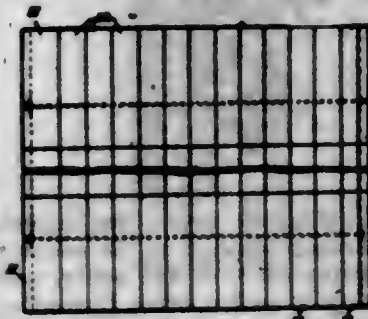
platform horizontally beyond the car floor, a second motor, and driving connections between said second motor and platform for raising and lowering said platform at any lateral position thereof and while remaining in a horizontal plane.

1,306,159. PNEUMATIC MOTOR. GUSTAV W. WALLIN, Chicago, Ill., assignor to Gulbrandsen-Dickinson Company, Chicago, Ill., a Corporation of Illinois. Filed June 5, 1915. Serial No. 32,252. 1 Claim. (Cl. 230-36.)



In a motor, a plurality of double bellows, each pair having a common movable member, a channel-board, a plurality of channels therein, those for one side of said bellows being in one side of said board and those for the other side of said bellows being in the other side of said board, a second channel-board at right angles to said first named channel board and having similarly arranged channels forming extensions respectively from said first named channels, a crank-shaft mounted in said second board, said second-named channels on one side opening into a valve-seat on their side of the board circularly about said shaft, and the second-named channels on the other side opening on their side of the board circularly about said shaft, and a valve-member mounted on said shaft over each set of openings.

1,306,160. TRUCK FOR TUNNEL-KILNS. CARL H. ZWERMANN, Kalamazoo, Mich. Filed Feb. 16, 1918. Serial No. 217,702. 5 Claims. (Cl. 25-142.)



1. In a kiln truck, the combination of the truck structure, a platform of sheet metal thereon, transverse beams upon the said platform with knees therebe-

tween, tile in sections resting upon the said I-beams and having shouldered projecting parts interlocking at their upper surfaces, and provided with channels at front and rear, longitudinal bolts disposed through the said tiles to retain the same, a flat plate disposed in one channel and an angle bar disposed in the other channel with a projecting edge, and an asbestos layer on the said projecting edge, all coacting substantially as described for the purpose specified.

1,306,161. KILN. CARL H. ZWERMANN, Kalamazoo, Mich. Filed Sept. 11, 1918. Serial No. 253,536. 13 Claims. (Cl. 25-142.)



1. The combination of a pair of tunnel kilns disposed in reverse relation with the charging end of one at the discharging end of the other and having a common inner wall, heating means comprising combustion chambers disposed at the outer sides of the tunnels, baffle walls between the tunnel chambers and combustion chambers disposed with their tops in a spaced relation to the tops of the tunnel chambers and having openings therethrough at the bottom, said combustion chambers being formed of plates supported by spaced transverse ribs on the walls at the sides and bottom thereof providing air circulating passages communicating with the tunnel chambers through said openings in said baffle walls and over the tops thereof, preheating flues to which the combustion chambers deliver, the inner walls for the preheating flues being continuations of said baffle walls, there being spaced transverse passages below said preheating flues communicating with the tunnel chambers, vertical air circulating flues disposed through said preheating flues with their lower ends opening into said passages below the same and their upper ends communicating with the tunnel chambers, said combustion chambers and preheating flues being disposed in reverse relation with the preheating flues toward the charging ends of the tunnels, circulating flues disposed at the inner sides of the discharge ends of the tunnels and opening at their upper and lower ends through the inner wall of the tunnels into the ends of the tunnels, and air preheating passages for the heating means formed in the top walls of the tunnels and leading from the discharge ends thereof and having delivery portions in the outer walls of the tunnels communicating with the heating means.

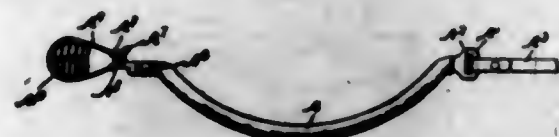
1,306,162. BOW-TOP HOLDER FOR TOPS WITH NON-DETACHABLE REAR CURTAINS. CLARENCE L. BAIR, Detroit, Mich., assignor to Auto Specialties Manufacturing Co., St. Joseph, Mich., a Corporation of California. Filed May 29, 1916. Serial No. 100,499. 5 Claims. (Cl. 21-61.)



1. In a device of the class described, a fixed stock, an arm longer than the stock hinged at one end thereto, and a gripping jaw pivoted near the other end of the

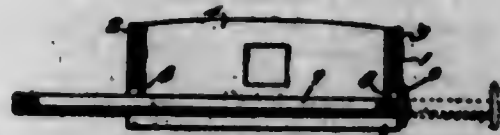
arm adapted to move between two different positions; in one of which it hangs over the end of the arm without reaching as far as the stock to secure a bow adjacent to said arm by engaging its side opposite to the arm and in the other of which it is back of the arm out of the way and manually operated mechanism for moving the gripping jaw.

1,306,163. TOOL FOR TYING WIRE BAG-TIES. ADRIAN MARCUS BATES, Chicago, Ill., assignor to Bates Valve Bag Company, Chicago, Ill., a Corporation of West Virginia. Filed Feb. 9, 1918. Serial No. 216,396. 15 Claims. (Cl. 140-102.5.)



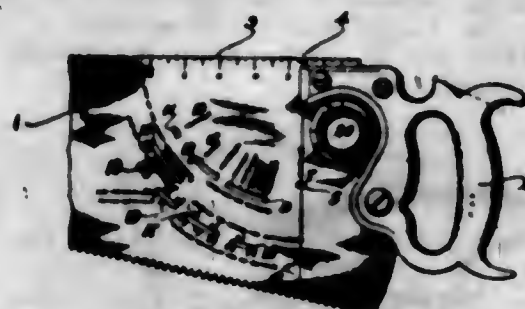
1. A wire tie twisting tool comprising a bow-shaped handle body, a tie engaging member at one end, and a flexible support for the other end.

1,306,164. EGG-TURNING TRAY. SAMUEL C. BRAMER, Marshalltown, Iowa. Filed June 15, 1917. Serial No. 174,905. 1 Claim. (Cl. 119-44.)



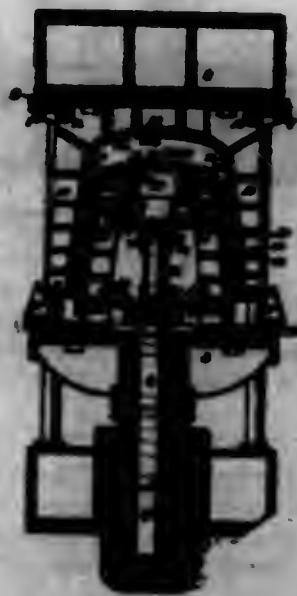
An egg turning tray adapted to receive a plurality of eggs assembled together in the tray and having their surfaces in contact, comprising a cabinet having longitudinal openings formed in its opposite side walls, a movable tray including side and end portions provided with a foraminous bottom attached to the said side and end portions and of an area greater than the area of the said cabinet, the said tray being adapted for reception in the openings to extend beyond the sides of the cabinet, the said foraminous bottom supporting the eggs and presenting a roughened surface whereby turning movement is imparted to the eggs when the said tray is slid through the said openings in the sides of the cabinet, the said relatively rough surface presented by the foraminous bottom as compared with the comparatively smooth surface of the eggs within the tray, permitting the said eggs to make a partial turn while the said tray is being slid through the cabinet.

1,306,165. GEOMETRICAL INSTRUMENT. PETER HANSEN, Kootenai, Idaho. Filed May 28, 1917. Serial No. 171,520. 1 Claim. (Cl. 33-75.)



A geometrical instrument having a body formed with a straight edge and scale and a notch in the straight edge, a line on the body perpendicular to the straight edge and terminating in the notch and slots in the body intercepting this line, a series of concentrically arranged groups of slots between the straight edge and the perpendicular line and inscribed in the body with said notch as the center, and markings on the edges of said concentric slots spaced at predetermined distances from the perpendicular line.

1,306,166. APPARATUS FOR FORMING SHEET METAL. JOHN H. BICKLEY, Reading, Pa., assignor to William H. Wood, Media, Pa. Filed Nov. 22, 1918. Serial No. 262,882. 10 Claims. (Cl. 113-45.)



1. In apparatus for shaping arch shaped sheets, an arch shaped female die structure formed of a stationary crown section and two side sections jointly attached relatively to the stationary section and having their upper working faces shaped to alignment with the working face of the stationary section, combined with a male die structure comprising a movable plate having means for causing the side sections of the female die structure to be moved toward each other and a dome like structure having side die sections supported by the plate and adjustable whereby they may be moved apart to cooperate with the side sections of the female die structure and also having a dome top die section bridging the space between the side die sections and adapted to fit the crown section of the female die structure, and means for forcibly acting upon the side die sections of the male die structure to move them apart during the formative operation.

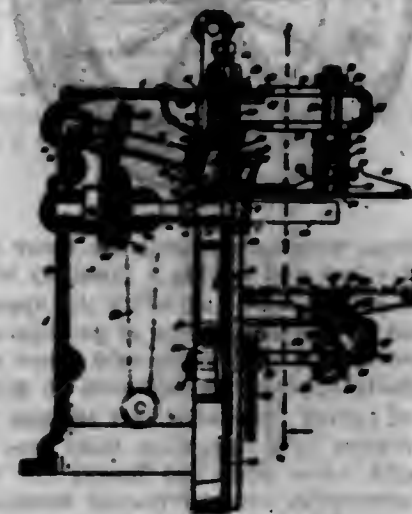
1,306,167. BOILER-PROTECTING DEVICE. LAMBERT J. BONNE, Reahys, Pa. Filed Feb. 6, 1918. Serial No. 215,504. 2 Claims. (Cl. 73-54.)



1. A low water indicating device for boilers comprising a chambered casing adapted to be connected at its lower end to the water space of the boiler, and provided at its upper end with a wall portion formed of material melting at a temperature lower than the normal steam temperature of the boiler, said casing being formed with two passages leading from the top of said casing to different levels adjacent the bottom thereof and uniting

to form a siphon discharge from said chamber for the water contained in the upper portion thereof when a fall in boiler water level permits steam to enter the lower end of said chamber.

1,306,168. CAN-SEALING MACHINE. JOHN C. BOWMAN, Boston, Mass., assignor to The Bowers Can Seal Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 28, 1917. Serial No. 165,162. 18 Claims. (Cl. 113-22.)



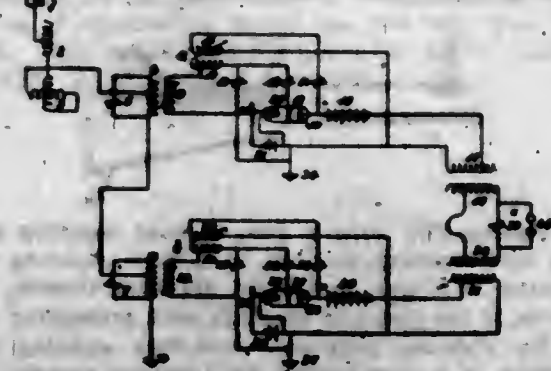
1. In a can-sealing machine, the combination of a pair of rotary sealing rolls one of which is releasable relatively to the other of said rolls and to the work, a roll-supporting structure having a fixed and a movable portion, means for mounting one of said rolls on the fixed portion of the structure, means for mounting the other releasable one of said rolls whereby it moves with the movable portion of the structure or is movable independently of it with relation to the roll mounted upon the fixed portion of the structure, a spring carried by said movable portion of the structure, means for mounting said spring and maintaining the same under tension whereby the spring may be moved with the movable portion of the structure without disturbing the tension of the spring and said spring resist by its tension any permitted independent movement of the releasable one of said rolls in relation to its companion roll as aforesaid, means for controlling the position of the movable portion of the structure and releasable roll carried by it, and a roll-actuating mechanism.

1,306,169. SCREW-PUMP. FREDERICK A. BROOKS and ROBERT BROOKS, Urbana, Ill. Filed June 19, 1916. Serial No. 104,555. 7 Claims. (Cl. 102-44.)



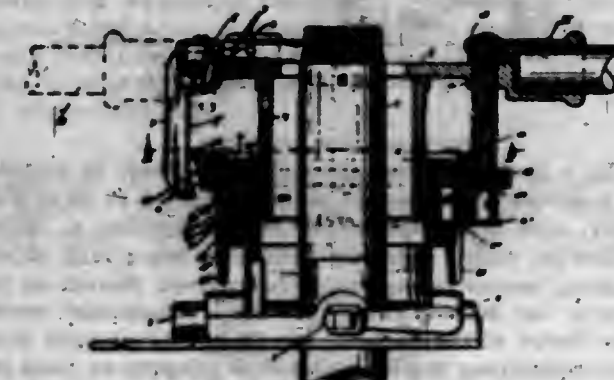
1. In a device of the character described, the combination of a casing, and a pair of revoluble intermeshing parallel helical screws in said casing, the threads of said screws being of different pitch, said screws being adapted by their cooperation to advance the material acted upon along their grooves, substantially as described.

1,306,170. METHOD OF AND APPARATUS FOR ELIMINATING STATIC EFFECTS. HERMAN B. BUTCHER, Interlaken, N. J., assignor to Marconi Wireless Telegraph Company of America, a Corporation of New Jersey. Filed July 20, 1915. Serial No. 40,820. 14 Claims. (Cl. 250-8.)



1. The method of eliminating static, which consists in subjecting the received oscillations and the static impulses to the effect of two interacting unlike locally generated high frequency oscillations, and then combining the resulting oscillations of the above interaction in such a manner as to entirely eliminate the resultant oscillations arising from the combination of the static impulses and the locally generated high frequency oscillations.

1,306,171. PIPE-THREADING APPARATUS. BENJAMIN F. BUTLER, Greenfield, Mass., assignor to Greenfield Tap and Die Corporation, a Corporation of Massachusetts. Filed Feb. 14, 1918. Serial No. 217,053. 7 Claims. (Cl. 10-120.5.)



4. In pipe threading apparatus, the combination comprising a work holder, a die head in screw-threaded engagement therewith, die actuating levers mounted on said head, a member rotatably mounted on said work holder and restricted against axial movement thereon, an adjustable stop connection between said member and head for predetermining the length of thread, and a cam plate mounted on said member in actuating engagement with said levers.

1,306,172. COLLAPSIBLE ARCH-FORM. GLENN A. COMPTON and ARTHUR B. NESS, Minneapolis, and WILLIAM H. GAUSWITZ and GUSTAVE A. GREEN, St. Paul, Minn., assignors to Everlast Manufacturing Company, Incorporated, Minneapolis, Minn., a Corporation of Minnesota. Filed Oct. 11, 1918. Serial No. 257,698. 15 Claims. (Cl. 25-131.5.)



1. A collapsible form for use in the construction of arches including a tripping abutment, and an arch bar

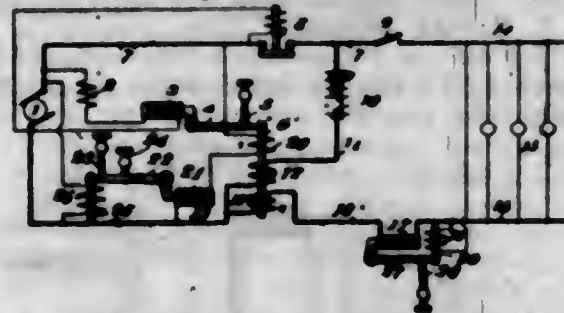
supported on the tripping abutment and having a supplemental side extension connected thereto for movement transversely of the arch.

1,306,173. GUN-SIGHT. OLIVER EDWINSON CONNER, Jr., Hartwell, Ohio. Filed Feb. 9, 1918. Serial No. 216,163. 1 Claim. (Cl. 33-47.)



In combination with a gun, a front sighting member, and a rear sighting member, said front sighting member consisting of a disk having an aperture therein, the periphery of the disk and aperture each presenting a single edge for sighting purposes, said rear sighting member consisting of a disk having an aperture therein, the periphery of the aperture presenting a single edge for sighting purposes, and the periphery of the disk having a shield extending toward the eye of the gunner.

1,306,174. ELECTRIC REGULATION. JOHN L. CHRYSLER, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Sept. 29, 1911, Serial No. 651,896. Renewed Oct. 30, 1918. Serial No. 200,375. 4 Claims. (Cl. 171-312.)



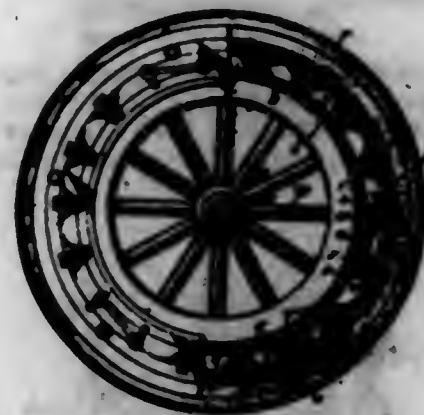
1. In a system of the character described, in combination, a generator, a storage battery adapted to be charged thereby, regulating means for said generator, a current coil through which charging current passes acting on said regulating means to maintain the current therein at substantially the desired value through a substantial portion of the charge of the battery, a voltage coil adapted to act on said regulating means, and means adapted to come into action as said battery approaches full charge and adapted to multiply in said voltage coil the effect of variations in the voltage of said generator.

1,306,175. VALVE FOR INTERNAL-COMBUSTION ENGINES. ARTHUR O. DADY, New York, N. Y., assignor to Pfanzagl Company, Incorporated, North Chicago, Ill., a Corporation of New York. Filed Jan. 2, 1918. Serial No. 200,889. 3 Claims. (Cl. 122-177.)



3. A valve comprising a steel stem having a tapered portion in combination with an aluminum radiator having a tapered bore seating on the tapered portion of said valve.

1,306,176. RESILIENT WHEEL. BYRON L. DAWY, Detroit, Mich. Filed May 13, 1918. Serial No. 235,374. 3 Claims. (Cl. 152-38.)



1. A resilient wheel comprising an inner rim attached by spokes to a hub and having a plurality of grooves cut axially in its outer surface, an outer rim spaced from said inner rim and having a plurality of grooves cut axially in its inner surface, the grooves in said inner rim being positioned radially opposite the grooves in said outer rim, a plurality of curved free-ended leaf springs positioned in the space between said rims with their free ends in contact with said outer rim, and means for each of said springs for preventing circumferential displacement thereof attached to the middle thereof and having a part adapted to engage loosely in a groove in said outer rim and having a second part adapted to engage loosely in an opposite groove in said inner rim, and means whereby motion is transmitted from one rim to the other.

1,306,177. CHURN. HARRY J. FAVORITE, Tipppecanoe City, Ohio. Filed Aug. 24, 1917. Serial No. 187,940. 9 Claims. (Cl. 260-117.)



1. In a churn, the combination, with a receptacle, bearings supported therein, a shaft passing through said bearings, and a beater blade secured to said shaft and having a section self adjustable axially thereon.

1,306,178. TRACTOR-TRACK. JAMES C. FRENCH, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Aug. 19, 1918. Serial No. 250,537. 2 Claims. (Cl. 21-100.)



1. In a track band for traction engines, a multiplicity of articulated members, each member consisting of a tread-plate, said tread-plate being of double V formation, there being on said plate spaced apart walls, said walls being parallel at both ends, one adjacent pair of said walls affording the female member of a link, the other

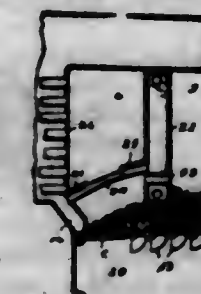
two adjacent ends forming the male part of said link, the latter ends of said walls being connected by a bridge, the upper surface of said bridge being semicircularly grooved, the bores in said ends being substantially round, there being in said bores an inwardly extending projection, a split bushing in said bores, the split in said bushing engaging said inwardly extending projection, said bushing having its upper half exposed between said walls and its lower half embedded in said bridge, said walls diverging from the male end to the female end between said parallel ends, a bolt connecting adjacent track members, said bolt being non-rotating, said bolt and said bushing being constructed of manganese steel.

1,306,179. HOLDER FOR STICK MATERIAL. FRANK GRANT, Westfield, Mass. Filed Nov. 9, 1918. Serial No. 261,839. 6 Claims. (Cl. 208-56.)



6. A holder for stick material, comprising, a casing to contain the stick and provided with oppositely disposed longitudinal slots therein, means attachable to the stick and having projections passing through said slots, an outer casing revoluble relatively to the first-named casing and having oppositely disposed helical cam grooves in which the ends of said projections are received, and longitudinal grooves leading from the inner ends of said helical grooves to the inner end of the outer casing, said longitudinal grooves permitting the removal or replacement of the outer casing by receiving said projections from or for said helical grooves, a circumferential groove in the outer casing intersecting one of said longitudinal grooves, and a fixed projection on the inner casing in line with one of the first-named projections and arranged to ride in the circumferential groove and prevent removal of the outer casing.

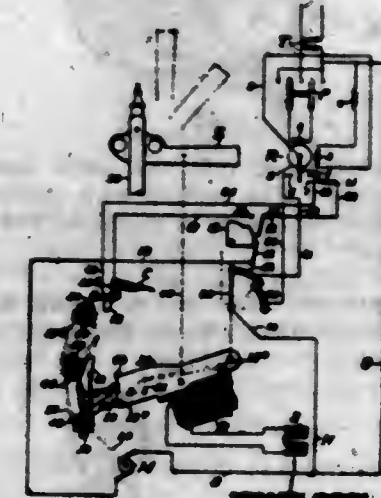
1,306,180. FURNACE. OTTO H. HARNER, Glenellyn, Ill., assignor to Consumers Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 11, 1918. Serial No. 253,493. 1 Claim. (Cl. 122-61.)



The combination with a furnace having a combustion chamber, a boiler and water legs connected therewith forming the side walls of said combustion chamber, of a hollow arch connected at its sides with said water legs for the flow of water and extending from the top of said combustion chamber downwardly to the normal fuel level, said arch dividing said combustion chamber into a front coking zone and a rear combustion zone, pipes extending across the combustion zone and connecting the lower end of said arch with said boiler for the flow of water, said arch having passageways therethrough for the flow of gases and carbon from the coking zone to the combustion zone, and

baffle plates supported on said pipes for causing thorough mixture of the heated gases of said combustion zone with the gases and carbon emerging from said passageways.

1,306,181. SIGNAL. JOHN S. HOLLIDAY, Wilkesburg, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Continuation of application Serial No. 206,281, filed Dec. 8, 1917. This application filed Jan. 28, 1919. Serial No. 273,573. 6 Claims. (Cl. 246-223.)



1. In combination, a semaphore biased to one position, a magnet for holding said semaphore in another position in opposition to the biasing force, a thermo-electric generator for supplying current to said magnet, electrical means for heating said generator, and means including a relay responsive to reversals of current for supplying current to said electrical means when the relay is energized in either direction.

1,306,182. PHONOGRAPH ARM AND HORN ATTACHMENT. GEORGE A. HOVEM, Sallisaw, Okla. Filed Oct. 16, 1918. Serial No. 258,474. 9 Claims. (Cl. 274-2.)

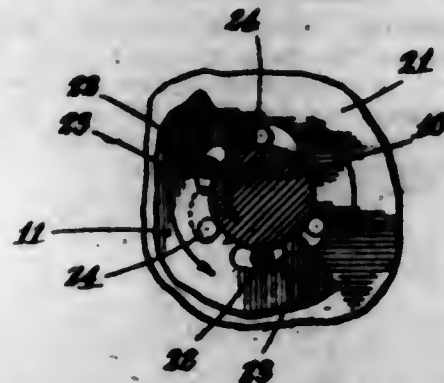


1. The combination with a phonograph horn, of a reproducer arm carried thereby, a casing, a record table in the casing, and a support for the horn pivoted to the casing having a screw-threaded arm and a nut mounted on the arm engaging the casing for adjusting the support on its pivots to different positions for varying the distance between the reproducer arm and the record table.

1,306,183. MOTOR-STARTING MECHANISM. MILLER RESS HUTCHINSON, West Orange, N. J. Filed Jan. 4, 1918. Serial No. 210,396. 7 Claims. (Cl. 74-89.)

1. A screw propelled flying machine and motive means therefor, including two internal combustion motors, one

large and the other small and independently energized, in combination with means whereby said motors may be operated either simultaneously or independently or in reciprocal driving relation so that the small motor may be started independently and utilized as a starter and idler for the large motor, and may be restarted from the crank shaft of the latter.



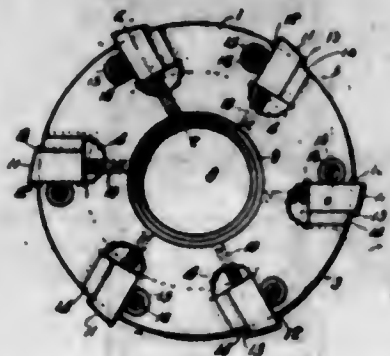
1. In a syringe, a nozzle having at its outer end an outwardly flaring portion provided with a laterally extending handle, a hollow inflatable and deflatable peripheral sealing ring mounted on the nozzle at the inner end of said flaring portion, and means carried by the handle by which said ring may be inflated and deflated.

1,306,184. SYRINGE. HORATIO S. JONES, Kansas City, Mo. Filed Nov. 16, 1918. Serial No. 293,777. 6 Claims. (Cl. 128-241.)



1. In a tool of the character described, the combination of a body which is provided with slots the bottoms and rear sides of which are inclined to the end face of the body, a cutter in each of said slots, the forward edge of each of said cutters being at right angles with the outer face thereof, and clamping means operating against the said forward edge of said cutters.

1,306,185. BORING OR REAMING TOOL. WILLIAM E. KELLY, Cleveland, Ohio. Filed Jan. 10, 1918. Serial No. 211,170. 4 Claims. (Cl. 77-58.)



1. In a plug of the character described adapted for application to the drainage opening of a water-cooling radiator, said plug comprising a tubular body having a closed upper and an open lower end and wall ports therein through which said radiator may be drained and having an annular groove in its inner surface, a piston slidable within the tube, a rod extending upwardly from the piston, a flexible, perforated diaphragm mounted on the rod and slidable within the tube and retained thereby in a concave condition, the periphery of the diaphragm being adapted to seat within the said annular groove as it moves there-

across to effect a reverse of the concavity thereof, and an expansible medium confined within the tube above the piston to move the piston downwardly and a spring located within the lower end of the tube to actuate the piston upwardly on contraction of the said medium, for the purpose set forth.



1. In combination with a weighing scale having guides on the beam thereof, a three-sided pan removably mounted in the guides, adapted to receive articles to be weighed, and having the sides thereof less than the height of the articles to be weighed, and of a size to fit within a carton to be filled.

1,306,187. WEIGHING AND CARTON-FILLING DEVICE. JACOB U. MANISCHWITZ, Cincinnati, Ohio, assignor to The B. Manischewitz Company, Cincinnati, Ohio, a Corporation of Ohio. Filed June 20, 1918. Serial No. 240,897. 3 Claims. (Cl. 205-57.)



1. A classifier of the character described comprising a tank having a bottom sorting compartment or basin provided with an overflow, and an inclined portion leading above the pulp line in said basin, means extending below the pulp line to a point between said inclined portion and overflow for feeding a charge of pulp to the basin, a belt conveyor in said tank having one end dipping below the pulp line and the opposite end terminating at a point above the pulp line, agitating devices in the basin positioned below the pulp feed between the point of overflow and the adjacent end of the conveyor, and means for receiving the sands discharged from the conveyor.

1,306,188. MECHANICAL CLASSIFIER. FRANK E. MARCY, Salt Lake City, Utah. Filed May 28, 1918. Serial No. 236,488. 5 Claims. (Cl. 82-81.)



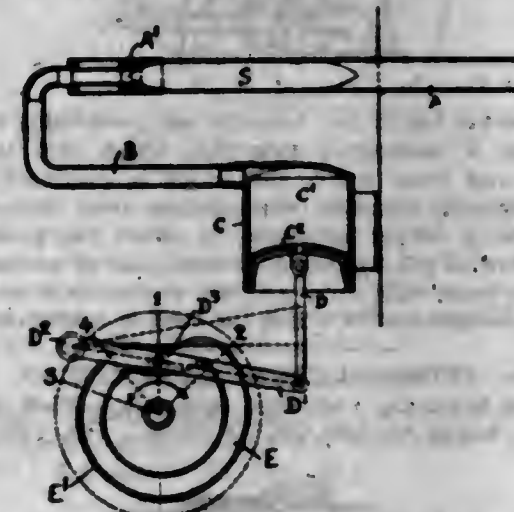
1. In a duplex lock of the character described, the combination of a spring actuated sliding keeper provided with a notch, a slotted hinged hasp adapted to be swung down

1,306,189. REED FOR WEAVING-LOOMS. MONTAGUS TABER PICKSTONE, Hampstead, England, assignor to The Pneumatic Loom Syndicate Limited, Birmingham, England. Filed Aug. 28, 1917. Serial No. 188,093. 3 Claims. (Cl. 130-57.)



1. In a loom, a combined shuttle race and reed adapted to guide the shuttle positively as it travels across the loom, comprising a plurality of reed plates arranged parallel to each other having crescent shaped holes formed in them to secure the shuttle and prevent its escape otherwise than longitudinally while their ends are undercut to engage with undercut grooves in supporting rails.

1,306,190. PICKING APPARATUS FOR WEAVING-LOOMS. MONTAGUS TABER PICKSTONE, Hampstead, England, assignor to The Pneumatic Loom Syndicate Limited, Birmingham, England. Filed Aug. 28, 1917. Serial No. 188,094. 8 Claims. (Cl. 130-60.)



1. An improved pneumatic picking apparatus for looms, comprising a tubular shuttle box, a cylinder communicating therewith, a reciprocable piston working in said cylinder, and actuating means for imparting forward and return movements to said piston, said actuating means including means for temporarily interrupting return movement of the piston at a point between its extremes of reciprocation, whereby a stationary air cushion is provided within said box to arrest movement of an incoming shuttle.

1,306,191. ENTRANCE-SWITCH UNIT. CLARENCE D. PLATT, Bridgeport, Conn. Filed Mar. 9, 1918. Serial No. 221,862. 24 Claims. (Cl. 247-13.)

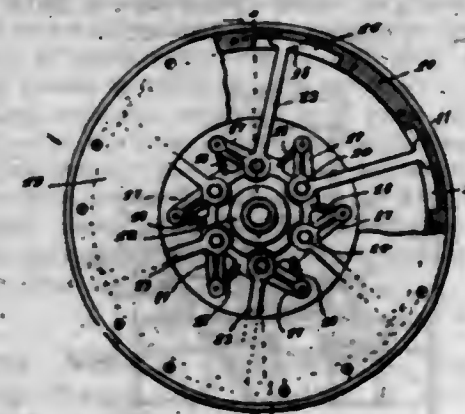
1. A meter unit comprising a box, a meter and a fuse base having line and load fuses mounted in said box, a cover for said box arranged when closed to expose only the dial of the meter, and when open to expose substantially the entire interior of the box, a movable guard within the box exposed when the cover is open and adapted to cover the fuse base when said cover is open, means for shifting said guard to uncover the load fuses only and further means independent of the cover aforesaid adapted to be

operated to uncover the entire fuse base including the line fuses.



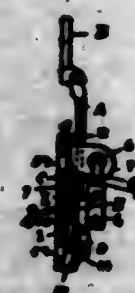
24. In apparatus of the character described, a fuse base having two sets of fuse sockets and one set of said fuse sockets elevated above the plane of the other set of fuse sockets, a cover extending over the lower set of fuse sockets and arranged to leave the upper set of fuse sockets exposed and a movable guard for the upper set of fuse sockets operable to uncover said upper fuse sockets.

1,306,192. VEHICLE-WHEEL. HUGO SHASTROM, Cleveland, Ohio. Filed Sept. 20, 1917. Serial No. 192,235. 3 Claims. (Cl. 152-28.)



1. In a vehicle wheel, a rim having a slotted inner periphery, a hub, spokes extending between the hub and rim, each of the spokes being pivoted at its inner end to the hub to swing about an axis substantially parallel to the axis of the hub and at its outer end having sliding contact with the slotted portion of the rim, said spokes being normally substantially radially disposed, and springs yieldingly resisting swinging movement of said spokes in a direction away from radial position.

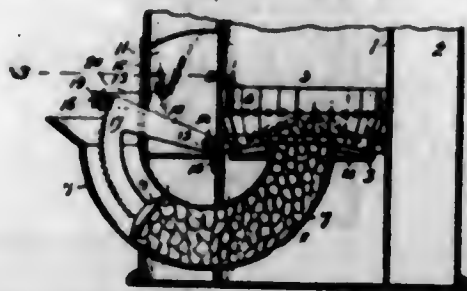
1,306,193. LOCK MECHANISM. HARRY SEDER, Pittsburgh, Pa. Filed Apr. 1, 1919. Serial No. 286,652. 3 Claims. (Cl. 70-5.)



2. In a duplex lock of the character described, the combination of a spring actuated sliding keeper provided with a notch, a slotted hinged hasp adapted to be swung down

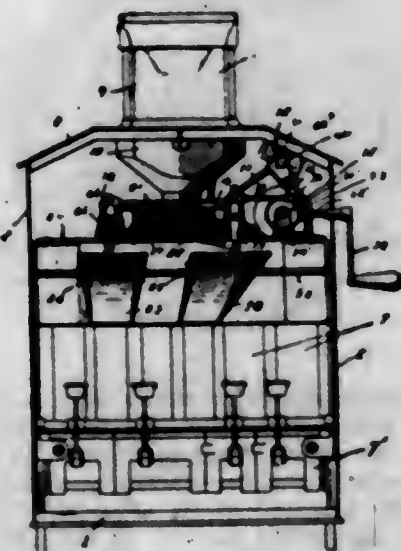
over said keeper and engage said notch, means for locking said keeper stationary in its engaged position, and means for attaching a pad lock to said keeper outside of said hasp.

1,306,194. UNDERFEED FURNACE. FRED A. SIEVERLING, Great Bend, Kans. Filed Feb. 21, 1919. Serial No. 278,349. 2 Claims. (Cl. 110-46.)



1. In an underfeed furnace, a casing comprising an inner shell and an outer shell spaced apart, a housing connecting said shells, a grate in said inner shell, an arcuate feed chute extending through said shells and having open ends facing upwardly, the inner end discharging through said grate and the outer end located outside of the outer shell, a plunger adapted for oscillation in said feed chute provided with an arm extending into said housing, and means in said housing for pivotally supporting said arm.

1,306,195. COIN SORTER AND REGISTER. EDWARD C. SIQUERIA, Oakland, Calif. Filed Mar. 8, 1917. Serial No. 153,525. 5 Claims. (Cl. 235-32.)

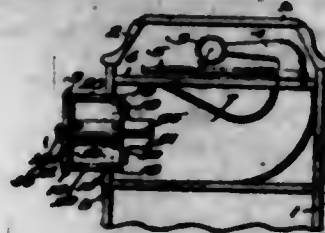


1. In a device of the character set forth comprising parallel spaced plates, receiving tubes for coins of different denominations between said plates, means for reciprocally moving said plates transversely of the axis of said tubes and in opposite directions, the upper of said plates having an opening corresponding to the larger coin, the lower of said plates having openings corresponding in size to the coins held in said tubes and adapted to move the coins from thereunder, oscillatively mounted arms extending into the paths of said coins as they are moved from said tubes, a counting mechanism, and means connecting said counting mechanism with said arms whereby the movement of said arms causes said counting mechanism to register according to the value of the coin contacting with that arm.

1,306,196. TONE-REGULATOR FOR PHONOGRAPHS. CHARLES H. SMITH, Chicago, Ill., assignor to Smith, Barnes & Strohber Company, Chicago, Ill., a Corporation of Illinois. Filed July 25, 1918. Serial No. 246,631. 9 Claims. (Cl. 181-27.)

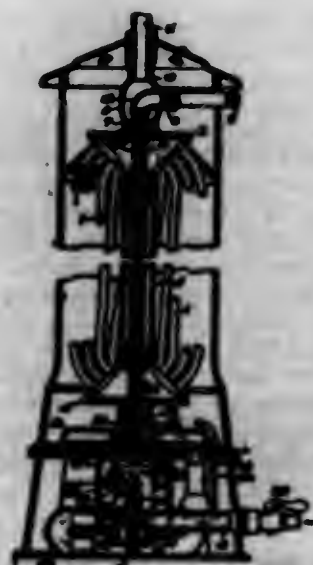
3. The combination, with a phonograph having a sound duct, of a hollow valve having a front extending across

the mouth of the duct for closing it and having walls extending backward into the duct, said walls having sound



openings therein, and means for guiding the valve lengthwise of the duct.

1,306,197. WATER-HEATER. ELMER S. STACK, West Somerville, Mass. Filed Jan. 23, 1914. Serial No. 813,905. 5 Claims. (Cl. 122-250.)



1. A water heater for domestic use comprising an inlet, an outlet, a conducting tube into which said inlet discharges and from which the water is displaced by the water entering the inlet when escape from the outlet is permitted, a burner arranged to direct the products of combustion of gas against said tube, and an external container between said tube and the outlet, into which the tube discharges and in which the inlet is contained.

1,306,198. INTERNAL-COMBUSTION ENGINE. GEORGE ENOCH STANLEY, Coventry, England. Filed May 13, 1918. Serial No. 234,156. 1 Claim. (Cl. 123-65.)



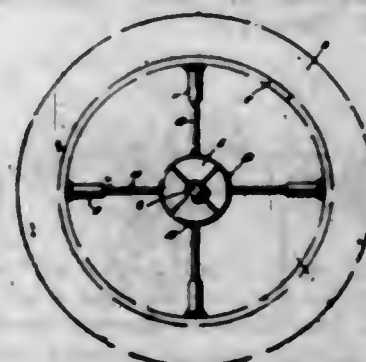
In a two-cycle internal combustion engine, the combination with the engine cylinder of two separate exhaust passages, two separate exhaust valves provided therefor, and means for alternately operating said valves.

1,306,199. HAND DOOR-PAD FOR AUTOMOBILES. FRANK H. STANWOOD, Arlington, Mass., assignor to Stanwood Equipment Co., Boston, Mass., a Corporation of Maine. Filed Sept. 18, 1916. Serial No. 120,649. 8 Claims. (Cl. 21-62.)



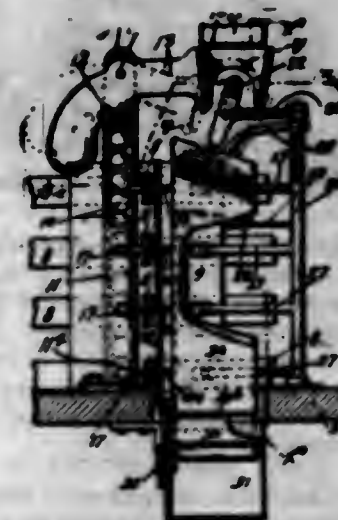
1. A hand pad for automobile doors and the like, comprising a flexible portion and a relatively stiff portion, said flexible portion being adapted to be secured on a door and the stiffer portion to hang alongside the same.

1,306,200. SPLIT-RIM EXPANDING-TOOL. HENRY W. STOLLENWERK, Milwaukee, Wis. Filed Dec. 18, 1918. Serial No. 267,352. 2 Claims. (Cl. 187-1.)



1. A split rim expanding tool comprising a plurality of sector-shaped blocks, a contractile split band disposed about said blocks, members extending radially from said blocks and engageable with the periphery of the split rim, and means for moving said blocks outwardly against the action of said split band.

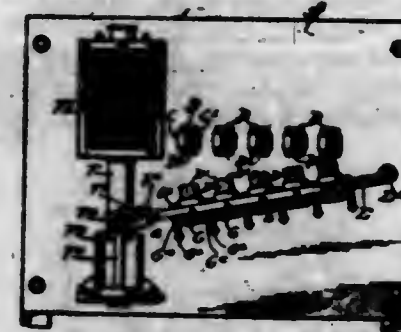
1,306,201. VENDING-MACHINE. WILLIAM F. TAYLOR, Minneapolis, Minn. Filed Apr. 27, 1916. Serial No. 92,831. 3 Claims. (Cl. 194-39.)



1. In a vending machine, the combination with a plurality of magazines, of a plurality of parcel ejectors, one for each magazine, a limiting lock mechanism having a multiplicity of separable elements normally locking all of

said ejectors, and a releasing lever normally holding the separable elements of said lock mechanism against separation, but movable into a position to permit a limited separation of said lock elements, to thereby permit any one of said ejectors to be operated.

1,306,202. AUTOMATIC CONTROLLER. JOHN E. THOMPSON and CLARENCE W. JAMESON, Chicago, Ill., assignors, by mesne assignments, to Atlas Electric Devices Co., a Corporation of Illinois. Filed Apr. 7, 1917. Serial No. 160,584. 1 Claim. (Cl. 175-281.)



The combination of a supporting panel, a plurality of brackets outstanding from the face of the panel, carbon contact blocks mounted in said brackets and arranged with their contact faces in the same plane, a bar pivoted at one end on said supporting panel and normally arranged at an angle to the said contact faces, and to move toward said fixed contacts into parallel relation thereto, a plurality of contact bearings in said arm, a plurality of contact blocks movable in said bearings with their contact faces normally arranged in a plane at an angle to the plane of the contact faces of said fixed contacts so that when the bar is swung about its pivot said yielding contacts will successively engage the fixed contacts, and individual spring-pressed supports on the underside of said bar arranged to yield as the contacts are successively brought into contact.

1,306,203. PENCIL ATTACHMENT. THOMAS OLAND TIRPIT, Blossom, Tex. Filed Oct. 3, 1917. Serial No. 194,586. 1 Claim. (Cl. 88-1.)

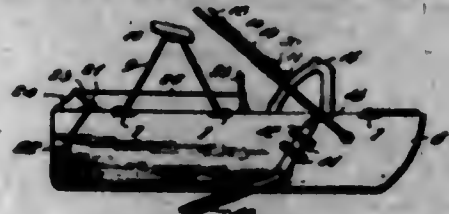


In combination, a pencil formed with a transverse opening therein, a cylindrical lens secured in said opening and having a convex end flush with one end of said opening, the opposite end of said lens being flat and spaced from the other end of the opening inwardly thereof, a glass disk fitting the last-named end of said opening and being disposed in close proximity to the flat end of said lens and presenting at this point a flat surface, and a picture secured upon the flat surface of said glass disk directly against the flat end of said lens.

1,306,204. BEAN-HARVESTER. HARRY C. TOLBERT, Hoyt, Colo. Filed Nov. 18, 1918. Serial No. 263,041. 2 Claims. (Cl. 55-60.)

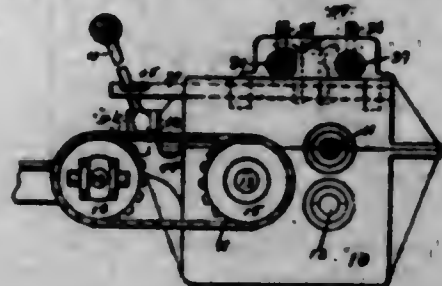
1. A bean harvester comprising a sled having a harvesting knife mounted upon each runner, each knife including a straight shank longitudinally slidable on the

runner and extending downwardly and rearwardly thereof and a blade extending from the lower end of the shank



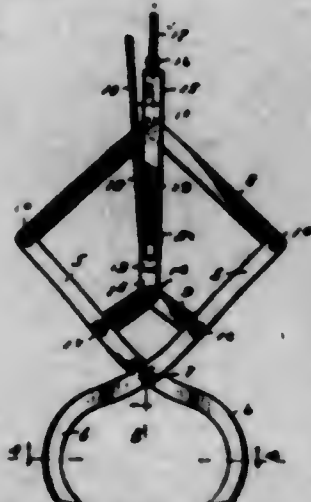
laterally, downwardly and rearwardly, and independent means for adjusting the shanks with their blades, with respect to the bottom edges of the runners.

1,306,205. DRIVING-GEAR AND TRANSMISSION. JUDG I. UMSTED, Dayton, Iowa. Filed July 30, 1917. Serial No. 183,416. 6 Claims. (Cl. 74-53.)



1. In a driving gear and transmission, the combination of a driving shaft and a plurality of countershafts parallel therewith, said countershafts being adapted for respective connection to followers to be driven, a driving gear fixed to the driving shaft, gears feathered to the countershafts and adapted to be engaged with said driving gear, gears fixed to said countershafts and differing in size from the feathered gears, and means for connecting the latter gears with the driving shaft when the feathered gears are disconnected from the driving gear.

1,306,206. GRAPPLE. HERMAN C. WAKNITE, Minneapolis, Minn. Filed Sept. 20, 1918. Serial No. 264,910. 2 Claims. (Cl. 57-40.)

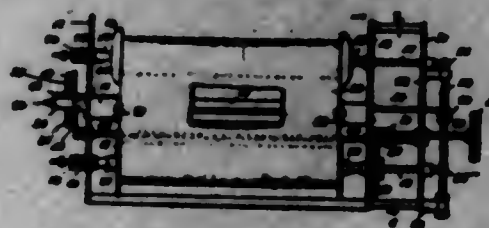


1. The combination with a grapple having a pair of pivotally connected upwardly diverging arms arranged to close the grapple by a movement toward each other, of an upper toggle connecting the grapple arms, said upper toggle having relatively long arms and said lower toggle having relatively short arms, a depending yoke loosely embracing the upper toggle and attached to the joint of the lower toggle, and a block and tackle connection between the two toggles for releasing the grapple.

1,306,207. RATCHET-REGULATOR FOR NOTE-SHEET CONTROL. WILLIAM A. WATSON, Malden, Mass. Filed Feb. 23, 1916. Serial No. 79,916. 4 Claims. (Cl. 84-161.)

1. In mechanism of the character described, a tracer bar, means for supporting note-sheet spools, said means

being mounted to permit lateral movement of the note-sheet, and primary and secondary mechanisms for controlling the lateral position of the note-sheet, the secondary consisting of a shaft having means for constantly actuating it, an elbow lever actuated by said shaft, pawls carried by said elbow lever, a ratchet adapted to be actuated in either direction by one or the other of said pawls,



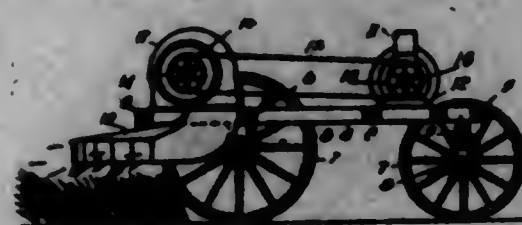
means whereby rotation of the ratchet in either direction will effect shifting of the note-sheet in one direction or the other, and the primary being composed of fingers to bear against the edges of the note-sheet, and means connected with said fingers to control the action of said pawls.

1,306,208. WIRELESS TELEGRAPHY. ROY A. WRAGANT, Roselle Park, N. J., assignor to Marconi Wireless Telegraph Company of America, a Corporation of New Jersey. Filed Feb. 24, 1915. Serial No. 10,100. 9 Claims. (Cl. 250-12.)



1. In an apparatus of the kind described, two circuits, one of which has a natural frequency, which is a harmonic of that of the other, and an oscillation valve, said circuits being coupled through said valve.

1,306,209. METHOD FOR ARTIFICIALLY COMPELLING THE FECUNDATION OF ALFALFA. WILLIAM M. WILLIAMS, Harlem, Mont. Filed Apr. 9, 1917. Serial No. 169,095. 1 Claim. (Cl. 47-36.)



The herein described method for effecting the fecundation of alfalfa, consisting in subjecting the stamen inclosing pods as soon as they have arrived at maturity to an artificially produced uniform current of air directed against the pods with sufficient force to drive the pods to bursting impact against members of the plant and to release and uniformly distribute the pollen.

1,306,210. AUXILIARY PRIMING AND AIR-CONTROLLING DEVICE FOR INTERNAL-COMBUSTION ENGINES. GOTTLIEB F. ZUCKER, Berwyn, Ill. Filed Apr. 2, 1918. Serial No. 229,427. 5 Claims. (Cl. 251-109.)

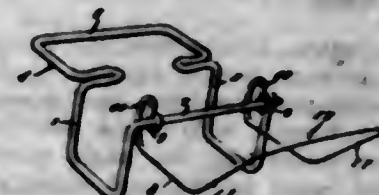
2. A device of the class described comprising a stationary plate having an air inlet opening and an outlet open-

ing; a body part having a chamber therein; and a fuel supply in open communication with said chamber, said body part being rotatably mounted on said plate and having an air inlet opening adapted for registration with said air inlet opening of said plate; and having a plu-



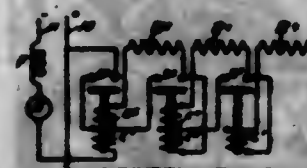
rality of spaced outlet openings adapted for individual registration with said outlet opening of said plate, said openings being of such relative proportions and relatively so arranged that outlet from said chamber can be effected with the air inlet to said chamber either closed or wholly or partly open, substantially as described.

1,306,211. ATTACHMENT FOR BARBER-CHAIRS. JULIUS BABON and HARRY GREENWOOD, Barnesboro, Pa. Filed Mar. 22, 1919. Serial No. 264,261. 3 Claims. (Cl. 155-26.)



1. The combination with a barber chair, of a head-rest support comprising a pair of U-shaped members adapted to straddle the lower edge of the chair back and having a horizontal portion adapted to underlie the seat of the chair, said U-shaped members being connected together by a horizontal bar, and a member hinged to said bar and provided with means for receiving the head rest.

1,306,212. MOTOR-CONTROL SYSTEM. HARRY R. CANFIELD, Cleveland, Ohio, assignor to The Electric Controller & Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 15, 1916. Serial No. 137,079. 8 Claims. (Cl. 172-292.)

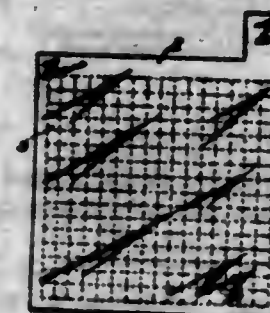


4. In a controller for electric circuits, a circuit to be controlled, and a series of normally open switches therefor arranged to close in a predetermined order, a winding for locking open and operating each switch, the windings being all connected in series and adapted to be simultaneously energized by current in the controlled circuit, and means whereby each of certain ones of the windings prevents the closure of its respective switch when the current therein is above a predetermined value, whereby the closure of each of certain switches deenergizes a portion of the winding of the succeeding switch and thereby adapts the succeeding switch to be locked open by the current in its winding when above a second larger predetermined value only, and whereby the remaining portion of the winding operates the switch and holds it in operated position when the current in the main winding is below the second predetermined value.

1,306,213. PRODUCTION OF FABRICS HAVING THE PROPERTY OF INVISIBILITY. FRANK COCHRANE, Cheshire, England. Filed June 16, 1917. Serial No. 175,522. 4 Claims. (Cl. 8-5.)

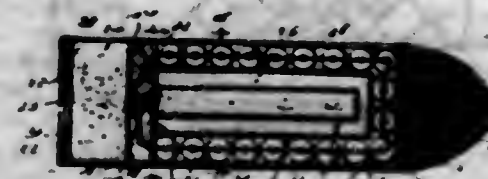
1. The process of producing fabrics having the property of invisibility consisting in padding the fabric in a solution of a coloring matter capable of producing a plurality of colors by development by metallic salts, developing and fixing a uniform ground color by one metallic salt and developing and fixing promiscuous color patches upon said ground color by at least one other metallic salt, as set forth.

1,306,214. BATTERY. RICHARD JOSEPH CROWLEY, Dallas, Tex., assignor of one-fifth to Albert Kramer, one-fifth to Thomas Richard Tennant, one-fifth to Herbert Byron Tennant, and one-fifth to Max Rothman, Dallas, Tex. Filed May 1, 1917. Serial No. 165,785. 9 Claims. (Cl. 204-28.)



6. As the active material on the positive and negative plates, electrodes, or elements of storage batteries, the combination of a salt of aluminum, an oxid of lead and sulfuric acid which has undergone certain chemical changes through the action of an electric current in an electrolyte substantially as described.

1,306,215. EXPLOSIVE SHELL. RICHARD L. CUSHING, Tiskilwa, Ill. Filed June 11, 1918. Serial No. 239,452. 2 Claims. (Cl. 102-29.)

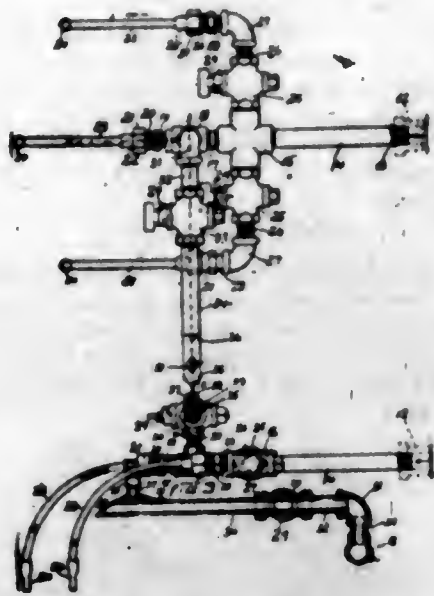


1. In a device of the kind set forth, a cylindrical shell, a nose secured to one end of the shell, the nose being hollow and being designed to contain shrapnel, a plate secured against the end of the shell and holding the shrapnel within the nose, a tubular member interior to the shell, a second tubular member in surrounding relation to said tubular member, a second plate secured within the shell and closing the two aforesaid tubular members, a third plate held within the shell and spaced from the second plate, a time fuse device closing the shell at the rear end, and a plurality of grenades carried within the shell and between it and the aforesaid second tubular member, the second said tubular member being designed to contain gasoline, the shell itself being designed to contain powder in the space between the last said plate and the time fuse device.

1,306,216. SANITARY STRINGER ATTACHMENT FOR CONFECTION-MACHINES. JOSEPH DI GIORGIO, Cambridge, Mass. Filed Feb. 7, 1919. Serial No. 275,655. 5 Claims. (Cl. 107-27.)

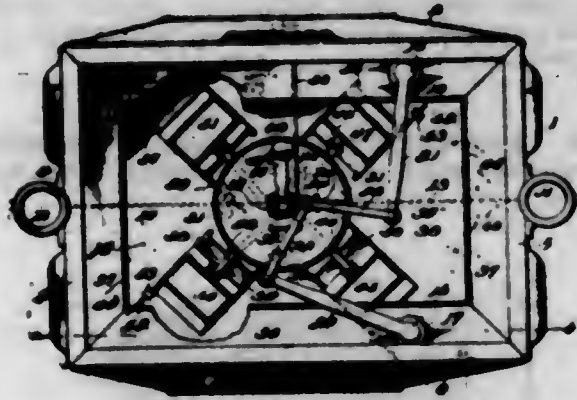
2. A stringer attachment for a confection machine, comprising a branched main conduit having a single in-

take end provided with coupling means adapted for connection with a discharge outlet of the machine, and a plurality of outlet ends, all communicating with the



single intake end, and flexible tubes coupled to the outlet ends of the main conduit and provided with string-forming nozzles.

1,306,217. GAS-METER. EDMUND S. DICKET, Baltimore county, Md., assignor to American Meter Company, Inc., New York, N. Y., a Corporation of Delaware. Filed Mar. 20, 1918. Serial No. 223,574. 24 Claims. (Cl. 73-1.)



1. In a gas meter, a casing having compartments therein, in combination with the inlet and outlet, two diaphragms located in separate compartments, four valves controlling the flow of gas into and out of the diaphragms and their compartments, mechanisms for operating the valves, and suitable channels for conducting the gas to the meter outlet after it has passed through the diaphragms and their compartments.

9. In a gas meter, in combination, a suitable casing, a plurality of diaphragms and the meter intake and outlet, of a valve table above the diaphragms, a partition arranged within the meter casing and forming with the walls of the meter, and the valve table, separate chambers for the diaphragms, a primary set of valves and a supplemental set, a valve of the supplemental set working with a valve of the primary set on one side of the partition, and a valve of the primary set working with a valve of the supplemental set on the other side of the partition, a valve operating shaft having connections with the valves, valve seats having suitable ports adapted to be covered and uncovered by the valves in their movement to establish communication between the meter inlet and outlet openings, through the diaphragms and meter casing.

24. In a gas meter, in combination, four valves, an operating shaft having three cranks, connections be-

tween two of the cranks, and two valves respectively, and connections between the other two valves and the remaining crank, whereby the valves are operated.

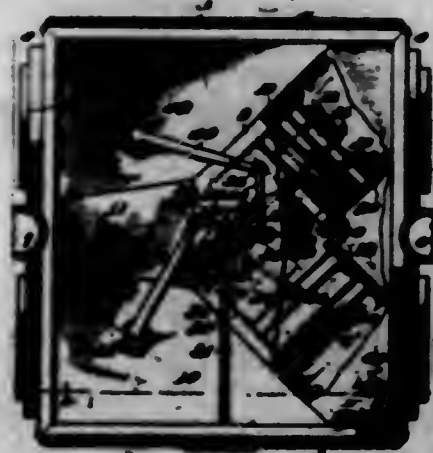
1,306,218. GAS-METER. EDMUND S. DICKET, Baltimore county, Md., assignor to American Meter Company, Inc., New York, N. Y., a Corporation of Delaware. Filed Mar. 20, 1918. Serial No. 223,576. 10 Claims. (Cl. 73-1.)



1. In a gas meter, in combination, a slide valve for controlling the flow of gas into and out of the meter diaphragm and casing, formed of a plurality of independent sections yoked together for simultaneous movement.

10. In a gas meter, in combination, a valve seat, a valve table, guide bars located parallel to the sides of the seat and separated therefrom, and mounted on the valve table, and formed with angle portions, a valve having a portion underlying the angle portions of the guides, the outer edges of the said underlying portion of the valve being serrated for the purpose set forth.

1,306,219. GAS-METER. EDMUND S. DICKET, Baltimore county, Md., assignor to American Meter Company, Inc., New York, N. Y., a Corporation of Delaware. Filed Mar. 20, 1918. Serial No. 223,578. 20 Claims. (Cl. 73-1.)



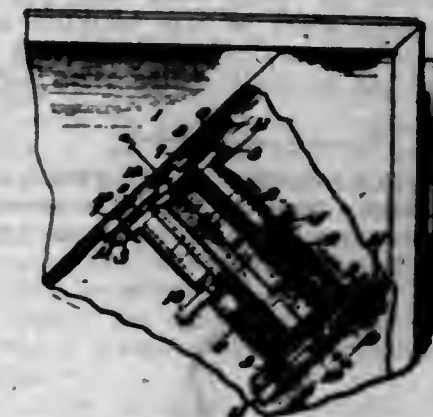
1. In a gas meter, in combination, a suitable casing having intake and outlet openings, two separated diaphragms, a single valve controlling the flow of gas into and out of the diaphragms and through the casing, a valve operating shaft, and connections between the valve operating shaft and the diaphragms, whereby the shaft is rotated, and connections between the operating shaft and the valve, whereby the valve is reciprocated.

6. In a gas meter, in combination, a suitable casing having compartments therein, and intake and outlet openings, a valve table having valve seats thereon provided with diaphragm, casing, and outlet ports, four diaphragms arranged in sets of two, each set in a separate compartment, a flagstaff in each compartment, and

connections between one of the diaphragms in each compartment, and a flagstaff therein, a supplemental flagstaff in each compartment, and connections between the supplemental flagstaff and a diaphragm in its compartment, connections between the main and supplemental flagstaffs in each compartment, whereby the flagstaffs in each compartment will be operated in unison, a valve operating shaft, and connections between the shaft and the main flagstaff, valves, one for each set of diaphragms and the compartment in which the set is located, and connections between the valves and the valve operating shaft, whereby the valves are operated upon the expansion and collapse of the diaphragms.

20. In a gas meter, in combination, a suitable casing having intake and outlet openings, a partition in said casing dividing it into two diaphragm compartments, two diaphragms in each compartment, a valve seat for each compartment, and having diaphragm, outlet, and casing ports therethrough, a triangular horizontal channel on each side of the partition, and a vertical diaphragm channel on each side of the partition, the vertical and horizontal channels communicating with each other, on each side of the partition, and directly connecting the diaphragm ports with an inner diaphragm on each side of the partition, and a horizontal channel on each side of the partition, communicating with the triangular channel, on each side of the partition, said horizontal channels each communicating with the outer diaphragm.

1,306,220. GUIDE FOR DRY-TYPE-GAS-METER VALVES. EDMUND S. DICKET, Baltimore county, Md., assignor to American Meter Company, Inc., New York, N. Y., a Corporation of Delaware. Filed June 28, 1918. Serial No. 242,426. 4 Claims. (Cl. 73-1.)



1. A valve guide of the character described, comprising a valve cover provided with extensions on each side thereof, a suitably supported guide bar at each side of the cover and having a portion overlying the extensions on the cover, the overlying portions of the guide bars being provided with open sided recesses for the passage of the extensions of the cover, to facilitate the removal of said cover.

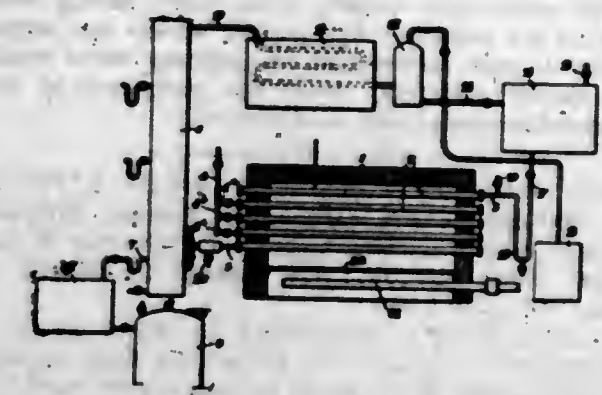
2. A valve guide of the character described, comprising a valve cover having two brackets on each side thereof, and adjacent the ends of the cover, and a suitably supported guide bar at each side of the valve cover and provided with a flange overlying the brackets, the overlying portion of each bar being provided with an open topped recess for the passage of a bracket on each side of the cover, to facilitate the removal of the cover from its seat.

3. A valve guide of the character described, comprising a valve cover, provided at each side and near the ends thereof with two downwardly extending brackets, each bracket provided with a laterally extending ledge, a guide bar adjacent each side of the cover and having a portion overlying the ledges of the brackets, the overlying portion of each bar being provided with an open

sided recess for the passage of the brackets in removing from, or seating the valve upon its seat.

4. A valve guide of the character described, comprising a valve cover having two brackets on each side thereof and adjacent the ends of the cover, each bracket being provided with a serrated edge, and a suitably supported guide bar at each side of the valve cover, and provided with a flange overlying the brackets, the overlying portion of each bar being provided with an open topped recess, for the passage of a bracket on each side of the cover, to facilitate the removal of the cover from its seat.

1,306,221. COMPOSITE SOLVENT AND PROCESS OF MAKING SAME. CARLETON ELLIS, Montclair, N. J., assignor to Chadeloid Chemical Company, New York, N. Y., a Corporation of West Virginia. Filed Sept. 16, 1914. Serial No. 861,059. 4 Claims. (Cl. 23-24.)



1. In the process of making a solvent composition adapted for the removal of old paint and varnish coatings, the steps which comprise chlorinating toluene partly in the side chain and partly in the benzene ring and in subsequently treating with a dechlorinating agent, whereby chlorine is selectively removed from the side chain and replaced by a hydroxyl group while the chlorine in the benzene ring is substantially unaffected, thereby yielding a mixture of an alcoholic body with a chlorinated hydrocarbon.

2. A composite solvent adapted for use in paint and varnish removing compositions comprising benzyl alcohol and chlor-toluene.

3. In the process of making a solvent composition adapted for the removal of old paint and varnish coatings, the steps which comprise chlorinating toluene partly in the side chain and partly in the benzene ring and in subsequently treating with an alkaline dechlorinating agent whereby chlorine is selectively removed from the side chain and replaced by a hydroxyl group while the chlorine in the benzene ring is substantially unaffected thereby yielding a mixture of an alcoholic body with a chlorinated hydrocarbon.

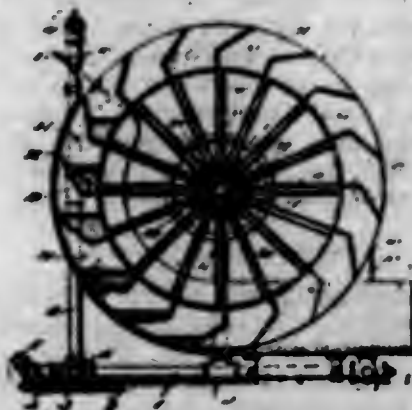
4. A composite solvent adapted for use in paint and varnish removing compositions comprising benzyl alcohol and chlorinated solvent material containing chlor-toluene.

1,306,222. WATER-WHEEL. ELIJAH B. MCCLELLAN, FERT and GEORGE W. CHANDLER, Anderson, Ind. Filed Jan. 10, 1918. Serial No. 211,214. 6 Claims. (Cl. 253-163.)

1. The combination with a water wheel, of a horizontal base frame formed of piping and having a water inlet, and a pair of side frames rising from said base frame and also formed of piping, the piping of said side frames communicating with that of said base frame and the former serving to discharge the water to operate said wheel.

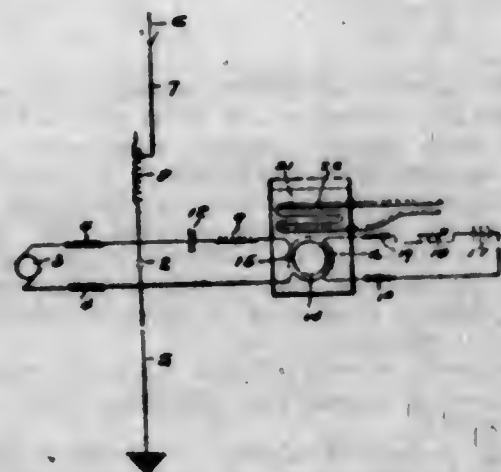
3. In combination, a trough-shaped wheel rim having a plurality of substantially tangential partitions dividing it into a multiplicity of circumferentially spaced water buckets, hollow spokes secured at their outer ends to said rim, said spokes communicating with said

buckets at the inner ends of said partitions, a hub from which said spokes radiate, and means for supplying water to said hub.



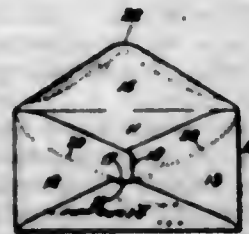
4. The combination with a water wheel having water buckets at its periphery and hollow spokes for supplying water to said buckets; of an auxiliary water supply means spaced outwardly from the periphery of said wheel and discharging into said buckets.

1,306,223. **RADIOTELEGRAPHY.** LEONARD F. FULLER, San Francisco, Calif., assignor to Federal Telegraph Company, San Francisco, Calif., a Corporation of California. Filed May 15, 1916. Serial No. 97,487. 1 Claim. (Cl. 250-19.)



In a radiotelegraphy transmission system, a source of oscillations, a radiating circuit connected to said source, an oscillatory circuit shunted around said source, the two circuits bearing such relation to each other that the oscillations will prefer one circuit to the total neglect of the other, means in the oscillatory circuit for producing hysteresis losses and means for varying said losses to cause the oscillations to prefer the other circuit.

1,306,224. **ENVELOP.** FRANK A. GOOLEY, New York, N. Y. Filed Jan. 3, 1916. Serial No. 69,782. 2 Claims. (Cl. 229-85.)

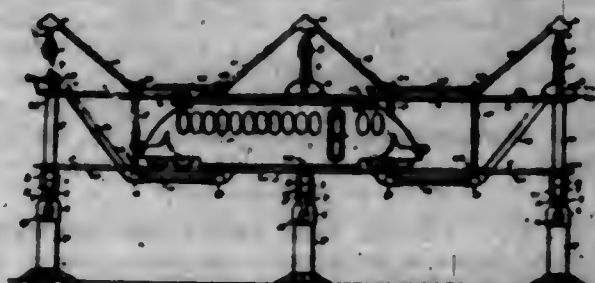


1. An envelop, the back of which is made up of side flaps and a bottom flap extended from the envelop face and adhesively sealed over at least a portion of said side flaps, that portion of envelop back as formed by said side flaps having cut therein substantially centrally thereof a slit for finger or thumb tip accommodation and

weakened portions for said side flaps extending outwardly from the slit to or near the extreme juncture points of the side flaps with the face of the envelop, said weakened portions and slit being disposed so that when the upper and lower flaps are in sealed position, the marginal edge of at least one of the last mentioned flaps is in substantial register with the line formed by said slit and weakened portions.

2. An envelop embracing a face and back portion and a complementary sealing flap for said back, of which the back has formed therein a substantially centrally located slit for finger or thumb tip accommodation and is further provided with weakened portions which extend outwardly from said slit toward the envelop edges, said slit and weakened portions being so arranged that the marginal edge of said flap in its sealed position substantially registers with the line formed by said slit and weakened portions.

1,306,225. **ELEVATED RAILWAY.** DAVID HUMPHREY, Cleveland, Ohio. Filed July 24, 1918. Serial No. 246,442. 1 Claim. (Cl. 104-124.)



A single and a double track railroad as described, comprising three tracks on the same horizontal plane, the said single track serving for single track cars and the said double tracks serving for double track cars, and a single guide rail for both kinds of cars centrally over said single track, whereby cars of different makes and for different service can be run over the same road bed at the same time.

1,306,226. **DOUBLE-SWIVEL CONNECTING-LINK FOR FISHING-LINES.** CLARSON LOVRETT JOHNSON, Savannah, Ga. Filed June 20, 1917. Serial No. 177,827. 2 Claims. (Cl. 24-234.)

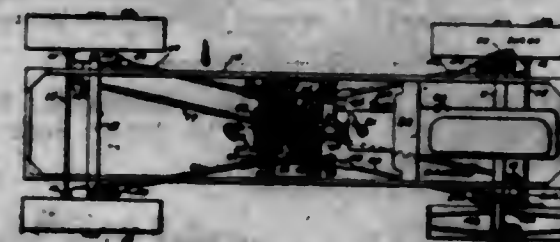


2. A hook attaching double swivel for fishing lines consisting of a pair of swivel shanks having enlargements at one end adjacent to one another, and a hollow connecting body through opposite ends of which the said shanks loosely extend, and in which said enlargements are loosely disposed, each of said shanks having a bent opposite and outer end forming an attaching loop provided with a straight tapering extremity projecting at an angle to the shank, said shank having a recess into which the said extremity projects for the purpose described.

1,306,227. **DRIVING MECHANISM FOR MOTOR-VEHICLES.** EDMUND JOSEPH KANE, Chicago, Ill. Filed Feb. 23, 1918. Serial No. 218,663. 13 Claims. (Cl. 180-45.)

1. In a motor vehicle, the combination of a main frame, a pair of separated solid axles, traction wheels opera-

tively connected with the extremities of each of said axles, a motor on the main frame, power transmitting devices operatively connected with the motor and mounted on the main frame, and comprising a power shaft, a pair of countershafts rotatably supported upon the main frame in parallelism with said power shaft, gears on each of said countershafts in engagement with differential gearing on the driving shaft, and flexible driving connections between the said countershafts and each of said traction wheels, said flexible connections and said power transmitting devices being adapted to operate the respective traction wheels on each side of the machine in synchronism with each other.



4. In a motor vehicle the combination with a motor of axles spaced apart, stub axles pivotally secured to the extremities of one of said axles, traction wheels mounted on each of the axles including the said pivoted stub axles, a power shaft arranged approximately at right angles to said axles, countershafts in parallelism with said power shaft and located between said axles, spur gearing interposed between the power shaft and each of said countershafts, flexible driving connections between each of said parallel countershafts, and the driving wheels on the respective axles, said driving connections including worm gearing engaging each of said driving wheels, and steering devices operatively connected with the said pivoted stub axles for controlling the wheels carried thereby.

6. In a motor vehicle, the combination of a motor, axles spaced apart, traction wheels rotatably supported at the ends of said axles, a differential or compensating gearing having its axes at right angles to the axes of said axles, a pair of countershafts arranged approximately parallel with the axis of said differential or compensating gearing, spur gearing operatively connecting said differential or compensating gearing and each of said countershafts, and power transmitting devices connecting said countershafts with each of said traction wheels whereby the traction wheels on each side of the vehicle will by reason of the compensating gearing rotate asynchronously.

9. In a motor vehicle, the combination with a motor of axles spaced apart, stub axles pivotally secured to the extremities of said axles, traction wheels mounted on the said stub axles, a power shaft operatively connected with the motor and arranged approximately at right angles to the said axles, a differential or compensating gearing arranged with its axis coincident with the axis of the power shaft, countershafts arranged in parallelism with said power shaft adjacent said differential or compensating gearing, a pair of spur gears, one of which is operatively connected with each of the variable parts of the differential or compensating gearing, spur gears mounted on the countershafts and engaging said spur gears of the differential, and flexible driving connections between each of said countershafts and the driving wheels on their respective stub axles whereby the wheels on each side of the vehicle will rotate asynchronously.

13. In a motor vehicle the combination with a motor, of axles spaced apart, stub axles pivotally secured to the extremities of said axles, traction wheels mounted on each of the stub axles, a power shaft arranged approximately at right angles to said axles, a gear box arranged between the two axles and being provided with bearings for the power shaft, countershafts in the gear box in parallelism with said power shaft, the said countershafts having extensions fore and aft of the gear box, spur gearing interposed between the power shaft and each of said countershafts within the gear box and in-

263 O. G.—15

cluding differential or compensating gearing, flexible driving connections between each of said parallel countershafts and the driving wheels on the respective axles, the said flexible connections extending from the fore and aft extensions on each countershaft to the front and rear wheels on the corresponding side of the machine whereby the wheels on each side of the machine will be driven in synchronism independently of the front and rear wheels on the opposite side of the machine, the said driving connections including worm gearing engaging each of said driving wheels, and steering devices operatively connected with the said pivoted stub axles for controlling the wheels carried thereby.

1,306,228. **SHIRT.** HENRY S. KRAZE, Danboro, Pa. Filed July 19, 1917. Serial No. 161,633. 1 Claim. (Cl. 2-41.)



As an article of manufacture, a shirt having a body portion with continuous side portions and provided at its front with a pair of upwardly extending slits and at its rear with a corresponding pair of upwardly extending slits, the portion between the slits of each pair constituting flaps, whose lower edges when released coincide with the lower edges of the continuous side, and which flaps may be overlapped and secured together, and when so secured will lie substantially above the lower portions of the continuous sides, such lower portions of the continuous sides being substantially longer than the flaps when overlapped and terminating in the same line with the lower end of the flaps when the latter are pendent, the side portions thus operating to stay the garment in position when the flaps are overlapped and secured together in use, all substantially as and for the purposes set forth.

1,306,229. **LUBRICATING MEANS FOR UNIVERSAL JOINTS.** CORNELIUS T. MYERS, Detroit, Mich. Filed Dec. 7, 1917. Serial No. 205,929. 8 Claims. (Cl. 64-91.)

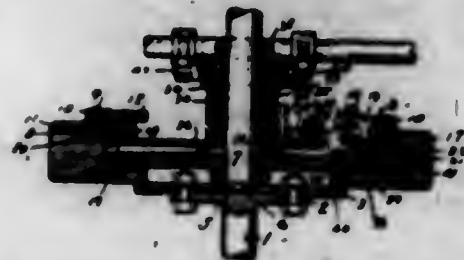


1. The combination of revoluble driven and drive shafts, an inclosure therefor, and a wick in communication with a suitable supply of lubricant and extending through a passage in one of said shafts into said inclosure to conduct lubricant thereto.

1,306,230. **CLUTCH.** JAMES C. OLLARD, Tacoma, Wash. Filed Aug. 22, 1917. Serial No. 187,663. 9 Claims. (Cl. 192-7.)

1. In a shaft clutch, the combination with a rotating shaft carrying a hollow clutch body; of a lining secured in said clutch body and having its inner surface screw-threaded; a split ring screwing into said lining and

adapted to be relatively turned therein to adjust the clutching mechanism; a tapered stud screwed into the split portion of said ring to expand it and thereby to lock it in adjusted position in said lining; a driven shaft having a clutch surface within said hollow clutch body, but free therein; and clutch mechanism carried by said adjusting ring but movable only axially relatively to said rotating shaft and adapted to engage the clutch surface of said driven shaft to rotate it.

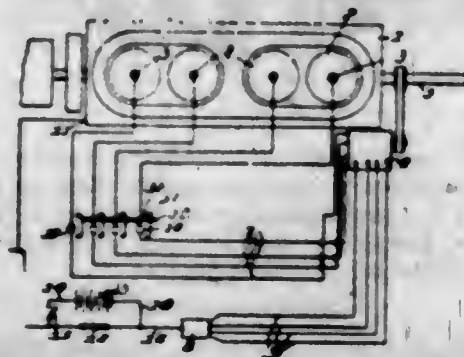


4. In a shaft clutch, an axially movable clutch body having a central hole therein with suitable keyways in the inner edge of said clutch body, outward from said hole, an axially immovable carrying body having a central boss passing freely through the said hole in said movable clutch body, and means mounted on said carrying body and engaging said clutch body and adapted to move said clutch body axially relatively to said carrying body; in combination with cylindrical inserts forming keys, each having its axis parallel with the axis of said clutch body, said inserts being partially embedded in the outer face of said boss and extending therefrom to engage the keyways in said movable clutch body whereby relative rotation between said bodies is prevented.

6. In a shaft clutch, the combination with a driven shaft having a clutch member, a hollow clutch body, a relatively adjustable carrying plate, an adjusting ring connecting the carrying plate with the body and swiveled to one of the parts and having a threaded engagement with the other, a movable clamping member located within the hollow body and co-acting with the body to clamp the clutch member of the driven shaft, and means carried by the said plate for actuating the movable clutch member.

9. In a shaft clutch, the combination with a driven shaft having a clutch member, a hollow clutch body, a relatively adjustable carrying plate, an adjusting ring having a swiveled connection with the carrying plate and a threaded engagement with the hollow body, a movable clamping member located within the hollow body and co-acting with the body to clamp the clutch member of the driven shaft, and clutch members mounted on the exterior of the carrying plate and having arms extending through the same for actuating the movable clutch member.

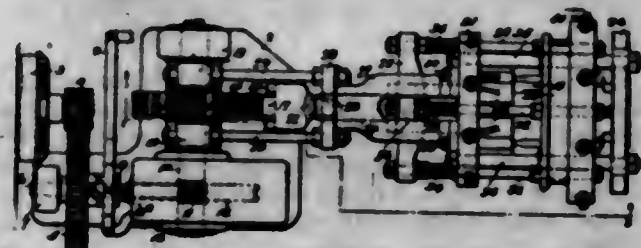
1,306,231. SPARK-PLUG INDICATOR. CHARLES FREMONT PINNEO, Detroit, Mich. Filed July 2, 1917. Serial No. 178,462. 1 Claim. (Cl. 175-318.)



In combination with the spark plugs in an internal combustion engine and the current supply for the spark plug, of a rigidly mounted casing provided in one face with a series of openings, a plurality of indicators mounted in the openings, each of the indicators including a cylindrical

body formed of insulating material, and having the respective ends threaded exteriorly, an annular rib formed on the inner surface of the body of each indicator at the outer end, an insulating disk mounted in the inner end of each body, conducting terminals supported by the disk and arranged in closely spaced parallel relation with each other and providing a spark jumping gap, a magnifying glass mounted within the outer end of each body and supported by the rib through which the spark gaps are visible, nuts for engagement with the respective threaded extremities of the body, flanges carried by the nuts for supporting the disks and for retaining the glass in position, the outer ends of the terminals being electrically connected to the current supply, and switch means mounted within the casing for controlling the passage of current through the indicators.

1,306,232. SWAGING MACHINE. ROBERT W. RUTH, Belle Vernon, Pa. Filed Jan. 17, 1918. Serial No. 212,183. 9 Claims. (Cl. 78-20.)



1. In a swaging-machine, the combination of radially arranged movable swaging-dies, and means for causing successively progressive radial movement of said dies.

7. In a swaging-machine, the combination of radially arranged movable swaging-dies, a toggle-ring, toggles interposed between said ring and said dies, a cross-head connected to said toggle-ring, a cam-disk having gradually increasing cams, connections between said cam-ring and said cross-head, whereby successively progressive radial movement is imparted to said dies.

9. In a swaging-machine, the combination of radially arranged, pivotally-mounted, spring-actuated swaging-dies, and means for causing successively progressive radial movement to said dies.

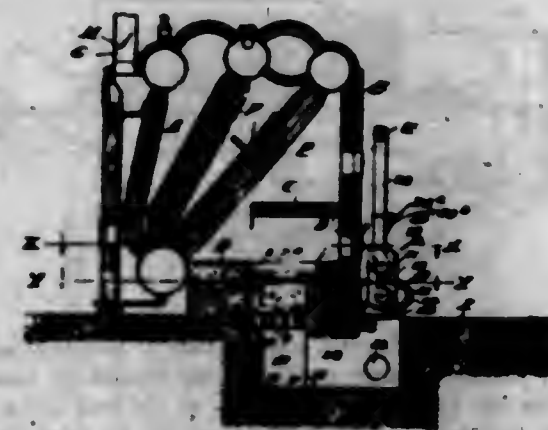
1,306,233. ART OF BURNING FUEL. JOSEPH MARTIN SCHUTZ, Chicago, Ill., assignor to Schutz Hawley Company, Chicago, Ill., a Corporation of Illinois. Original application filed Feb. 10, 1917, Serial No. 147,759. Divided and this application filed Mar. 28, 1917. Serial No. 137,939. 30 Claims. (Cl. 110-28.)



1. The herein described improvement in the art of burning fuel, that consists in continuously feeding a mixture of fuel and air and progressively causing the same to assume a spiral whirl under peripheral restraint, and coincidentally causing all of the gaseous products of combustion to move inwardly and return within said whirl and discharge longitudinally outward therefrom, substantially as and for the purpose specified.

7. The herein described continuous process of combustion which consists in forcibly feeding fuel and a supporter of combustion tangentially into a refractory annulus thereby establishing a helically moving column of mixture on the wall of said annulus, and then causing the gaseous mixture to return within said annulus, reject the incandescent residue therefrom, and escape.

1,306,234. INTROGENERATIVE FURNACE. JOSEPH MARTIN SCHUTZ, Chicago, Ill., assignor to Schutz Hawley Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 10, 1917. Serial No. 147,759. 16 Claims. (Cl. 110-28.)



1. A fuel burning furnace, comprising a refractory walled chamber or pot having a refractory bottom and the axis of which is substantially vertical, in combination with means for causing fuel-laden air to whirl helically downward upon the inner vertical wall of said chamber from the top to the bottom thereof, and the top of said chamber being open for the free discharge of the burning gases.

3. A fuel burning furnace, comprising a refractory walled chamber having a refractory bottom and the axis of which is substantially vertical, in combination with means for causing fuel-laden air to whirl helically downward upon the inner vertical wall of said chamber from the top to the bottom thereof, the bottom of the chamber containing a slag-discharge opening, the top of the chamber being open for the free discharge of the burning products and means above said open top for admitting air with said products therefrom.

5. A fuel burning furnace, comprising a refractory walled chamber having a refractory bottom and the axis of which is substantially vertical, in combination with means for causing fuel-laden air to whirl spirally downward upon the inner vertical wall of said chamber from the top to the bottom thereof, the bottom of the chamber containing a slag-discharge opening, a closed slag-chamber wherewith said opening communicates, and a fire chamber into which the top of said refractory chamber opens.

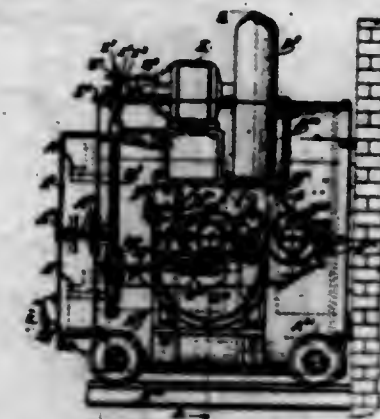
8. A fuel burning furnace, comprising means forming a pit, a refractory annulus arranged in said pit and in spaced relation to the inner wall thereof, said annulus having a refractory bottom and the axis being substantially vertical, in combination with means for causing fuel-laden air to whirl helically downward upon the inner vertical wall of said annulus from top to the bottom thereof, and the top of said annulus being open for the free discharge of the burning gases.

11. A fuel burning furnace comprising a refractory annulus having a refractory bottom, and the axis of which is substantially vertical, in combination with means for causing fuel-laden air to whirl helically downward upon the inner vertical wall of said annulus, from the top to the bottom thereof, said bottom containing a central slag discharge opening, the top of said annulus being open for the free discharge of the burning gases and means for admitting air, gas, or similar medium to said annulus through said slag-discharge opening.

1,306,235. FUEL-BURNING APPARATUS. JOSEPH M. SCHUTZ, Chicago, Ill., assignor, by direct and mesne assignments, to Schutz Hawley Company, a Corporation of Illinois. Filed Nov. 21, 1913, Serial No. 902,258. Renewed Jan. 30, 1919. Serial No. 274,129. 20 Claims. (Cl. 110-28.)

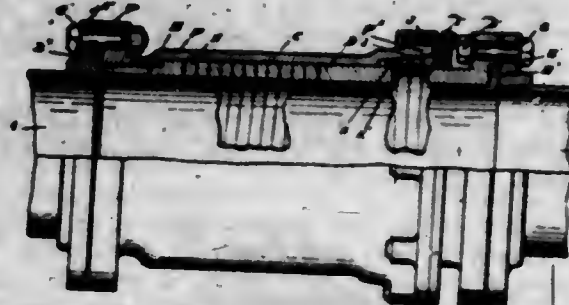
1. The improvements herein comprising a refractory cylinder open and unobstructed at one end and closed at the opposite end and divided longitudinally

into a rear chamber and a forward chamber by means of an intermediate partition provided with a central opening



Joining the two chambers, each of said chambers being provided with a tangential inlet, for the purposes described.

1,306,236. EXPANSION-JOINT. ALONZO H. SLOAN, Detroit, Mich., assignor, by direct and mesne assignments, of one-third to Fred Rosenfield and one-third to Raymond C. Striker, Detroit, Mich. Filed Feb. 11, 1918. Serial No. 216,468. 9 Claims. (Cl. 285-199.)



4. The combination with two conduits, of an expansion joint, comprising an expansion member connected at one end directly to one of said conduits and a concentric sleeve for guiding said expansion member connected directly at one end to the other of said conduits, said expansion member threadedly engaging said sleeve and having a resilient coil portion.

5. The combination with two conduits, of an expansion joint comprising a sleeve member having a flanged end connected to one of said conduits, an expansion member having one end threadedly engaged within said sleeve member and the opposite end flanged and connected to the other of said conduits and an intermediate resilient coil portion, an inner sleeve member provided with a flanged end seated within said flanged end of said expansion member and a packing between said first mentioned sleeve member and said expansion member at the free end of the former.

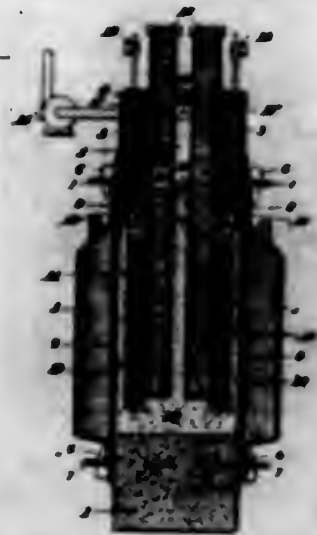
6. In an expansion joint, the combination with an expansion member of an inner guide having a steam tight seal therewith at one end, an outer guide having a steam tight seal therewith at the opposite end, and packing between the opposite end of said outer guide and expansion member, said expansion member having a resilient coil portion providing a tortuous passage for the escaping steam to the packing.

8. In an expansion joint, the combination with a member, of a sleeve member, and a packing between said members, comprising a series of coils having tapered peripheries.

1,306,237. ELECTROLYTIC CELL. CLINTON PAUL TOWNSEND, Washington, D. C., assignor to Hooker Electrochemical Company, New York, N. Y., a Corporation of New York. Filed July 24, 1917. Serial No. 182,504. 5 Claims. (Cl. 204-58.)

1. In combination with an electrolytic cell having a gas-space, means for maintaining atmospheric, or lower

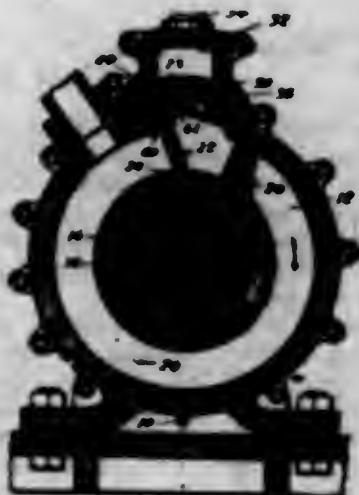
pressures within said gas-space, and means for collecting the evolved gas before it reaches said gas-space.



4. In the electrolytic production of chlorine, the steps which consist in withdrawing a portion at least of the evolved gas under positive pressure, while maintaining within the gas-space of the cell a pressure not exceeding atmospheric.

5. In the electrolytic production of chlorine, the steps which consist in withdrawing a portion at least of the evolved chlorine under positive pressure while maintaining a sub-atmospheric pressure within the cell.

1,306,238. ROTARY ENGINE. EVAN ULLAND, Minneapolis, Minn. Filed Feb. 12, 1918. Serial No. 216,765. 3 Claims. (Cl. 121—84.)

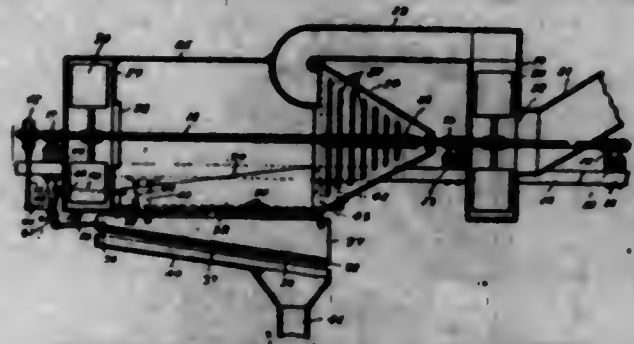


1. A rotary engine comprising a casting provided with an annular piston chamber, a shaft extending through said casting centrally of said annular chamber, said casting having an annular passage extending from said shaft to said piston chamber, a rotary annular piston in said annular passage, said piston being of less diameter than that of the portion of the casting which constitutes the interior wall of said piston chamber, a piston head on said annular piston working in said piston chamber, a gate mounted to swing up and down in said piston chamber, the latter being provided in its interior wall with a seat for the swinging end of said gate, and a steam chest having an admission port opening into said piston chamber adjacent one side of said gate, the piston chamber having an exhaust port adjacent the other side of said gate.

1,306,239. GRAIN-SEPARATOR. JAMES K. WHITE, Salina, Kans. Filed Aug. 30, 1917. Serial No. 188,929. 7 Claims. (Cl. 180—22.)

1. A separator for grain comprising a member having a cavity therein which converges toward a substantially closed end, threshing elements in said cavity and means

for forcing a stream of air and stock into said cavity against said end so that the direction of said stream is rapidly changed forwardly and rearwardly to cause the heavier particles to be precipitated out of the air stream.



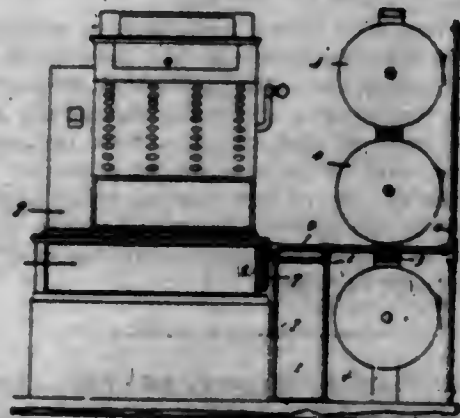
3. A separator for grain comprising a member having a conical cavity therein substantially closed at one end and means for projecting a stream of air and stock into the upper portion of said conical cavity so that the air is forced into the apex of the cone and caused to abruptly return whereby the heavier particles are precipitated out of the air stream, and a beater positioned within the cone member and acting upon the grain as the same passes into and out of said cone member.

5. A separator for grain comprising a member having a cavity therein substantially closed at one end, a longitudinal shaft extending through said member and the cavity therein, a blower mounted on said shaft for projecting a stream of air and stock into said cavity, a beater positioned on said shaft and operable within said cavity, and a second blower mounted on said shaft for withdrawing the air and chaff from the machine.

6. A separator for grain comprising a member having a cavity which converges toward a substantially closed end, threshing elements in said cavity, means for shaking said member, and means for forcing a stream of air and stock into the said cavity against said end so that the direction of said stream is rapidly changed to cause the heavier particles to be precipitated out of the air stream.

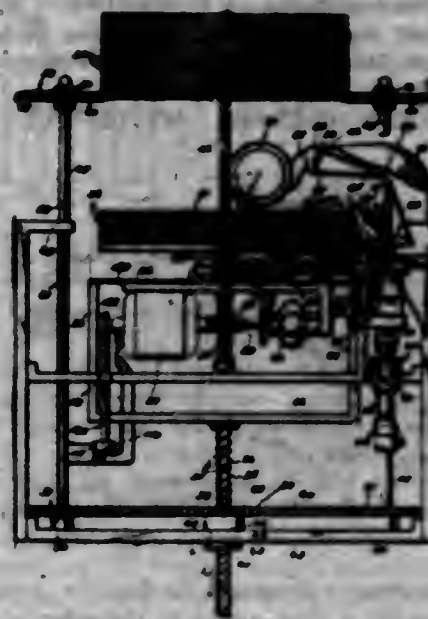
7. A separator for grain comprising a member having a cavity which converges toward a substantially closed end, threshing elements in said cavity, a longitudinal shaft extending through said member and cavity, a blower mounted on said shaft for projecting a stream of air and stock into said cavity, and a second blower mounted on said shaft for withdrawing the air and chaff from the machine, said blowers being mounted adjacent each other at the end of the machine opposite the aforementioned member.

1,306,240. ATTACHMENT FOR CASH-REGISTERS. ROBERT N. WHITE, Jr., Greenville, Tex. Filed Nov. 9, 1918. Serial No. 261,906. 3 Claims. (Cl. 235—7.)



1. An attachment for cash registers, including a paper holding rack, a shaft extending therethrough, means normally positioned to prevent removal of paper from the rack, said means being operated by the shaft, and means operatively connected to the shaft for attachment to the drawer of a cash register to operate the shaft and release the paper when the drawer is opened.

1,306,241. SELF-OPERATING TALKING-MACHINE. GANNETT W. WOODWARD, Chicago, Ill., assignor to J. Herbert Benjamin, Chicago, Ill. Filed Apr. 26, 1918. Serial No. 230,858. 10 Claims. (Cl. 274—15.)



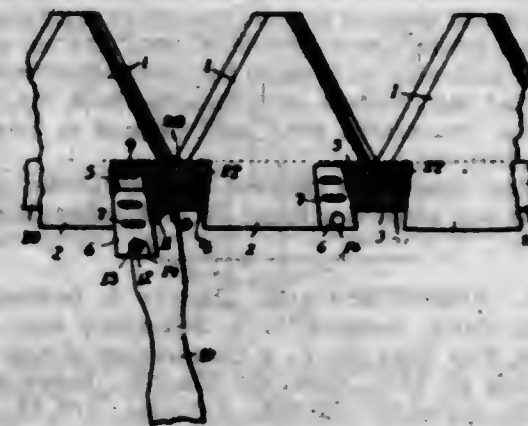
1. In a talking machine, the combination of a rotatable record-support, means for rotating said support, sound-reproducing mechanism involving a horizontally swinging hollow tone-arm and a reproducer portion connected therewith and movable thereon toward and away from the record-support, means, extending into the interior of said tone-arm and connected with said reproducer-portion, operating automatically, to first lift said reproducer from the record on said support, and thereafter swing said tone-arm out of a position immediately above said support comprising a lever pivoted on said tone-arm and arranged to serve as a means of turning said tone-arm with a connection from said lever to said reproducer whereby when said lever is rocked said reproducer is rocked on said tone-arm, and means for rocking said lever and thereafter bodily swinging it to first rock said reproducer out of engagement with the record and thereafter swing said tone-arm to one side.

10. In a talking machine, the combination of a rotatable record-support, means for rotating said support, sound-reproducing mechanism involving a horizontally swinging tone-arm and a reproducer portion connected therewith and movable thereon toward and away from the record-support, and means, operating automatically, to first lift said reproducer from the record on said support, and thereafter swing said tone-arm out of a position immediately above said support comprising a lever pivoted on said tone-arm and arranged to serve as a means of turning said tone-arm with a connection from said lever to said reproducer whereby when said lever is rocked said reproducer is rocked on said tone-arm, and means for rocking said lever and thereafter bodily swinging it to first rock said reproducer out of engagement with the record and thereafter swing said tone-arm to one side comprising a reciprocable member engaged by said lever for rocking the latter, a cam device for reciprocating said member, a rock member provided with projections and adapted to engage said lever for bodily moving the latter, and means for rocking said rock member.

1,306,242. SICKLE-BAR. ALFRED D. ANDERHILLER, Randolph, Mass., assignor to Universal Sickle-Bar Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 29, 1917. Serial No. 145,315. 5 Claims. (Cl. 56—44.)

1. A sickle bar having thin transversely disposed slots through it, blades each having a dovetail shank in each of the slots, one edge of each shank being spaced from an end of its associated slot, and a removable block filling

the space thus left in each slot, each block being of substantially the same thickness as the blades and lying in the same plane, and having means for preventing its accidental displacement.



2. A sickle bar having thin transversely disposed slots through it, blades each having a dovetail shank in each of the slots, one edge of each shank being spaced from an end of its associated slot, and a block filling the space thus left in each slot, the blocks being of substantially the same thickness as the blades and lying in the same plane, but slightly wider at their outer ends than at their inner ends and having resiliently operative means for preventing their accidental displacement.

4. A sickle bar having thin longitudinally disposed slots extending transversely through it, blades each having a dovetail shank in each of the slots, an edge of each shank being spaced from an end of its associated slot, and a block filling the space thus left in each slot, each block having means to resist removal and having a portion normally exterior to the bar, said portion having a hole therein, whereby a lever arm having a pin adapted to enter said hole can be used for forcing each block out from its slot.

1,306,243. WOVEN CARTRIDGE-BELT. WILLIAM ACHTMEYER, Middletown, Conn. Filed Oct. 12, 1917. Serial No. 196,283. 5 Claims. (Cl. 224—28.)



4. A woven cartridge belt, comprising a woven back having its lower marginal portion divided lengthwise of the back, a woven pocket front having its lower marginal portion divided lengthwise and interlocked with the divided lower portion of the said back, the said divided lower marginal portion of the front being provided with elastic warp threads held under tension during the weaving of the front and puckering the front on relaxing of the said elastic warp threads after the front is woven.

5. A woven cartridge belt, comprising a woven back, a woven front, the back and front providing cartridge pockets, the lower ends of the said back and front having lengthwise extending interlocking members, stitches fastening the said members together, and eyelets fastening the said members together and forming an escape for dirt from the said pockets.

1,306,244. LIQUID FUEL. ARTHUR A. BACKHAUS, Baltimore, Md., assignor to U. S. Industrial Alcohol Co., a Corporation of West Virginia. Filed Nov. 28, 1917. Serial No. 204,378. 18 Claims. (Cl. 44-8.)

1. A fuel comprising a petroleum distillate, an alcohol and a fatty acid adapted to blend the other constituents.
2. A fuel comprising a petroleum distillate, an alcohol and linoleic acid adapted to blend the other constituents.
11. A fuel comprising a petroleum distillate, ethyl alcohol and an unsaturated fatty acid adapted to blend the other constituents.
18. A fuel comprising gasoline, kerosene, ethyl alcohol and linoleic acid adapted to blend the other constituents.

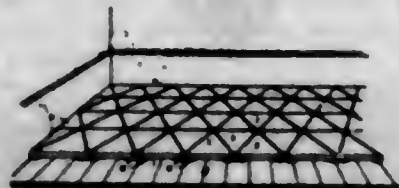
1,306,245. PRESSURE-GAGE. JUNIUS A. BOWMAN, Los Angeles, Calif., assignor to A. Schrader's Son, Incorporated, New York, N. Y., a Corporation of New York. Filed July 27, 1910, Serial No. 574,176. Renewed Aug. 20, 1918. Serial No. 250,753. 4 Claims. (Cl. 73-111.)



1. A pressure gage comprising an air cylinder having a part to engage a tire valve or the like, a pressure responsive element in said cylinder, a detachable registering device adapted to be projected slidably into said cylinder, and adapted to contact with said pressure responsive element in its various actuated positions, and an indicator frictionally slidable on said registering device at a point without the cylinder.

4. A pressure gage comprising a cylinder, an end piece at one end of the cylinder having an opening therethrough, a piston in the cylinder, a spring interposed between the piston and end piece, a registering device comprising a bodily removable rod loosely extending through the opening in said end piece, the lower end of the rod being adapted to rest upon the outer surface of the piston, and the outer end thereof projecting beyond the outer end of the cylinder, and a sleeve slidable on the rod without the cylinder, the said rod having indicating marks.

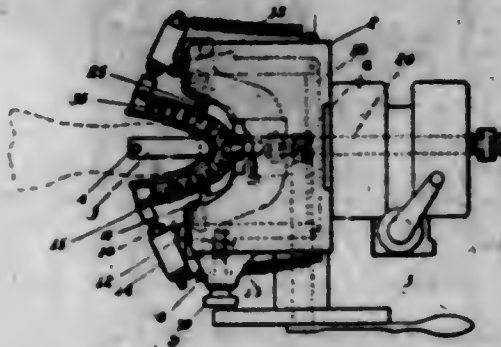
1,306,246. TILE FLOOR. JULIAN A. BAIRD, Oakland, Calif. Filed Sept. 7, 1915. Serial No. 49,323. 4 Claims. (Cl. 72-18.)



1. A substantially triangular floor tile having supports depending from its under side at its corners only.
2. A substantially triangular floor tile having legs at its corners only, adapted to support it upon a suitable foundation so that the major portion of its under side is supported a short distance above the foundation.
3. A substantially triangular floor tile provided with means for supporting it at its corners only.
4. A tile floor comprising a foundation and triangular tiles thereon of which the upper surfaces are in the same

plane and each has at its corners separate supports resting upon the foundation and supporting the tile thereon so that the under surface of the tile is spaced from the foundation.

1,306,247. END-LASTING MECHANISM. MATTHIAS BROCK, Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 14, 1915. Serial No. 50,629. 41 Claims. (Cl. 12-14.1.)



1. An end lasting mechanism having, in combination, means for clamping a shoe upper to the sides of its last, and springs independent of said clamping means and arranged with relation to the upper clamping means to force the upper materials of the shoe at the corners of the heel hard against the last.

7. An end lasting mechanism having, in combination, means for supporting a shoe on its last, a yoke movable transversely of the shoe, a heel embracing band carried by the yoke and springs also carried by said transversely movable yoke and arranged to exert pressure against the corners of the heel embraced by the band.

10. An end lasting mechanism having, in combination, means for supporting a shoe on its last, two springs arranged respectively to apply pressure at the corners of the heel of the shoe, and means for adjusting the springs together transversely of the shoe.

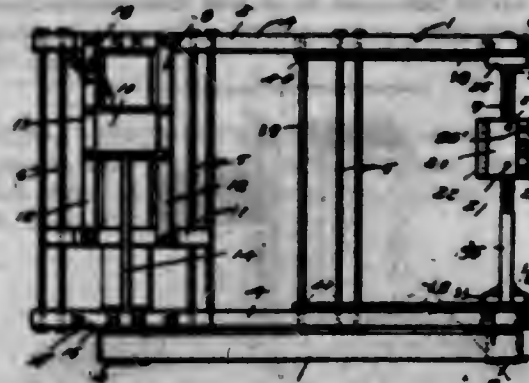
27. An end lasting mechanism having, in combination, an end clamping band to embrace and conform a shoe upper to the sides of one end of its last, means for closing said band to force the upper into conformity to the last, and relatively stiff spring means independent of said closing means and arranged with relation to said clamping means to exert substantial pressure against said clamping means to transmit additional pressure to the clamped upper materials at the corners of the heel.

1,306,248. ACOUSTIC APPARATUS. EDWARD E. CLEMENT, Washington, D. C. Original application filed Mar. 16, 1912, Serial No. 684,365. (Patent No. 1,216,948, dated Feb. 20, 1917.) Divided and this application filed Feb. 19, 1917. Serial No. 149,658. 3 Claims. (Cl. 170-171.)



1. A telephone repeater comprising a primary diaphragm arranged to respond to electrical vibrations, a plurality of independently vibrating secondary diaphragms arranged to actuate current controlling means in an electrical circuit, and liquid transmitting means connecting said diaphragms, said secondary diaphragms having an aggregate area greater than that of the primary diaphragm and each capable of responding to a frequency higher than that to which a diaphragm of the aggregate area could respond.

1,306,249. DUBBING-MACHINE. DAN L. COBS and WILLIAM W. MOORE, Orange, Tex. Filed Mar. 1, 1918. Serial No. 219,933. 1 Claim. (Cl. 144-117.)



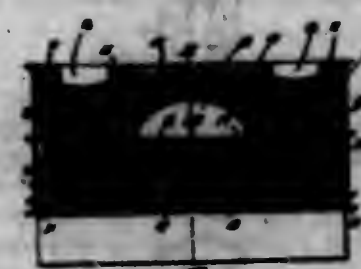
A portable dubbing machine comprising a frame, a rotatable shaft carried by the forward portion of the frame and positioned below the same, a cutter head keyed to the shaft, a motor for operating the shaft, blocks mounted on each side of the cutter head and slidably mounted on the shaft, a bushing rotatably carried by the blocks and keyed to the shaft, a depending bracket formed on the blocks, rollers rotatably carried by the bracket, and means for holding the blocks in spaced relation to each other.

1,306,250. ELECTRIC FURNACE. ORA A. COLBY, Larimer, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 13, 1917. Serial No. 196,412. 15 Claims. (Cl. 204-64.)



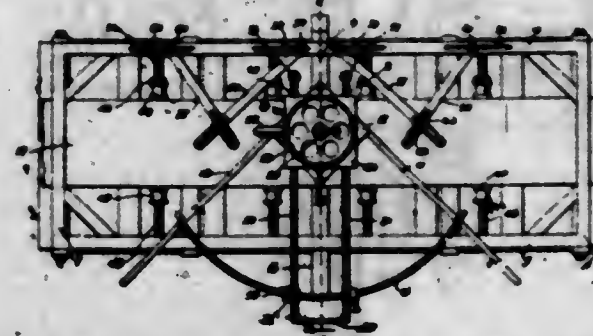
1. An electric furnace comprising a heating chamber, a resistor adjacent the heating chamber, terminal electrodes, and a mass of thermal-insulating, electrical-conducting material interposed between each of said electrodes and the resistor to conduct current and adapted to prevent overheating and consumption of said electrodes.

1,306,251. ELECTRIC FURNACE. ORA A. COLBY, Larimer, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 24, 1917. Serial No. 196,281. 16 Claims. (Cl. 204-64.)



1. In an electric furnace, the combination with a heating chamber, of a resistor adjacent to said chamber and comprising refractory electrical-conducting block material, terminal electrodes, and a mass of thermal-insulating and electrical-conducting material interposed between each of said electrodes and the resistor for conducting current therebetween and adapted to prevent overheating and consumption of said electrodes.

1,306,252. HOUSING-MACHINE FOR WOODWORKING. ALFRED B. DAVORE, Sacramento, Calif. Filed Dec. 7, 1916. Serial No. 135,667. 11 Claims. (Cl. 144-136.)



1. A woodworking machine comprising a supporting frame, tracks carried by said frame in an adjustable mounting, a carrier supported on said tracks to be capable of movement thereon, a rotary cutter supported from said carrier, adjustable carrier means mounted on the supporting frame to receive the lumber to be acted upon and to be adjustable to regulate the disposition of the same with respect to the cutter to thus vary the depth of cut, stop means to regulate the extent to which the grooves are cut into the lumber, and a second stop means to halt the return movement of the carriage in a predetermined relation to allow a second cut to be made from the first cut at a predetermined point therefrom and in an angular disposition.

1,306,253. VENTILATOR. OTTO DEBOLD, Newark, N. J. Filed Feb. 28, 1919. Serial No. 279,734. 3 Claims. (Cl. 98-3.)



3. In a ventilator having a rotary elbow shaped cowl formed in sections with louver openings between the same and a stem extending from the top of the cowl through the lower end thereof, a longitudinally disposed wing arranged within the elbow and extending rearwardly from the stem away from the discharge opening of the cowl, the forward edge of the wing being secured to the stem while the rear edge thereof spans one of the louver openings and is secured to the cowl sections.

1,306,254. V-BLOCK. CHARLES FREDERICK DECK, Braintree, England. Filed Aug. 13, 1918. Serial No. 249,688. 6 Claims. (Cl. 77-63.)



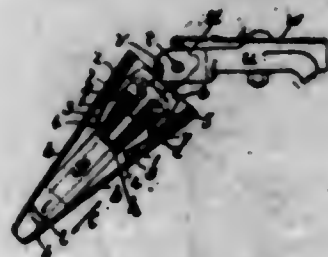
1. A V block, consisting of an angle bar section cut away at the angle to form a V shaped recess.

1,306,255. INGOT-TONGS. ARTHUR A. HANLAN, Gary, Ind. Filed May 19, 1917. Serial No. 169,702. 3 Claims. (Cl. 57-9.)



1. In a device of the class described, the combination of a vertically reciprocable beam, a tong head reciprocally mounted in the lower end of said beam, a pair of tongs pivoted on said head, diagonal guides carried by said beam for opening and closing said tongs when said head is reciprocated, and automatic means for retaining said head in its elevated position, substantially as described.

1,306,256. SPINDLE OR HOLDER FOR CONES FOR WINDING-MACHINES. HERBERT HOLT and ALFRED SKELEY, Rochdale, England. Filed Oct. 8, 1915. Serial No. 54,810. 5 Claims. (Cl. 242-130.)

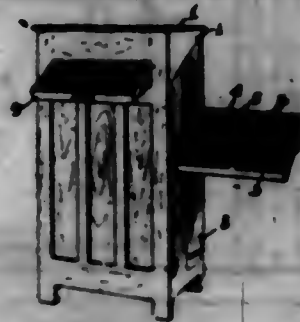


1. In a spindle or holder for cones in a winding machine, a revolvable support, engaging means mounted on such support for engaging cones to be applied to the spindle or holder and presenting engaging parts movable into position for engagement away from the axis of the revolvable support and axially of such support in the direction from the points or narrow ends to the bases or wider parts of the cones, resilient means for moving said engaging parts outwardly away from the axis of such support and in the direction from the points or narrow ends to the bases or wider parts of cones, devices intermediate the resilient means and engaging parts for enabling the resilient means so to move the engaging parts, and means for moving such engaging parts out of engagement.

1,306,257. CABINET FOR TYPOGRAPH-MATRICES AND THE LIKE. CARL HORIX, Chicago, Ill., assignor to The Ludlow Typograph Company, Cleveland, Ohio, a Corporation of Maine. Filed July 14, 1915. Serial No. 39,792. 1 Claim. (Cl. 211-41.)

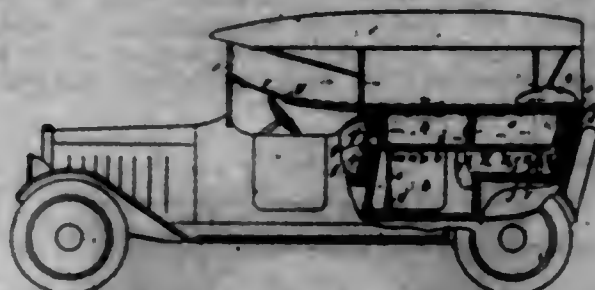
The combination with an upstanding type-matrix cabinet of general rectangular form; of a series of trays transversely slidably supported therein, so as to be adapted when withdrawn to project from one side of said cabinet, said trays being thus supported at an angle to the horizontal so as to incline upwardly from front to rear and being subdivided into compartments by partitions disposed at right angles to the bottom of the tray; and other trays slidably supported in said cabinet parallel with and above said first-named trays but movable transversely of

the same, so as to project at a downwardly inclined angle from the front of said cabinet when withdrawn therefrom, whereby an operator may simultaneously work from one of said first-named trays and from one of said last-named trays, each of said last-named trays being provided with a transversely disposed stop at its



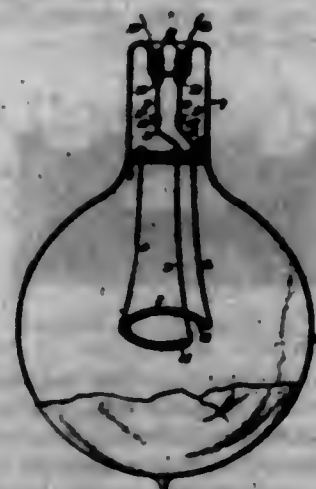
inner end adapted to engage the front wall of the cabinet to prevent complete withdrawal of said tray and with a second shallower stop at its forward end adapted to engage such wall to retain said tray in its closed position, said tray having sufficient vertical play to enable said forward stop to be raised clear of such wall when it is desired to withdraw said tray, substantially as described.

1,306,258. AUTOMOBILE-BED. JOHN F. KERRIGAN, Portland, Oreg. Filed Aug. 18, 1916. Serial No. 115,715. 1 Claim. (Cl. 21-43.)



A collapsible bed for passenger auto vehicles comprising the combination of a frame the sides consisting of sections, connections for said sides and ends, such connections including perpendicular sockets, legs fastened in said sockets, the legs at one end of the frame being normally longer than those at the other end and being adjustable as to length, and a plurality of slats provided at one end with means for engaging the transverse member of one end of the frame.

1,306,259. ELECTRIC LAMP. FREDERICK G. KRIES, Hoboken, N. J., assignor to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed Jan. 17, 1916. Serial No. 72,407. Renewed May 2, 1919. Serial No. 294,245. 17 Claims. (Cl. 179-30.)



2. In a high candle power tungsten lamp, a container, a filament of tungsten capable of being brought to brilliant

incandescence by currents of above 18 amperes, leads connected with the terminals of said filament, and tubular seals for the said leads consisting of a metal tube sealed through the wall of the container and whose coefficient of thermal expansion is greater than that of the container material, the leads constituting the conducting portion of the seals.

1,306,260. DOOR-LOCKING MECHANISM. JOHN F. KISSANE and FRANK E. SCHOONMAKER, Detroit, Mich. Filed Apr. 11, 1918. Serial No. 228,011. 2 Claims. (Cl. 180-82.)



1. The combination with an electrically operated car having hinged doors, and a controller for the electric operating circuit of the car, of door locking devices in circuit with said controller and adapted to prevent opening of the car doors when the car is in motion, each device comprising a solenoid adjacent the upper edge of each door, a pivoted lever having one end thereof serving said solenoid, and a keeper in the upper edge of each door adapted to receive the opposite end of the lever.

1,306,261. MACHINE FOR CUTTING HIDES. CHARLES F. KLEIN, St. Louis, Mo. Filed Apr. 12, 1918. Serial No. 228,218. 11 Claims. (Cl. 164-73.)

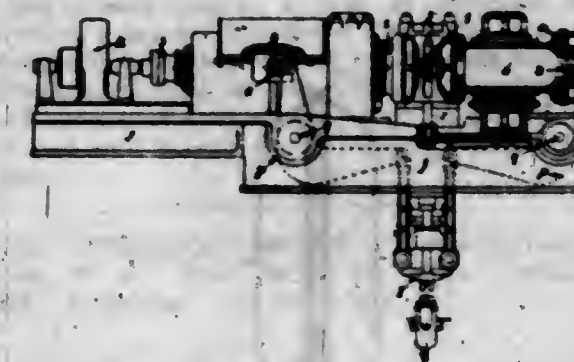


1. In a machine for cutting hides or the like, a table to receive the hide thereon and having a longitudinal slot, a rail disposed above the table and having a lower hide contacting face which is longitudinally inclined and extends upwardly slightly toward the ends of the rail, devices disposed near the opposite ends of the rail to move them downwardly toward the table, and a cutter operating within the longitudinal slot and traveling longitudinally of the rail.

1,306,262. MANUFACTURE OF ROLLED WHEELS AND DISKS. THOMAS ROBERT KNOWLES, West Bromwich, England. Filed July 26, 1915. Serial No. 42,102. 4 Claims. (Cl. 80-16.)

1. Apparatus for the manufacture of rolled wheels and the like comprising in combination a pair of rolling dies disposed with their die faces toward each other, said rolling dies being mounted on rotary spindles, the axes of both said spindles diverging at a very slight angle only from a straight line through the center of the bloom, said axes meeting said line at the central point in the mass of the bloom, bearings in which said spindles are mounted, adjustable carriers for said bearings, whereby both said spindles and said rolling dies may be adjusted as to the slight angle of divergence of their axes from

said straight line through the center of the bloom, when the bloom is in place between the dies, said carriers being



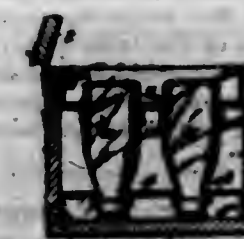
adjustable between 1 1/2° and 5° to suit the work to be operated upon.

1,306,263. SANITARY POURING-SPOUT FOR CONTAINERS. DAVID F. LANG and DANIEL G. PETERSON, Portland, Oreg. Filed May 10, 1917. Serial No. 169,128. 5 Claims. (Cl. 221-27.)



1. A sanitary pouring spout for containers comprising a tubular body adapted for being mounted on the neck of the container, a drip-cup encompassing the top of said tubular body, a spout reciprocable in said body, means for limiting the outward movement of the spout, a spring normally holding the spout projected, a cap for the drip-cup, said spout being provided with a projecting piece upon which said cap bears when seated on the rim of the drip-cup, and whereby the spout is depressed to the bottom of the drip-cup.

1,306,264. CASE FOR HOLDING AND SHIPPING BOTTLES. LOWMY LEWIS, McAlpin, W. Va. Filed Aug. 17, 1915. Serial No. 45,882. 1 Claim. (Cl. 217-21.)



A bottle-case comprising a wooden box, horizontal metal partitions constructed with coincident bottle openings and pendent flanges around said openings, the upper partition having upwardly projecting portions provided with lateral flanges resting on the top edge of the box, and the lower partition having pendent flanges resting on the bottom of the box, as shown.

1,306,265. PROJECTILE. WILLIAM HOWARD LAYNE, Hampstead, London, England. Filed Sept. 4, 1918. Serial No. 252,542. 1 Claim. (Cl. 102-29.)

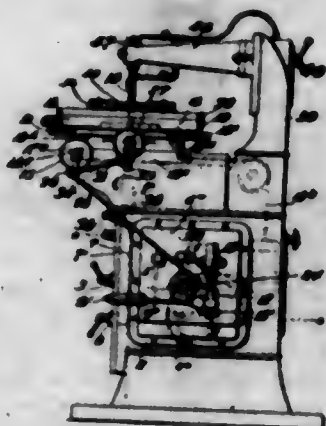
In a projectile, the combination with a tube having contracted ends, of a central tube to which the said con-

tracted ends are connected, a diaphragm dividing the tube into a rear chamber and a forward chamber, a hole in the tube connecting the rear chamber to the projectile,



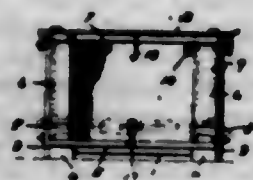
a plug for closing the rear chamber, an explosive charge in the forward chamber, and a fuse closing the forward chamber.

1,306,266. AUTOMATIC PROFILING-MACHINE. EMIL J. LUSTEN, Norristown, Pa., assignor to The Luster-Jordan Company, Incorporated, Norristown, Pa., a Corporation of Pennsylvania. Filed Sept. 3, 1917. Serial No. 189,789. 10 Claims. (Cl. 90-46.)



1. A machine of the character stated embracing a vertically reciprocal tool, a medium for operating the tool, an endwise movable table through which the tool operates, means for selectively rotating one portion of said table with respect to another portion in concentric and eccentric relation, means for moving a portion of the table transversely with respect to the endwise movable portion, means between said tool operating medium and the endwise movable portion of the table to arrest endwise movement thereof during a cutting stroke of the tool and independent means for advancing the table toward the tool upon the return movement of the tool.

1,306,267. FOLDING CHICKEN-COOP. HARRY LITTLE, Liberal, Mo. Filed June 13, 1917. Serial No. 174,569. 1 Claim. (Cl. 217-12.)



A collapsible crate, comprising a bottom, short and long uprights at the ends and sides of the bottom, respectively, end and side members hinged to the said upright, bars secured to the vertical edge portions of the end members, and having flanges at their edges, bolts mounted in the flanges, springs on the bolts between the

said flanges, a removable top and bars at the ends of the top having depending end portions overlapping the side members and receiving the projecting ends of the said bolts.

1,306,268. FURNITURE. FRED W. MCARDLE, Boston, Mass. Filed June 4, 1918. Serial No. 238,090. 5 Claims. (Cl. 155-4.)



5. A chair of the character described, having in combination, a seat; legs connected with said seat; a back; a slide movably mounted beneath said seat; an extension for said slide pivotally connected with the forward end thereof so as to provide for its being swung forward into inoperative position in front of the end of the slide or backward into operative position on top of said slide; a bracket arm projecting forward from said extension when the latter occupies its operative position on top of said slide, said bracket arm being formed with a slot having legs projecting from the side walls thereof; a rest pivotally connected to said arm, and a prop-latch pivotally connected with said rest and occupying the slot of said arm, said prop-latch cooperating with said legs to adjustably support said rest when the latter is in position for use, and also cooperating with said legs and the slide to hold said rest against swinging downward on its pivot when said extension occupies its inverted inoperative position.

1,306,269. COMBINED COAL AND GAS RANGE. HENRY C. MAUL, Detroit, Mich., assignor to The Michigan Stove Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 21, 1918. Serial No. 212,886. 10 Claims. (Cl. 126-34.)



1. The combination of an oven having communicating flues adapted to communicate with said oven and different sources of heat, means in one of said flues serving as a baffle when wholly therein and adapted to be adjusted to extend into another flue and cause heat from one source to travel in said flues in a different way from the heat of the other source, and means reciprocable at the end of the oven for actuating the first mentioned means.

1,306,270. ORE-SEPARATING MACHINE. JOSEPH WILLIAM MILLER, Miami, Okla., assignor to one-fourth to William P. Neff, one-fourth to Franklin E. Smith, and one-fourth to James C. Vaughan, Miami, Okla. Filed Dec. 28, 1918. Serial No. 268,616. 7 Claims. (Cl. 83-54.)

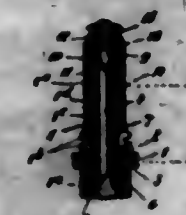
1. In a device of the character described, the combination of a rotatable cone adapted to receive the material

to be treated and permit it to gravitate therefrom, and collecting device comprising receptacles divided by a circumferential rim or ledge, the latter extending upwardly and just outside of the bottom edge of the said



cone, whereby the heavy material passes downward by gravity and slides off of said cone inside of said rim or ledge and into the inside receptacle and the tailings pass over said rim or ledge into the receptacle outside of said cone.

1,306,271. SPARK-PLUG. JEAN ADRIEN MORREAU, Paris, France. Filed Jan. 28, 1919. Serial No. 273,577. 2 Claims. (Cl. 123-169.)



1. A spark plug comprising: an electrode rod; a head at one end of this rod; a thread on the other extremity of the latter; a tube made of insulating material around the said electrode; a metal tube surrounding the said insulating tube; a conical shoulder formed on said metal tube; an insulating lining at each end of the latter; an external tubular metallic body secured to the engine's cylinder; a conical seat formed inside said body; a nut pressing both the insulating tube and the internal metallic tube with its linings against the head of the electrode rod; and a second nut drawing the conical shoulder formed on the internal metallic tube against the seat on the external metal body.

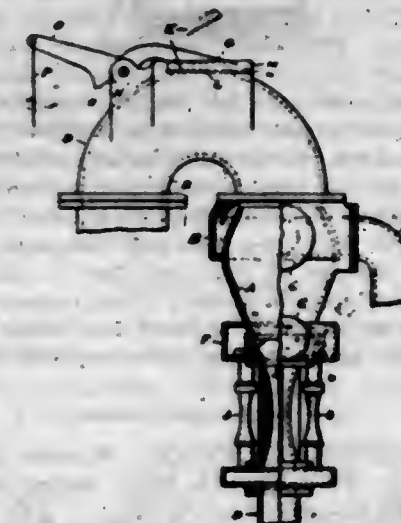
1,306,272. WALL-HANGER FOR RADIATORS. ROBERT T. MULLEN and JOHN W. MOORE, Detroit, Mich. Filed Jan. 10, 1919. Serial No. 270,480. 1 Claim. (Cl. 246-30.)



A device of the type described comprising a channel wall member, a support adjustable at the lower end of

said member and extending therein, a bar in said member having its lower end connected to said support, a bolt at the upper end of said bar extending out of the upper end of said member, a guide at the upper end of said member, a bracket slidable in said guide, a rearward extension carried by said bracket and through which said bolt extends, and nuts on said bolt engaging said extension and the top of said member so as to permit of said support and said bracket being adjusted independent of each other.

1,306,273. STEAM-CONDENSER. JAMES NAYLOR, Arlington, N. J. Filed Sept. 22, 1915. Serial No. 52,057. 5 Claims. (Cl. 261-76.)



2. In a steam condenser a condensing chamber provided with steam and water inlets and a central contracted vein discharge; in combination with means for an annular overflow from the said chamber at a certain elevation above the said contracted vein and means for conducting the said overflow to the said central discharge.

1,306,274. PROCESS FOR WATERPROOFING FABRICS. JOSEPH EUGENE PAQUET, Montreal, Quebec, Canada. Filed Sept. 11, 1918. Serial No. 253,664. 3 Claims. (Cl. 91-68.)

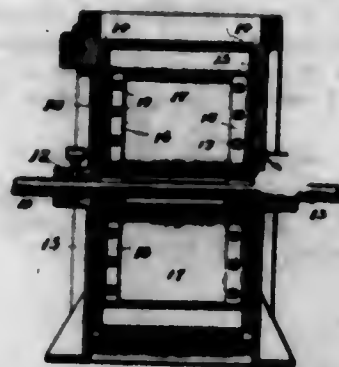
1. A process of waterproofing fabric consisting in coating the same with a paste including gluten, linseed oil and glue, drying said fabric and then subjecting the same to a second application of a paste including gluten and the double quantity of glue and linseed oil.

1,306,275. REVERSIBLE PONTOON-RAFT. HAROLD B. PHREY and HUMPHREY W. CHAMBERS, Barrow-in-Furness, England. Filed Nov. 5, 1917. Serial No. 200,297. 1 Claim. (Cl. 9-11.)



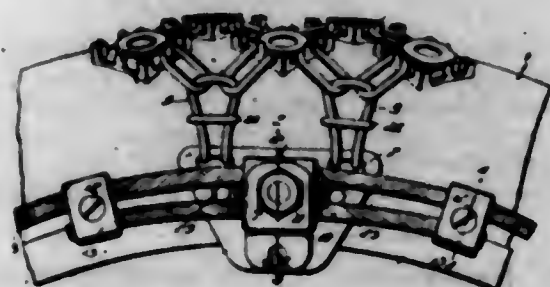
In a reversible pontoon raft, the combination of a tank body, a sheathing surrounding the sides of the body and spaced therefrom and formed of a plurality of members spaced from each other, and a plurality of baffle planks between the tank body and the sheathing and extending across the space between the sheathing members to protect said tank body against sudden inrush of water upon launching.

1,306,276. ROTARY DUST-VALVE. MILTON C. PUTNAM, Omaha, Nebr., assignor to United Alfalfa Co., Omaha, Nebr., a Corporation of Nebraska. Filed Oct. 27, 1917. Serial No. 198,856. 3 Claims. (Cl. 251—96.)



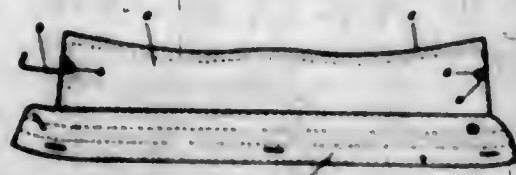
1. A dust valve adapted for use on the outlet of a dust collector, said valve comprising a cylindrical casing having an inlet and an outlet, and a rotary cylindrical valve in said casing having end disks, said valve having pockets adapted to register successively with the inlet and to receive charges of dust from the collector, and to successively deliver charges of collected dust to the outlet of said casing, each of said pockets being formed of a strip fashioned into substantially U-form, and means for clamping together the side edges of corresponding members of adjacent strips.

1,306,277. FASTENING DEVICE. WALTER J. PUTNAM, Deposit, N. Y. Filed Mar. 14, 1918. Serial No. 222,342. 1 Claim. (Cl. 24—135.)



A clamp for connecting the looped ends of flexible members, consisting of a plate having a lateral stem for engaging within the loops, with the loops in overlapping relation, said plate having slots at opposite sides of the stem, a keeper having an opening for receiving the stem and engaging over the loops and engaging with its ends the slots to prevent swinging of the keeper and to prevent spreading of the ends of the keeper, a nut threaded on the stem outside of the keeper, and means for locking the nut.

1,306,278. COLLAR. HARRY G. ROBERTS, Kitchener, Ontario, Canada, assignor to The Williams, Greene & Rome Company, Limited, Kitchener, Canada. Filed Nov. 7, 1918. Serial No. 261,519. 3 Claims. (Cl. 2—67.)



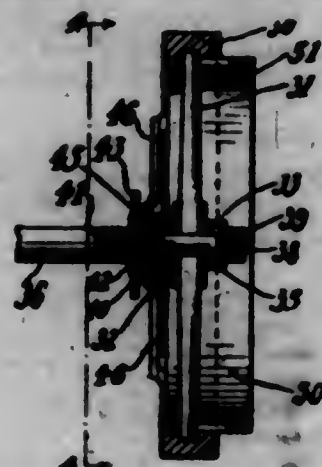
1. A collar comprising a band and a top formed of a plurality of plies of material and provided with attaching means for a connecting member formed of tapes each having one end sewn in one of the adjacent edges of the ends of the top between the plies thereof and its other end turned back to form a loop and secured to the top adjacent its first mentioned end by the binding stitching of the edges of the top.

1,306,279. FASTENING. CURT J. ROWLAND, Providence, R. I., assignor to National Ring Traveler Co., Providence, R. I., a Corporation of Rhode Island. Filed Oct. 14, 1918. Serial No. 287,942. 8 Claims. (Cl. 85—28.)



8. The method of making a headed fastening, consisting in radially slitting the head, in spreading the slit transversely of the plane of the head, in embedding said split head in a laminated fibrous covering head by a rotative progression through the laminations, and in subsequently compressing said covering head thereon.

1,306,280. TRANSFORMABLE WHEEL. WASIL ROPICKY, Detroit, Mich., assignor of one-half to Josef Ptaszek, Detroit, Mich. Filed Oct. 5, 1918. Serial No. 256,974. 2 Claims. (Cl. 295—8.5.)



1. In a transformable wheel, the combination with an axle, having screw threads adjacent to the ends thereof, a hub rigidly engaged at the extremity of said axle, a plurality of spokes radiating from said hub, and a rigid annular tread secured at the ends of said spokes, of a band fitted to the interior of said tread, said band having elongated slots through which the ends of said spokes freely pass, lugs formed with said band extending radially inward, an internally screw threaded sleeve engaged upon the threads of said axle, a spider revolvably mounted on said sleeve, and arms formed with said spider engageable with said lugs whereby the band may be moved laterally with respect to said tread.

1,306,281. HEAT-CONSERVER. JOHN CORNWELL ROUND, London, England. Filed Aug. 6, 1918. Serial No. 248,553. 4 Claims. (Cl. 220—9.)



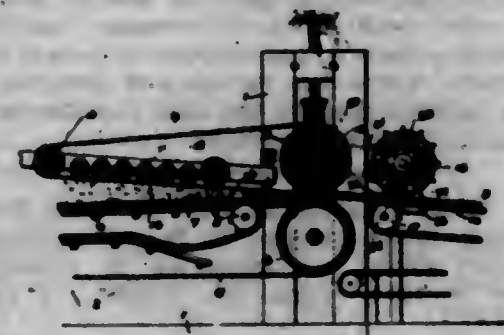
1. In a heat conserver, an outer cover, an inner cover which forms a heat-conserving chamber normally open at its bottom end, a series of intermediate covers arranged one within another and interposed between the inner and outer covers, separate and continuous air spaces being formed between all the said covers and extending around their sides and over their top portions, and means for closing the annular spaces between the bottom portions of the said covers.

1,306,282. TRACK FOR TRACTORS. WILSON J. SAMSON, San Leandro, Calif. Filed Apr. 11, 1918. Serial No. 227,835. 2 Claims. (Cl. 74—32.)



1. A track for tractors comprising links arranged in pairs, the adjacent ends of the links of each pair having overlapping bosses, the outermost bosses having square holes and the innermost round holes, sleeves projecting into the round holed bosses, and pins whose ends are square projecting through the sleeves and seated in the square holed bosses, whereby the position of the pins relative to the bosses may be altered by quarter-turns to change the wearing surface thereof.

1,306,283. MACHINE FOR PERFORATING INSULITE BOARDS. JOHN K. SHAW, Minneapolis, Minn., assignor to R. G. Dahlberg, St. Paul, Minn. Filed Oct. 7, 1918. Serial No. 257,251. 1 Claim. (Cl. 25—42.)



In a machine for making indentations in a fiber board, the combination of a pair of pressure rolls to move the said board; a conveyor belt on which said board is received; a support below the upper run of said belt; an indenting wheel mounted above said support and conveyor belt; connections between said indenting wheel and one of said rolls for compelling the peripheral travel of said indenting wheel to be the same as the travel of said board; a plurality of spring pressed, adjustable sharp pointed indenting members adapted to contact with said board carried by said indenting wheel; and means to adjust the penetration of said members and the compressions of their springs, substantially as described.

1,306,284. TOY SUBMARINE. RUDOLF SEIDL, Minneapolis, Minn. Filed Apr. 6, 1917. Serial No. 160,162. 17 Claims. (Cl. 46—37.)



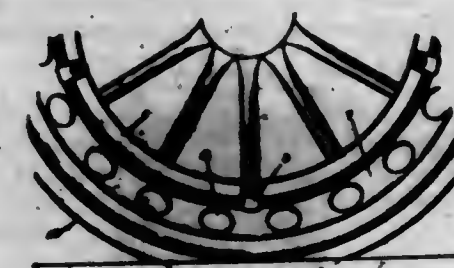
1. In a device of the class described, the combination of a hull having an interior chamber, a collapsible container therein having a channel communicating with the exterior below the water line, a propeller, and mechanism for driving the propeller and alternately collapsing and expanding the container whereby to alter the specific gravity of the hull.

1,306,285. FLUSHING DEVICE FOR TOILETS. ADOLPH STROUPE, St. Agathe des Monts, Quebec, Canada. Filed Jan. 31, 1919. Serial No. 274,336. 2 Claims. (Cl. 4—5.)



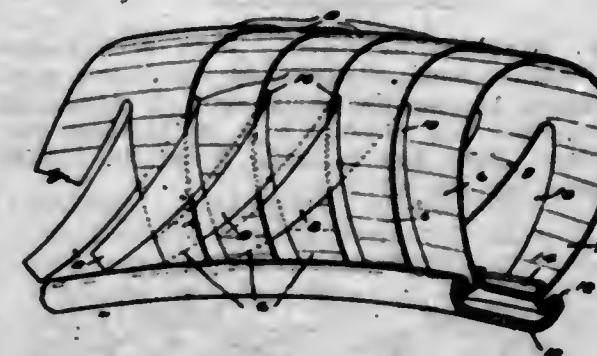
1. A flush tank of the character described, an inlet pipe leading to said tank, a valve for said inlet, a siphon pipe arranged within said tank, said tank having an outlet opening therein and a depending flange extending around the upper part of the tank that portion of the upper wall included within said flange being open to admit atmospheric air, and a float arranged in the closed portion of said tank, and means for operatively connecting said float with said inlet valve substantially as and for the purpose specified.

1,306,286. DEMOUNTABLE METAL TIRE FOR VEHICLE-WHEELS. JUSTUS MITCHELL SILLIMAN, London, Ontario, Canada. Filed Oct. 5, 1918. Serial No. 256,966. 4 Claims. (Cl. 295—8.5.)



1. The combination with a wheel provided with a fixed rim of a metal tire provided with a rim adapted to fit on the fixed rim, a tread spaced from the rim in a radial direction and laterally offset relative to the wheel, and a flange at the inner side of the tread.

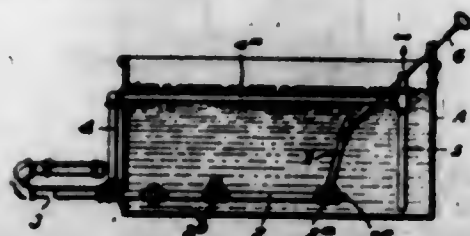
1,306,287. RESILIENT TIRE. DANIEL B. STEELE, Seattle, Wash. Filed Mar. 3, 1919. Serial No. 280,288. 2 Claims. (Cl. 152—8.)



2. A tire of the class described comprising a plurality of spring sections arranged in overlapping relation around a rim each of said spring sections comprising a solid central portion having two integrally formed spring members projecting from each side thereof, one of said spring members on each side having a rim engaging hook formed on the end thereof and being arranged to extend around the tire in a substantially radial direction; and one spring member on each side being curved away from said first named spring member.

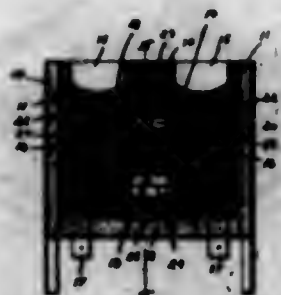
and arranged to extend diagonally around the side of the tire and being interwoven over and under the first named spring members of adjacent spring sections.

1,306,288. MEANS FOR HEATING OIL IN OIL-TANKS. CHARLEY WILLIAM STOKES and HARRY BELL REDDISH, Custer City, Pa. Filed Jan. 16, 1919. Serial No. 271,428. 3 Claims. (Cl. 126-344.)



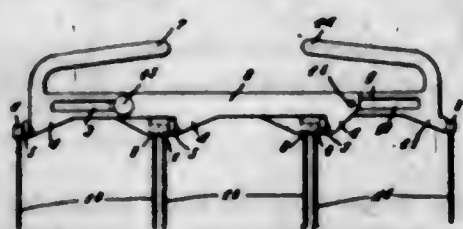
1. In combination a tank, a heater outside the tank, a pipe connected with the heater and having an adjustable inlet portion, manually controlled means for adjusting said adjustable portion, and a discharge pipe leading from the heater and discharging near the bottom of the tank.

1,306,289. ELECTRIC FURNACE. FRANK THORNTON, Jr., Pittsburgh, and ORA A. COLBY, Larimer, Pa., assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 24, 1917. Serial No. 198,275. 18 Claims. (Cl. 204-64.)



1. In an electric furnace, the combination with a heating chamber, of a resistor adjacent the same comprising blocks of refractory electrical conducting material in contact with one another and forming the top and bottom walls of said chamber, terminal electrodes, and a mass of thermal-insulating and electrical-conducting granular material interposed between each of the electrodes and the resistor to prevent overheating of the electrodes.

1,306,290. EGG-TRANSFERER. JOHN A. VAN BOKKUM, Beatrice, Nebr., assignor, by direct and mesne assignments, of one-third to Rankin H. Armstrong, Beatrice, Nebr., and one-sixth to J. W. Richison, Fairbury, Nebr. Filed July 9, 1917. Serial No. 179,592. 2 Claims. (Cl. 99-8.)



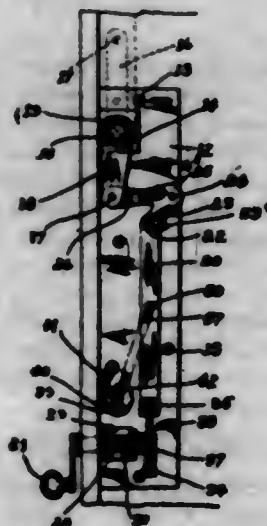
1. A transferer including supporting members arranged side by side and in sliding engagement, lugs secured to the members, bars secured to the lugs, gripping elements carried by the bars and depending therefrom, handles rigidly secured to the supporting members for sliding the members to bring the gripping elements into gripping position, and a retractile spring for restoring the parts to normal position.

1,306,291. TRANSM-OPERATOR. HENRY G. VOIGT, New Britain, and ALBERT A. PAGE, East Haven, Conn., assignors to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Oct. 13, 1916. Serial No. 125,963. 4 Claims. (Cl. 268-17.)



1. In a transom operator, the combination of a base plate, a swinging operating arm having a swivel mounting in said base plate, a slide mounted on the face of said base plate to move in a substantially vertical direction, a toggle connection between said slide and said operating arm positioned to have its knuckle moved to the dead center position as the transom reaches its closed position, whereby the transom is locked in the closed position, means for raising and lowering said slide, and a spring acting on the slide to normally hold the transom in the closed position.

1,306,292. TRANSM-OPERATOR. HENRY G. VOIGT, New Britain, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 3, 1916. Serial No. 129,351. 3 Claims. (Cl. 268-17.)



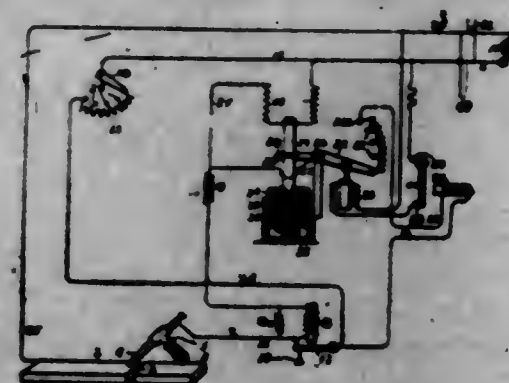
1. In a transom operator, the combination of a transom, a swinging operating member rigidly secured to the transom, a slide movable up and down, means for operating said slide, a toggle connection between said slide and said swinging member, and a toggle connection between said slide and said operating means, said first toggle connection adapted to lock the transom in the closed position and said second toggle connection adapted to lock the transom in the open position.

1,306,293. [WITHDRAWN.]

1,306,294. ELECTRIC WELDING SYSTEM. DAVID H. WILSON, Franklin township, Bergen county, N. J. Filed Feb. 23, 1917. Serial No. 150,539. 7 Claims. (Cl. 219-15.)

1. In an electric welding system, a source of current to supply a plurality of welding circuits in multiple,

one of said circuits provided with a pair of welding terminals adapted to be manually operated to draw and maintain an arc, said generator and current being of such capacity and character that the starting of an arc in another circuit would naturally cause such a drop of



voltage as would disrupt said first mentioned arc when already in operation and means in said first mentioned circuit tending to maintain the arc of that circuit when another arc is started.

1,306,295. METHOD OF WELDING CAST-IRON. DAVID H. WILSON, Ridgewood Park, N. J. Filed Oct. 31, 1917. Serial No. 199,489. 10 Claims. (Cl. 219-8.)

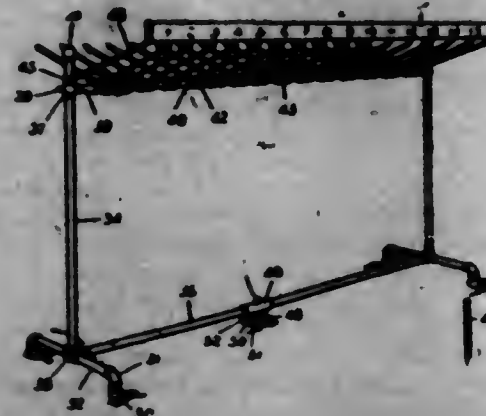
1. The method of welding consisting in causing welding metal to adhere to cast metal by converting the brittle structure of the surface portions of said cast metal into ductile metal by means of an electric arc providing a suitable welding temperature.

1,306,296. SAFETY ATTACHMENT FOR POCKETS. HELMAN ABRAHAMOVITCH, Little Rock, Ark. Filed Feb. 19, 1919. Serial No. 277,979. 10 Claims. (Cl. 24-2.)



1. In a device of the character described, the combination of a spring clip adapted to be permanently secured in position within a pocket, and an annular member arranged on the inserted article and adapted to be secure in the spring clip.

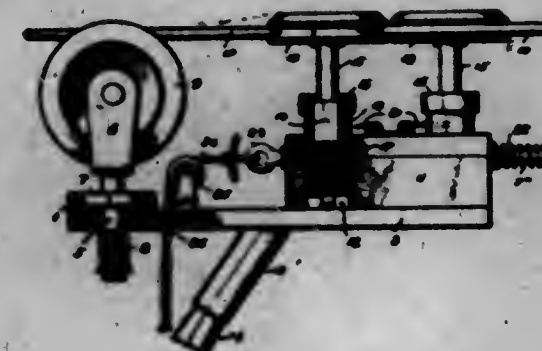
1,306,297. SORTING-RACK FOR ROUGH-DRY LAUNDRY. FRANK L. AUERBACH, Denson, Nebr. Filed Apr. 28, 1916. Serial No. 94,282. 6 Claims. (Cl. 211-14.)



1. In a laundry-sorting apparatus, a rack having at the opposite sides thereof a series of detachable arms, a guard-plate adapted to extend adjacent to the ends of

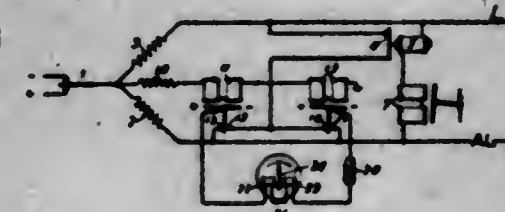
said arms and to receive erasable indicia for separately designating the several arms of the series, and detachable means for supporting the rack pivotally upon a vertical axis, whereby the rack may be swung about said axis to present its opposite sides to a fixed point.

1,306,298. TROLLEY-HARP. JOSEPH BABIL and FRANK GIRARDI, Detroit, Mich. Filed Jan. 2, 1919. Serial No. 269,213. 4 Claims. (Cl. 191-80.)



2. A trolley harp comprising a plate, a main trolley wheel on the forward end thereof, a block on the rear end of the plate, cylinders pivoted on said plate at the sides of said block, rotatable horizontally disposed auxiliary trolley wheels supported above said cylinders, means on said block engaging said cylinders to maintain said cylinders normally against said block, and means shiftable longitudinally in said block adapted when shifted to force said cylinders outwardly from said block.

1,306,299. TELEGRAPH SYSTEM. JOHN H. BELL, South Orange, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 27, 1918. Serial No. 268,484. 3 Claims. (Cl. 178-58.)



1. In a duplex telegraph system, a real line and an artificial line, transmitting and receiving means included with said real and artificial lines, current indicating means, pole changing means responsive to said transmitting means for controlling said current indicating means, and slow acting electroresponsive means included with said receiving means and controlling the connection of said current indicating means to said real and artificial lines.

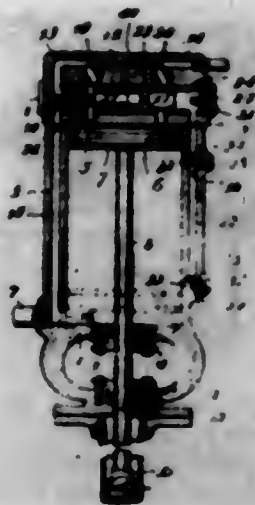
1,306,300. PNEUMATIC IMPACT-TOOL. WILLIAM BURLINGHAM, Newport News, Va., assignor, by direct and mesne assignments, to Engineering Products Corporation, Newport News, Va., a Corporation of Virginia. Filed Aug. 1, 1914. Serial No. 854,478. 68 Claims. (Cl. 121-20.)



3. In a pneumatic hammer, a piston cylinder having differential piston chambers, a plunger having differ-

tial area pistons and slidable in said chambers, means for simultaneously admitting live motive fluid to said pistons, and means for controlling the passage of live air or expanded air to the large diameter piston chamber.

1,306,301. FLUID-MOTOR. JOHN WILLIAM CHADWICK, Kansas City, Mo. Filed Apr. 21, 1916. Serial No. 92,654. 1 Claim. (Cl. 136-10.)



In a motor of the character described, a vertically-disposed cylinder having a constantly open port at its lower end and inlet and outlet ports at its upper end, an unbalanced valve to alternately open and close the inlet and outlet ports of said upper end, longitudinal ducts in the cylinder wall to conduct motive fluid to the ends of said valve to actuate the same, two ports leading into the cylinder from one of the ducts, one of said ports being located below the upper cylinder head a distance slightly greater than the thickness of the piston head, the other port being located above the lower cylinder head a distance slightly greater than the thickness of said piston head, a relatively heavy piston in the cylinder, and check valves coacting with said piston to control the passage of motive fluid through the two last-mentioned ports, so that the pressure on one side of the unbalanced valve will vary sufficiently to effect the operation of the same.

1,306,302. FRICTION-CLUTCH. THOMAS COOPER, Norfolk, England. Filed Oct. 31, 1917. Serial No. 109,475. 1 Claim. (Cl. 192-10.)



In a friction clutch having a set of rollers on the same axis, a bearing for imparting pressure, said bearing comprising an abutment, an abutment box adjustably secured thereto, a compression spring within the box, a ram having an inclined surface slidably mounted within the box for transmitting the pressure of the compression spring, and means for retaining the ram within the box and for regulating the pressure of the said spring.

1,306,303. MOUTHPIECE FOR FEEDING-BOTTLES. FREDERICK RICHARD GRAM-TOOL, Leith, Scotland. Filed Mar. 4, 1918. Serial No. 220,281. 6 Claims. (Cl. 128-252.)



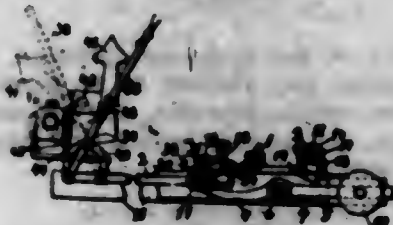
5. A teat for feeding bottles consisting of a rubber like member closed upon itself and having internal grooves for the passage of the milk, a stopper for the attachment to the food container, an opening in such stopper for the reception of the teat and a passage in the stopper for the introduction of air to the food container.

1,306,304. SPARK-PLUG. GUSTAVE L. HINES, New York, N. Y. Filed Oct. 25, 1915. Serial No. 57,905. 14 Claims. (Cl. 122-169.)



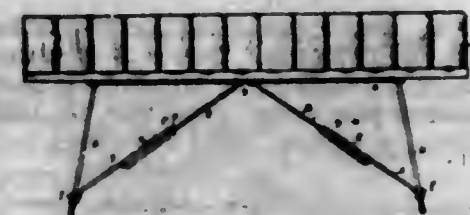
1. In a spark plug, the shell, insulator and conductor, the inner end of the shell having spirally arranged arms presenting their ends to the inner end of the conductor.

1,306,305. DEVICE AT RAIL-POINTS. ANDERS J. JOEST and PETER HANSEN, Randers, Denmark. Filed Mar. 25, 1915. Serial No. 17,079. 1 Claim. (Cl. 246-358.)



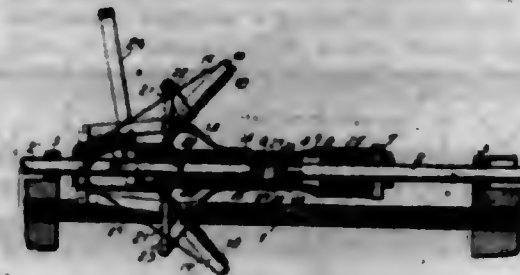
A railway point operating device comprising a point operating lever, a connecting rod coupling said lever to the points, a roller mounted on said connecting rod, a double-armed lever carrying at one end a weight and at the other end a roof-shaped guide plate, said double-armed lever being arranged under the rails in such a position that the guide plate is held by the weight against the roller on the connecting rod and so that the double armed lever is rocked by the roller in passing from one side to the other of the plate when the points are operated, a safety rail supported on the weighted end of the double-armed lever and carried relative to the track rails so as to be held down by a passing train for correcting the position of the points through the medium of the guide plate and the roller on the connecting rod, a fixed guide roller arranged so as to guide the connecting rod roller to the correct side if the points should have been left in an intermediate position, and a tripping member arranged and supported so as to engage the roller of the connecting rod in one direction of its movement and prevent it from being raised by the guide plate if an attempt should be made to move the points while a train passes the safety rail.

1,306,306. CUSHION-SUPPORT. HERMAN C. MCGREGOR, Salt Lake City, Utah. Filed Mar. 12, 1919. Serial No. 282,222. 2 Claims. (Cl. 155-32.)



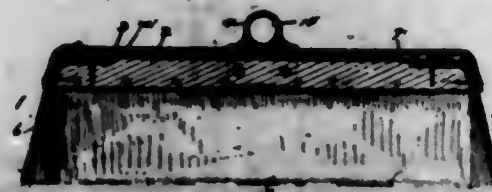
1. A vehicle cushion support comprising a frame having slots in the end leads; inverted U-shaped supports pivoted in the slots of said frame and having a horizontal portion above the foot portions; a stay for each of said supports consisting of a rod having a slot in one end portion and an eye loop in the other end; another rod having eye loops in each end portion with one of said eye loops engaged in the slot of the other rod; and a pivoted clamp to engage the said U-shaped supports when folded within said frame.

1,306,307. BROOM-MANUFACTURING MACHINE. SAMUEL B. MCHENRY, Bloomsburg, Pa. Filed Mar. 13, 1916. Serial No. 83,915. 5 Claims. (Cl. 15-4.)



1. A broom making machine, including aligned shafts equipped with jaws adapted to receive therebetween and engage a broom-head-forming member, means adapted to longitudinally move one of said shafts, a looping device carried by the other of said shafts, adapted to engage the broom-material, and means associated therewith for causing said looping device to effect the looping or doubling of said broom-material upon itself.

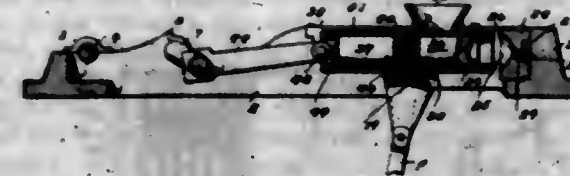
1,306,308. BRUSH. SAMUEL B. MCHENRY, Bloomsburg, Pa. Filed June 18, 1918. Serial No. 240,587. 1 Claim. (Cl. 15-21.)



A brush of the type described, including a fiber-equipped block adapted for the attachment of a handle thereto, said block provided with longitudinal depressions in its top-end portions, longitudinally disposed fiber layers embedded and secured in said depressions with their inner ends abutting the resulting shoulders thereof, said fiber layers extending downwardly along the ends of said block and forming the end portions of the brush, additional fiber layers extending across the top of said block and overlying the upper surface of said end-forming brush portions and extending downwardly of said block and forming the lateral brush portions in continuation of said end brush-forming portions, and a metal cap receiving said block and the upper portions of said end and lateral fiber layers and secured thereover.

263 O. G.—16

1,306,309. BRIQUET-MACHINE. SWAN E. MOREN, Biwabik, Minn. Filed Oct. 10, 1918. Serial No. 257,606. 10 Claims. (Cl. 25-56.)



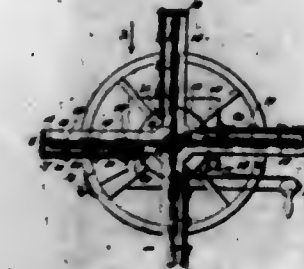
1. A machine for the purpose set forth comprising a stationary jaw, a plunger movable toward and from the jaw, a cylinder housing the plunger and yieldably held against said jaw, and means for retracting the cylinder from the jaw when the plunger moves from the same and at a higher speed than the plunger.

1,306,310. METHOD OF MAKING MATERIALS FOR COVERING FURNITURE. HAROLD B. MORRIS, Glendale, Calif. Continuation of application Serial No. 55,809, filed Oct. 11, 1915. This application filed Feb. 23, 1916. Serial No. 79,999. 3 Claims. (Cl. 28-5.)



2. The method herein described of forming a flexible cord for covering frames of different articles, which consists in forming a core of a plurality of different masses of differently colored fibrous material, such as cotton waste, forming said material into a compact core, treating said core with adhesive material, allowing the adhesive to dry into the core, then softening the adhesive and applying thereto a protective covering which is united to the core by the softened adhesive.

1,306,311. WIND AND WATER MOTOR. FREDERICK W. PENDERGAST, Cambridge, Mass. Filed Sept. 18, 1918. Serial No. 254,654. 5 Claims. (Cl. 170-26.)



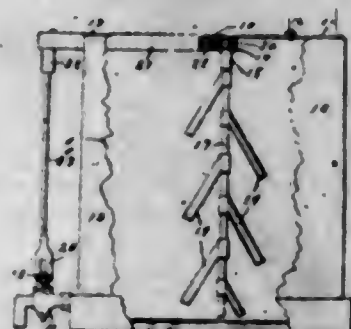
1. A motor of the character stated, comprising a rotary wheel frame rotatable on a vertical axis, and including rigidly connected spaced-apart spiders having radial arms arranged in pairs, vanes pivoted to said arms to swing on vertical axes, and extending between the spiders, there being a series of vanes extending between the arms of each pair, and governors connected with the frame and bearing yieldingly on the vanes, there being a governor for each series of vanes, said governors being adapted normally to hold the vanes in substantial alignment with each other and to yield to permit the vanes to be opened or moved out of alignment by fluid pressure.

1,306,312. AMMUNITION-PACKING CASE. JOHN B. PROPLES, Washington, D. C. Filed Nov. 29, 1918. Serial No. 264,090. 10 Claims. (Cl. 220-41.) (Filed under the act of Mar. 3, 1883, 22 Stat. L., 625.)



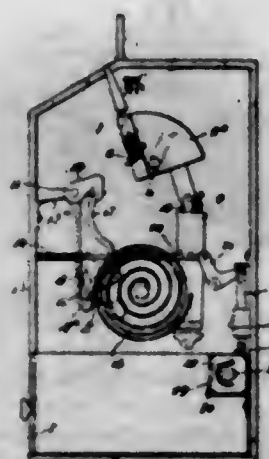
1. The combination of a container adapted to receive a cartridge-belt, said container including side plates formed for detachable engagement with a suitable support, a removable cover for closing the container, and means carried by the container and adapted for detachable engagement with the cover to retain the cover in closed position.

1,306,313. MILK-DISPENSING APPARATUS. GUS POULOS, Perry, Iowa. Filed Mar. 12, 1918. Serial No. 222,030. 4 Claims. (Cl. 221-07.)



1. In a dispensing apparatus having a tank, a spigot mounted externally of said tank and an agitating device mounted internally of said tank, the combination with said agitating device and spigot of a shaft vertically arranged externally of said tank, and operative connections between said shaft and the agitating device, said shaft being formed at its lower end with a bifurcation adapted to be removably engaged with the handle of said spigot.

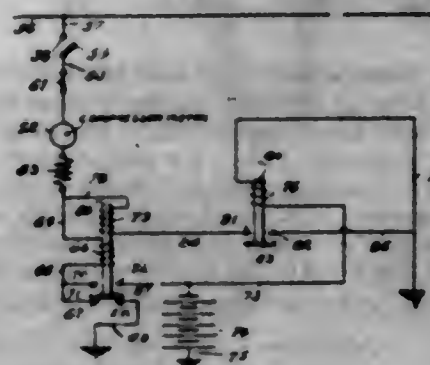
1,306,314. COUNTER FOR TELEPHONE COIN-RECEIVERS. GEORGE E. REISS, Cincinnati, Ohio, assignor of one-half to Charles Snyder, Cincinnati, Ohio. Filed Dec. 14, 1916. Serial No. 136,830. 2 Claims. (Cl. 235-100.)



1. In combination with a telephone coin receiver casing, a removable drawer therein for deposit of the coins received, a plunger secured to the receiver casing normally held out of the path of the drawer, a counter device in the drawer so as to permit removal of the drawer

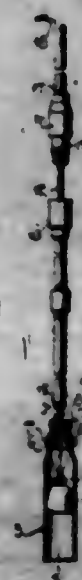
without affecting the counter device, and a coin controlled operator for depressing the plunger to cause operation of the counter, when the drawer is in place in the receiver.

1,306,315. VOLTAGE-REGULATING MEANS FOR STORAGE BATTERIES. JOHN J. SINCLAIR, Upper Montclair, N. J., assignor to Megosin Company, Inc., a Corporation of New York. Filed Nov. 15, 1916. Serial No. 131,467. 6 Claims. (Cl. 171-314.)



1. In mechanism of the character described, a storage battery, means including a movable contact, normally tending to complete an energizing circuit through said battery, and means for holding said contact in circuit-breaking position, including a solenoid connected to said energizing circuit, and a relay connected to said storage battery and controlling the energization of said solenoid.

1,306,316. POWDER-CHARGING DEVICE. HARRY D. SMILEY, Albia, Iowa. Filed Aug. 10, 1918. Serial No. 249,271. 4 Claims. (Cl. 80-21.)

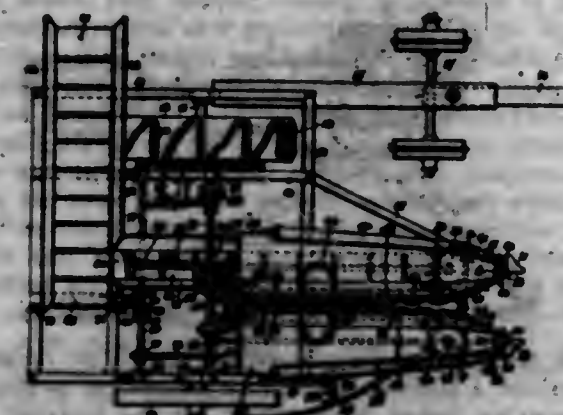


1. The combination with a tubular charge receiving member and an ejecting plunger movably mounted therein for ejecting a powder charge therefrom, said plunger having a plunger rod, of a tubular rod connected to one end of said member and in which the plunger rod is axially movable, and means carrying a tool and being adjustably connected to the plunger rod and provided with axial detachable connections with one end of the tubular rod for locking the plunger against movement in the tubular member.

1,306,317. CORN-HARVESTER. JASON A. ST. JOHN, Decatur, Ill. Filed June 8, 1918. Serial No. 238,537. 4 Claims. (Cl. 56-113.)

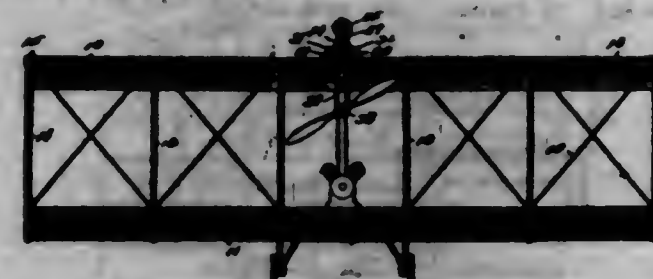
1. In a corn-harvester, the combination with a frame, of a pair of snapping rollers disposed longitudinally thereon and provided peripherally with beads adapted to engage the ears of corn, a conveyor disposed at one side of

the snapping rollers, a shield disposed at the other side of the snapping rollers and extending down close to the adjacent roller to prevent escape of ears of corn at that



side of the machine, loosely mounted rollers upon the extreme outer edge of the shield and at the extreme outer side of the conveyor, and means for operating the snapping rollers and the conveyor.

1,306,318. STABILIZER. JOSEPH STUPAR, Honolulu, Hawaii. Filed Nov. 10, 1916. Serial No. 130,601. Renewed Mar. 27, 1919. Serial No. 285,700. 2 Claims. (Cl. 244-29.)



1. A stabilizing device comprising a balance tube, a longitudinally movable balance element therein of a character to be moved by air pressure at one end of the tube, a device for supplying air or the like under pressure, ducts leading therefrom to respective ends of the pipe, branches opening from the ducts to the atmosphere, a pendulum, and means actuated by the pendulum for alternatively closing said ducts, and opening the adjacent branches upon oscillation of the pendulum in respective directions.

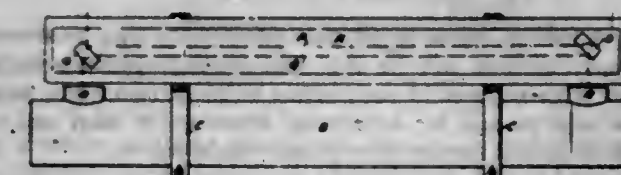
1,306,319. FUNNEL. LEONIDAS L. TITTLE, Jr., Dayton, Ohio. Filed Apr. 14, 1919. Serial No. 289,923. 1 Claim. (Cl. 226-33.)



In a device of the character described, the combination with a cup having a cylindrical body, its bottom descending from said body to the center and there having an opening, legs depending from the cup, a spout shorter than the legs and whose upper end engages said opening, and a main handle on the cup; of guides within the wall of the cup in line with its main handle, a rod slidably

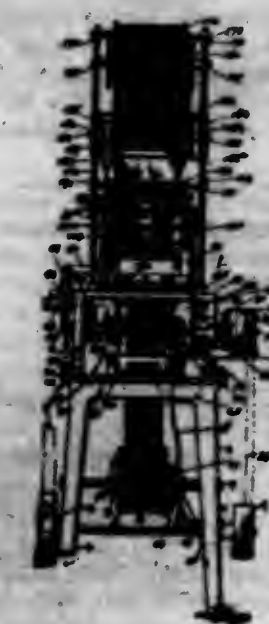
mounted through said guides and with its lower end carried radially inward over the bottom of the cup and turned downward, a plug secured to the down-turned end of the rod and adapted to close the upper end of the spout, a pin through the rod between said guides, an expansive spring coiled on the rod between the pin and the upper guide and normally seating the plug in the spout, a loop at the upper end of the rod, and a strip having an eye at its center rigidly mounted on the rod below the lowermost guide and having its arms curved to slide within the wall of the cup as the rod and plug rise and fall.

1,306,320. METHOD OF GRADUATING RANGE-FINDERS. FRANK TWYMAN, London, England, assignor to Adam Hilger, Limited, London, England. Filed Nov. 21, 1918. Serial No. 263,624. 6 Claims. (Cl. 88-27.)



4. An apparatus for adjusting the graduation of range finders, consisting of two similar mirrors of thick glass adapted to reflect light from both surfaces, one of said mirrors having a portion only of its back silvered to reflect light, and having the remainder thereof transparent to transmit light therethrough, and means for adjusting one of said mirrors relatively to the other to eliminate interference.

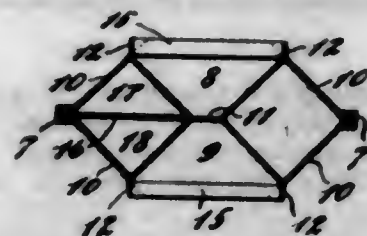
1,306,321. KNITTING-MACHINE. JOHN WATERFIELD, Providence, R. I., assignor, by mesne assignments, to Shannock Narrow Fabric Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Feb. 7, 1918. Serial No. 746,828. Renewed Dec. 12, 1918. Serial No. 266,517. 30 Claims. (Cl. 66-33.)



1. In a knitting machine, the combination with a plurality of pivotally-mounted thread carriers situated in axial alignment and arranged in pairs, the thread-carriers of each pair being adapted to have a shear-like opening-and-closing movement, of means connecting each thread-carrier of a pair to all of the corresponding thread-carriers of the other pairs, a plurality of knitting needles, a needle bar on which said needles are supported for vertical movement, a thread-roll adapted to deliver thread to all of said thread-carriers, respectively, and thereby to all of said needles, mechanism to impart to all the pairs

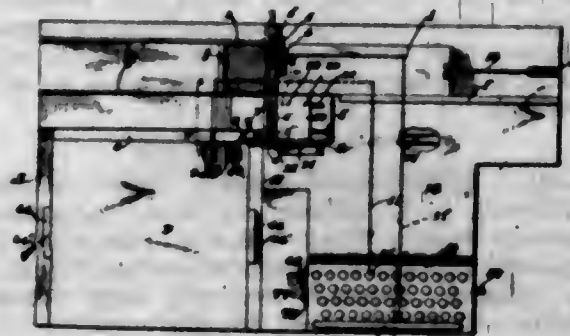
of thread-carriers positively and simultaneously said opening-and-closing movements thereof, mechanism to impart to said needle bar a horizontal reciprocation, and means to reciprocate said needles vertically.

1,306,322. DUMPING BARGE OR LIGHTER. ARTHUR CHARLES WATERS, Newcastle, New South Wales, Australia. Filed Oct. 15, 1918. Serial No. 258,220. 4 Claims. (Cl. 114—38.)



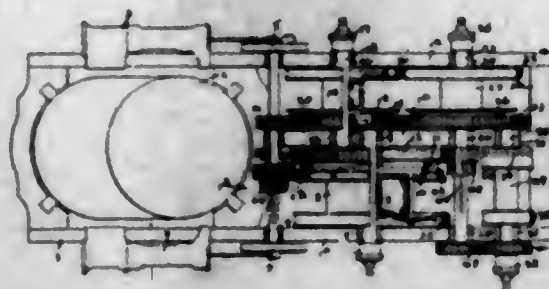
1. A dumping barge or lighter comprising two pontoons connected together side by side and having opposing walls inclined with respect to each other to form two hulls back to back, and means for admitting water to at least one of the pontoons to render the barge unstable.

1,306,323. TYPE-DISTRIBUTER. ALEXANDER R. WILSON, Seattle, Wash. Filed Sept. 30, 1914. No. 864,280. 31 Claims. (Cl. 276—7.)



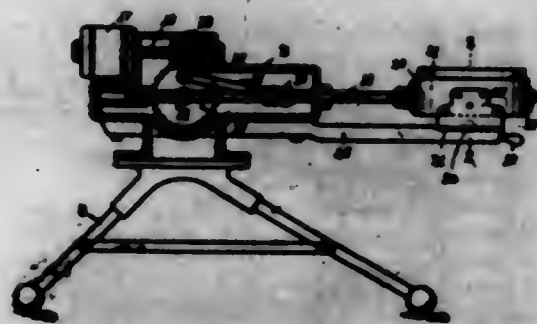
28. In a type distributor, a type carrier, mean for placing a type therein, means for moving the type carrier over a definite route, selective means for removing the type from its carrier at any one of a series of points and means actuated by said carrier in passing to insert the type in a font.

1,306,324. LOGGING-ENGINE. BERT C. BALL, Portland, Ore. Filed Dec. 22, 1915. Serial No. 69,276. 8 Claims. (Cl. 234—185.)



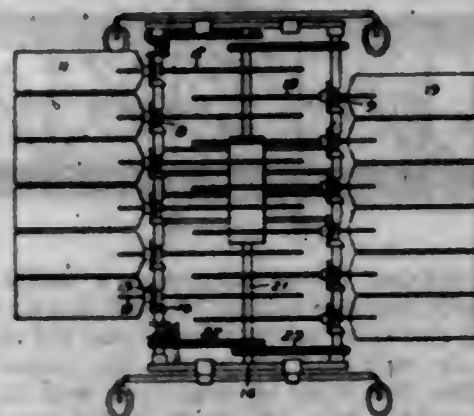
1. In a logging engine, the combination of a main drum; a drum gear; a friction clutch between the drum and gear; a drive shaft; a direct gear connection between the drive shaft and the drum gear; an indirect gear connection between the drum gear and the drive shaft having a different gear ratio than the direct connection, both the direct and indirect connections driving the drum gear in the same direction; means for throwing either of said connections into and out of driving relation; and a second drum driven from the drive shaft independently of said means.

1,306,325. RIDDLE. GIBSON C. BATTEN, Cincinnati, Ohio. Filed Jan. 5, 1918. Serial No. 210,541. 4 Claims. (Cl. 83—54.)



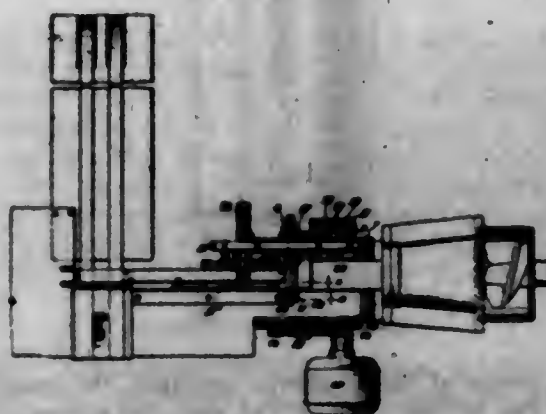
1. A portable riddle comprising, means to reciprocate a container, a portable housing to inclose and protect said reciprocating means, a container for the material to be screened located externally of and in sliding engagement with said housing, supporting arms projecting from opposite sides of said housing to positions at the sides of said container, brackets carried by said container opposite said supporting arms, and roller members introduced between said brackets and supporting arms.

1,306,326. MECHANICAL FLIGHT. ALEXANDER L. W. BASO, New York, N. Y. Filed Apr. 13, 1916. Serial No. 90,827. 5 Claims. (Cl. 244—16.)



4. In an improvement in mechanical flight, in combination, revolving vanes that simultaneously sustain and propel, and a plane adjacent to such vanes that is normally vertical and inoperative, but which plane when the craft is tilted to bring this plane to a substantially horizontal position operates to sustain the craft.

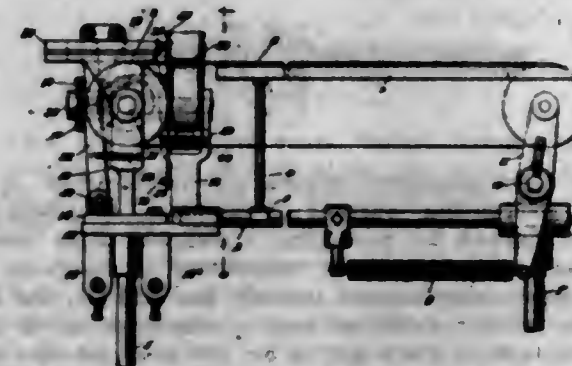
1,306,327. CUTTING-MACHINE. LEO W. BLAISE, New York, N. Y. Filed Sept. 15, 1916. Serial No. 120,244. 11 Claims. (Cl. 107—20.)



2. In a cutting machine, a cutting element, supports for said cutting element, a supporting shaft suitably mounted to rockably support said cutting element and its supports, means for vertically reciprocating said supports

and cutting element, and means for rocking said cutting element and supports while in perpendicular motion, suitably supported reciprocating brackets having grooves between which said cutting element is adapted to reciprocate and retire into said grooves, and means for returning said brackets to initial position after each cutting operation, a carrier belt and means to operate the same, a platform on each side of said carrier belt, and means to circulate said platforms around the sides of said carrier belt above and below the plane thereof, said platforms moving in the same direction as said carrier belt when above the plane thereof and partly in the same direction as said carrier belt when below the plane thereof, a depending projection suitably supported in the path of and adapted to be engaged by the commodity passing through the machine, and means operated by the engagement of said lever by said commodity to accelerate said lever out of the path of said commodity.

1,306,328. CARRIER-MACHINE. LEO W. BLAISE, New York, N. Y. Filed Sept. 15, 1916. Serial No. 120,245. 5 Claims. (Cl. 193—4.)



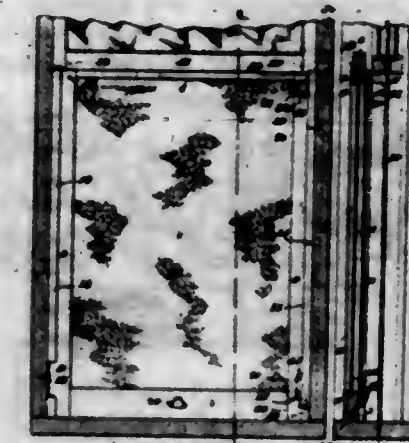
1. In a carrier machine, a delivery belt suitably mounted and adapted to feed commodities, a receiving belt with suitable mounting means including a pulley, said receiving belt being positioned immediately below and transversely of the delivery belt; means for operating said respective belts in directions transverse to each other; a rocking lever suitably mounted and adapted at one end to project into the pathway of commodities carried by the delivery belt, and to be rocked by said commodities, a shaft suitably connected with power carrying the aforesaid pulley for the receiving belt, and adapted to control the operation of said receiving belt, a ratchet wheel mounted on and adapted to move with said shaft, a cam mounted on said shaft, but adapted to be free from the operation thereof, a pawl pivoted to said cam, and adapted to engage with said ratchet wheel, a locking arm controlled by the aforesaid rocking lever adapted to lock said pawl out of engagement with said ratchet wheel and thus hold said cam stationary on the aforesaid shaft; an oscillating lever pivoted at one end and having a carriage at the other end and means for normally drawing said lever against the periphery of the aforesaid cam; a pusher on said carriage, adapted to travel transversely of the delivery belt and carry with it any commodity in its path and deliver the same onto the receiving belt.

1,306,329. WINDOW-SCREEN. JOSEPH Z. COLLETT, Jr., Fitchburg, Mass. Filed Nov. 5, 1917. Serial No. 290,329. Renewed May 5, 1919. Serial No. 295,025. 3 Claims. (Cl. 184—14.)

2. The combination with a sliding window screen of a notched guide-way therefor and a pivoted lock attached to the lower end of the screen and removably engaging in the notches of the guide-way to lock the screen in lowered position or in adjusted raised position.

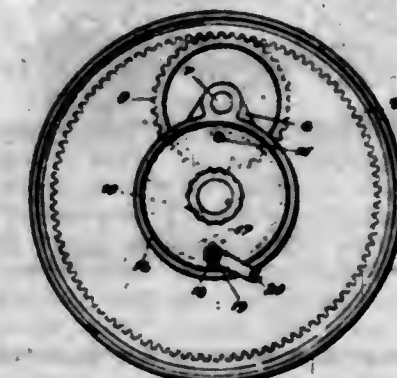
3. A locking member adapted to be attached to the upper portion of a sliding window screen to prevent the upper sash of a window from being lowered from the out-

side of a dwelling comprising a strip of metal having key-hole slots therein and having one of its ends bent at right angles to engage the under face of the lower rail of



a window sash and having its other end slitted to produce a narrow strip which is curved and bent outwardly to provide a handle.

1,306,330. DRIVE MECHANISM. WILLIAM F. DREW, Oakland, Calif. Filed May 13, 1918. Serial No. 234,091. 2 Claims. (Cl. 74—34.)

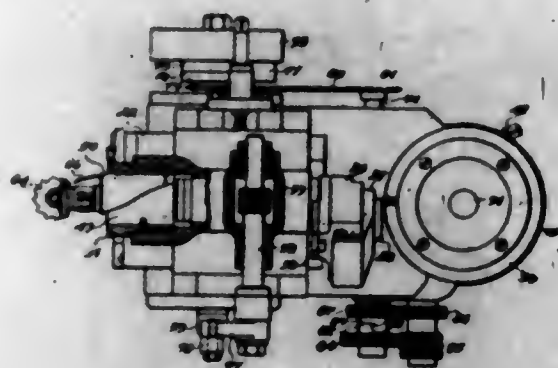


1. In combination with a drive shaft, a driven wheel provided with a supporting web terminating in oppositely disposed lateral flanges providing a traction surface, said wheel being further provided with a hub extended from one face of said web, said wheel being mounted for axial rotation about the shaft, a frame supported by said shaft and capable of free axial rotation about the same, said frame being provided with a brake surface surrounding said shaft, a pinion on said shaft, an internal gear on said wheel adjacent the wheel supporting web and between the opposite sides of the wheel flange, an idler gear rotatably carried by said frame and intermeshing with said pinion and internal gear, and a brake capable of operation to engage said brake surface to arrest the movement of said idler gear circumferentially of the driving member to maintain the same stationary, whereby said connection will transmit power from said drive member to said driven wheel at a point adjacent its supporting web and between the opposite sides of said wheel flange.

1,306,331. MACHINE FOR CUTTING CROWN-GEARS. HOWARD E. FELLOWS, Springfield, Vt. Filed June 4, 1914. Serial No. 842,902. 21 Claims. (Cl. 90—9.)

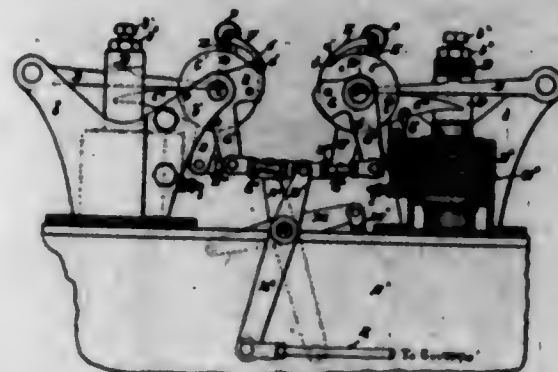
2. A machine for cutting crown gears comprising in combination with a holder for a gear blank, a cutting tool, means for causing said tool to travel in a line parallel to the plane in which the teeth of the crown gear are located

and perpendicular to a plane including the axis of the gear, and means for causing said tool to turn simul-



taneously during its travel about an axis lying in the face of a tooth of the gear whereby to cut such face in the form of a warped plane.

1,306,332. VALVE-GEAR MECHANISM. JOHN C. GLENN, Erie, Pa. Filed Jan. 15, 1918. Serial No. 211,934. 7 Claims. (Cl. 121-103.)



1. In a valve gear, a housing, a yoke vertically movable in said housing, a spring to normally retain said yoke in a downward position, a vertically oscillating lever pivoted at one side of said housing and extending toward said yoke, a projection on the hub of said lever, another lever pivoted on the pivot of said first lever, a dog pivoted on said lever and adapted to engage said projection, means to oscillate said last mentioned lever, and means to disengage said dog from said projection, a lever pivoted at the opposite side of said housing extending through said yoke and resting upon the first named lever and adapted to engage and raise said yoke, substantially as set forth.

1,306,333. TREATMENT OF FLOUR. HENRY OSWILL, Liverpool, England. Filed Mar. 29, 1919. Serial No. 286,191. 1 Claim. (Cl. 99-10.)

Flour which would be normally liable to decompose on keeping with which a relatively small amount of common salt has been admixed as a preservative in quantity sufficient to prevent bacteriological decomposition, such salt being added as solid at substantially the time of milling.

1,306,334. REINFORCING FOR TIRE-CASINGS. ARTHUR H. GAYMAN, Evanston, Ill. Filed Aug. 27, 1918. Serial No. 251,602. 2 Claims. (Cl. 152-18.)

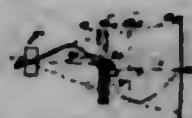
1. A reinforcing means for tire casings comprising a plurality of substantially U-shaped plates adapted to be embedded in a casing, said plates having their end portions disposed edge to edge, one end portion of each

plate having a socket in one edge, a projection extending from the other edge of each of the last mentioned.



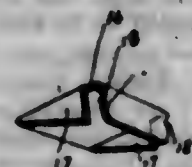
end portions to engage in said sockets, and means for securing the other free end portions of the plates together.

1,306,335. ALTERNATING CURRENT RECTIFIER. JULIUS FREDERIK GROSS POUL HARTMANN, Copenhagen, Denmark. Filed Dec. 30, 1918. Serial No. 69,311. 10 Claims. (Cl. 175-363.)



1. An electromagnetic system for rectification of an electric alternating current comprising a conductive liquid jet, means for producing a magnetic field crossed by the said jet, and means comprising an electrode for passing an electric current through the said jet, the said field and current being of such a character as to produce a periodical force acting on the said jet, the said electrode being located at a distance from the said magnetic field dependent upon the velocity of the particles of the said jet and on the frequency of the said periodical force, which distance will cause the striking point of the jet in the electrode to pass over the limitation of the electrode at moments of the periods of the alternating current required for rectification of the latter.

1,306,336. MAT-FITTING. ARTHUR C. HAYDEN, Brockton, Mass., assignor to Hayden & Clemens, Inc., Brockton, Mass., a Corporation of Massachusetts. Filed Aug. 6, 1918. Serial No. 248,868. 2 Claims. (Cl. 15-63.)

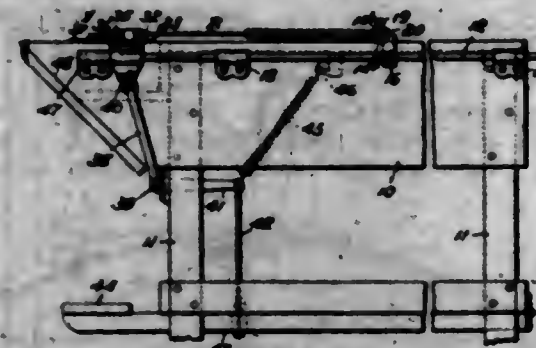


2. A fitting for mats, comprising a plate clip composed of a top portion presenting an inclined surface, a lip down turned therefrom at an acute angle and having notches at its ends, and reinforcing ears down turned from the sides of said top portion.

1,306,337. MACHINE FOR ASSEMBLING SOLE-LEATHER AND LIKE MATS. ARTHUR C. HAYDEN, Brockton, Mass., assignor to Hayden & Clemens, Inc., Brockton, Mass., a Corporation of Massachusetts. Filed June 4, 1917. Serial No. 172,530. Renewed Nov. 16, 1918. Serial No. 268,000. 5 Claims. (Cl. 29-84.)

1. A machine of the kind described, comprising means for holding in spaced apart parallel relation a series of rods to receive assembled pieces making up link blocks of a mat, and a slide mounted for movement transversely of the rods thus held and equipped with spaced compart-

ments adapted to gage the number of pieces required for each link block, the movement of said slide bringing



said compartments into two different positions with respect to said rods whereby successive lines of links may be slipped on said rods in alternating relation.

1,306,338. FOLDING CRATE. AUGUST HIRLINGER, Cincinnati, Ohio. Filed Jan. 24, 1916. Serial No. 73,932. 6 Claims. (Cl. 217-47.)



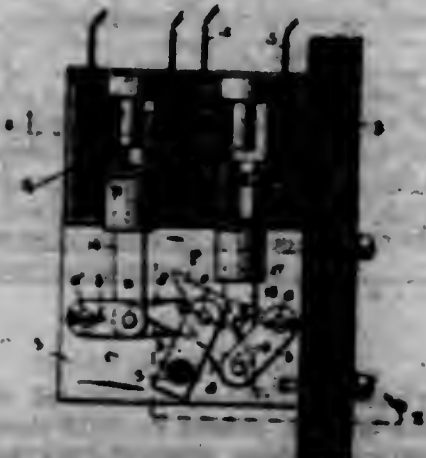
3. In a folding slatted crate, hinged sides, a top section hinged to each of said sides, the slats of one side and top section adapted to intermesh with the slats of the other side and top section.

1,306,339. METAL TREAD. PETER KASS, Chicago, Ill. Continuation in part of application Serial No. 828,909, filed Mar. 30, 1914. This application filed June 4, 1917. Serial No. 172,622. 3 Claims. (Cl. 20-79.)



2. A metal tread comprising a plate having sections thereof struck up bodily through a distance substantially equal to the thickness of the plate to draw the metal at the edges of said sections and form bosses having convex side walls, said bosses being provided with central cavities having exposed surfaces which intersect the convex side walls of the bosses to form gripping edges all portions of which are arranged in substantially the same horizontal plane, substantially as described.

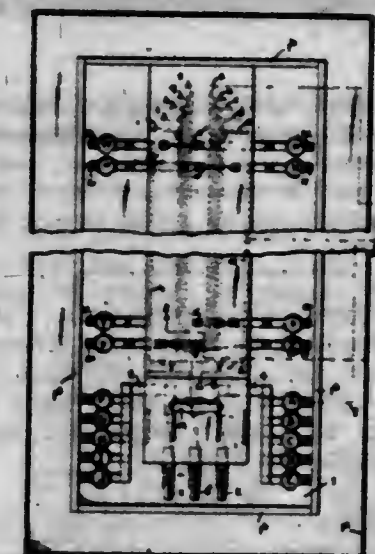
1,306,340. ELECTRIC SWITCH. HUBERT F. KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Mar. 13, 1915. Serial No. 14,131. 15 Claims. (Cl. 175-281.)



1. An electric switch combining a switch; two alternately acting electro-magnetic devices; and a toggle sys-

tem intervening between said switch and said devices for enabling the same to act alternately in shifting the position of said switch to close first one circuit and then another, the switch being pivotally mounted, and the toggle system including two toggles arranged one at each side of the pivotal axis of the switch and being connected with the switch in opposing relation.

1,306,341. SHIFT-SOCKET METER-PANEL. HUBERT F. KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Feb. 18, 1916. Serial No. 79,096. 7 Claims. (Cl. 247-13.)



7. In a meter panel, the combination comprising a base board, a group of meter contacts arranged at one face of said base board, a movably mounted conductor member movable into and out of a position adjacent to but not engaging the meter contacts, and a part which is movable relatively both to said meter contacts and to said conductor member, said part being adjustable for engaging any selected meter contact and being adapted, when the conductor member is moved into position adjacent the meter contacts, to engage said conductor member and thereby to bridge the space between said selected meter contact and said conductor member.

1,306,342. SWITCH-PANEL. HUBERT F. KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Mar. 10, 1916. Serial No. 83,247. 3 Claims. (Cl. 247-13.)



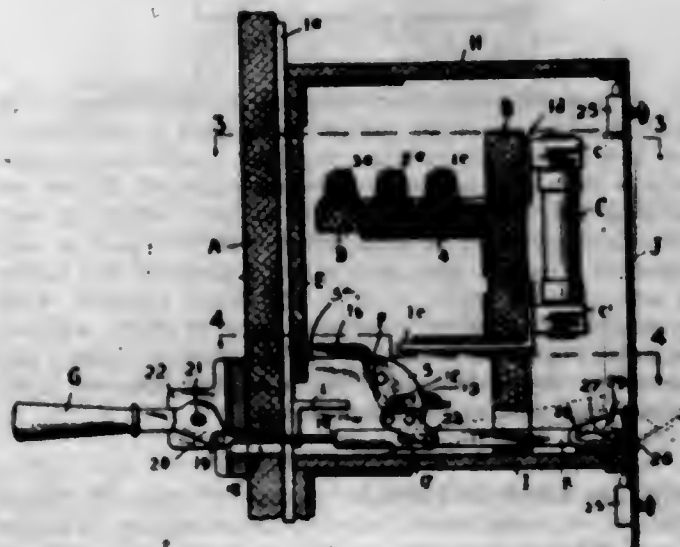
3. A switch panel comprising a box made up of top, bottom and side walls, a bus bar lying upon the bottom wall within the box, a branch line terminal member mounted upon the bottom wall within the box and having a portion bent upwardly from said bottom wall terminating in a contact part spaced upwardly from the bottom wall and from said bus bar, a switch blade, and operating means therefor extending through the top wall, said switch blade being double ended and being pivotally supported at its mid portion adapted to swing one of its ends toward the bottom wall into engagement with the bus bar and its opposite end away from the bottom wall into engagement with the branch line contact.

1,306,343. SAFETY-SHUTTER PANEL. HUBERT F. KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Mar. 22, 1916. Serial No. 85,852. 20 Claims. (Cl. 175-282.)



1. A switch-mechanism combining a conductor; a cover hinged in close proximity with said conductor; a stationary cover protecting said conductor; and a shutter connected with said first mentioned cover and adapted to swing into position closing access to said conductor.

1,306,344. SAFETY-SWITCHBOARD. HUBERT F. KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Mar. 22, 1916. Serial No. 85,853. Renewed Nov. 25, 1918. Serial No. 264,128. 54 Claims. (Cl. 175-298.)

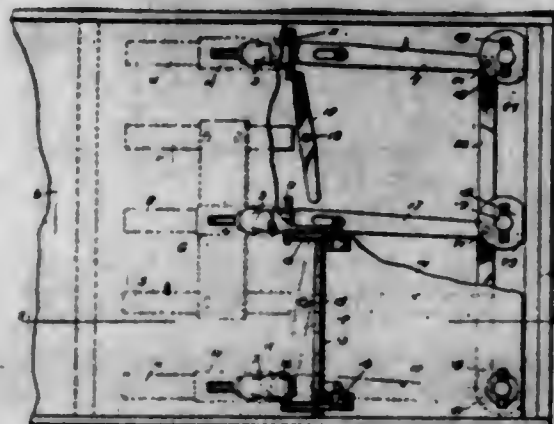


2. A switch-mechanism combining an elongated common carrier pivoted to swing about its longitudinal axis; a number of switch blades spaced along said carrier; a base-board at one side of said carrier, a wall member arranged substantially parallel with said base-board at the other side of said carrier; a corresponding number of parallel bus-bars extending between said base-board and said carrier and transversely to the axis of the carrier; a corresponding number of fuse-holders mounted on the face of said wall member most remote from said base-board; and means for swinging said carrier to establish electrical connection between the bus-bars and the fuse-holders.

1,306,345. SAFETY PANEL-BOX. HUBERT F. KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Mar. 31, 1917. Serial No. 158,958. 12 Claims. (Cl. 175-282.)

1. In a safety panel box having a movable wall part for giving access to the interior thereof and having a

plurality of independently operable switch mechanisms therein, the combination therewith of means independ-



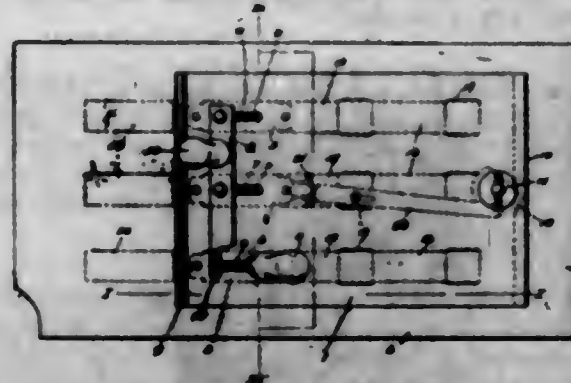
ently controllable from any one of said switch mechanisms for locking said wall part in a closed position.

1,306,346. SAFETY PANEL-BOX. HUBERT F. KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Apr. 11, 1917. Serial No. 161,354. 9 Claims. (Cl. 175-282.)



1. The combination with a panel box or the like having a guard member movable into and out of guarding position, of a shutter arranged within the box for shielding a certain element within the box when the guard member is in non-guarding position, and means normally urging the shutter into shielding position.

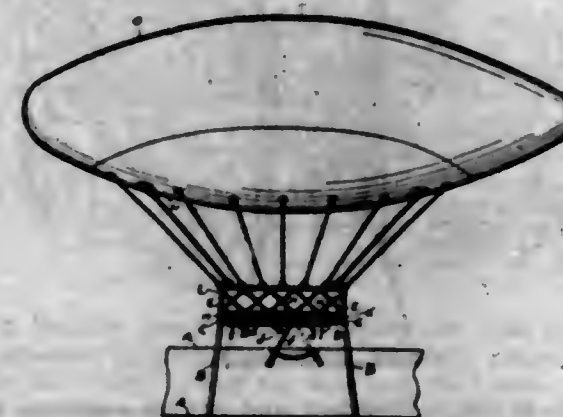
1,306,347. SAFETY PANEL-BOX. HUBERT F. KRANTZ, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Aug. 17, 1917. Serial No. 186,862. 4 Claims. (Cl. 175-292.)



1. A safety panel box having an opening therein, a closure for said opening, a latch for said closure, a plurality of switch mechanisms within the box, separate operating means for operating said switch mechanisms into "on" and "off" positions, means whereby movement of one of said operating means into "on" position will

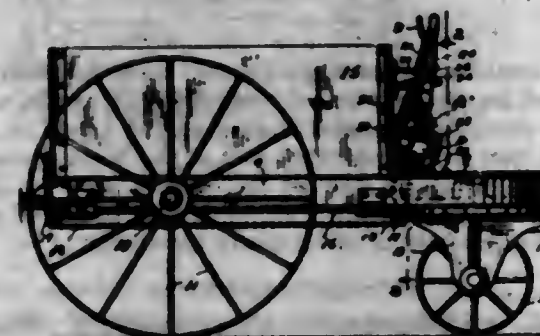
automatically move another operating means into "on" position, and connections whereby movement of the second operating means into "on" position will move the latch into latching position.

1,306,348. SEPARABLE AEROPLANE AND GAS-BAG. JAMES N. LEWIS, Detroit, Mich. Filed Aug. 18, 1917. Serial No. 186,900. 6 Claims. (Cl. 244-3.)



1. In a combined gas bag and aeroplane, the combination of a truss member, flexible connections arranged to attach said member to said gas bag, a longitudinally extending member attached to said truss member, members attached to said aeroplane and arranged to register with said longitudinally extending member, latch members adapted to co-act with said longitudinally extending member and with said registering members, and movable into and out of engaging position therewith, and means to hold said movable latch members in engaging position, and operative means comprising a lever and connections joining said lever to said holding means.

1,306,349. DUMP-CONTROLLING MECHANISM FOR TRUCKS. SIDNEY L. LONG, Minneapolis, Minn., assignor to A. W. Benson Manufacturing Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Mar. 2, 1917. Serial No. 151,941. 8 Claims. (Cl. 74-54.)

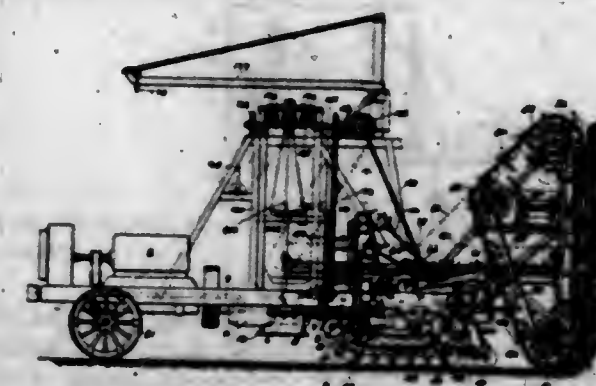


1. An actuating mechanism comprising a windless having a ratchet wheel, a main lever having a dog operative on said ratchet wheel, and another lever having a dog normally operating as a retaining dog on said ratchet wheel, but operative, under movement of its lever, on the dog of said main lever, to release said ratchet wheel by a step by step escapement action.

1,306,350. EXCAVATING-MACHINE. BARTOLOMEW MCINTIRE, San Francisco, Calif. Filed Jan. 10, 1918. Serial No. 212,798. 7 Claims. (Cl. 37-24.)

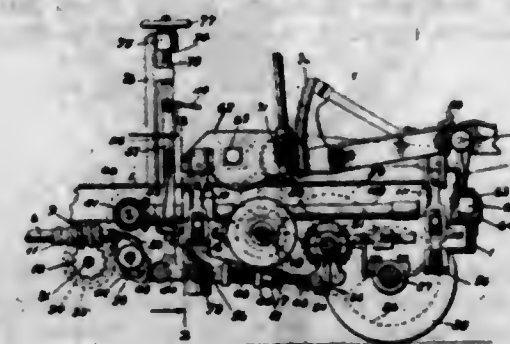
1. An excavating machine comprising a tractor; excavating elements slidably mounted to move transversely upon the tractor; means for reciprocating the excavating elements to excavate a path or roadway of greater width

than the extreme width of said excavating elements; and means for regulating the frequency of the reciprocating mechanism to subject the side or face of an excavation to



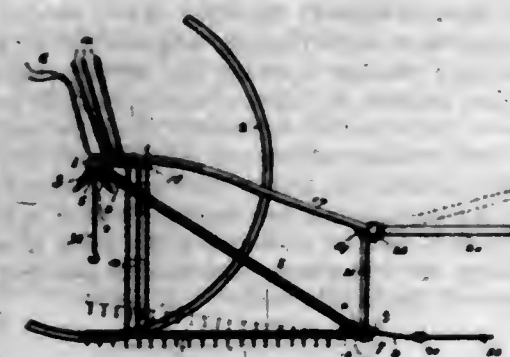
longer or shorter periods of contact with the excavating element in proportion to the density of the material being excavated.

1,306,351. RECIPROCATING MECHANISM. BARTOLOMEW MCINTIRE, San Francisco, Calif. Filed May 29, 1918. Serial No. 238,792. 4 Claims. (Cl. 37-24.)



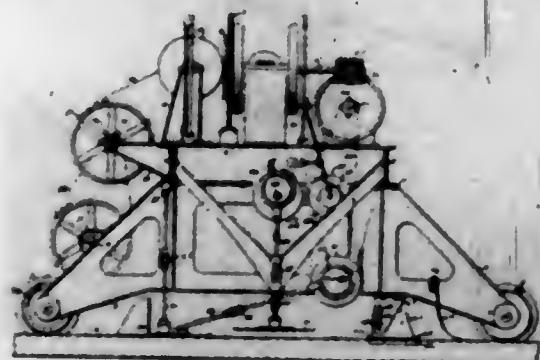
1. A device of the character described comprising a main frame; traction wheels supporting the main frame; a superframe slidably mounted to move laterally upon the main frame; a longitudinal crank shaft rotatably mounted in the main frame; connecting rods operatively connecting the crank shaft to the superframe whereby said frame may be reciprocated laterally; means for rotating the crank shaft at various speeds to regulate the frequency of the reciprocations; and means for operating the traction wheels intermittently.

1,306,352. HARROW-CART. ALEXANDER THEODORE MINTT, Brandon, Manitoba, Canada. Filed May 5, 1917. Serial No. 166,636. 3 Claims. (Cl. 55-89.)



1. A harrow cart having an axle, a draw bar adapted to travel upon the ground in advance of the axle parallel therewith, members spacing the draw bar from the axle, spaced frames surmounting the draw bar connected with the axle, and tongues universally connected with the frames.

1,306,353. ROAD-SURFACING MACHINE. ROBERT E. REYNOLDS, Houston Heights, Tex. Filed Dec. 22, 1917. Serial No. 208,385. 9 Claims. (Cl. 94-4.)



1. A road surfacing machine including a supporting frame-work, a traction mechanism for propelling the machine, a material spreader suspended from the framework, means for oscillating said spreader, a tamper following the spreader and means for reciprocating the tamper vertically.

1,306,354. JEWELER'S TOOL CHUCK AND HANDLE. ALBERT F. ROSSINI, Waltham, Mass. Filed Jan. 25, 1918. Serial No. 213,723. 1 Claim. (Cl. 279-56.)



A jeweler's tool chuck comprising an elongated handle having a central bore of uniform diameter throughout its length, said bore opening at one end through the front end of the handle and terminating at its other end in a flat bottom within said handle, a one-piece tubular tool holder received in said bore and of uniform diameter throughout its length with the exception of its ends, said ends being conical, the bore of said tool holder being of different diameter at one end than at the other end to receive tools of different size, said holder having longitudinal slits leading from its center through its ends and dividing said holder into two sets of jaws, the slits of one end of the holder being staggered with respect to those of the other end to form yielding necks connecting the two sets of jaws, and a tubular cap threaded on the end of said handle and having in its outer end an opening for receiving either conical end of the aforesaid holder to contract the jaws of such end upon the tool, the other jaws then resting squarely against said bottom of the handle bore.

1,306,355. RESERVE MAGAZINE AND SIGNAL. FLOYD A. RUCKMAN, Columbia City, Ind., assignor to Johnson Acetylene Gas Company, Crawfordsville, Ind., a Corporation. Filed Feb. 6, 1918. Serial No. 215,073. 2 Claims. (Cl. 48-38.)

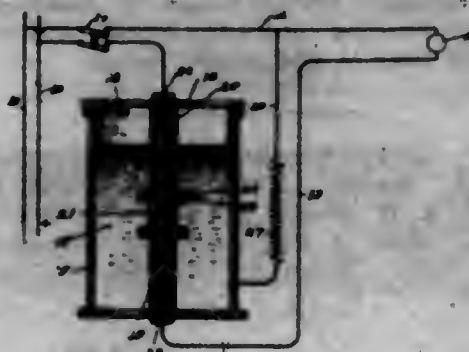
1. In an acetylene generator, a main carbide magazine having an outlet, a feeding device for controlling the pass-

ing of carbide through said outlet, a reserve carbide hopper having an outlet above the outlet of said main carbide magazine, a feeding device for controlling the passing of carbide through said outlet of the reserve carbide hopper, and an automatically dispensing receptacle between the first said feeding device and the second said feeding device, said



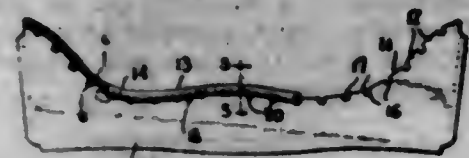
receptacle having a trap-door and having means to hold the latter yieldably in a closed position, said trap-door being adapted to receive and support an accumulation of carbide from the feeding device of said reserve carbide hopper and to discharge said accumulation in a unitary mass through the outlet of said main carbide magazine.

1,306,356. ELECTRICITY-METERING. EDMUND O. SCHWARTZ, Chicago, Ill. Filed Apr. 9, 1917. Serial No. 160,727. 11 Claims. (Cl. 171-268.)



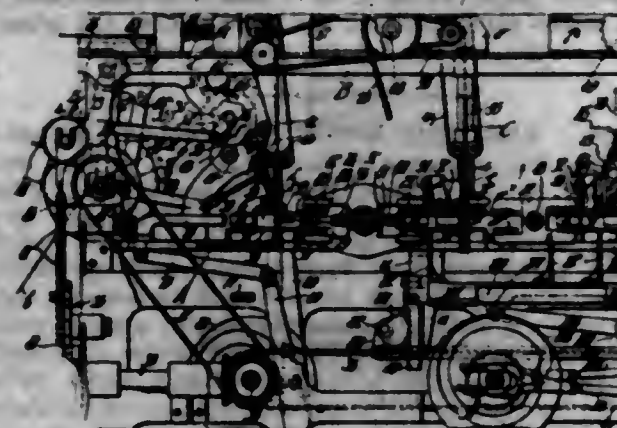
3. In combination with an electric work circuit including a load, an electrolytic cell comprising an anode, a cathode and electrolyte, means connecting the anode in series with the load as a conducting part of the work circuit and means for diverting a part of the current supplied to said work circuit through the electrolyte and in amount of the load electrolytically to disintegrate the anode.

1,306,357. FRAME-EDGING FOR GOGGLES. HARRY F. SHINDLER, Reading, Pa., assignor to T. A. Willson & Co., Inc., Reading, Pa., a Corporation of Pennsylvania. Filed Aug. 6, 1918. Serial No. 248,618. 6 Claims. (Cl. 2-149.)



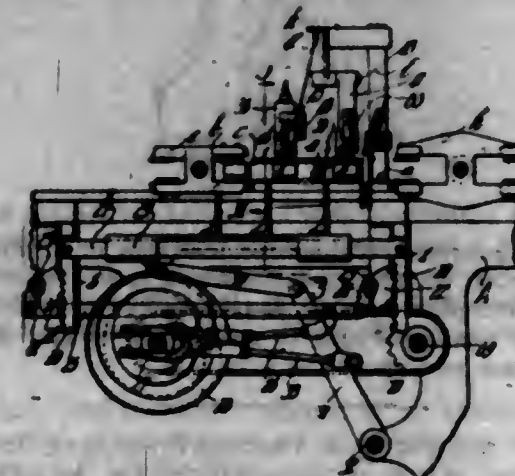
1. A frame for goggles or the like having an edge portion formed with spaced-apart teeth, and a separately formed longitudinally-slitted edging of elastic material retained thereon by engagement of the teeth in the slitted edging.

1,306,358. WRAPPING-MACHINE. ELMER L. SMITH, Springfield, Mass., assignor to Package Machinery Company, Springfield, Mass., a Corporation of Massachusetts. Filed Mar. 2, 1918. Serial No. 219,985. 17 Claims. (Cl. 98-2.)



1. A machine for wrapping articles the ends of which are somewhat rounded, comprising, means to automatically inclose the article except for said ends in a tube of relatively stiff material, means to apply an outer wrapper to said tube leaving extensions from each end of the article, and means to fold said end extensions, all constructed and arranged so that the ends of the article are built out by said tube to form square ends for the end folding operations.

1,306,359. MECHANISM FOR APPLYING STAMPS, LABELS, AND THE LIKE. ELMER L. SMITH, Springfield, Mass., assignor to Package Machinery Company, Springfield, Mass., a Corporation of Massachusetts. Continuation in part of application Serial No. 219,985, filed Mar. 2, 1918. This application filed May 18, 1918. Serial No. 235,357. 10 Claims. (Cl. 216-29.)



1. In a machine of the class described, means to move articles step by step, means located at a distance from the path of the articles to support a strip with an end exposed for grasping, a nipper movable back and forth between said second named means and the path of the articles and operable to grip the exposed end of a strip, carry the latter into position to be applied to an article and release the strip when thus positioned, and means constantly in definite cooperative relation with the nipper during its travel and operable upon release of the strip by the latter to force the strip against an article.

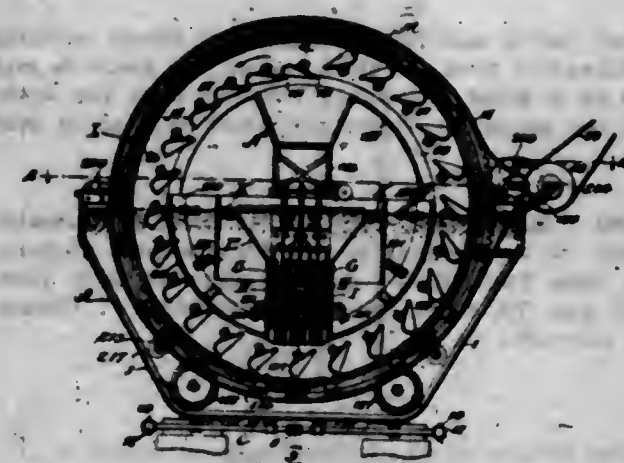
1,306,360. SNAP-SWITCH. CLARENCE C. STIRLING, Hartford, Conn., assignor to The Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Original application filed June 22, 1917. Serial No. 176,302. Divided and this application filed Mar. 7, 1918. Serial No. 220,918. 7 Claims. (Cl. 178-282.)

1. An electric switch comprising a swinging switching member, contact means engageable by the switching mem-

ber, and a member of insulating material rigid on and movable with the switching member and set at an angle thereto, to deflect the air across the arc on the opening of the switch.



1,306,361. HYDRAULIC SEPARATOR FOR CRUSHED ORES. HENRY R. WAHL, Chicago, Ill. Filed Nov. 6, 1915. Serial No. 60,019. 36 Claims. (Cl. 83-82.)



1. A hydraulic separator comprising in combination a slime separating chamber, a rotating dehydrator surrounding said chamber, and means for producing directly rising currents of water in and common to both said separator and dehydrator.

1,306,362. TOY BOAT. ORMOND EDGAR WALL, Honolulu, Hawaii. Filed July 9, 1917. Serial No. 179,361. 11 Claims. (Cl. 46-37.)

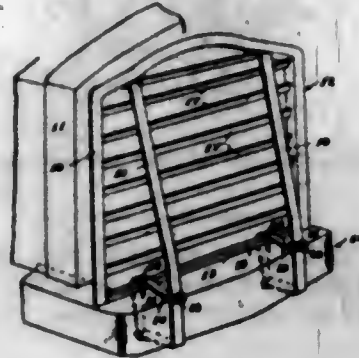


1. A boat having a propeller at the stern, a crank at the bow, a series of rubber bands connected at one end to the propeller, a link connecting the other end of the series to the crank, means for preventing reverse rotation of the crank, a barrel having a depending tube between its ends journaled in the deck of the boat and extending into the hull adjacent the link, a pin in the tube and having a cross head at its lower end resting on the link and extending into the bow when the spring is under tension, a projectile having an annular groove for engagement by the pin when the spring is under tension and released by the relaxation of the spring, and a spring for expelling the projectile, the pin holding the projectile with the spring under tension, and inclined rudders on the boat for causing the same to dive when the propeller is running.

1,306,363. RADIATOR-GUARD. PERCY S. WARMAN, Roselle, N. J., assignor to The Fundamental Corporation, New York, N. Y., a Corporation of New York. Filed May 24, 1918. Serial No. 236,289. 8 Claims. (Cl. 180-66.)

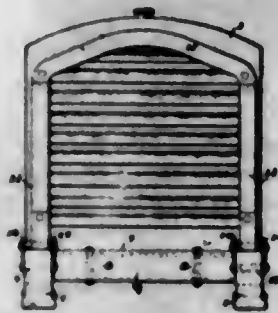
8. The combination with the chassis of an automobile, of a radiator mounted on said chassis, a guard for pro-

testing said radiator against damage from collision and comprising a metal protective frame mounted on the chassis a distance removed from the front of said radiator and secured to said chassis at a distance removed from



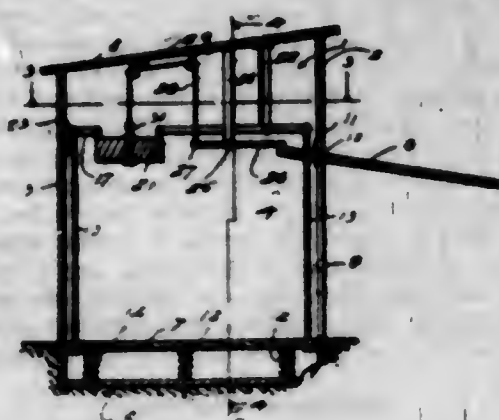
the front end of said chassis, and metal straps inclining down forwardly from the upper end of said guard to said chassis at a point a distance removed from the lower end of the protective frame and there secured to said chassis.

1,306,364. RADIATOR GUARD. FRANK E. WARMAN, Roselle, N. J., assignor to The Fundamental Corporation, New York, N. Y., a Corporation of New York. Filed Aug. 13, 1918. Serial No. 249,628. 7 Claims. (Cl. 180-68.)



1. The combination with a guard for automobile radiators mounted on the chassis of an automobile, of metal straps extending from the upper end of said guard down to said chassis, brackets secured to said chassis, and bolts on said brackets, the lower ends of said strap secured to said bolts.

1,306,365. DEVICE FOR HOUSING HOGS. FRANK A. WHEATON, Lilbourn, Mo. Filed May 15, 1918. Serial No. 234,612. 1 Claim. (Cl. 119-32.)



A device of the class described, a housing having an opening therein, a door pivotally secured adjacent its upper end to the housing and arranged to close the opening, a platform slidably mounted in the housing, spring means normally holding the platform in a raised position, a plurality of upstanding rods carried by the plat-

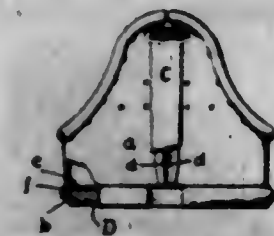
form, a weight, levers pivotally connecting the upper ends of the rods with the weight, means pivotally securing the levers intermediate their ends, a trigger pivoted intermediate its ends to the housing and having the outer end thereof arranged to engage the upper end of the door to normally hold the same in a raised position, and a flexible means for connecting the inner end of the trigger with the weight, as and for the purpose specified.

1,306,366. EYE-PROTECTOR. FREDERICK WILLSON, Reading, Pa., assignor to T. A. Willson & Co., Inc., Reading, Pa., a Corporation of Pennsylvania. Filed Jan. 28, 1918. Serial No. 214,112. 2 Claims. (Cl. 2-149.)



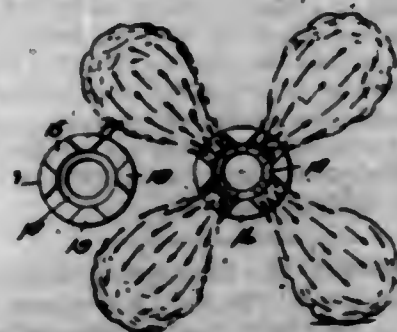
1. In an eye protector, a lens-edge engaging framing having an integral disk-supporting rear portion, a separately formed annular disk inserted in said framing and having an outer edging fixedly engaged by said rear portion of the latter and its main portion forming a flat lens-reinforcing seat, and a lens having its rear marginal face rigidly held against said inserted disk by the engaging framing.

1,306,367. EYE-PROTECTOR. FREDERICK WILLSON, Reading, Pa., assignor to T. A. Willson & Co., Inc., Reading, Pa., a Corporation of Pennsylvania. Filed Nov. 6, 1918. Serial No. 261,363. 3 Claims. (Cl. 2-149.)



1. An edge-reinforced lens for insertion in an eye-protector framing, comprising a lens and a split annular disk having a lens-edge-engaging flange adapted to said framing and to retain the disk in reinforcing contact with a marginal face portion of the lens.

1,306,368. MEANS FOR PREVENTING GAS INTERFERENCE WITH PROJECTILES IN MULTIPLE-GUN MOUNTINGS. DONNEY F. ASSURY, Washington, D. C. Filed Nov. 18, 1916. Serial No. 132,217. 5 Claims. (Cl. 89-14.)



1. In a multiple gun mounting, the combination with a plurality of guns, of means associated with each gun for restraining the expansion of the gas of explosion laterally in certain directions whereby the gas of one gun will not

act upon a projectile discharged from an adjacent gun to derange the flight thereof when said guns are fired at substantially the same moment.

1,306,369. FASTENER. OTIS D. BELL, Brooklyn, N. Y. Filed July 23, 1918. Serial No. 246,297. 3 Claims. (Cl. 24-80.)



1. A fastener element to be employed in securing a flexible fastening medium, said element having a central transverse hole therethrough and presenting reentrant edge recesses at diametrically opposite sides of said hole, there being a radial slot extending from an edge of said element to said central hole between said recesses, and the latter being separated laterally from and being out of communication with said hole.

1,306,370. SLUICE-GATE. ERNEST L. BROOMS, Tarrytown, N. Y., assignor to John N. Thomas, Pittston, Pa. Filed Nov. 11, 1915. Serial No. 60,952. 9 Claims. (Cl. 61-46.)



6. A sluice gate having a frame of skeleton metal beam construction with an up stream facing and a down stream seating portion, and adjusting screws extending through the lowermost beam of the frame and accessible for manipulation on the down stream side of the gate.

1,306,371. DRILL-BIT. MARCH J. A. CULMORE, Houston, Tex. Filed July 30, 1918. Serial No. 247,450. 7 Claims. (Cl. 255-71.)



1. A drill including a head, whose lower end is formed with diverging faces, spindles anchored in the head, and

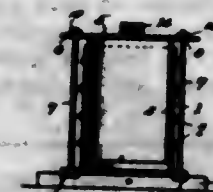
extending at approximately right angles to the respective faces, an approximately conical shaped cutting roller rotatably mounted on the inner end of each spindle, and formed of independent sections and a reamer carried by the outer end of one of said spindles.

1,306,372. SUBMARINE MINE. CHARLES E. EGAN and ELVA F. JACKSON, Charleston, W. Va., assignors of one-third to Lewis C. Summers, John R. Criswell, and John W. Pauley, Charleston, W. Va. Filed Aug. 3, 1917. Serial No. 184,311. 4 Claims. (Cl. 102-3.)



1. A submarine mine comprising a float filled with compressed air, an attached bomb adapted to sink when released, a detent controlling the release upon reduction of air-pressure in the float, a slack cord rendered taut at a given depth under water, and means within the bomb to explode the charge of high explosive when the cord is taut.

1,306,373. ENSILAGE-CONTAINER. WILMOT Z. EMERSON, Ellsworth, Me. Filed Nov. 1, 1917. Serial No. 199,687. Renewed Dec. 4, 1918. Serial No. 265,273. 5 Claims. (Cl. 100-57.)

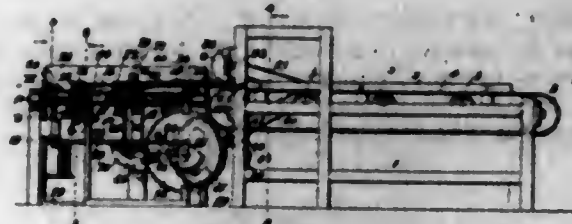


1. In an ensilage container, the combination of a primary section and an auxiliary section, said primary section having a base thereon, a cover upon one end of said auxiliary section, outwardly projecting lugs formed upon the peripheries of said base and cover, headed tie rods projecting from the lugs of said base, said tie rods connected projecting through the lugs of said cover when said auxiliary section is in a telescoped position, and retaining nuts screwed onto the projecting ends of said tie rods for releasably retaining said auxiliary section in a telescoped condition.

1,306,374. TOBACCO-HANGING MACHINE. ALBERT PAUL GILBERT, Durham, N. C. Filed Apr. 25, 1918. Serial No. 230,736. 26 Claims. (Cl. 131-21.)

1. A machine for hanging tobacco in the form of bundles thereof with the leaves bound together at one end, comprising a frame adapted to rest upon a fixed support, a conveyor on the frame for receiving the bundles deposited thereon with the bound ends all directed toward

and adjacent to one side of the conveyer, means for presenting and holding impaling sticks adjacent to the discharge end of the conveyer and in the line of travel of the bound ends of the bundles, and means responsive to the accumulation of a predetermined quantity of tobacco



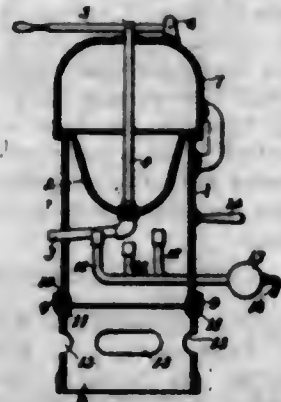
on the stick for temporarily arresting the feed of the bundles onto the stick, and during the period of rest causing the discharge of the filled stick and the presentation of an empty stick into the path of travel of the bound ends of the bundles.

1,306,375. PROCESS FOR TREATING POROUS VESSELS. GEORGE HUGH HADFIELD, Mitcham, and ALFRED EDWIN BAWTREE, Sutton, England. Filed Oct. 15, 1918. Serial No. 258,307. 1 Claim. (Cl. 91-65.)



A process of applying a liquid coating composition capable of hardening, to the interior surface of a receptacle of which the inner wall is made of a somewhat pervious material having cracks or fissures therein, such process comprising rotating the receptacle, with such coating composition therein, at such a rapid rate of speed that the said coating composition is spread out in the form of a coating on the interior of said receptacle, and forced into said cracks and fissures, substantially as specified.

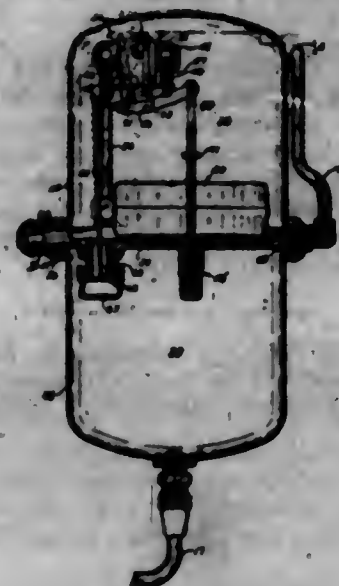
1,306,376. MEANS FOR MELTING AND CASTING METAL. ISAIAH HALL, Birmingham, England. Filed Feb. 8, 1916. Serial No. 77,008. 1 Claim. (Cl. 22-79.)



Means for melting and casting metal, comprising, in combination, a furnace body, a melting pot rotatably supported on said body, the said pot having an outlet, a

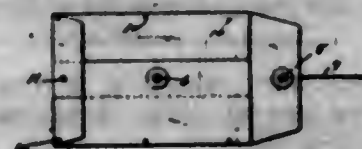
valve controlling the said outlet, means for operating the said valve, a pouring spout fixed to said pot and projecting from the exterior of the said body.

1,306,377. FUEL-FEED SYSTEM. HARRY W. HAMILTON, Detroit, Mich., assignor to Hamilton Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana. Filed July 2, 1917. Serial No. 178,324. 21 Claims. (Cl. 158-36.)



1. A petrol pump for fuel feed systems, comprising a casing divided into upper and lower chambers, float mechanism controlled by the liquid level in the upper chamber for controlling the fluid pressure condition therein to produce intermittent feeding of fuel by suction into said upper chamber, and a valve controlling the connection between said two chambers, said valve being controlled jointly by said float and by the pressure condition in the upper chamber and being arranged so that it is closed by the action of the float when the latter reaches its lower limit of movement but is otherwise free from the float and has a normal tendency to open.

1,306,378. ENVELOP. GEORGE FRANCIS HOGAN, Chicago, Ill. Filed Oct. 1, 1918. Serial No. 256,372. 3 Claims. (Cl. 228-68.)



1. An envelop adapted for attachment to a package where it may be exposed to the weather, comprising a body portion having a double fold at its open end to prevent moisture from reaching the contents of the envelop, the upper side of said fold being extended to form a flap having a fastening device applied thereto, a cooperating fastening device attached to the body portion, and distinctive marks on the upper side of the body portion to show the points at which the envelop should be tacked to the package, certain of the tacks applied at such points being covered by the double fold and protected thereby.

1,306,379. COMPUTER. KARL MORINS, Evanston, Ill. Filed Jan. 2, 1917. Serial No. 140,113. 6 Claims. (Cl. 235-84.)

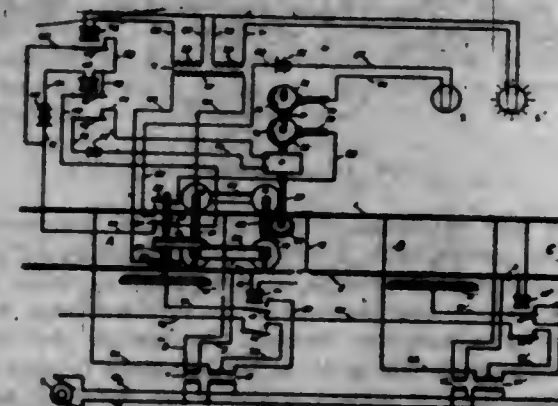
2. A device of the character described comprising three coaxial members co-ordinated to move in differential relation, and provided on corresponding faces with numbered

mathematical graduations, the graduations of the central member being so proportioned relative to those of the



outer members as to disclose at a given point an appropriate function of any two numbers on the outer members brought into line with each other at such point.

1,306,380. AUTOMATIC TRAIN-CONTROL SYSTEM. WINSTON K. HOWE, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed Apr. 1, 1916. Serial No. 88,363. 18 Claims. (Cl. 246-49.)



3. In a train control system, in combination: a track; a vehicle adapted to travel on said track; train control apparatus on the vehicle; means operatively connected to the wheels of the vehicle for governing said apparatus; a circuit; a circuit controlling device actuated by said means and periodically interrupting said circuit; means on the vehicle and traffic controlled means along the track arranged in cooperative relation for governing said apparatus means operated by the cooperation of said last mentioned means for interrupting said circuit; and an indicating device included in said circuit.

1,306,381. HAND-TRAP FOR THROWING CLAY PIGEONS. GUSTAVE A. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Mar. 31, 1919. Serial No. 286,347. 12 Claims. (Cl. 124-3.)

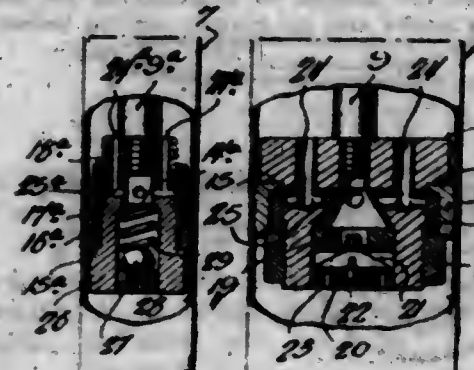


1. A hand trap for clay pigeons, having a trough-shaped, combined carrier and guide adapted in length to hold and deliver a plurality of clay pigeons.

1,306,382. VALVED PISTON. NICHOLAS KOLTZ, Fond du Lac, Wis., assignor, by direct and mesne assignments, to Philip H. Weaver, Fond du Lac, Wis. Filed Oct. 24, 1918. Serial No. 250,573. 4 Claims. (Cl. 103-63.)

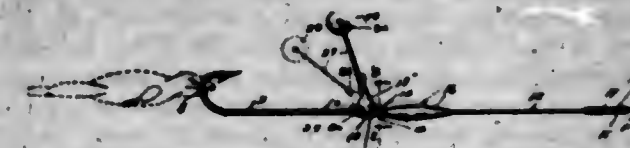
1. A valved piston comprising a head block provided with a bore therethrough, one end portion of the bore

being counter sunk, a valve seat member fitted in said counter sunk portion, and a valve carried by the head block and engageable against said seat, an operating rod



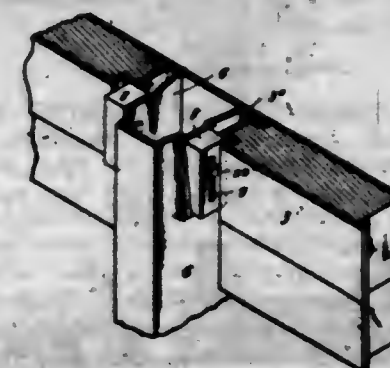
threaded in the other end of the bore of the head and ports extending through the block from the counter sunk portion.

1,306,383. WEEDLESS FISH-HOOK. ALBERT V. LINDQUIST, Alexandria, Minn. Filed Sept. 28, 1918. Serial No. 256,001. 7 Claims. (Cl. 43-7.)



1. The combination with a fish hook, of a leader, a link pivotally connecting the shank of the hook to the leader in longitudinal alignment therewith but free to move into angular positions on either side of the extended longitudinal axis of the leader, and a guard for the hook secured to the link and normally extending outward of the point of the hook with freedom to move toward the same.

1,306,384. CONCRETE-FORM. STEWART R. MCKAY, Cleveland, Ohio, assignor to McKay Concrete Form Company, Searsville, N. J., a Corporation of New Jersey. Original application filed June 12, 1915. Serial No. 33,798. Divided and this application filed Sept. 13, 1916. Serial No. 119,840. 10 Claims. (Cl. 25-131.)

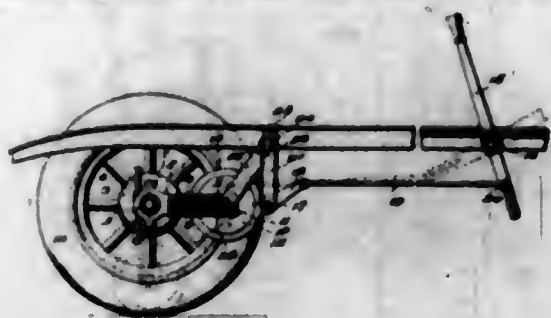


2. In a form of the character described, the combination, with a pair of spaced posts each having a side thereof provided with a beveled surface, of a panel insertible between said posts, and a clamping member supported by each post and movable along the beveled surface thereof and adapted through such movement to secure the panel in place between said posts.

1,306,385. ANTISKID ATTACHMENT FOR AUTOMOBILES. JOHN F. MCNAMARA, Danbury, Conn. Filed Jan. 18, 1919. Serial No. 271,706. 3 Claims. (Cl. 21-8.)

1. An antiskid attachment for automobiles, comprising, in combination with an automobile, a pair of supporting arms slotted longitudinally to provide guideways and rotatably mounted on the rear axle housing of the

automobile on opposite sides of the differential housing, bearing blocks slidable in the guideways of the arms, coiled springs interposed between the upper ends of the guideways and the blocks, an axle having its ends supported in the blocks and its central portion looped down-



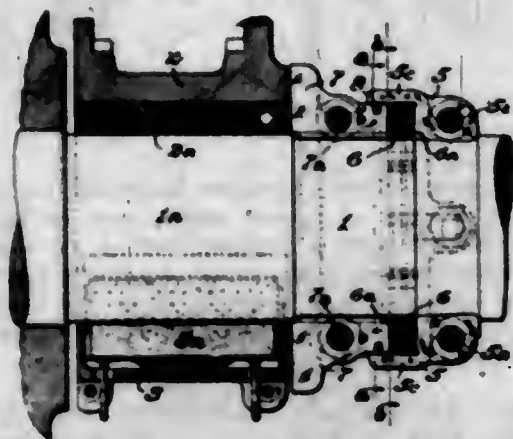
wardly to straddle the differential housing, wheels mounted on axle on opposite sides of the central looped portion, and means for raising and lowering the wheels from and into engagement with the roadway.

1,306,386. CHAIN-BOLT. LEVI D. MALONE and HARRY E. HUNDS, Shelby, Ohio, assignor to The Shelby Spring Hinge Company, Shelby, Ohio, a Corporation of Ohio. Filed Mar. 13, 1919. Serial No. 282,308. 5 Claims. (Cl. 70-42.)



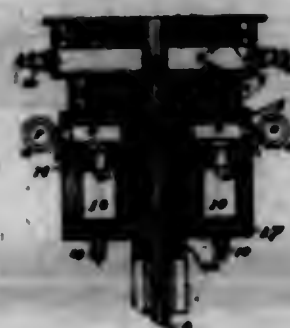
2. A device of the kind described comprising a casing having oppositely disposed openings, a longitudinally movable spring actuated bolt capable of turning in said casing, and a transversely movable spring actuated pin carried by said bolt and adapted to be brought into engagement with the casing.

1,306,387. LATERAL-THRUST BEARING FOR RAILROAD-AXLES. JOHN L. MORUM, Brooklyn, N. Y., and HAL B. STAFFORD, Plainfield, N. J. Filed Jan. 2, 1919. Serial No. 269,345. 9 Claims. (Cl. 64-25.)



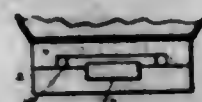
1. In a lateral thrust bearing mechanism for railroad axles the combination of an axle; an axle bearing box fitted thereon with the capacity of relative longitudinal movement; a bearing collar fixed on the axle; and a transmission ring mounted freely on the axle, between the axle bearing box and the bearing collar.

1,306,388. EXPLOSION-TURBINE. CHARLES T. OSBORN, St. Louis, Mo. Filed Nov. 23, 1918. Serial No. 132,964. 4 Claims. (Cl. 60-41.)



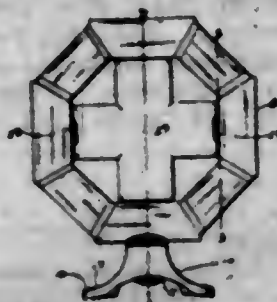
1. In apparatus of the class described, the combination of a turbine, a revolving member with combustion chambers, a stationary member between the turbine and revolving member and provided with passages for the admission of fuel to the revolving member and for the discharge of gases from the revolving member to the turbine.

1,306,389. DETACHABLE HEEL. CHARLES OSTEN, New Haven, Conn. Filed Aug. 19, 1918. Serial No. 250,439. 1 Claim. (Cl. 36-42.)



Means for attaching detachable heels comprising a heel plate formed with a series of downwardly extending straps of different lengths and tapered at their outer ends, said plate also formed at its forward edge with a downwardly projecting flange, the central portion of which is partially cut away, a top lift plate formed in its upper face with a series of straps of different lengths and tapered at their ends and adapted to enter between the straps on the heel plate, and a tapered key corresponding in width to the distance between the inner walls of the ends of the straps between which it is entered, said key formed with a downwardly projecting lip, and with a projection near its outer end to engage with the inner edge of the central portion of the flange on the heel plate.

1,306,390. INSIGNIA-HOLDER FOR AUTOMOBILES. JAMES A. QUINLAN, Southington, Conn. Filed Feb. 6, 1919. Serial No. 275,312. 1 Claim. (Cl. 40-20.)



An insignia holder comprising a frame having a transverse bar, plates secured to said bar and terminating in fingers, an insignia formed with slots through which said fingers extend and by which the insignias are connected with the frame.

1,306,391. VALVE. HIPOLYTE ROMANOFF, New York, N. Y. Filed Feb. 9, 1918. Serial No. 216,397. 3 Claims. (Cl. 251-125.)

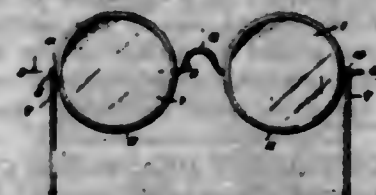
1. The combination, with a vertically arranged hollow, cylindrical element for the passage of fluid therethrough;

of a diametrical plate-like member disposed vertically within said element; and a valve comprising a pair of semi-elliptical wings located at opposite sides of said member and connected with the same along their bases; said wings having a length greater than the radius of



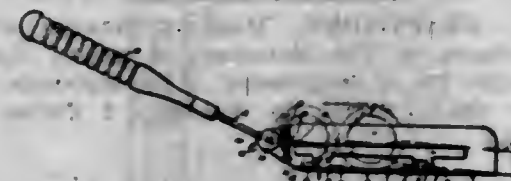
said cylindrical element, whereby they are normally maintained in oppositely-inclined, upwardly-projecting position, with their curved edges resting directly against the inner surface of said element throughout their entire extent.

1,306,392. SPECTACLE-FRAME. WAYNE S. SHARLES, Newark, N. J., assignor to New Jersey Optical Co., Newark, N. J., a Corporation of New Jersey. Filed Jan. 9, 1918. Serial No. 210,967. 2 Claims. (Cl. 68-47.)



1. As an article of manufacture, a spectacle or eyeglass frame comprising rims consisting of inner metallic rim parts for engaging and holding the edges of the lenses and non-metallic continuous or endless rim parts which encircle the said metallic rim parts and fingers for engaging the said non-metallic rim parts to hold the same in position upon the metallic rim parts.

1,306,393. HAND-TRAP FOR CLAY PIGEONS. EDWARD W. SHELLEY, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn. Filed Apr. 3, 1919. Serial No. 287,306. 3 Claims. (Cl. 124-3.)



1. In a hand trap for throwing clay pigeons, the combination with a combined carrier and guide adapted to receive and deliver a clay pigeon, of a pivotal handle having its shank bent to form a pivot-end which passes through said carrier, a locking-plate fixed upon the said pivot-end, and having a locking-tongue adapted to engage with the said carrier for locking the handle in its open position with respect thereto, and a locking-nut mounted upon the said pivot-end for holding the said tongue in locking engagement with the said carrier.

1,306,394. FOUNTAIN-PEN. ARTHUR LICHFIELD SOWSBY, Bournemouth, Hants, England. Filed June 8, 1918. Serial No. 238,368. 2 Claims. (Cl. 120-46.)

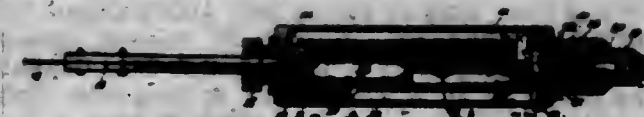
1. In a fountain pen, a hollow barrel; a compressible sac therein, a spring for compressing the sac, a slidable

nut engaging one end of said spring, a screw engaging the nut for traversing the same forwardly and also back-



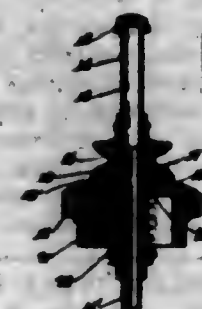
wardly, and means attached to the screw for moving the latter as desired.

1,306,395. PNEUMATIC SAW. JOHN M. ABRAMS, Brooklyn, N. Y. Filed Sept. 24, 1918. Serial No. 255,521. 2 Claims. (Cl. 121-45.)



1. In a fluid actuated tool: the combination with the cylinder thereof and its piston, said cylinder being provided with a fluid supply port at its extreme outer end, an inlet port at its extreme inner end, an exhaust port adapted to be uncovered by the inner end of the said piston when it has reached the outward position of its stroke, and an additional exhaust port between the limits of travel of the outer end of said piston; of a valve to control the supply of fluid to said supply port and to the inlet port, and actuated in one direction of its movement by the fluid delivered through said intermediate port.

1,306,396. TEMPERATURE-INDICATING DEVICE FOR COOLING SYSTEMS FOR INTERNAL-COMBUSTION ENGINES. LOUIS V. ANSONSON, Newark, N. J. Filed Oct. 17, 1916. Serial No. 126,197. 4 Claims. (Cl. 73-52.)

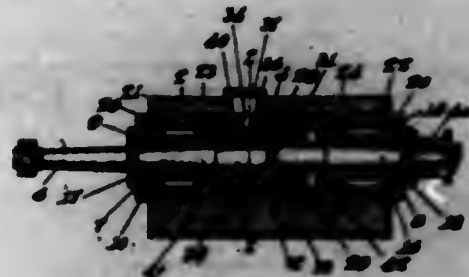


1. The combination with the cooling system of an internal combustion engine, embodying a radiator and a cap therefor, and a heat responsive element having a portion located in the cooling medium for said system; of means outside the cap of said radiator having means to normally lock said outside means thereto, said means being yieldably movable with the heat responsive element in respect to the cap and permitting of the same being unlocked as a whole from said cap, whereupon the latter may be rotated relatively to the former.

1,306,397. ADJUSTABLE BEARING. WILLIAM ARTER, Worcester, Mass., assignor to The Persons-Arter Machine Company, Worcester, Mass., a Corporation of Massachusetts. Filed Sept. 14, 1916. Serial No. 120,101. 6 Claims. (Cl. 64-55.)

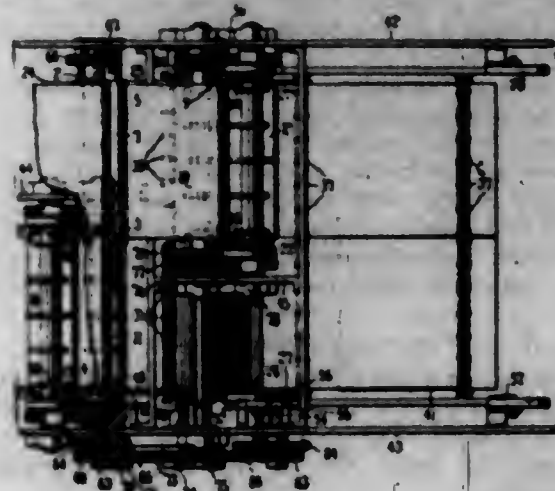
2. A bearing mechanism of the character described comprising a sleeve, a tapered bearing bushing mounted in said sleeve, a spindle rotatable in said bushing, said bushing being mounted for slidable adjustment in said sleeve longitudinally of said spindle, means for securing said bushing in an adjusted position, a thrust collar fast

on said spindle, bearing bushings engaging opposite sides of said collar and mounted for relative adjustment to



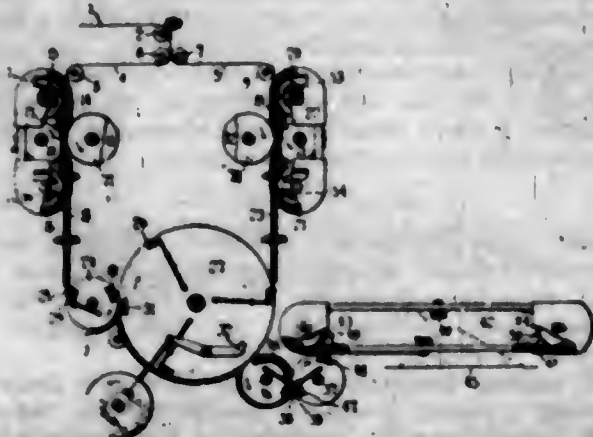
take up wear between them and said collar, the latter adjustment being independent of the adjustment of said tapered bushing.

1,306,398. SHEET-DELIVERY MECHANISM FOR PRINTING-PRESSES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 18, 1916. Serial No. 91,982. 17 Claims. (Cl. 164-68.)



1. Means for slitting a wide web into narrow webs, separate sheet cutting devices for said narrow webs, sheet gripping means for positively passing the narrow webs through their respective cutting devices, said sheet gripping means being arranged to grip the narrow webs before they reach their cutting devices and to hold the webs until they pass their cutting devices and sheet gripping means for positively delivering the sheets from the first-named sheet gripping means.

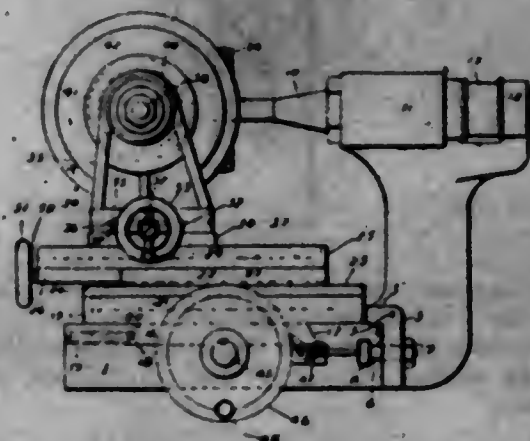
1,306,399. SHEET-DELIVERY MECHANISM FOR PRINTING-PRESSES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., and Stonington, Conn., a Corporation of Delaware. Filed June 2, 1916. Serial No. 101,813. Renewed May 12, 1919. Serial No. 296,512. 10 Claims. (Cl. 270-60.)



2. Means for slitting a wide web into narrow webs and for leading the narrow webs through different paths, separate sheet cutting devices in said paths for said narrow

webs, means for collecting groups of sheets cut from said narrow webs, and means for delivering the groups of sheets flat and side by side.

1,306,400. GRINDING-MACHINE. FLETCHER L. BARR, South Orange, N. J., assignor to The Hart Roller Bearing Company, East Orange, N. J., a Corporation of New Jersey. Filed Aug. 29, 1918. Serial No. 250,006. 4 Claims. (Cl. 51-4.)



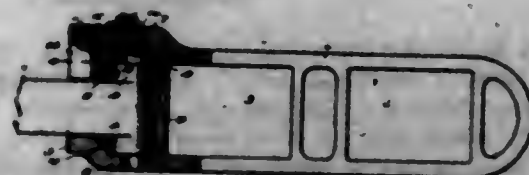
1. In a grinding machine, the combination of a rotatable grinding wheel, a rotatable work support mounted for oscillation with the work carried thereby in engagement with the periphery of said wheel, means for adjusting the work support in a direction to effect adjustment of the radius of the arc of the oscillatory movement thereof, and means for adjusting the work support relatively to the grinding wheel without effecting any change in the radius of such oscillatory movement.

1,306,401. VENTILATING MEANS FOR CORN-CRIBS. ELLIOTT M. BUSCHLE, Blackhawk county, Iowa. Filed July 22, 1918. Serial No. 246,031. 4 Claims. (Cl. 98-26.)



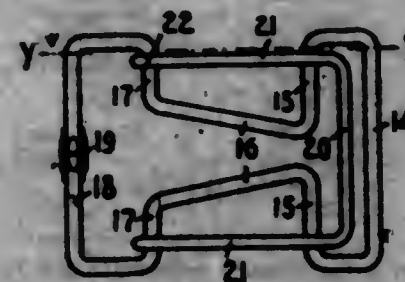
1. In ventilating means of the character described, supporting-means, flexible division-devices supported detachably in spaced pairs on said supporting-means, and spacing-bodies mounted detachably between the members of said pairs and both the division-devices and the spacing-bodies provided with a plurality of openings.

1,306,402. DRAFT-YOKE. HARRY C. BURROU, Chicago, Ill., assignor to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 7, 1917. Serial No. 184,841. 7 Claims. (Cl. 218-42.)



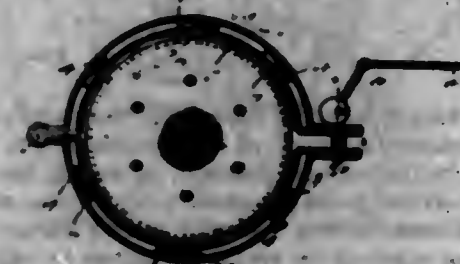
1. A draft yoke having at its forward end a shouldered socket adapted to receive the shouldered butt of a car coupler, said socket shoulders being separable to allow the shouldered coupler butt to pass between them and being adapted to engage corresponding shoulders on said coupler butt to thereby connect the coupler and yoke in operative relation, one of said socket shoulders being movable toward the other under the influence of gravity and being maintained in overlapping relation with a shoulder of the coupler butt.

1,306,403. BUCKLE. DANIEL A. CARPENTER, New York, N. Y. Filed Feb. 14, 1914. Serial No. 818,885. Renewed Oct. 25, 1918. Serial No. 250,715. 5 Claims. (Cl. 24-170.)



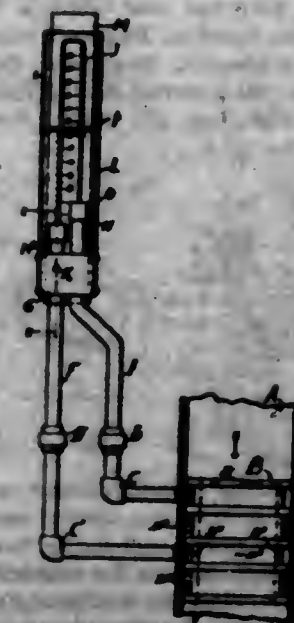
2. In a buckle the combination of a frame and a longitudinally elastic tongue forming members of a clamp, the front end of the frame being one jaw and the frame having tongue-supports at the sides of its rear part, the tongue being a piece of wire having at its ends eyes which loosely engage the tongue-supports, and extending from the eyes backward and then transversely and forward and outward and forming the other jaw which is the front end of the tongue, and the frame having at the sides of the front part thereof inwardly extending stop-ports on which the tongue acts only when its jaw is at the inner side of the jaw of the frame and on which the sides of the tongue bear close to the ends of its jaw.

1,306,404. BRAKE-BAND. HERBERT B. CONO, Mount Vernon, N. Y. Filed June 29, 1917. Serial No. 177,740. 10 Claims. (Cl. 74-13.)



1. A brake band formed of an inner and an outer member, frictional blocks carried on the inner member and levers carried on the outer member for bearing upon said blocks when the bands are applied.

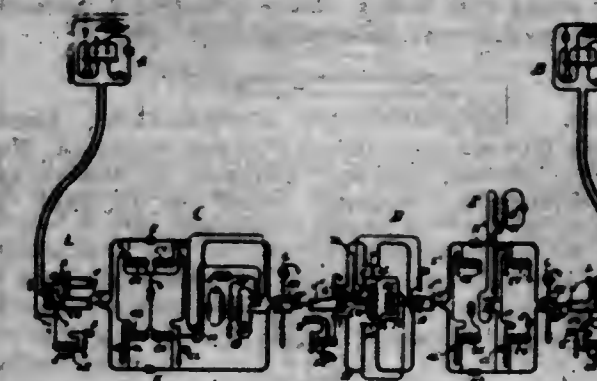
1,306,405. INDICATING DIFFERENTIAL FLUID-METER. WILLIAM JAMES CROWELL, Jr., Lebanon, Pa. Filed Mar. 3, 1917. Serial No. 152,288. 8 Claims. (Cl. 73-167.)



1. A tubular member formed with two peripheral pockets and with channels connecting one of said pockets to

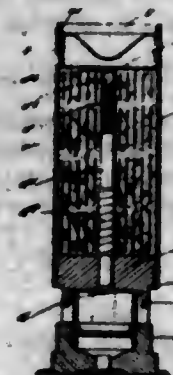
the bore of said member, and adapted to be mounted in a conduit with the last mentioned pocket out of communication with the conduit at either end of the member, and with the other pocket in communication with the conduit at one end of the member.

1,306,406. TRUNK-CIRCUIT. HIRSH D. CURRIER, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 5, 1915. Serial No. 19,168. 18 Claims. (Cl. 179-43.)



1. In a telephone system a trunk circuit provided with a pair of terminals, connecting means adapted to be connected to one of said terminals, means for applying ringing current to the other of said terminals, and means for preventing the operative association of the said connecting means with the said trunk while ringing current is being applied.

1,306,407. FLARE-LIGHT SHELL. SAMUEL CLELAND DAVIDSON, Belfast, Ireland. Filed June 27, 1917. Serial No. 177,205. 8 Claims. (Cl. 102-21.)

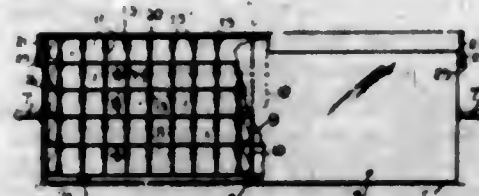


1. In flare-light projectiles a casing adapted to hold flare-light powder, a fuse plug attached to the base of the casing, a fuse tube disposed in a hole in the fuse plug and extending some way into the casing, a fuse in said fuse tube adapted to be ignited at its lower end by the explosion of the propellant charge, and to contain at its upper end a priming of slow burning powder for igniting the charge of flare powder, a retaining disk of foraminous material, or paper over the surface of the flare powder, between which disk and an air inclosing wad in the top end of the casing, an air space is provided for the supply of air to assist the initial ignition of the top surface of the flare powder charge.

1,306,408. CONTAINER. DECATUR W. DAVIS, Louisville, Ky. Filed Sept. 22, 1917. Serial No. 192,741. 2 Claims. (Cl. 217-54.)

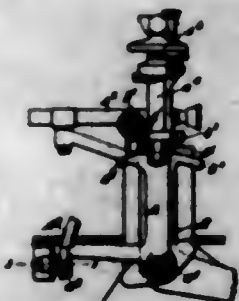
1. A case of the character described comprising a case body, resilient metal strips extending transversely above the bottom wall of the case body and in parallel relation thereto and permanently secured at their terminals to

said wall, said strips constituting resilient supporting means for the contents of the case, and a vertically mov-



able partition disposed upon one of said resilient supporting strips and having means frictionally contacting with the opposite side walls of the case body.

1,306,409. GUN-SIGHTING APPARATUS. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed Apr. 13, 1915. Serial No. 21,118. 10 Claims. (Cl. 33-48.)



1. The combination with a gun, its trunnions, and the cradle, of sighting apparatus, comprising a sight bracket, a member moving with the gun during its pointing adjustment, means for mounting the sight bracket on said member, means for adjusting the sight bracket on said member to bring the bracket to a vertical position and means interposed between said bracket and the gun cradle for automatically displacing the sight bracket to correct for drift during the ranging adjustment of the gun.

1,306,410. ELECTRICAL APPARATUS FOR TRANSMITTING OR RECEIVING SIGNALS. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, London, England. Filed June 16, 1915. Serial No. 34,544. 2 Claims. (Cl. 172-239.)

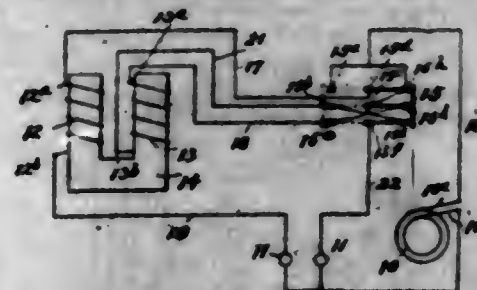


1. In a step-by-step electric motor, six field magnets arranged in three diametrical pairs, each magnet comprising a coil, the diametrically-opposite coils being connected in parallel, an unwound armature having four pole pieces, and means for energizing the coils so that at each alternate step in the movement of the armature, two diametrical pairs of the coils are in parallel with each other and in series with the remaining pair, and at each intermediate step, one diametrical pair of coils is disconnected and the other two pairs of coils are in series with each other.

1,306,411. LIGHTING-SYSTEM CONTROL. EVAN J. EDWARDS, East Cleveland, Ohio. Filed Dec. 10, 1915. Serial No. 68,069. 4 Claims. (Cl. 171-97.)

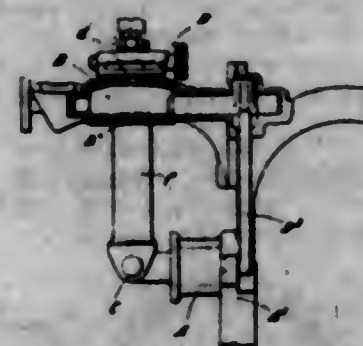
1. In a lighting system, a source of alternating current, a plurality of lamps arranged in separate branches of the

system and connected to the source, a reactance having coils connected to the source and located in the different



branches, the coils being inductively related, and a switching device for reversing the connections of one of the coils.

1,306,412. SIGHTING APPARATUS FOR ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed June 22, 1915. Serial No. 35,729. 6 Claims. (Cl. 33-48.)



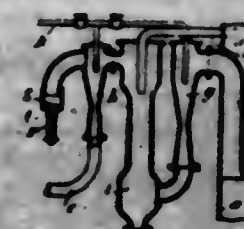
2. In ordnance sighting apparatus, the combination with the sight carrier adapted to be adjusted about a longitudinal axis to its vertical position, of means for mounting said sight carrier to swing about a transverse axis, means for automatically acting upon the carrier during the movement of the same to its vertical position to shift the carrier about its transverse axis to correct the error in the angle of tangent elevation due to the inclination of the gun trunnions, and means operated by vertical movement of the gun about its trunnions to move the last-named means and thereby shift said carrier about its transverse axis to vary in accordance with the range of the target the above-mentioned correction to the error in the angle of tangent elevation.

1,306,413. SIGHTING APPARATUS FOR ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Original application filed June 22, 1915, Serial No. 35,729. Divided and this application filed Nov. 27, 1915. Serial No. 62,890. 4 Claims. (Cl. 33-48.)



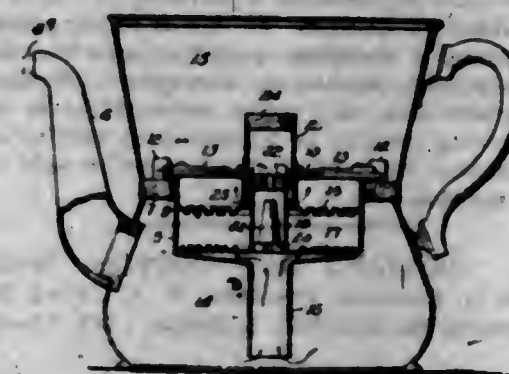
1. In ordnance sighting apparatus, the combination with the range indicating device, of a slotted member, a projection connected to the range indicating device and engaging said slotted member, means for adjusting said slotted member in accordance with the degree of inclination of the gun trunnions, and means for effecting relative movement between said slotted member, and projection in accordance with the range of the target.

1,306,414. DEVICE FOR INSURING STABILITY OF WORKING OF STEAM-EJECTORS ARRANGED IN SERIES. MAURICE DELAPORTE, Paris, France. Filed Feb. 17, 1914. Serial No. 819,253. 4 Claims. (Cl. 230-13.)



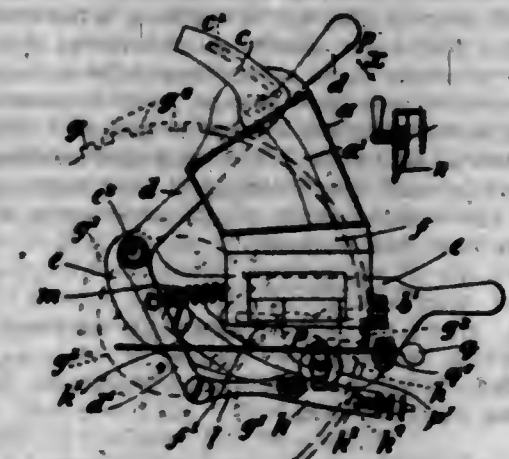
1. A plant for extracting gases from a receptacle, comprising in combination with a first and a second steam ejector arranged in series with each other and an intermediate auxiliary condenser, additional means for increasing the mass of gas delivered to the second ejector, the inlet of the said means for introducing the supplementary amount of gaseous fluid necessary for this increase being situated at a point where the gases extracted from the receptacle have already been subjected to a certain amount of compression.

1,306,415. COFFEE-PERCOLATOR. JOHN A. DUNLAP, Chicago, Ill. Filed Jan. 20, 1919. Serial No. 272,147. 4 Claims. (Cl. 53-3.)



1. A percolator comprising a cup, and a pair of percolator-members supported in the cup in spaced relation to each other and provided with conical projections on their opposing faces, said projections having inwardly tapered openings in their apices.

1,306,416. LOADING OF MAGAZINE-DRUMS OF LEWIS AND LIKE GUNS. JOHN ERNEST DUNWOODY, Belfast, Ireland. Filed Jan. 23, 1918. Serial No. 213,285. 8 Claims. (Cl. 42-87.)



1. A loading device for the magazine drums of "Lewis" and like machine guns, comprising, in combination, a receptacle for cartridges in clips, a frame carrying the receptacle, means on the frame about which the drum can turn, a member capable of being projected into the recep-

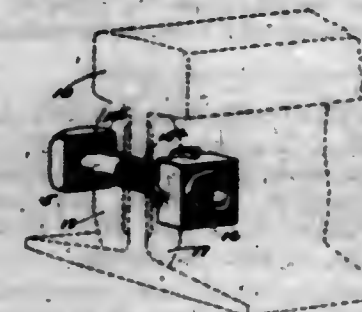
table to force the cartridges from the clips and feed them to the drum, and a lever for actuating the said member and also at the same time turning the drum.

1,306,417. ELEVATING-TRUCK. FRANK L. EIDMANN, Holyoke, Mass., assignor to Herbert W. Cowan, J. Lewis Wyckoff, and Edward N. White, trustees, Holyoke, Mass., doing business as Cowan Truck Company. Filed Feb. 28, 1918. Serial No. 219,558. 12 Claims. (Cl. 254-2.)



1. In an elevating truck, the combination with the truck base, an elevating support and a jack connected to said base and to said support for effecting the elevation of said support, said jack comprising step-by-step lifting means and retaining means, of connections between said support and said retaining means operating to release said means when said jack tends to move said support beyond a predetermined point.

1,306,418. NUT-LOCK. HENRY G. ELFBORG, Chicago, Ill. Filed Aug. 21, 1917. Serial No. 187,896. 8 Claims. (Cl. 151-10.)



1. In combination, a bolt, a standard nut threadedly engaging said bolt, and a threaded washer having a part engaging said nut to set up a binding frictional grip transversely of said bolt between said nut and said bolt.

1,306,419. CAM. WILLIAM M. EVENSEN, Chicago, Ill., assignor to Goss Printing Press Company, a Corporation of Illinois. Original application filed May 16, 1916, Serial No. 97,793. Divided and this application filed July 26, 1917. Serial No. 182,829. 2 Claims. (Cl. 74-1.)

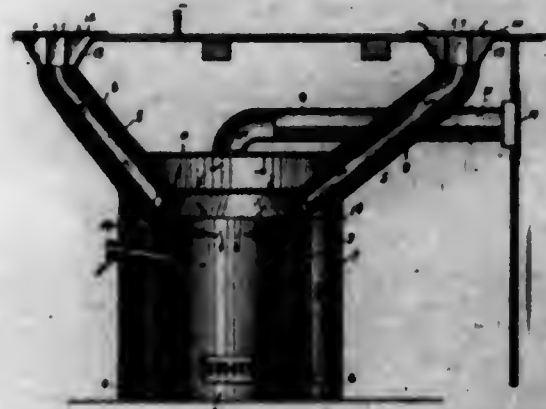


1. A cam mechanism including in combination a shaft, a hub, mounted upon and rotating with the shaft and having a guideway formed in its flat side, a cam member embracing the shaft and movable along said guideway to vary its diametral relation to the shaft, said cam member having a screw-threaded hole therein, and a rotatable screw mounted against longitudinal movement on the hub and threaded into said screw-threaded hole.

1,306,420. HOT-AIR HEATING SYSTEM. WILLIAM G. FRIGON, Wakarusa, Ohio. Filed Feb. 13, 1917. Serial No. 148,567. 1 Claim. (Cl. 126-99.)

In a hot air heating system, the combination of a furnace, a primary jacket fitting about said furnace and be-

ing spaced therefrom, said primary jacket having openings formed therethrough adjacent its lower portion, a smoke flue leading from said furnace, a secondary jacket positioned about said primary jacket, deflector plates carried by said primary and secondary jackets, the ends of said deflector plates being spaced apart out of vertical alignment with the openings formed through said primary



jacket, a fresh air flue connected to the top of said secondary jacket, in vertical alignment with the top of said primary jacket, thus causing the cold air to be first injected on the top of the primary jacket and then deflected by said plates around the primary jacket and pass through the openings in the primary jacket and be heated by the furnace, hot air pipes leading from the primary jacket and cold air pipes communicating with the secondary jacket.

1,306,421. BREATHING FOR INTERNAL-COMBUSTION ENGINES. CHARLES F. FELT, St. Louis, Mo., assignor of one-fourth to William E. Anderson, one-fourth to William H. Langdale, and one-fourth to Stonay L. Langdale, St. Louis, Mo. Filed Mar. 30, 1916. Serial No. 87,687. 4 Claims. (Cl. 220-85.)



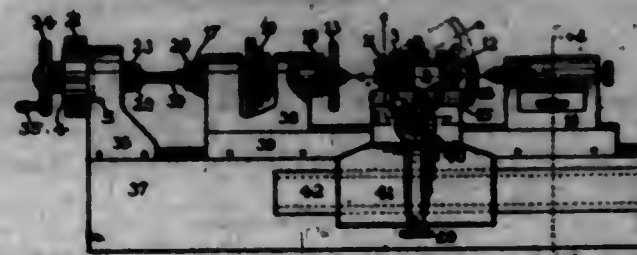
1. An engine having a crank case, a breather tube extending upwardly from and in communication with said crank case, and deflectors comprising oppositely disposed alternating segmental deflector wings extending upwardly from the inner face of said breather tube to provide oppositely disposed alternating oil-receiving pockets, said upwardly extending alternating deflector wings being separated from each other to provide open spaces above the upper edges of the oil-receiving pockets and between the separated deflector wings; the upper edge of each oil-receiving pocket, excepting the highest pocket, being below the upwardly extending bottom face of the next higher deflector wing so that the outgoing oil passing from said upwardly extending bottom face will be discharged onto the walls of the open space above the oil-receiving pocket, said oil-receiving pockets being open at the top to receive the oil, and each of said pockets having a discharge port at the bottom for the discharge of the oil.

1,306,422. MACHINE FOR MAKING, CHARGING, AND SEALING CARTONS. JOSEPH FOSSAT, Farmington, Mass. Filed July 24, 1916. Serial No. 110,860. 19 Claims. (Cl. 93-3.)



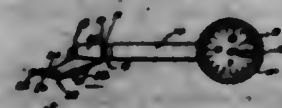
1. A machine for forming and charging cartons, comprising mechanism arranged to fold carton blanks into carton form, said mechanism including a series of forming cores arranged so that their axes of movement are horizontal, a series of blank-folding devices for acting successively upon the carton blanks, and means for moving said cores successively into coactive relation with said devices successively, whereby a plurality of carton blanks may be caused to undergo the carton-forming operation simultaneously, a charging spout arranged to discharge granular material, mechanism arranged to transfer the empty cartons from said cores successively to upright charge-receiving position in register with said spout, and a carton holder for holding the cartons in said charge-receiving position.

1,306,423. GRINDING AND CUTTING MACHINE. LEONARD A. FRANKEN, Brooklyn, N. Y. Filed Jan. 26, 1918. Serial No. 213,925. 2 Claims. (Cl. 51-4.)



1. A grinding and cutting machine including a stationary bed provided with a feed on the end thereof, a slideable bed adapted to travel upon said first bed to and from said feed block, a bearing head upon said slideable bed and a shaft therein adapted to receive a lathe center and face plate, a feed screw spindle secured to the free end of said shaft to rotate the same, an externally threaded feed bushing secured upon said spindle, a corresponding feed nut engaging said bushing secured to said feed block, providing travel of said slideable bed upon said stationary bed by rotation of said feed bushing in said feed nut, said feed nut and bushing being a pair of a series of interchangeable nuts and bushings.

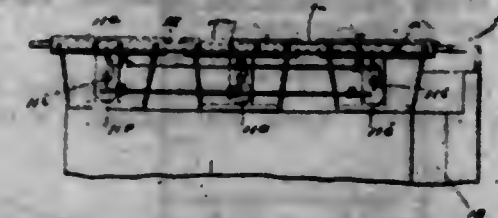
1,306,424. BELL-CRANK LEVER AND SUPPORT FOR USE WITH WIGGLERS. RALPH F. FRASIER, Baltimore, Md. Filed Dec. 30, 1918. Serial No. 206,967. 2 Claims. (Cl. 33-172.)



2. In a bell crank lever and support for use with a wiggler, the combination with a support provided with a

hole, ears formed integrally with said support and a plate supported by said ears, of a bushing mounted in said hole and a lever revolvably mounted on said pin between said ears, said lever comprising a nose for application to work, an operating finger located to strike the end of said bushing, and a stopping arm located to strike the side of said bushing.

1,306,425. COMPOUND JOINT-RAMMING MACHINE. PHILIPUS W. GATTS, Chicago, Ill., assignor to Mumford Molding Machine Company, Jersey City, N. J., a Corporation. Filed Aug. 21, 1916. Serial No. 116,020. 8 Claims. (Cl. 22-45.)



1. A compound joint ramming machine comprising a plurality of separable operable unit machines comprising tables, and means for reciprocating said tables, means to directly and rigidly secure said tables together, and means to control the supply of operating fluid to said machines.

1,306,426. SINGLE-LEVER LOCKING-CLAMP. JOHN GRAVES, Madison, Wis., assignor to French Battery & Carbon Co., Madison, Wis., a Corporation of Wisconsin. Filed Aug. 29, 1918. Serial No. 251,926. 7 Claims. (Cl. 81-19.)



6. In a locking clamp mechanism, a stationary member having a face formed to receive an article to be clamped, a normally fixed pivot in front of said clamping face, a lever pivoted on said pivot, a pair of movable jaws pivoted with reference to said stationary member and adapted for cooperation therewith to clamp an article against its said face, a pair of overlapping links, one connecting each of said movable jaws to said lever, the pivotal points of connection of said links to said lever being such that when the clamp mechanism is closed, the pivotal points of connection between the links and lever are on opposite sides of and in alignment with the pivotal support of the lever, whereby locking of the device is effected, and selectively operable mechanism for moving the pivotal support of the lever toward and from the fixed member, as and for the purposes set forth.

1,306,427. KEYLESS PADLOCK. JENNINGS E. GRISAMOUS, Jamesport, Mo. Filed May 29, 1918. Serial No. 237,257. 2 Claims. (Cl. 70-105.)

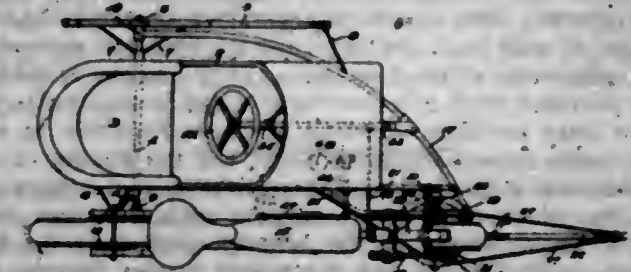
2. In a padlock, the combination with a casing consisting of a cupped back plate, a disk-like face plate, and pivotal connections between the two plates at their axis; of a shackle pivoted at one end in the back plate and having a hook at its other end with an undercut bill, a bolt slidably mounted in guides in the back plate and having a headed inner end for engagement with said hook, means

for holding it in such engagement, a spring mounted on the pivot between said plates, one arm engaging the tip of the shackle and the other arm being connected with



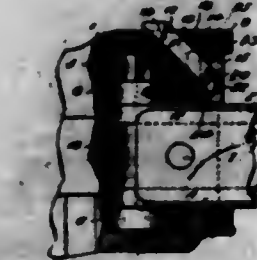
said bolt, and a pin in the face plate contacting with the last-named arm whereby rotary movement of the face plate with respect to the back plate retracts the bolt.

1,306,428. MOTOR-CYCLE SLEIGH. ANTON HAMMERS, Dent, Minn. Filed May 1, 1918. Serial No. 231,907. 8 Claims. (Cl. 21-48.)



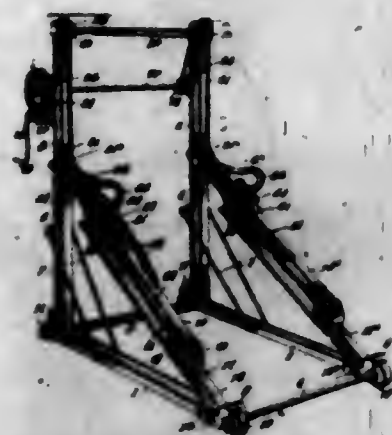
1. In combination with a motor cycle, a shaft having one end secured to the rear portion of the cycle frame, a support mounted on the other end of said shaft, a body having its rear portion carried by said shaft, a frame secured to the forward portion of said body and having a bearing thereon for the motor cycle fork, a guiding support swiveled on said frame, a supporting rail extending diagonally from said frame beneath said body and having a bearing on said shaft adjacent said first named support, and a steering device mounted in said body and connected with said guiding support below said fork for oscillating it on said frame.

1,306,429. DRAFT-RIGGING FOR RAILWAY CARS. JOSEPH KILSO, Pittsburgh, Pa., assignor to The McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 7, 1917. Serial No. 184,852. 6 Claims. (Cl. 213-42.)



1. In a draft rigging, the combination of detachably connected draft members one of which is provided with a socket having shoulders adapted to engage corresponding shoulders on the adjacent draft member, said socket shoulders being relatively movable to permit the dissociation of said draft members, and one of said draft members being provided with means movable by gravity to operative position for normally preventing relative movement of said socket shoulders.

1,306,430. AUTOMOBILE-HOIST. AL C. KLEMMER, Davenport, Iowa. Filed Feb. 27, 1918. Serial No. 219,450. 1 Claim. (Cl. 254-127.)



In hoists, a frame comprising base beams and standards secured to the forward ends thereof, said standards being of I-beam construction, I-beams pivotally secured at their inner ends to the inner ends of the base beams, I-beams slidably mounted on the base beams secured to the base beams and slidably connected at their forward ends to the standards for movement vertically thereof, bracket members carried by the first mentioned I-beams adjacent the forward ends thereof and projecting outwardly and upwardly about the base flanges of the second mentioned I-beams and provided with anti-friction members engaging the base flanges of said first mentioned beams, housings secured to the inner ends of the I-beams connected to the standards and provided with downwardly directed lateral walls, the lower edge portions of which are bent inwardly to provide guide flanges engaging about the top flanges of the beams secured to the base beams, anti-friction rollers carried by said housings and engaging with the upper faces of the upper flanges of the I-beams secured to the base beams, said brackets and the rollers carried thereby and the housings and the rollers carried thereby cooperating to prevent movement of the I-beams toward and from each other, and forming anti-friction mountings for permitting longitudinal sliding movement between the beams, and means for raising the outer ends of the beams secured to the standards.

1,306,431. AUTOMOBILE-HOIST. AL C. KLEMMER, Davenport, Iowa. Filed Feb. 27, 1918. Serial No. 219,451. 1 Claim. (Cl. 187-11.)



In hoists, a base frame, vertical standards secured thereto, each having an inner vertical flange, a substantially L-shaped carriage member vertically slidable on each standard, each carriage member comprising a vertical arm disposed parallel with and closely adjacent the said flange on the corresponding standard, and an anti-friction roller carried by the vertical arm of each carriage member and engaging the inner face of the flange of the corresponding standard so as to prevent movement of the upper end of the vertical arm of each carriage member away from its standard, a bracket arm carried

by each carriage member adjacent the forward end of the horizontal arm of the carriage member and shaped to extend about the edges of the flange of the corresponding standard to prevent movement of the said horizontal arm in each carriage away from its standard, and an anti-friction roller carried by the bracket arm on each carriage member and in engagement with the outer face of the adjacent flange on the corresponding standard so as to prevent movement of each horizontal arm toward its standard, the roller at the upper end of each vertical arm of the carriage member, and the bracket arm and roller at the forward end of each of the horizontal arms on the carriage members cooperating to maintain the carriage members in proper relation to the standards while permitting vertical movement thereof.

1,306,432. CRAVAT. LOUIS KOSKIS, Brooklyn, N. Y. Filed May 4, 1918. Serial No. 232,502. 3 Claims. (Cl. 2-11.)



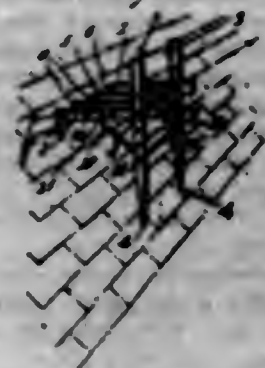
1. A four-in-hand tie comprising two sections connected by separable fastening means, said separable fastening means having a substantially smooth and regular contour, the said sections being formed into a knot, one of said sections including a neck encircling portion of such length that said fastening means can be moved below the knot in the normal worn position of said tie, the said fastening means being so small that they can be pulled through the said knot in both directions without undoing it.

1,306,433. WORK-HOLDING CLAMP. JOHN P. LEIMBACH, Baltimore, Md. Filed Dec. 11, 1918. Serial No. 206,220. 5 Claims. (Cl. 90-80.)



1. A work holding clamp comprising a body, a slide slidably secured in said body, a set screw revolvably secured in said body and engaging said slide, and shoulder bearings for said screw formed on said body.

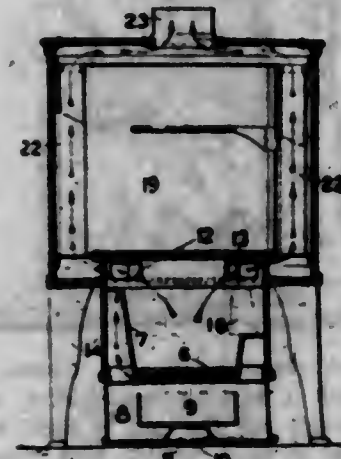
1,306,434. ROOF-BRACKET. PHILIP P. MELANSON, Moncton, New Brunswick, Canada. Filed Dec. 7, 1918. Serial No. 205,792. 2 Claims. (Cl. 20-86.)



1. A roof bracket comprising base bars provided at their inner ends with depending prongs; supporting bars between the base bars; legs disposed transversely of the outer ends of the base bars and pointed at their lower ends; spacers between the bars at the forward and rear ends thereof; front and rear securing devices passing

through the spacers and the bars; means for connecting the front securing device with the legs at adjusted points longitudinally of the legs; braces having their lower ends pivoted to the legs; and means for connecting the upper ends of the braces with the base bars at adjusted points longitudinally of the base bars.

1,306,435. COOKING-STOVE. JACOB OPMAN, Rotterdam, Netherlands. Filed Mar. 4, 1919. Serial No. 280,658. 3 Claims. (Cl. 126-19.)



1. In a cooking stove, the combination with the chimney, of an oven, a fire-place underneath the same, a number of open flues extending along the said oven and connected with the chimney above the oven, a cylindrical jacket depending from the bottom of said oven, and a rotatable cylinder surrounding said fire-place and having apertures adapted to register with similar apertures in the said cylindrical jacket upon the rotation of the said cylinder.

1,306,436. SAND AND SPLINT CATCHER FOR WOOD-PULP PLANTS AND THE LIKE. THEODORE QVILLER, Lillestrommen, near Christiania, Norway. Filed Oct. 31, 1918. Serial No. 260,519. 6 Claims. (Cl. 92-28.)



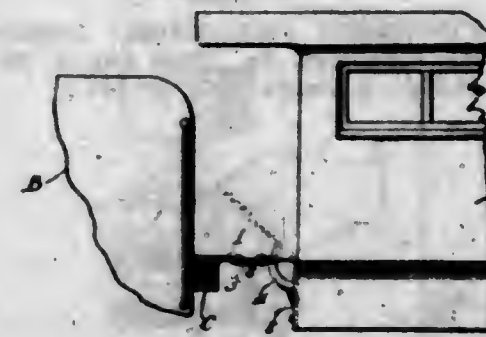
1. A sand or splint catcher for wood pulp plants and the like, comprising a cylindrical flat bottomed vessel, means for conducting the pulp tangentially into said vessel thereby moving the pulp current along the cylindrical wall of the vessel, a radial channel in the bottom of said vessel, means for conveying impurities settling on the bottom of the vessel into said radial channel, and means in said radial channel for conveying said impurities out of the vessel.

1,306,437. RAILWAY-TIE. VICTOR E. RANDALL, Battle Creek, Mich., assignor of one-half to Benjamin Gwatkin, Battle Creek, Mich. Filed Sept. 29, 1917. Serial No. 194,019. 4 Claims. (Cl. 238-115.)



1. A railway tie, the combination of two rail bearing sections, each section thereof having a metallic rod provided with an eyelet at either end adapted to protrude from the ends of said section near either edge transverse thereof, and detachable obliquely disposed links adapted to engage the eyelets of respective sections.

1,306,438. SAFETY-APRON FOR LOCOMOTIVES. HARRY W. RHINELANDER, Freedom, Pa. Filed Oct. 2, 1918. Serial No. 256,570. 2 Claims. (Cl. 105-459.)



2. A locomotive apron comprising an apron plate having an arcuate arm fixed thereto and depending from the bottom of the same, and a complementary supporting element comprising a fastening plate having an arcuate sleeve adapted to receive the said arm to permit relative sliding movement of the arm within the sleeve whereby the said apron may be swung through an arc.

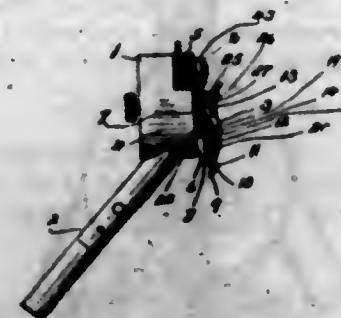
1,306,439. COMPOUNDS OF HALOGEN ACIDS WITH 2-PHENYL QUINOLIN 4-CARBOXYLIC ACID. HARLEY W. RHODEHAMSEL, Indianapolis, Ind., assignor to The Eli Lilly and Company, Indianapolis, Ind., a Corporation of Indiana. Filed Mar. 30, 1918. Serial No. 225,727. 4 Claims. (Cl. 23-24.)

1. A compound of 2-phenyl quinolin 4-carboxylic acid and a halogen acid.

1,306,440. EXPLOSIVE. WILLIAM RINTOUL and DONALD CROSS, Stevenston, Scotland, assignors to Nobel's Explosives Company Limited, Stevenston, Scotland. Filed Sept. 24, 1917. Serial No. 192,964. 3 Claims. (Cl. 52-3.)

2. A cold-gelatinized blasting explosive comprising nitroglycerin, nitrocellulose, and a nitro-aromatic accelerant for the gelatinisation in amount not exceeding substantially one per cent. calculated on the nitroglycerin content.

1,306,441. AUTOMATIC SAFETY-RAZOR. WILLIAM J. ROSS, Sacket Harbor, N. Y., assignor of one-fourth to Lillian H. Beane, Sacket Harbor, N. Y. Filed Jan. 12, 1917. Serial No. 142,641. 3 Claims. (Cl. 30-12.)



1. A razor of the type described, including a blade supporting member, a guard, a blade, means for positioning the cutting edge of the blade in parallel relation to the guard and for exerting a resilient pressure on the blade in the direction of its plane and of its cutting edge to position and maintain the cutting edge of the blade in proper parallel relation with respect to the guard, the device being provided with means to be engaged by the cutting edge of the blade to hold the said cutting edge of the blade against transverse pressure applied to the said blade, a motor, means actuated by said motor and in connection with said blade for rapidly reciprocating the said blade with respect to the said guard, a handle, manu-

ally actuated means on said handle for controlling the operation of the said motor, substantially as described and for the purposes set forth.

1,306,442. FINGER-TIP PROTECTOR. DOMENICK A. M. SANSOTTA, Pittsburgh, Pa. Filed Aug. 6, 1918. Serial No. 248,654. 3 Claims. (Cl. 2-104.)



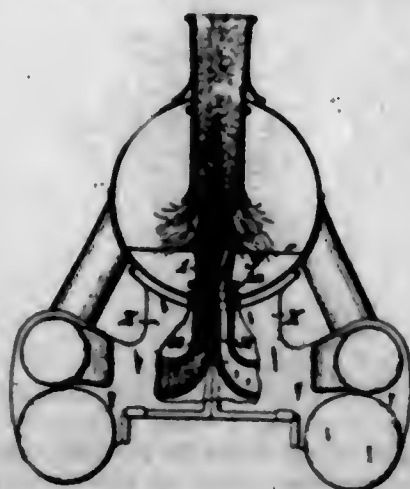
1. A finger tip protector comprising a substantially cylindrical member having its upper end folded upon itself and a reinforcing strip secured to the folded portion.

1,306,443. DRAFT APPLIANCE. CHRIS R. SIMONS, Armour, S. D. Filed July 6, 1918. Serial No. 243,531. 1 Claim. (Cl. 213-67.)



An attachment for a tractor comprising a beam, laterally directed castings carried by the opposite end portions of the beam and adapted to be secured to the tractor, said hitch member being substantially U-shape in form with its intermediate portion contacting with the inner face of the beam, the side portions of the hitch member extending beyond the outer face of the beam, the extended side portions of the member each being provided with means to effect a coupling therewith, a space between the extended side portions of the member being free and unobstructed.

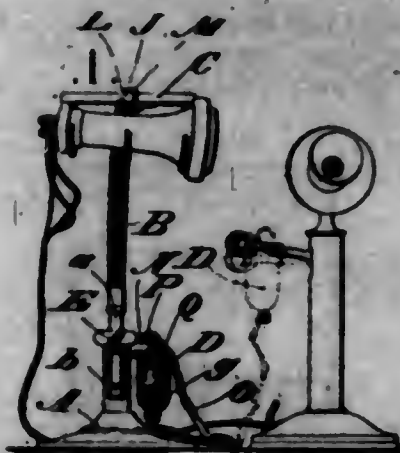
1,306,444. LOCOMOTIVE EXHAUST-PIPE. HAL R. STAFFORD, Plainfield, N. J., assignor of one-third to John E. Muhlfeld, Scarsdale, N. Y. Filed Nov. 11, 1918. Serial No. 262,001. 7 Claims. (Cl. 162-1.)



1. In a locomotive exhaust pipe, the combination of an integral tubular body or casing, the top of which is of cylindrical section and devoid of external projections; longitudinal partitions, dividing said body into four continuously independent exhaust steam passages, each adapted to register at bottom with the exhaust passage of one end only of a locomotive cylinder, and an integral outwardly coned central spreader, the spaces between the

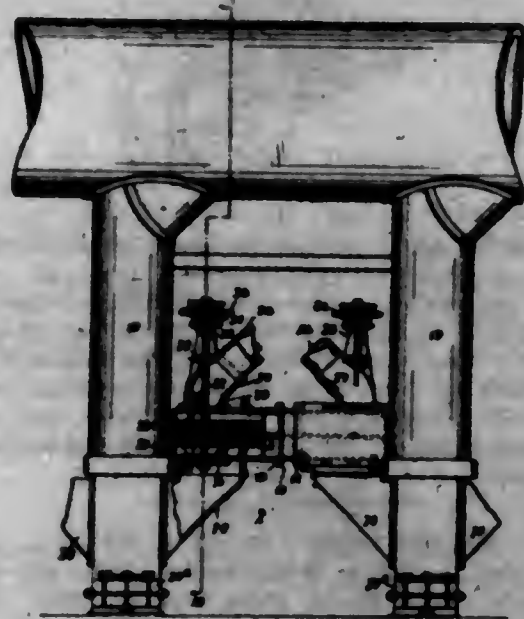
top of which, the sides of the partitions, and the outer walls of the exhaust steam passages form independent exhaust nozzles for the ends of two locomotive cylinders.

1,306,445. TELEPHONE-RECEIVER SUPPORT. KATHARINE L. STANDISH, New York, N. Y. Filed Sept. 21, 1917. Serial No. 192,545. 2 Claims. (Cl. 179-147.)



2. A telephone receiver support having, in combination, a base with a longitudinal socket, a flexible arm vertically adjustable at one end in said socket, a joint at the upper end of said flexible arm consisting of two members permitting a circular range of movement in one plane, one of said joint members being secured to said flexible arm and the other joint member having a projecting stud, means for clamping said two members together after adjustment, a receiver-holder having hooks to support a telephone receiver, said holder being carried by and turning on said stud in a plane at right angles to the plane of movement of said joint members, and a spring frictionally retaining said holder in any position of its adjustment but permitting the turning of said holder on said stud.

1,306,446. GAS-BURNER. ALFRED STEINHAFT, Pittsburgh, Pa. Filed Feb. 7, 1918. Serial No. 215,933. 19 Claims. (Cl. 158-109.)



14. A gas burner comprising gas and air chambers, adjoining openings in said gas and air chambers, and combs in said openings forming a series of gas and air outlets in said burner.

1,306,447. AUTOMATIC POWDER-MEASURING DEVICE. PETER STUPANOFF, Petrograd, Russia. Filed Sept. 17, 1918. Serial No. 254,514. 17 Claims. (Cl. 88-31.)

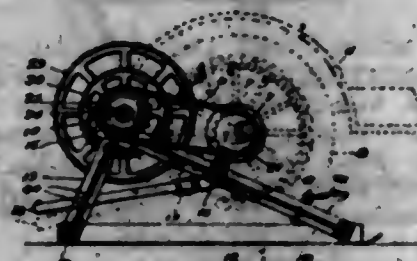
1. In powder measuring devices, a series of delivery spouts and cooperating feeding devices, adjusting sleeves

on each of said delivery spouts, two series of measuring chambers each formed with an open bottom and with a reduced area receiving throat and an adjustable sleeve mounted thereon to cooperate with the corresponding delivery spout, a table below said delivery spouts and formed with discharge holes on each side of said delivery spouts, means to support a series of receptacles



below said discharge holes and a support carrying said measuring chambers and movably mounted on said table to transfer one series of filled measuring chambers from their receiving position beneath said delivery spouts to their discharge position above said discharge holes and simultaneously transfer the other series of measuring chambers to their filling position.

1,306,448. POWER ATTACHMENT FOR MOTOR-VEHICLES. CHARLES M. STEVENSON, Chicago, Ill. Filed July 17, 1918. Serial No. 245,271. 5 Claims. (Cl. 74-109.)

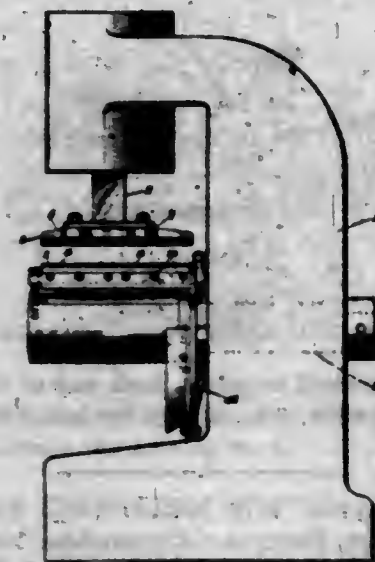


1. A power attachment for motor vehicles, comprising two connected side frame members, a pair of axle lifting levers fulcrumed on said side members, a power transmitting shaft journaled on said side frame members, two sprocket wheels, one detachably secured to the spokes of each driving wheel of a motor vehicle whose axle is supported by said lifting levers, sprockets mounted on said shaft, and sprocket chains trained around aligned sprocket wheels on the driving wheels and said shaft.

1,306,449. SEAMER. FLOYD D. STOW, Wilmington, Del., assignor, by mesne assignments, to E. I. du Pont de Nemours and Company, a Corporation of Delaware. Filed Feb. 28, 1914. Serial No. 821,230. 2 Claims. (Cl. 113-12.)

1. In a seamer, a fixed supporting member having dies mounted thereon, a punch member for cooperating with said dies, one of said members being provided with a recess, a limiting stop pin adapted to be engaged by the edge of the sheet to be seamed and having one end

shaped to fit said recess, whereby pins of different sizes may be selectively inserted in said recesses, and a recess



In the other of said members engaged by said stop pin in all positions thereof.

1,306,450. ORE-CONCENTRATING MACHINE. NATHANIEL A. STRATTON, Boston, Mass., assignor to New American Ore Concentrator Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 9, 1919. Serial No. 288,715. 10 Claims. (Cl. 83-88.)



1. An ore concentrating machine comprising a descending series of inclined tables, each having a lower longitudinal edge overhanging the higher edge of the next table, and each being adapted to discharge pulp from its lower longitudinal edge and from one end, means for longitudinally reciprocating said tables, an endless apron supported under the series of tables with its upper stretch in position to receive metals delivered by the tables and convey the same outwardly under the tables, and means for progressively moving said apron.

1,306,451. COMBINATION-BUTTON. ABRAHAM M. TURKELTAUB, New York, N. Y. Filed Mar. 31, 1919. Serial No. 286,464. 1 Claim. (Cl. 24-90.)



A combination button comprising a blank formed of a composition known as horn, said blank having a recess, the other button portion being of a composition known as ivory fitting tightly into the recess of the blank, and converging pins locking the two sections together.

1,306,452. FURNITURE-JOINT. ARTHUR WHITE, Sheboygan Falls, Wis. Filed Aug. 30, 1918. Serial No. 252,104. 3 Claims. (Cl. 155-3.)

1. A corner joint for furniture comprising the combination with a pair of adjacent box sills of a brace block

extending diagonally therebetween and abutting therewith, and a metallic plate secured to the block and hav-



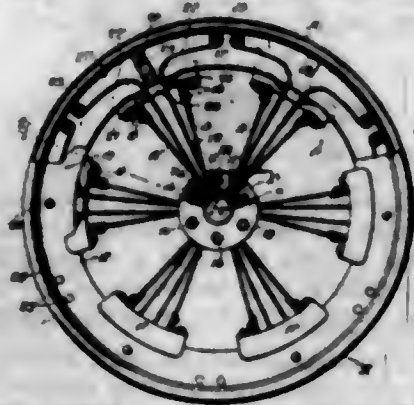
ing its ends directed laterally, each end of the plate projecting transversely into and secured in one of the box sills.

1,306,453. DEVICE FOR MEASURING LIQUID-LEVELS. ANDREWS WILLIAMS, Christiania, Norway. Filed Feb. 15, 1917. Serial No. 148,732. 5 Claims. (Cl. 33-126.)



1. A device for measuring liquid levels, comprising a portable pipe perforated at its lower end to permit ingress and egress of liquid, a scale bar inclosed within said pipe and supported thereby in definite relation to the lower end thereof, said pipe and bar being insertible into and withdrawable from the liquid as a unit, and means normally retaining the scale bar within the pipe but movable to permit withdrawal of said bar from the pipe, for the purpose specified.

1,306,454. RESILIENT VEHICLE-WHEEL. OTTO G. WORSLEY, Chicago, Ill. Filed Mar. 17, 1919. Serial No. 283,129. 3 Claims. (Cl. 152-51.)



1. In a cushioned wheel structure of the character described, the combination of a hub, radiating spokes secured thereto, guide-shoes mounted on said spokes, a hollow felly

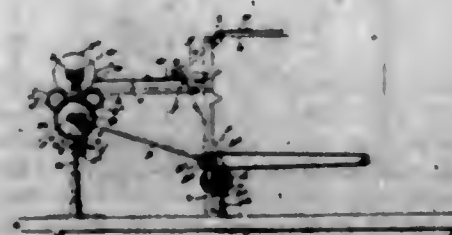
cooperating with and guided in its movements by said shoes, said felly comprising an inner circular member channel-shape in cross-section with its flanges extended outwardly and an outer circular transversely-split element channel-shape in cross-section with its flanges extended inwardly and overlapping the companion flanges of said inner member, springs projecting into said felly through apertures in the web of said inner felly member and fastened to the felly and to the hub, and a rim removably fitted over said outer felly element preventing its expansion, substantially as described.

1,306,455. PRESS. CHARLES V. WRIGHT, Tamaqua, Pa., assignor to Atlas Powder Company, Wilmington, Del., a Corporation of Delaware. Filed Mar. 4, 1919. Serial No. 280,665. 6 Claims. (Cl. 16-16.)



1. The combination with a press head, of a plurality of plungers carried thereby and means for equalizing the pressure upon all of said plungers.

1,306,456. METHOD OR ART OF AND APPARATUS FOR CONDITIONING PRINTED PAPER. PETER AIRCHISON, New Rochelle, N. Y., assignor to American Bank Note Company, New York, N. Y., a Corporation of New York. Filed Aug. 6, 1918. Serial No. 248,635. 12 Claims. (Cl. 101-417.)



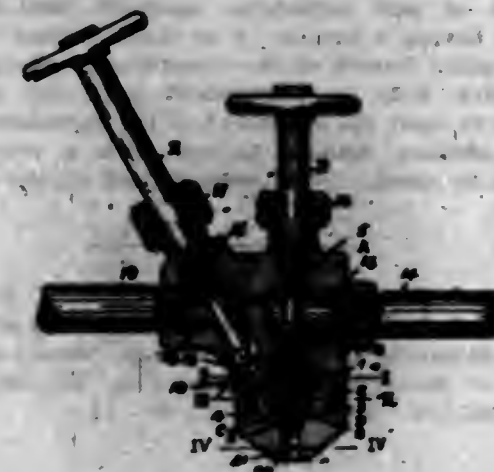
1. The herein described method or art of conditioning printed paper, consisting of bringing a printed, dampened sheet of paper between two surfaces, each coated with a substance having no affinity for the oily or greasy vehicle of the ink and rendering said material impenetrable to atmosphere and substantially non-absorbent, applying pressure to said paper while between said surfaces, whereby air will be expelled from adjacent the surface of said paper, and allowing said sheets to stand in contact with said surfaces until required for another run through the press, whereby the ink of said paper is prevented from offsetting upon said surfaces, and the moisture is retained in, and is diffused throughout, said paper.

1,306,457. SEALING MEANS FOR BURIAL-CASKETS. AC. RANDOLPH H. ALMIDOTT, New York, N. Y. Filed Dec. 26, 1918. Serial No. 268,287. 2 Claims. (Cl. 27-7.)



2. A casket having its body portion formed with a circumscribing mortise groove opening through the top of the rim with a mouth of less width than the cross area of the groove, a lid having a depending tenon with a coupling flange but slightly narrower than the width of said mouth, said lid being formed with an external circumscribing register flange fitting said rim and centralizing the coupling tenon with its coupling flange to the mortise groove and embracing the rim snugly upon both of its inner and outer walls, the outer contacting faces of said flange and rim being correspondingly beveled, and a hardening sealing material in said groove, surrounding said tenon and flange and filling the groove and the space between the opposed contact surfaces of said lid and rim.

1,306,458. OIL-BURNER. JAMES B. ANDERSON, Shaler township, Allegheny county, Pa. Filed Nov. 3, 1917. Serial No. 200,024. 1 Claim. (Cl. 158-75.)

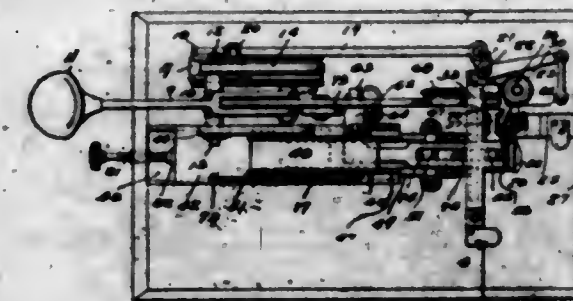


An oil burner comprising a body provided with an oil supply and a fluid pressure supply, a fuel discharge bore, a passage aligned with said bore and communicating therewith, a valve interposed between one of said supplies and said passage, an annular chamber concentric with said passage, a valve interposed between said chamber and the other of said supplies, a choked conical annular passage concentric with said first mentioned passage connecting said annular chamber with said discharge bore, and an adjustment screw radially intersecting said discharge bore, substantially as and for the purposes set forth.

1,306,459. STAMP-AFFIXING MACHINE. WILLIAM H. ASAT, Astbury Park, N. J. Filed Sept. 11, 1917. Serial No. 190,696. 6 Claims. (Cl. 216-22.)

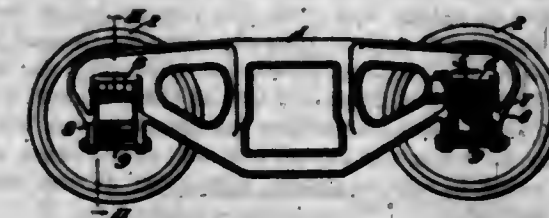
1. The combination in a stamp affixing machine of a head plate and a carrier frame movable thereon and a

stamp affixing head carried by the frame, an actuating lever, a pivoted arm engaging said lever and carrier, and



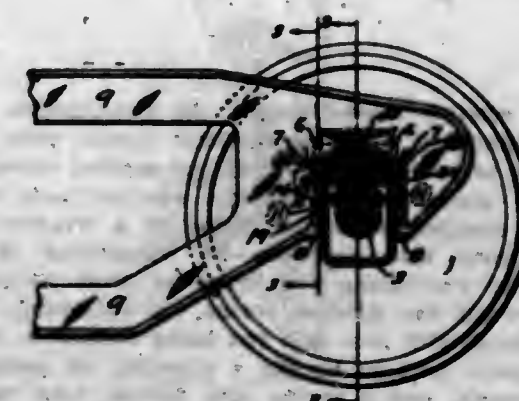
means operable when the lever is actuated for moving said lever arm to operate the affixing head.

1,306,460. EQUALIZING JOURNAL-BOX. ARTHUR BRASLEY, East St. Louis, Ill. Filed Apr. 23, 1917. Serial No. 164,041. 1 Claim. (Cl. 105-222.)



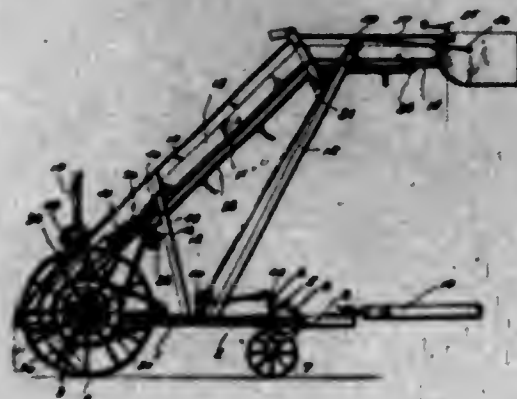
In a car-truck, a side-frame having spaced pedestal-jaws; a bearing which permits an unlimited rocking movement of said side-frame on the journal-boxes thereof; journal-boxes which are devoid of the usual side-flanges, whereby said boxes have an unlimited rocking movement beneath said side-frame; and an emergency means for preventing the accidental separation of said side-frame and said boxes, and which means will not interfere with the free rocking movement of the side-frame relative to said boxes.

1,306,461. EQUALIZING SIDE FRAME AND JOURNAL-BOX. ARTHUR BRASLEY, East St. Louis, Ill. Filed Sept. 16, 1918. Serial No. 254,907. 2 Claims. (Cl. 105-220.)



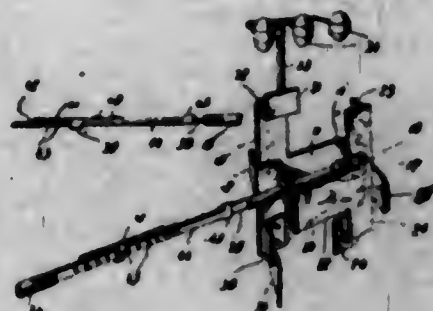
1. A car-truck side-frame having pedestal-jaws, one of which is provided with a vertical groove at the upper end of which is a segmental recess and a horizontal key-way; a journal-box; a rocking bearing between said box and said side-frame, whereby the box and frame may relatively rock and equalize; a locking-lug at the side of said box located to move in said segmental recess of said frame; a horizontal locking-key in said key-way beneath said locking-lug; and means for preventing the withdrawal of said key during the operation of the truck.

1,306,462. HAY-LOADER. GILBERT S. BARNES, Fergus Falls, Minn. Filed Jan. 23, 1918. Serial No. 213,379. 2 Claims. (Cl. 56-359.)



1. A hay loader, comprising in combination, a supporting frame, an inclined frame extending forwardly and upwardly from the rear end of the supporting frame, an elevator operative upon the inclined frame, a rake disposed in position to gather hay from the ground below the supporting frame and deliver it to the elevator, means at the upper end of the inclined frame for delivering the hay to one side or the other from the end of the elevator, a steering gear, and means connecting the steering gear with the means for directing the hay to one side or the other whereby the latter is automatically controlled as the steering gear is turned.

1,306,463. SHADE-HANGER. PIOTR BLASSKO, Detroit, Mich. Filed Dec. 13, 1918. Serial No. 266,581. 1 Claim. (Cl. 156-23.)



In a window shade hanger, the combination with a pair of brackets, engaging elements formed with each of said pair of brackets, a jointed bar passing through said engaging means, a nut thereon whereby said elements may be clamped upon the frame of a window, means formed with said elements for supporting draperies, means for preventing the draperies from moving outward beyond the window frame, an adjustable support rod engaged with bar, said rod being formed in sections, one of said sections having a plurality of perforations in its length, and a spring arm formed with the other of said sections engageable in any of said perforations.

1,306,464. DIRECTION-INDICATOR FOR USE IN CONNECTION WITH VEHICLE DIRECTION-SIGNALS. Osa Leo HARRISON, Denver, Colo. Filed Oct. 2, 1918. Serial No. 123,263. 1 Claim. (Cl. 40-68.)

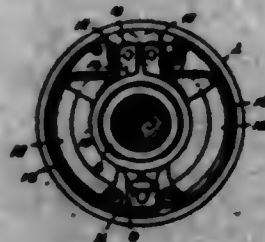
In combination, with an electrically controlled vehicle signal actuating device having two or more selected positions and a rotatable vertically disposed signal shaft, of a signal comprising two halves formed to provide a hol-

low hand with the index finger and thumb extended when the halves are united, tongue and groove connection for



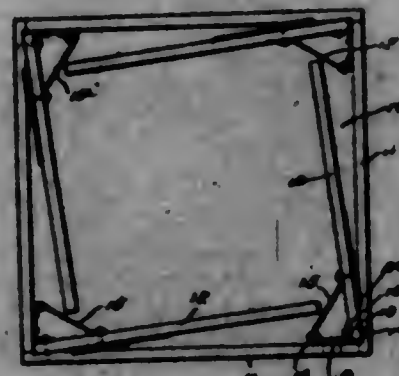
positively uniting said halves, and visible signal data formed in each half of said hand.

1,306,465. FRICTION-CLUTCH. ELLIS E. BROWN, Reading, Pa. Filed Nov. 29, 1918. Serial No. 264,543. 2 Claims. (Cl. 192-3.)



2. In a clutch, the combination of a body, a pair of clutch shoes pivotally mounted on the body, each shoe having an adjustable member in its free end, said members having inclined surfaces, a transversely shiftable expanding member mounted on the body and provided with two rollers adapted to contact with the inclined surfaces of said adjustable members, said expanding member having a portion of its inner surface tapered, a slotted guide formed on the expanding member, a pin on the clutch body in engagement with the guide and adapted to limit the movement of the expanding member, and a shifting member formed with a rounded edge adapted to engage the tapered surface on the expanding member.

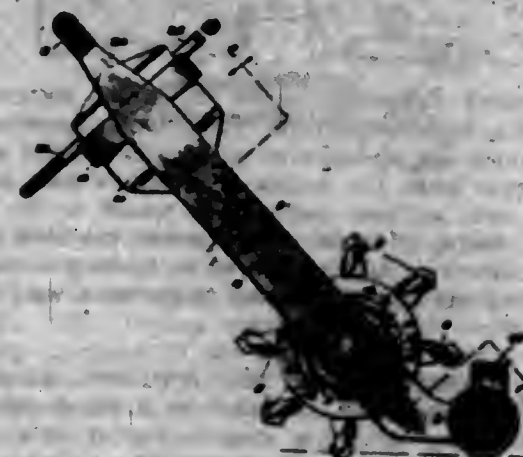
1,306,466. FOLDING TABLE. CHARLES W. COVY, Portland, Me., assignor to The Coburn Trolley Track Manufacturing Company, Chicopee, Mass., a Corporation of Massachusetts. Filed July 24, 1918. Serial No. 246,518. 5 Claims. (Cl. 45-11.)



1. A table, comprising a rectangular top, legs pivoted adjacent the corners thereof to extend each generally alongside an edge of the top when folded thereagainst but with the outer leg portion lying diagonally away from the inner leg portion.

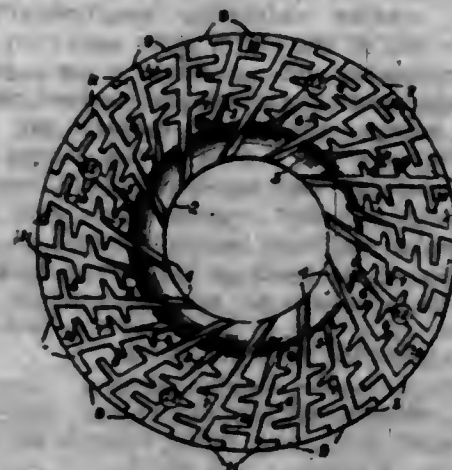
from each edge, and a brace engaged with each of said legs and pivoted to the top at a point substantially spaced from the pivot of the leg proper, the diagonal disposition of the outer leg portion when folded against the top permitting it to clear the brace of an adjacent leg.

1,306,467. PORTABLE DRILLING AND REAMING MACHINE. ARTHUR J. COUGHRAN, Lorain, Ohio. Filed Oct. 30, 1918. Serial No. 200,261. 11 Claims. (Cl. 77-7.)



1. A portable drilling and reaming machine comprising a movable body, a movable tool carrier mounted on the body and a series of tools mounted on the carrier, the carrier being movable by the advance movement of the body to bring the tools successively into operative position, and means for actuating the tools, substantially as and for the purpose described.

1,306,468. GRINDING-PLATE FOR FEED-MILLS. GEORGE J. COVERT, Wayne, and EYON A. SHAW, Bradford, N. Y. Filed June 29, 1917. Serial No. 177,739. 5 Claims. (Cl. 83-3.)



1. An annular grinding plate for feed mills, embodying main grinding teeth converging inwardly from the rim of said plate and whose inner ends are tangent to a line concentric with said rim, and a plurality of grinding ribs on each of said teeth having inner and outer edges substantially parallel with said rim.

1,306,469. TRACTOR. JOHN A. COWAN, Kansas City, Mo. Filed Nov. 23, 1917. Serial No. 268,535. 3 Claims. (Cl. 180-9.)

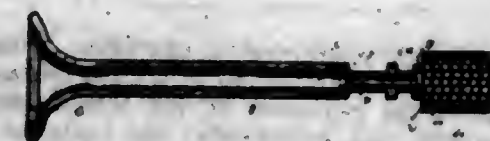
1. In a tractor, an exterior frame having a steering wheel at one end, an interior frame pivotally mounted at one end within the exterior frame at the end opposite the steering wheel, and adapted to move vertically at its free end, drums mounted at opposite ends of the pivoted frame, a traction belt extended about said drums, an

arch beam mounted on the exterior frame and extending across the free end of the interior frame, a threaded shaft extending vertically through said arch beam having connection at its lower end with said interior frame,



a gear wheel threaded into the upper end of said bolt and seated on said yoke and means for revolving said gear wheel to actuate the bolt or raise or lower the free end of said interior frame for the purpose set forth.

1,306,470. VALVE AND MEANS FOR COOLING THE SAME. ARTHUR O. DADY, New York, N. Y., assignor to Pfanzstiel Company, Incorporated, North Chicago, Ill., a Corporation of New York. Filed Jan. 2, 1918. Serial No. 200,891. 5 Claims. (Cl. 123-177.)



5. A valve having a hollow stem in combination with a tube tightly fitting said stem, and a plurality of disks surrounding said tube and in contact therewith.

1,306,471. EXHAUST-VALVE AND MEANS FOR COOLING THE SAME. ARTHUR O. DADY, New York, N. Y., assignor to Pfanzstiel Company, Incorporated, North Chicago, Ill., a Corporation of New York. Filed Jan. 2, 1918. Serial No. 200,893. 2 Claims. (Cl. 123-177.)



2. The combination with a cylinder having a water jacket provided with an opening, and a port provided with a valve seat, of a valve co-acting with said seat, comprising a hollow head and a hollow stem communicating therewith, a hollow radiator surrounding the open end of said stem and communicating therewith, the said radiator being provided with an opening in one side, a pipe connecting the opening in said water jacket and said radiator, and means for clamping said radiator and pipe to said water jacket.

1,306,472. METHOD OF MAKING HALOGEN DERIVATIVES OF HYDROCARBONS. HANSST H. DOW, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a Corporation of Michigan. Filed May 24, 1917. Serial No. 170,633. 6 Claims. (Cl. 23-24.)

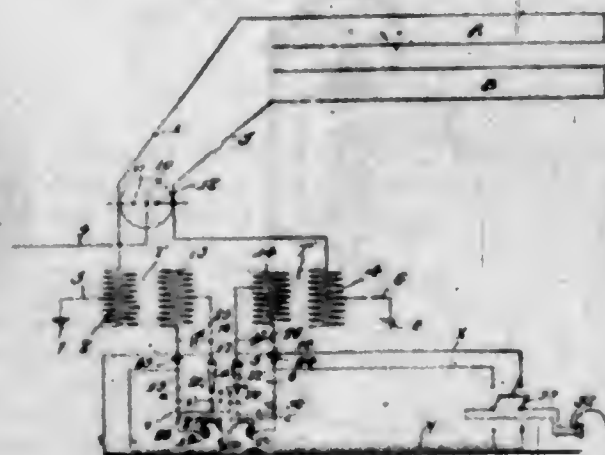
1. The method of making a double halogen derivative of a hydrocarbon, which consists in mixing the vapors of two halogens in such combining proportions as to produce a reaction of both halogens with the hydrocarbon; and then treating the hydrocarbon with such mixture of halogen vapors.

1,306,473. HOG-OILER. HARRY D. DUCKHAM, Kenton, Ohio. Filed Sept. 5, 1918. Serial No. 252,741. 2 Claims. (Cl. 119-157.)



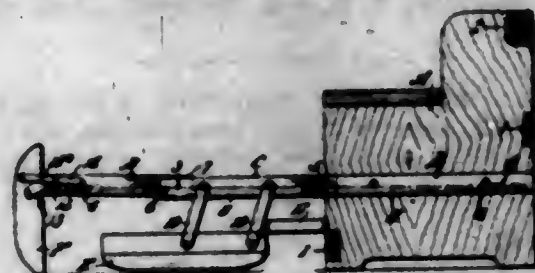
1. A hog oiler, comprising a container having near the top of its front wall an outlet for the oil, a rubbing bar hinged to the container at the bottom thereof to swing forwardly and backwardly, the container having an oil conducting recess leading from the outlet to the rubbing bar and delivering thereto, means controlled by the rearward swinging of the rubbing bar for delivering a predetermined quantity of oil out at the outlet opening into the recess, and means independent of the oil delivering means for varying the amount of oil delivered.

1,306,474. RADIO RECEIVING APPARATUS. ALONZO N. EDMONDS, Charleston, S. C. Filed Oct. 2, 1915. Serial No. 53,737. 1 Claim. (Cl. 250-20.)



Radio receiving apparatus, comprising a plurality of antennas, a main circuit for each antenna including a condenser, a receiver and a detector, switch means in the main circuits to admit of the receivers being used independently or in series with either of the circuits, and a listening-in circuit including portions connected with the main circuits and a portion containing a receiver and a switch to admit of the listening-in receiver operating with either main circuit or being rendered inactive.

1,306,475. FOLDING DAVENPORT. WILLIAM E. FRANK, St. Louis, Mo., assignor to Foster Bros. Mfg. Co., St. Louis, Mo., a Corporation of Missouri. Filed Mar. 23, 1916. Serial No. 96,773. 9 Claims. (Cl. 5-48.)



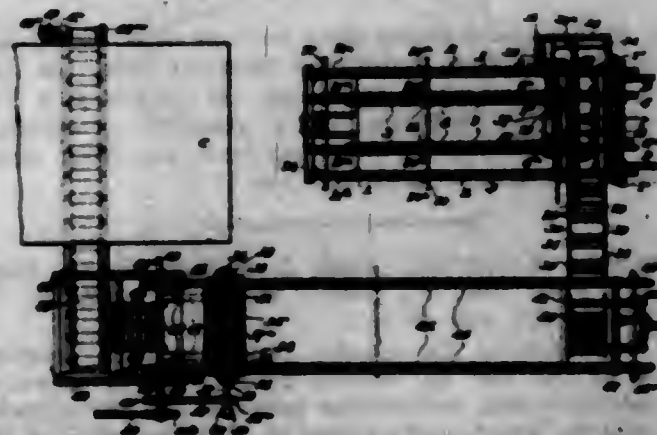
1. A folding davenport, couch or similar article provided with a foldable mattress frame that comprises two sections which are arranged at substantially right angles to each other when the article is closed, a seat carried by one of said sections, and a back joined to the other section by means of links which permit the back to be moved relatively to said section so as to form a support for the front end of the mattress frame when said frame is extended.

1,306,476. FAUCET CLAMP OR COUPLING. AUGUST J. FREY, Brooklyn, N. Y., assignor to Brass Goods Mfg. Co., Brooklyn, N. Y., a Corporation of New York. Filed Mar. 6, 1918. Serial No. 220,717. 1 Claim. (Cl. 285-123.)



In a clamp, a compressible spool-shaped core provided with an annular head on either end thereof and having a clamping opening extending longitudinally there-through from end to end and a sheet metal box supporting said core therein and comprising a top portion having an opening through which the clamped member is adapted to extend downwardly through the clamping opening of the core and a base portion having a nipple extending therefrom, said top portion and base portion being removably screwed together and each provided with an annular vertically extending head on its head adapted to engage the heads on the core to form seals at the ends of the box, said box being adapted by a turning of either said top or base to force said core into clamping position or release the same therefrom.

1,306,477. BRICK-MOLD-HANDLING APPARATUS. IVAN C. FREY, York, Pa. Filed June 4, 1918. Serial No. 238,140. 9 Claims. (Cl. 25-1.)



1. In apparatus of the character described, the combination of synchronously operating divergently moving

conveyors for separating a mold from its contents, means for carrying a mold emptied by said conveyor to a sander, sanding mechanism having means for coating said mold with a regulated quantity of sand, and mechanism for turning said mold from inverted to filling position after leaving said sanding mechanism.

1,306,478. BOTTLE-WASHER BRUSH. HARRY GRASS, Detroit, Mich. Filed Aug. 28, 1918. Serial No. 251,723. 1 Claim. (Cl. 141-7.)



A bottle washing brush comprising a spindle head having communicating herfs and a water outlet port with said herfs forming reversely disposed shoulders, sheet metal arms having compressed inner ends thereof pivotally mounted in the herfs of said head to engage the herf shoulders and each arm providing opposed parallel wings, brush bristles having the inner ends thereof between the wings of each arm and some of said bristles disposed in a row and others bunched at the outer end of the arm, and means in the outer ends of said arms cooperating with the compressed inner ends thereof in retaining said bristles in said arms.

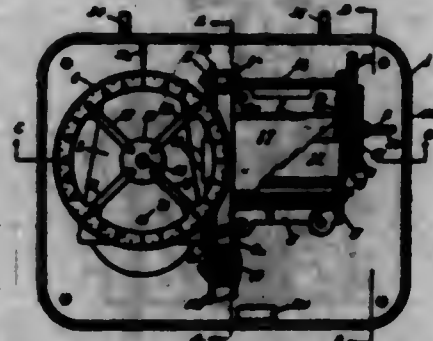
1,306,479. PROCESS FOR THE ELECTROLYTIC DEPOSITION OF LEAD. DALL F. HARRAUGH, Chicago, Ill. Filed July 5, 1918. Serial No. 243,256. 4 Claims. (Cl. 204-9.)

2. A process for the electrolytic deposition of lead which consists in forming and maintaining a substantially constant solution in sodium hydroxide and water of a compound of saccharine material with a previously dampened oxide of lead; and subjecting the same to the action of an electric current, substantially as described.

1,306,480. METHOD OF RECOVERING METALS FROM THEIR ORES. DALL F. HARRAUGH, Chicago, Ill. Filed July 5, 1918. Serial No. 243,258. 5 Claims. (Cl. 204-1.)

4. The method of recovering metals from their ores, which consists in fusing a quantity of the metal with sodium carbonate; fusing the same with a quantity of the ore into an anode; and employing said anode as such in a suitable electrolyte, substantially as described.

1,306,481. AUTOGRAPHIC TIME-RECORDER. HANS HARTMAN and JULIUS BRONKH, New York, N. Y. Filed Apr. 28, 1917. Serial No. 165,073. 6 Claims. (Cl. 234-44.)



1. A recording machine having a recording medium, timing means and printing means associated therewith, and a driving connection between said means so that

263 O. G.-18

one means will move through operation of the other means, means operable to rewind the recording medium, and means to penetrate the medium during a printing operation to hold the medium against the action of the rewinding means.

1,306,482. MUSIC-LEAF TURNER. ELMER E. HEILFICH, Phoenix, Ariz. Filed May 8, 1918. Serial No. 232,363. 3 Claims. (Cl. 84-17.)



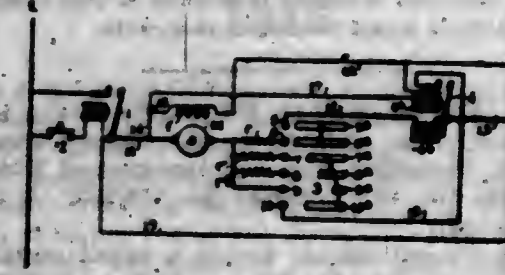
1. A music leaf turner comprising a frame including superposed plates forming upper and lower compartments therebetween, a front and a rear wall for the lower and upper compartments, respectively, leaf turning arms pivotally mounted in the upper compartment, rotatable elements mounted in the other compartments and movable with respect to each other, each of said rotatable elements supporting one of said arms, an actuating member slidable longitudinally of the compartment in which the rotatable elements are mounted and alternately engageable therewith to rotate the same whereby to successively turn the arms to which they are attached, and a spring for sliding said actuating member.

1,306,483. CYCLE-CAR. KUMARO HINO, Tokyo Fu, Japan. Filed Feb. 11, 1919. Serial No. 276,326. 8 Claims. (Cl. 21-191.)



1. A cycle car consisting of a seat box of a light construction like that of the side car of an auto-bicycle; a front frame firmly fixed to the forward side of the said seat box and extending forward, a front wheel mounted on a forked steering rod which passes through the forward end of the said front frame; a shaft provided at the back part of the said seat box, arms extending backward one from each end of the said shaft; rear wheels turning on the axles provided one on each one of the said arms; springs which are fixed to the said seat box and which push down the free ends of the said arms, and a seat for the chauffeur provided above the aforesaid front member, substantially as and for the purposes hereinbefore set forth.

1,306,484. MOTOR-CONTROLLER. RICHARD B. HUNTER, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 19, 1917. Serial No. 155,738. 12 Claims. (Cl. 172-179.)

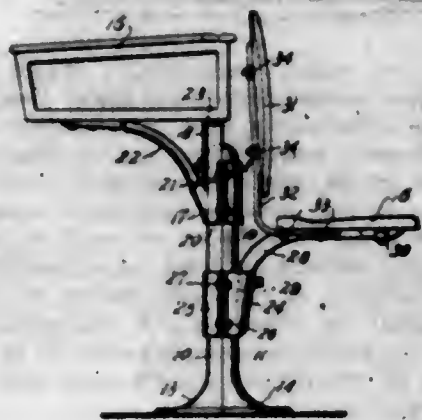


1. In a motor controller, in combination, means operable to effect acceleration of the controlled motor, means neces-

sitating return of the former means to a given position for subsequent influence on the motor after stopping of the latter and means providing for restarting of the motor in any running position of said accelerating means.

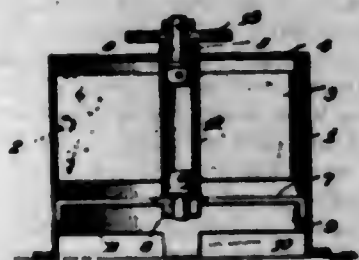
1,306,485. [WITHDRAWN.]

1,306,486. COMBINATION ADJUSTABLE AND CONVERTIBLE SCHOOL DESK AND SEAT. PALMER J. JONES and PAUL D. SCHREIBER, Port Washington, N. Y. Filed Mar. 21, 1919. Serial No. 284,081. 7 Claims. (Cl. 155-34.)



1. A combined desk and seat construction comprising a standard, two clamps secured thereon, each clamp being formed of two separate parts, means for securing the parts together, a desk carried by one part of one clamp and a seat carried by the other part of the other clamp, said clamps being independently adjustable and detachable.

1,306,487. WATER-MOTOR. WALTER S. JONES, New York, N. Y. Filed Oct. 28, 1918. Serial No. 250,927. 5 Claims. (Cl. 253-136.)

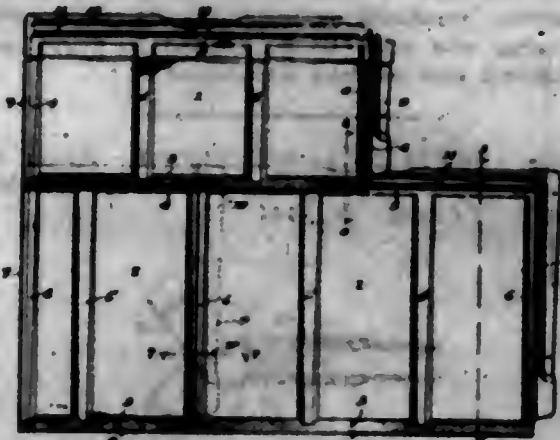


1. A vertical shaft water-motor having a cylindrical casing and an inlet thereto in a substantially horizontal plane, said inlet being directed to one side of the axis of the casing and being small both radially and axially as compared to the casing, the lower end of the casing being open and arranged to afford an unimpeded downward discharge, and a plurality of vanes substantially straight in the radial direction mounted to revolve in said casing and having relatively small clearance therewith.

1,306,488. SHEET-METAL SHINGLE. LOUIS KUEHN, Milwaukee, Wis., assignor to Milwaukee Corrugating Company, Greenfield, Wis., a Corporation of Wisconsin. Filed June 22, 1917. Serial No. 176,263. 4 Claims. (Cl. 108-17.)

1. A sheet metal shingle having a raised central portion and formed along the sides with channels increasing in depth toward their lower ends, across its lower end with a continuous standing bevel intersected by the lower

ends of said channels and terminating at the lower edge in a foot flange, and across the top with a depressed seat



for the foot flange of an adjoining shingle and above and parallel with said seat with an intercepting and drainage channel opening at the ends into the side channels.

1,306,489. ATTACHMENT FOR SUSPENDERS. WILLIAM EDWARD LANE, Wilmington, N. C. Filed Sept. 10, 1918. Serial No. 233,403. 6 Claims. (Cl. 241-19.)



1. In an attachment for suspenders, the combination of a suspender strap, a tab secured at one end to the strap, coacting fastening members upon the respective ends of the tab for securing said tab in folded and loop forming position, a suspender end adapted to be held at a normal elevation in the bight of the folded tab, and means for supporting the suspender end at a lower elevation directly from the free end of the tab when said end of the tab is released and the tab disposed in a depending position.

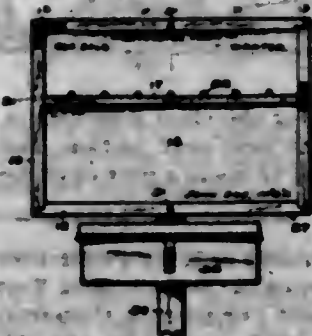
1,306,490. SPRINKLER-HEAD. HOLLIS BRAYSCOMB, Long, Nashville, Tenn. Filed Mar. 26, 1919. Serial No. 285,267. 4 Claims. (Cl. 109-5.)



1. In a sprinkler head, a frame, a pipe closing cap, struts having bearing at one end on said cap and diverging from the cap, each of said struts including two parts having bearing on one another, fusible solder normally con-

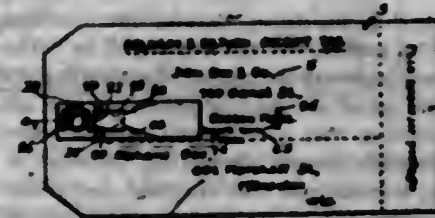
necting the parts of each of the struts, a bridge piece, the extremities of which engage the opposite ends of said struts, and a pressure screw having a threaded bearing in the frame and engaging said bridge piece at its center.

1,306,491. BULLETIN AND SIGN BOARD. FRED H. LOVELESS, Chicago, Ill., assignor of one-half to Otto F. Strodel, Fort Wayne, Ind. Filed Feb. 4, 1919. Serial No. 274,941. 3 Claims. (Cl. 40-125.)



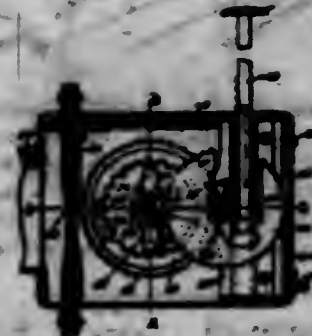
1. In an advertising sign, a removable sign and bulletin board, a sign-frame comprising a plurality of connected members of which one member is removable for the introduction and removal of said board, and all of said members having a groove for receiving said board, a longitudinally grooved support for anchoring the central surface area of said board, and means formed out of said board for engaging the groove in the support and detachably securing the latter and board together.

1,306,492. SHIPPING-TAG. ALBERT J. LYONS, Milwaukee, Wis. Filed Nov. 25, 1918. Serial No. 264,054. 4 Claims. (Cl. 40-2.)



1. The combination with a shipping tag upon which the names and addresses of the shipper and receiver appear and the designations "Shipped," "Received" and "Received by," of a tab carried by the tag and normally exposing the said addresses, and means for moving and detachably securing a portion of the tab to the tag to cover the address of the receiver to permit the return of the tag by mail as a receipt to the shipper.

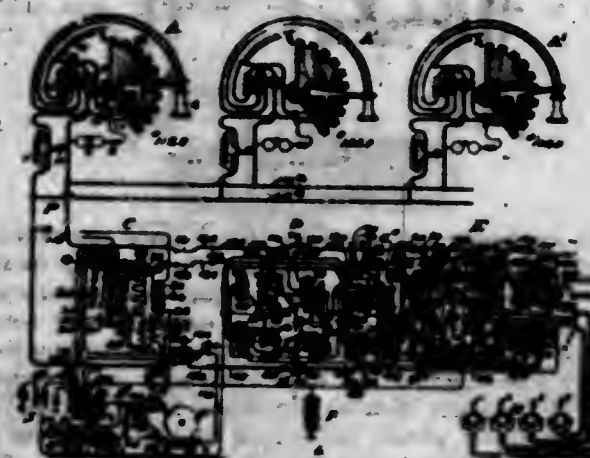
1,306,493. SIGNAL. ORRARD R. MARRICO, Brooklyn, N. Y. Filed June 28, 1918. Serial No. 242,445. 5 Claims. (Cl. 110-1.)



1. In a device of the class described, a vibratory member, a rotor coacting with said member to vibrate the

same, an annular interior clutch surface on the rotor adjacent the periphery thereof, a movable hanger, clutch devices on the hanger adapted on movement of the latter to engage with said annular clutch surface, and means for transmitting motion to said hanger to advance the clutch devices thereof into driving engagement with said annular clutch surface.

1,306,494. PARTY-LINE SELECTIVE SIGNALING SYSTEM. TALBOT G. MARTIN, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 29, 1909. Serial No. 530,401. 23 Claims. (Cl. 179-17.)



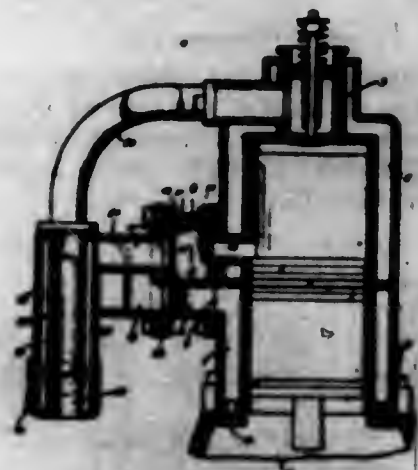
1. In a telephone system, a party-line, a trunk, a ring-back apparatus for enabling one party to call another on the same line, means for connecting the line with the said apparatus, and means for supplying different kinds of ringing current, said ring-back apparatus provided with means controlled by the calling party over the trunk for selecting the current necessary for signalling another party on the same line, and for projecting the selected current back to said line by way of conductors in said trunk over which the selector is controlled to select the frequency.

1,306,495. VALVE-CAP FOR AUTOMOBILE-TIRES. THOMAS D. MILLER, Springfield, Mass. Filed May 7, 1918. Serial No. 232,905. 8 Claims. (Cl. 152-12.)



4. A device for the purpose described, comprising a member forming part of the usual projection of a valve cap and being slitted to form elastic fingers, an abutment or part in said projection, said fingers serving as means for frictionally retaining the device in place in the outer interiorly threaded end of the usual hollow valve inclosing stem, whereby the abutment or part will engage the upper end of the stem of the valve proper to retain the valve open.

1,300,496. INTERNAL-COMBUSTION ENGINE. FERN MOUNDIECK, Oakland, Calif., assignor to The Standard Gas Engine Company, Oakland, Calif., a Corporation of California. Filed July 25, 1917. Serial No. 152,768. 10 Claims. (Cl. 123—122.)



7. An air heater comprising a hollow body substantially parallelepiped in shape, a division wall extending longitudinally through said body and forming two substantially equal non-communicating chambers, an integrally formed tubular member having an air passageway extending longitudinally through one of said chambers, an integrally formed flat tubular member extending from said division wall transversely across the second of said chambers and having a passageway communicating with said first chamber, and a laterally extending neck adjacent one end of said body having passageways communicating with the corresponding ends of said chambers.

1,300,497. SLIP-SOCKET. ALBERT MERTON MONROE, Taft, Calif. Filed Oct. 21, 1918. Serial No. 259,163. 1 Claim. (Cl. 57—9.)



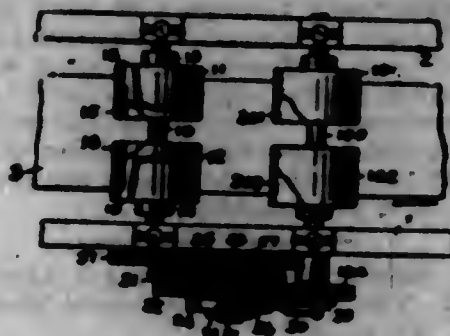
A device of the character specified comprising a tubular casing or socket, a sleeve mounted to move in the socket, said sleeve being split longitudinally from near its inner end to the outer end to form a series of tongues, having gripping jaws at their free ends, the casing or socket and the sleeve having at the ends remote from the connection of the tongues cooperating inclined surfaces to force the gripping jaws inward when the sleeve is moved downward, a sleeve above the first named sleeve and a spring above the last named sleeve and normally pressing said sleeve downwardly, the said sleeve having means for limiting its downward movement to a point where the first named sleeve is in normal position.

1,300,498. VEHICLE-SEAT. EUGENE QUINCY MOORE, New York, N. Y., assignor of one-half to WILLIAM P. HAMMOND, Passaic, N. J. Filed Oct. 25, 1917. Serial No. 190,577. 10 Claims. (Cl. 21—42.)



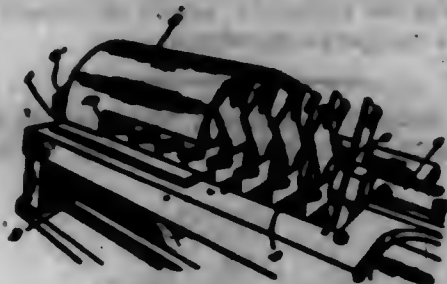
1. In a vehicle of the class described, a permanent front seat, a permanent rear seat section, and a movable seat section adapted to be made a part of either of said seats.

1,300,499. ADJUSTABLE CUTTER FOR ENVELOP-MACHINES. ABRAHAM NOVICK, New York, N. Y., assignor to F. L. Schmidt Company, a Corporation of New York. Filed July 26, 1917. Serial No. 152,825. 9 Claims. (Cl. 164—23.)



1. In an envelop machine, means for continuously advancing a web of paper, cutters arranged to rotate through a predetermined interval including the cutting operation at the same linear speed as that of said web for making cuts in said web during the continuous advancement of said web, and adjustable means operating through a predetermined angle in advance of the cutting operation for accelerating and for preventing the retarding of, the angular velocity of said cutters, for spacing said cuts longitudinally of said web.

1,300,500. FEED-CUTTING MACHINE. JOHN A. HARKIN, Emporia, Kans. Filed Oct. 30, 1916. Serial No. 178,412. 1 Claim. (Cl. 146—30.)

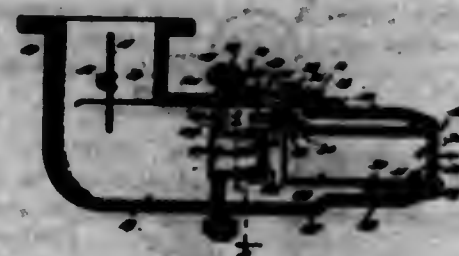


In a feed cutting machine the combination of a casing with a rotatable shaft therein, vanes mounted on said shaft and rotating therewith, blades detachably secured to the opposite diagonal corners of said vanes on one side thereof, and having cutting edges extending beyond and in front of the ends of said vanes and at an angle thereto.

1,300,501. GAS-BURNER. LEWIS A. RILEY, 24, White Plains, N. Y. Filed May 20, 1918. Serial No. 235,537. 4 Claims. (Cl. 154—106.)

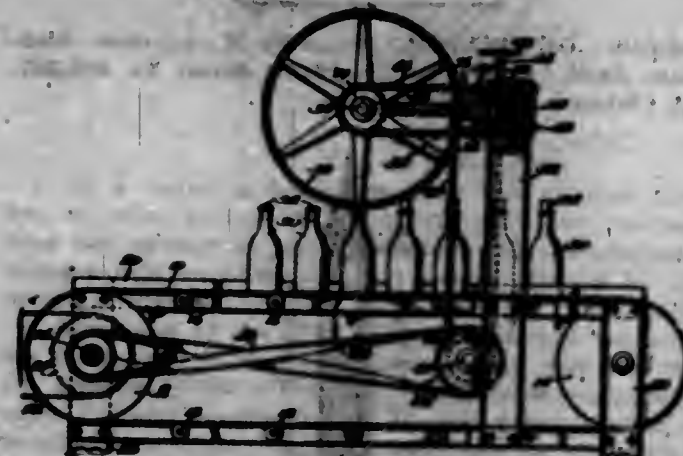
1. A burner of the character described comprising, a gas chamber having a plate closing its forward end and pro-

vided with openings, an outer casing connected with the plate and formed substantially rectangular in cross-section, a plurality of nozzles arranged within the openings of the plate, a corresponding number of mixing tubes arranged



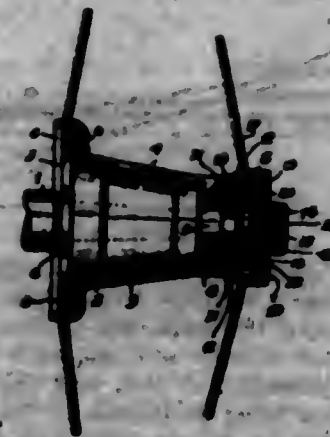
in close relation within the outer casing and disposed forwardly of and near the nozzles, and means arranged within the nozzles to cause the gas passing therethrough to partake of a rotary movement.

1,300,502. BOTTLE-CORKING MACHINE. ARTHUR I. RISSAN, Chicago, Ill., assignor to U. S. Bottlers' Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 7, 1918. Serial No. 248,696. 11 Claims. (Cl. 238—4.)



1. In a bottle corking machine, a continuously moving conveyor member, a wheel above and clear of the conveyor member, means driving the wheel at the same circumferential speed as the longitudinal speed of the adjacent part of the conveyor member, means yieldingly urging the wheel toward the conveyor member, and means between the urging means and the wheel adapted to magnify at the wheel the movement of the urging means.

1,300,503. HUB CONSTRUCTION. FRANK SPRINGER, Detroit, Mich., assignor to Spranger Wire Wheel Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 17, 1917. Serial No. 207,469. 2 Claims. (Cl. 21—31.)



1. In a hub construction, the combination of an inner hub member, a cross head at the outer end thereof, said

cross head having its inner face at the ends thereof beveled in opposite directions, an outer hub member on said inner hub member provided with an annular interior shoulder adjacent the head of the inner hub member, a retaining ring in the outer end of said outer hub member, a cap rotatable between said ring and the shoulder of said outer hub member and having a nut portion protruding through said ring, beveled lugs in said cap and adapted to engage behind the beveled ends of said head to hold said outer hub member on said inner hub member, and means at the inner ends of said hub members establishing a driving relation therebetween.

1,300,504. AUTOMATIC BRAKE-APPLYING SAFETY-VALVE. JOHN E. STIBBELESTER, Indianapolis, Ind. Filed Aug. 23, 1918. Serial No. 251,190. 5 Claims. (Cl. 188—1.)

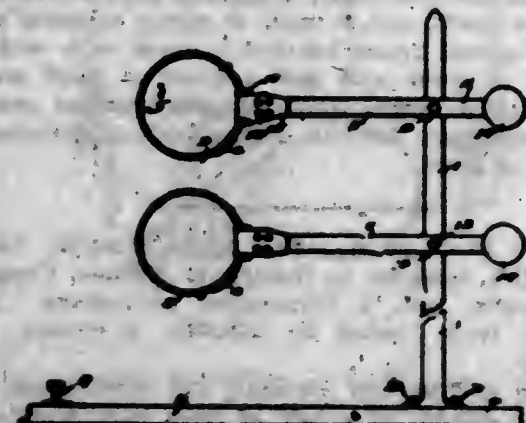


1. An air brake applying safety valve comprising a connection for train line, an exhaust port communicating with said train line connection, a check valve normally closing said exhaust port, pressure controlled means for lifting said check valve from its seat, train line pressure controlled means for controlling the application of opening pressure to the check valve, and a spring acting upon said train line pressure in the direction opposite to the application of train line pressure, whereby the effective operation of the spring will result in opening the check valve.

1,300,505. GLASS-MATTING PROCESS. TOROKITAU UMA, Kioto, Japan. Filed Dec. 5, 1918. Serial No. 265,458. 6 Claims. (Cl. 41—26.)

1. The process of producing surface effects on vitreous material which comprises applying to the surface of such material a substance capable of reacting upon said material with the aid of heat to form an acid-decomposable product, said substance being applied in conjunction with another substance which is relatively inert and is not greatly affected under the conditions of operation, heating until the surface of said material has been acted upon to the desired extent, and removing acid-decomposable matter with the aid of an acid.

1,300,506. TRAIN-DESPATCH DELIVERER. ROSCOE L. WANAMAKER, Toledo, Ohio. Filed June 14, 1918. Serial No. 240,013. 2 Claims. (Cl. 259—28.)



2. In a train despatch deliverer, a circular hoop member, a block contained substantially within the circle of

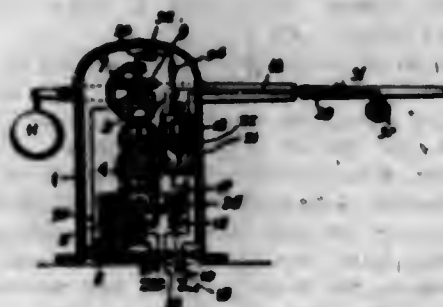
the hoop and forming with the hoop the completion of the circle, spring pressed members for holding the hoop in position and for clamping the sides of the block, the spring pressed members having outwardly curved lips for engaging one or the other of the edges of the block to eject the block from between the springs when the block is rotated.

1,306,507. MEANS FOR CONNECTING THE ENDS OF BELTS. GEORGE W. WEA, Johnson, Kans., assignor, by mesne assignments, of twelve and one-half one-hundredths to J. C. Conn, Boonton, N. J., and thirty-nine and one-half one-hundredths to James A. Webb, Johnson county, Kans. Filed Sept. 17, 1917. Serial No. 191,733. 1 Claim. (Cl. 24—31.)



A belt fastener comprising a flexible strip, fastening devices at each end of the strip arranged transversely thereto and having points projecting through the strip and adapted for projection through a belt to which the strip is applied, the said devices being spaced sufficiently to allow the strip to flex, and a plurality of progressively shorter strips associated with the first named strip and adapted, when the first named strip is in place, to be positioned between it and the belt.

1,306,508. AUTOMATIC ELECTRIC RAILWAY-GATE. CLAYTON P. WILKINSON, RAYMOND L. EDGALL, and STANLEY WILKINSON, Leamington, Ontario, Canada; said Edgall assignor to said Clayton P. Wilkinson and said Stanley Wilkinson. Filed Aug. 27, 1915. Serial No. 47,590. 1 Claim. (Cl. 246—128.)

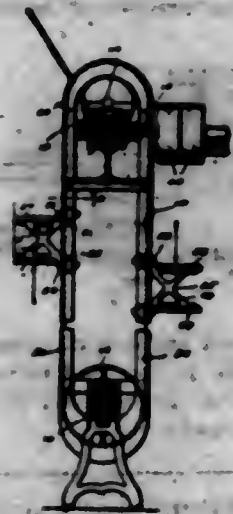


In an automatic electric railway gate, the combination of a hollow pedestal, a frame in parallelism with a wall of said pedestal and connected thereto, a gate shaft journaled in said frame and the pedestal wall, a gate on the outer end of said shaft, a segment gear on the inner end of said shaft, and a train of motor operated gears supported by said frame adapted to mesh with said segment gear to lower said gate and out of mesh and in contact with a single tooth of said segment gear to maintain said gate lowered during further operation of said train of gears.

1,306,509. ELEVATOR. LESLIE I. ZIEGLER, Indianapolis, Ind., assignor to Nordyke & Marmon Company, Indianapolis, Ind., a Corporation of Indiana. Filed Apr. 20, 1918. Serial No. 229,668. 6 Claims. (Cl. 193—8.)

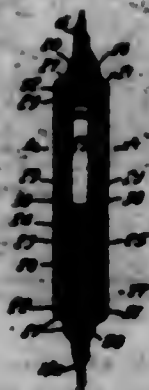
1. In an endless belt elevator, the combination with the endless carrier, of a pair of cross bars mounted on said endless carrier, a rigid double-faced platform mounted on said pair of cross bars and having a pin and slot connection with one of such cross bars, said plat-

form having two opposite platform faces fixed relatively to each other and facing respectively forward and rear-



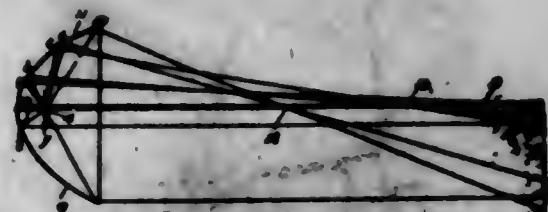
ward with respect to said endless carrier, guide rollers carried by said platform, and channel irons in which said guide rollers travel.

1,306,510. DETONATOR. CHARLES H. ALLISON, Glendale, Calif. Filed July 18, 1918. Serial No. 245,507. 11 Claims. (Cl. 102—10.)



4. A detonator, embodying a tubular shell of relatively great strength to resist external pressure, caps for the ends of said shell, being shouldered upon the shell ends and being relatively thick to withstand heavy external pressure but being relatively easily removable from the shell by internal pressure, a detonating charge within one end of the shell and an explosive cap contained in the other end of the shell.

1,306,511. REFLECTOR. ADOLBERT AMES, Jr., Tewksbury, Mass. Filed Jan. 17, 1916. Serial No. 72,508. 5 Claims. (Cl. 240—41.)

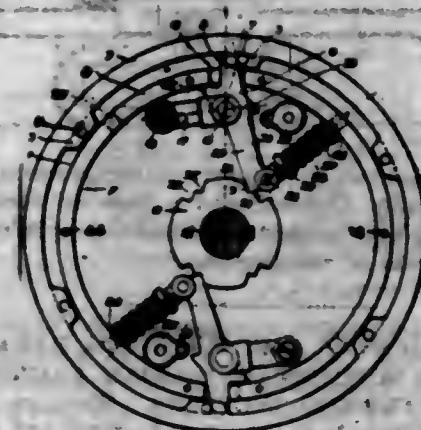


1. Projection apparatus comprising a light source, and a reflector having a contour divided into a plurality of transverse portions, the respective portions being formed by the revolution of conic sections, each transverse portion having a plurality of foci, and one focus of each transverse portion being positioned at the source of light and the other foci of the transverse portions being displaced along the axis or axes of the reflector in such manner that light may be projected to distant, near and intermediate portions of a roadway.

1,306,512. SYNTHETIC MANUFACTURE OF THYMOL. CHESTER E. ASHMEWA, Pittsburgh, Pa. Filed Sept. 15, 1917. Serial No. 191,007. 3 Claims. (Cl. 23—24.)

3. A process of making thymol which comprises rendering inactive the amino group of amino cymene, nitrating the product, to produce a nitrated amino cymene compound, and thereafter removing the amino group and substituting OH in place of the NO₂.

1,306,513. CLUTCH. FRANK E. AUBAND, Oak Park, Ill., assignor of one-half to Henry R. Wahl, Chicago, Ill. Filed Jan. 18, 1918. Serial No. 212,400. 30 Claims. (Cl. 64—106.)



1. In a clutch, a driving member and a driven member, an arm having an outer end projecting normally from one member to the other and forming a connection between said members, said one member having an open notch, a yieldable element such as a spring for holding the inner end of the arm in said notch and for resisting the normal effort transmitted through said arm from one member to the other, said clutch being organized to move the arm completely out of connecting relation between the members when the resistance of the yieldable element is overcome.

1,306,514. OPHTHALMIC MOUNTING. NELSON M. BAKER, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Corporation of Massachusetts. Filed July 24, 1916. Serial No. 110,973. 6 Claims. (Cl. 29—20.)

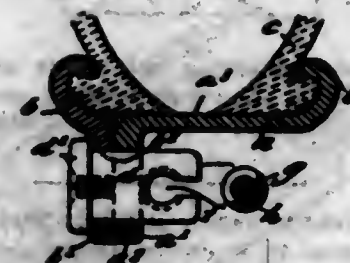


1. The process of forming a one-piece ophthalmic lens fitting, consisting in shaping a blank, and striking the blank to form a central web having integral with each side thereof a lens engaging ear.

1,306,515. DIVISIBLE WHEEL-RIM. JOHN CHARLES BARKER, London, England. Filed May 13, 1918. Serial No. 234,252. 3 Claims. (Cl. 152—21.)

1. A divisible wheel rim comprising in combination, a pair of rim members capable of being laterally separated and having overlapping inwardly extending flanges, one of said rim members having apertures in its flange, a plurality of coupling pins carried by the flange of the other rim member, and having shank portions arranged to project through the apertures in the flange of the

first named rim member, each of said shank portions having an open slot, extending substantially parallel with the wheel rim and of a key-hole shaped cross section, the contracted part of said slot extending to the end of the pin-shank, and the enlarged part being partly cylindrically and partly conically bored to constitute a seating, and a ring shiftable relatively to the rim and provided with a plurality of conically shaped lugs for engagement with the seatings in the said shank portions,



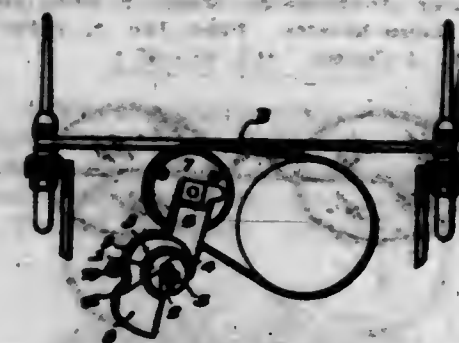
said lugs adapted when the ring is shifted in one direction, to move into said seatings to lock the coupling pins collectively in the said apertures at one and the same time and, when the ring is shifted in the reverse direction, to withdraw from the seatings.

1,306,516. RAZOR-BLADE HOLDER. ANTHONY F. BARRO, New York, N. Y., assignor of one-half to Alphonse A. Dibblee, New York, N. Y. Filed Nov. 1, 1917. Serial No. 199,753. 1 Claim. (Cl. 30—25.)



The combination, in a razor blade holder, with a flat body member with shoulders at its ends and having spaced upwardly protruding extension members for removably receiving a safety razor blade, of two strips with one of their corresponding ends pivoted to the body member for being separately swung upon the blade, one strip having laterally projecting fingers and the other having a projecting flange to coact with the extension members for clamping the blade on the body member, and a clip on the second end of each strip, each clip being detachably engageable with one of the shoulders of the body member for releasably locking the body member and the strips together.

1,306,517. PULLEY-MOUNTING. HERBERT G. BREDS, Pawtucket, R. I. Filed Sept. 21, 1918. Serial No. 255,071. 3 Claims. (Cl. 118—48.)



2. In a pulley mounting, a shaft, a bearing on the shaft having grooves therein to receive the shaft so as to allow the bearing to be tilted with respect to the shaft, and a pulley rotatably carried by the bearing.

1,300,518. COMPOUND FABRIC. JULIO NAVARRO Bat-
onaa, Cuernavaca, Spain. Filed Aug. 8, 1917. Serial No.
185,147. 4 Claims. (Cl. 154-46.)



1. A garment comprising two sheets of textile fabric stitched together in directions crossing each other, so as to leave small rectangular spaces containing cork fragments.

1,306,519. CONNECTING MEANS FOR HUBS AND AXLES. LOUIS H. BUCKNER, Indianapolis, Ind. Filed Nov. 27, 1916, Serial No. 133,095. Renewed Nov. 7, 1918. Serial No. 261,549. 3 Claims. (Cl. 21—30.)



1. In combination with a hub and an axle, a collar fixed on said axle, a series of radially sliding dogs mounted on said hub and adapted to be projected into line with said collar and a yielding spring gripping ring mounted exteriorly of said dogs and adapted to surround and press against the same to hold them projected inwardly behind the collar, said ring being accessible from the exterior of the hub to permit the removal thereof.

1,306,520. INSULATING MATERIAL. CLAM J. BUNKLEY, Columbus, Ohio, assignor to General Electric Company, a Corporation of New York. Filed Dec. 8, 1917. Serial No. 205,843. 6 Claims. (Cl. 106—15.)

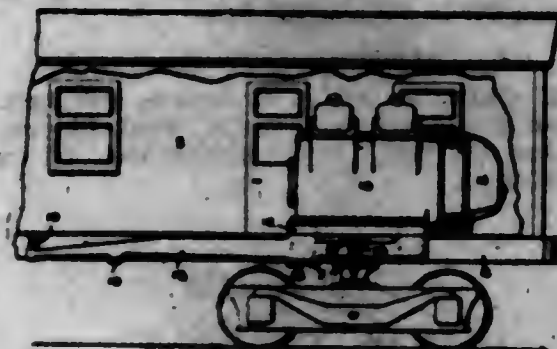
1. A process which consists in mixing an asphaltic material with a mineral oil, heating the mixture and blowing the same with air until the product when cooled is a tough, homogeneous material with a cheesy fracture.

1,306,521. OPHTHALMIC MOUNTING. OSWALD R. CARSON, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Jan. 8, 1919. Serial No. 271,788. 4 Claims. (Cl. 88-47.)



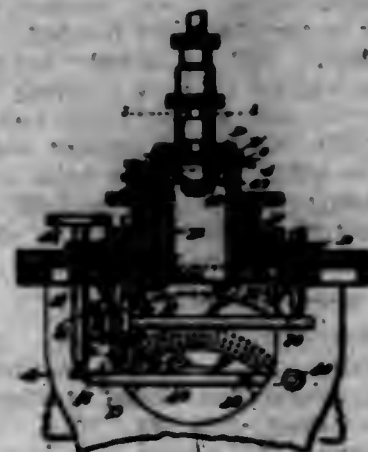
1. A lens frame for spectacles, including continuous members disposed upon opposite sides of the lenses, transverse members connecting the continuous members and engaged over the edges of the lenses, and means for securing the continuous members in position upon the lenses.

1,806,822. MEANS FOR PREVENTING VIBRATION OF RECIPROCATING ENGINE. HARRY G. CHATAIN and HENRY W. STOCK, Erie, Pa., assignors to General Electric Company, a Corporation of New York. Filed May 27, 1918. Serial No. 236,687. 6 Claims. (Cl. 165—132.)



1. In combination, a support, a reciprocating engine resiliently mounted thereon, and a member connected to the engine base and projecting therefrom to increase the moment of inertia of the engine.

1,306,523. MACHINE FOR KNITTING FABRIC SECTIONS AND METHOD OF MAKING FABRICS HAVING TRANSFERRED SECTIONS. WILLIAM H. CHIDDEY, Haw River, N. C., assignor to Scott and Williams, Incorporated, Boston, Mass., a Corporation of Massachusetts. Filed July 31, 1911. Serial No. 641,498. 22 Claims. (Cl. 66-22.)



1. A knitting machine having therein needles and circular cooperating needle-carriers, one of which is adapted to be turned with respect to the other, in combination with means for turning one of said carriers with respect to the other step by step in the same direction at predetermined intervals in the knitting.

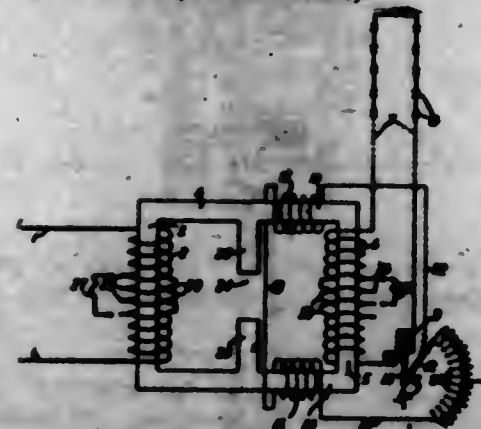
1,306,524. CURTAIN-FASTENER. EDWARD S. CHURCH,
Chicago, Ill. Filed Dec. 23, 1918. Serial No. 267,918.
5 Claims. (Cl. 24-218.)



1. In a snap fastener, the combination of a stud, a rigid socket, and locking means therebetween adapted to

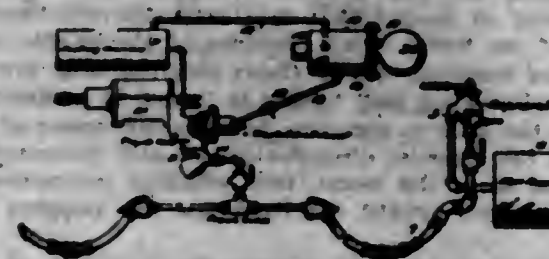
positively prevent separation by relative tilting and comprising a resilient member which permits an initial relative movement in a plane transverse to the axis of the stud.

1,306,525. CONSTANT-CURRENT REGULATOR. GUN-
NEY H. COLE, Mount Oliver, Pa., assignor to Westing-
house Electric and Manufacturing Company, a Corpora-
tion of Pennsylvania. Filed Dec. 4, 1915. Serial No.
65,018. 8 Claims. (Cl. 171-119.)



2. A constant-current regulator comprising a magnetizable core member having a stationary primary coil, a stationary secondary coil, and a stationary regulating coil mounted thereon, and means influenced by the secondary current for so varying the current traversing the regulating coil that the magnetic leakage flux between the primary and secondary coils is adjusted.

1,306,526. AIR-BRAKE. FRANK S. CRAVENS. Lexington,
Ky. Filed Aug. 9, 1917. Serial No. 185,355. 5 Claims.
(Cl. 188-12.)



1. In an air brake system, the combination with the usual car brake complement consisting of a triple valve, brake cylinder, auxiliary reservoir, train pipe, engineer's valve and main reservoir, of an automatically operating retaining valve comprising a cylinder with a piston and rod therein and a slide valve loosely engaged by the rod, the cylinder having independent air connections to the triple valve and auxiliary reservoir, the said loose slide valve being operated in timed relation to and by the piston and rod to obstruct the atmospheric release of the exhaust from the triple valve and holding the brakes applied under maximum braking pressure until the auxiliary reservoir is recharged.

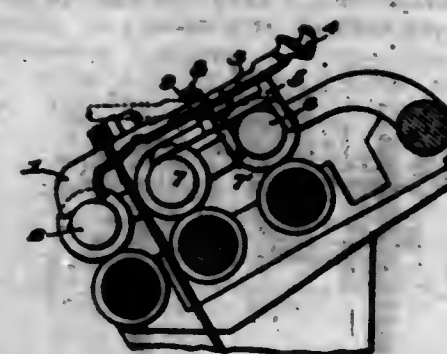
1,306,527. OPHTHALMIC MOUNTING. Gnoson H. DAY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Dec. 26, 1917. Serial No. 206,937. 3 Claims. (Cl. 68-47.)



1. The combination with a spectacle frame, having a pair of spaced endpiece members and a temple pivotally

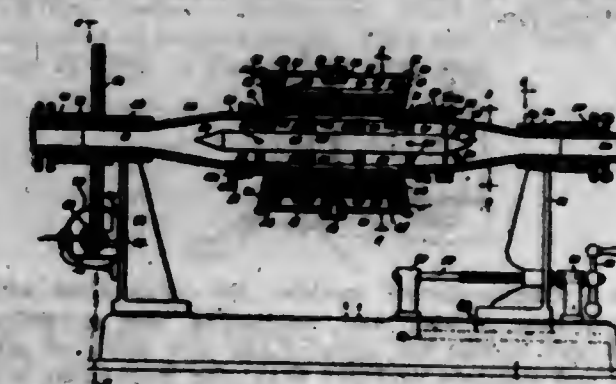
connected between said endpiece members, of a plate adapted to be disposed between the endpiece members and being of a length to project beyond the endpiece members, and means whereby said plate may be removed without disturbing the position of the temple.

1,206,528. TOP-ROLL SADDLE. ERRA DIXON, Bristol, R. I. Filed Aug. 21, 1918. Serial No. 250,855. 5 Claims. (Cl. 19-33.)



1. In a top roll saddle, a front saddle and a back saddle, said front saddle having a rearwardly extending shank provided with a worm or gimlet-like terminal, and an apertured arm borne by the back saddle to receive said worm or gimlet-like terminal and having its said aperture of less diameter than that of the worm or gimlet-like terminal and the walls defining the aperture smooth.

1,306,529. FABRIC-TREATING MACHINE. HOWARD M. DUDLEY, Philadelphia, Pa. Filed June 5, 1918. Serial No. 238,297. 10 Claims. (Cl. 8—17.)



1. In a fabric treating machine, in combination, a revoluble foraminous reel, means for revolving the reel, means whereby a portion of the openings of the foraminous reel may be closed whereby all of the steam introduced into the reel will pass through the fabric roll, a foraminous cover, means for pressing the cover upon the fabric roll maintaining it in position, and means for passing steam into the reel.

1,306,530. ELECTRIC LOCOMOTIVE. GEORGE M. EATON and GEORGE H. F. HOLY, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 30, 1914. Serial No. 854,020. 3 Claims. (Cl. 105-121.)



1. In a driving mechanism, the combination with a plurality of driving shafts and a driven shaft, of a plurality

of pinions fitted to the respective ends of said shafts, a plurality of gear wheels secured to the respective ends of the driven shaft and cooperating with the correspondingly disposed pinions, and a key associated with one end only of each driving shaft, said keys maintaining the driving and the driven shafts in a fixed relation to each other.

1,306,531. LOCOMOTIVE DRIVING MECHANISM. GEORGE M. EATON, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 29, 1915. Serial No. 64,935. 14 Claims. (Cl. 74-7.)



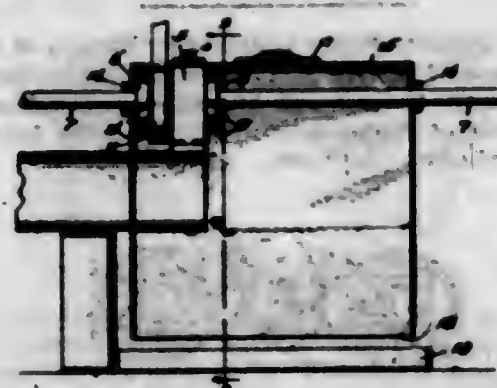
1. The combination with a shaft, and a motor armature mounted thereon, of a plurality of driving pinions associated with said shaft, and a plurality of resilient means associated with said shaft, one of said resilient means disposed longitudinally outside of each of said pinions for mechanically connecting said pinion to said shaft.

1,306,532. INDUCTION MOTOR. BERNARD ELSHOFF, Newark, N. J., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 14, 1915. Serial No. 66,732. Renewed Sept. 19, 1917. Serial No. 192,229. 5 Claims. (Cl. 172-120.)



1. In a dynamo-electric machine, the combination with a slotted core member and conducting bars extending through and beyond the ends of the core slots, of conducting end members provided with side depressions into which the ends of the said bars project, and conducting material filling all portions of the said depressions that are not occupied by the bar ends.

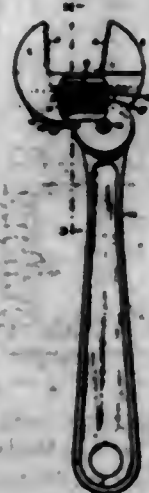
1,306,533. RUBBING MECHANISM. PATRICK H. FRIEL, Kenosha, Wis.; Hattie D. Friel, administratrix of said Patrick H. Friel, deceased, assignor to Simmons Company, Kenosha, Wis., a Corporation of Delaware. Filed Nov. 15, 1916. Serial No. 131,552. 1 Claim. (Cl. 51-4.)



A grinding machine including a grinding ring whose inner annular surface is the grinding surface and a hood

surrounding the ring for confining the dust, said hood having a packing device at its forward end through which the work operated upon passes and which serves to prevent dust from leaving the hood at the forward end thereof.

1,306,534. PIPE-WRENCH. ALBERT J. GUANASSIO, San Francisco, Calif. Filed Feb. 11, 1918. Serial No. 216,429. 2 Claims. (Cl. 81-126.)



1. A wrench comprising a fixed jaw, a slidable jaw arranged on said fixed jaw, a worm arranged in said fixed jaw and engaged with said slidable jaw for controlling the movement thereof relative to said fixed jaw, and a handle pivoted in said fixed jaw and having an extension for engaging one end of said worm, the pivot of the handle being so located that said extension will overlap the end of the worm in all positions of the handle, said worm being mounted to slide freely longitudinally toward said extension when said handle is turned in a direction to permit the jaws to separate, whereby movement of the handle in the opposite direction causes said extension to engage and move the worm, thus effecting movement of the slidable jaw toward the fixed jaw for gripping the work.

1,306,535. OPHTHALMIC MOUNTING. WILLARD B. GABERN, Boston, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Apr. 12, 1919. Serial No. 289,564. 6 Claims. (Cl. 88-52.)



1. A retaining device for an ophthalmic mounting, including an attaching member, a flexible connection carried thereby, and a ring of slightly larger diameter than the connection secured to the forward end thereof.

1,306,536. CONTROLLER. ARTHUR J. HALL, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 25, 1914. Serial No. 334,346. 23 Claims. (Cl. 200-10.)

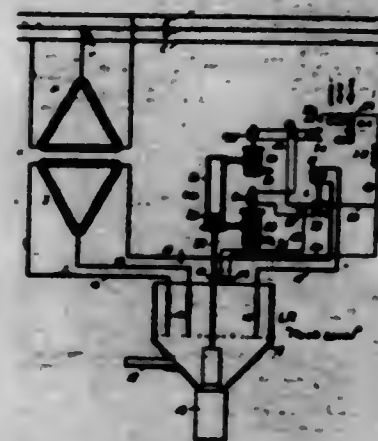
1. A controller comprising a plurality of contact-making drums, a plurality of sets of control fingers therefor, means independent of the drums for retaining one of said sets in an operative position under predetermined conditions, means tending to actuate that set to a normal in-

operative position, and means associated with one of said drums for rendering said retaining means inoperative.



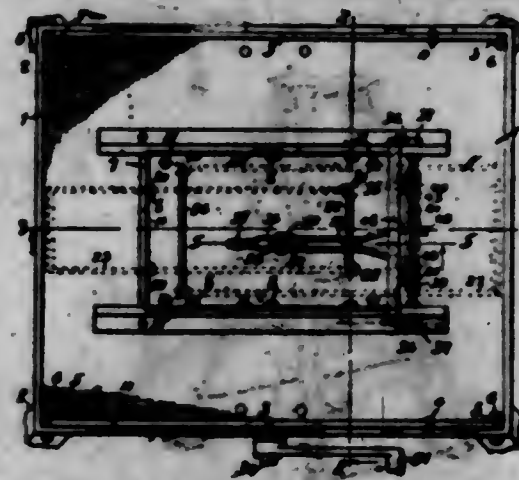
and causing the electrical contact on the other drum to be broken by said tending means under other predetermined conditions.

1,306,537. SYSTEM OF CONTROL. ARTHUR J. HALL, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 3, 1916. Serial No. 75,957. 16 Claims. (Cl. 172-179.)



1. In a system of control, the combination with a dynamo-electric machine and a variable governing device therefor, of means for varying said device to effect predetermined operation of said machine, and means dependent upon the current flow through the machine circuit and the position of said device for automatically reversing said device.

1,306,538. MOLDING-MACHINE. LARS HANSEN, Kansas City, Mo. Filed Feb. 16, 1918. Serial No. 217,746. 12 Claims. (Cl. 25-42.)



1. In a molding machine, a supporting frame having guides, upright mold members supported by said frame,

means adapted to support a die plate in operative position between said mold members, means adapted to engage and lift the die plate, a forming tool slidable on said guides over the die plate when the latter is in operative position, and means movable to and from an operative position for limiting the movement of said tool in one direction to a position in which it will be at the inner side of and spaced apart from said mold members.

1,306,539. CONTROL SYSTEM. RUDOLF E. HELLMUND, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 12, 1915. Serial No. 39,376. 3 Claims. (Cl. 172-179.)



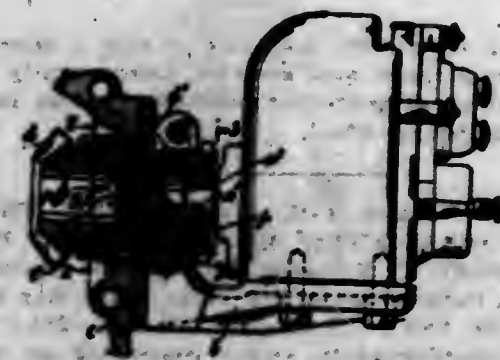
1. In a system of control, the combination with a dynamo-electric machine having an armature and a field-magnet winding of the series type adapted to require an average current materially smaller than the average current traversing said armature, of a plurality of translating devices, and means for diverting all but a necessary exciting portion of the armature current from said field winding to said devices, for absorbing any surplus current or furnishing any necessary additional current and for regulating the amount of current supplied to said devices.

1,306,540. OPHTHALMIC MOUNTING. PITT H. HANSEN, Southbridge, Mass., assignor to The American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Jan. 18, 1919. Serial No. 271,792. 2 Claims. (Cl. 88-42.)



2. A spectacle or eyeglass including lens frames, a nose bridge and lenses mounted within the frames, the ends of said nose bridge being engaged with the lenses to prevent relative movement of the same within the frames.

1,306,541. SHAFT-COUPPLING. ALEXANDER GRISWOLD HUNNENHOFF, New York, N. Y., assignor to International Motor Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 13, 1919. Serial No. 282,306. 5 Claims. (Cl. 64-96.)



1. In combination, a driving shaft, a driven shaft, one of said shafts being braced at one end to receive loosely the end of the other of said shafts, opposed bearing faces formed internally of the said braced portion, corre-

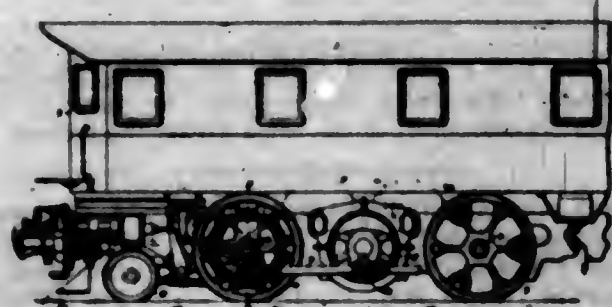
opposing bearing faces carried externally of the entering end of the other of said shafts, and leaf springs disposed within the broached portion and adapted to bear on said opposed faces of both of said shafts to couple the two yieldingly.

1,306,542. CONTROL FOR ELECTRIC HEATING DEVICES. GEORGE H. HILL, deceased, Schenectady, N. Y., by Hazel T. Hill, administratrix, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 31, 1917. Serial No. 158,993. 6 Claims. (Cl. 171-313.)



1. The combination with a supply circuit energized at different potentials, of a plurality of heating elements connected thereto, means for changing the connections of the heating elements to said circuit so as to vary the amount of heat produced at one of said potentials and means for automatically shifting the connections upon a change of voltage of the supply circuit so that substantially the same amount of current passes through the heating elements at the different voltages.

1,306,543. RESILIENT DRIVING CONNECTION. GEORGE H. F. HOLY, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 4, 1916. Serial No. 76,164. 11 Claims. (Cl. 106-131.)

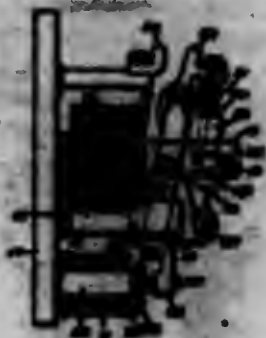


11. In a vehicle, the combination with a driving road wheel and a crank arm mounted independently of said driving wheel, of means for resiliently joining the crank arm to the driving wheel.

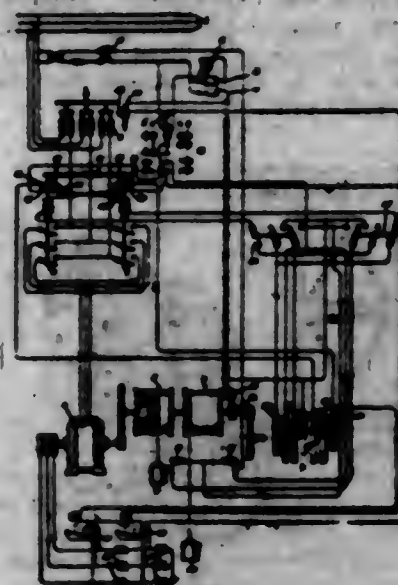
1,306,544. MEANS FOR CONTROLLING THE CIRCUITS OF ELECTRIC MOTORS. LEONARD P. HUNT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 18, 1916. Serial No. 98,419. 6 Claims. (Cl. 175-281.)

1. An electromagnetic switch comprising an operating winding, a switch arm normally in open position, a member moved by the operating winding, means which, upon the completion of the movement of said member, causes a constant force to be applied tending to move the switch arm to closed position, said member acting as a pole

piece to hold the switch arm in closed position, and a holding-out winding for holding the switch arm in open position until the current in said winding drops to a predetermined value.



1,306,545. SYSTEM OF CONTROL FOR ELECTRIC MOTORS. BENJAMIN W. JOHN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 26, 1916. Serial No. 100,118. 6 Claims. (Cl. 172-182.)



1. In combination with a hoist or the like, an electric motor for operating it in two directions and a reversing controller therefor, of a limit switch at each limit of travel, means for opening the motor circuit and rendering the controller inoperative to control the motor for operation in either direction upon the operation of either of said limit switches and means whereby control is restored to the controller to return the hoist beyond the point where the limit switch operated after which full control is restored to the controller.

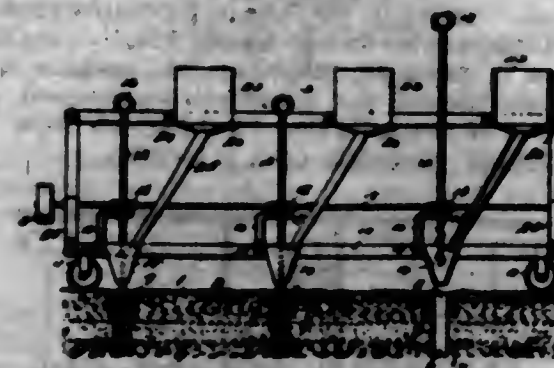
1,306,546. TRAVELING STEP-LADDER. THOMAS KARRMAN, Philadelphia, Pa. Filed Aug. 21, 1918. Serial No. 250,897. 4 Claims. (Cl. 228-15.)



1. A step ladder having its body and its prop mounted respectively on wheels, mechanism on said body for rotating the wheels thereon, and mechanism on said prop for rotating the wheels thereon.

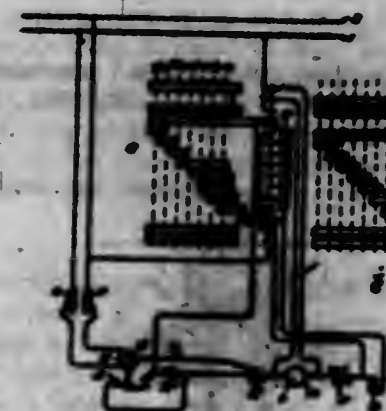
ing the wheels thereon, and mechanism on said prop for changing the angularity of its wheels, both said mechanisms being operative by the occupant of the ladder while thereon.

1,306,547. CULTIVATION OF SOIL. LEONIDAS N. LYON, Flatonia, Tex. Filed Aug. 6, 1917. Serial No. 184,680. 1 Claim. (Cl. 47-36.)



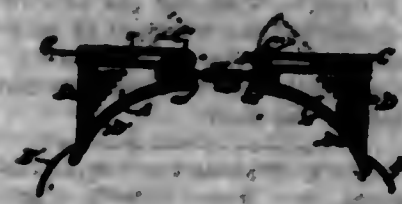
The herein-described method of conserving and preserving moisture in the soil for growing vegetation which consists in displacing portions of the top soil and portions of only some layers directly below the top soil which are impervious to water to provide water retaining reservoirs extending into said impervious layers and filling said layers to a desired extent with loose plant growing material having a high capillary attraction for water.

1,306,548. MOTOR-CONTROL SYSTEM. ROBERT H. McLAIR and JOHN EATON, Schenectady, N. Y., assignors to General Electric Company, a Corporation of New York. Filed June 29, 1916. Serial No. 106,700. 31 Claims. (Cl. 172-179.)



6. The combination with a series motor and means for reversing the same, of connections whereby the field winding is connected in shunt to the armature circuit for one direction of rotation to form a dynamic brake circuit, a resistance in said circuit and an electromagnetic switch controlled by the speed of the motor for controlling said resistance.

1,306,549. GOGGLES. ROBERT MALCOM, Chicago, Ill. Filed Oct. 29, 1917. Serial No. 198,943. 7 Claims. (Cl. 2-149.)



1. In a goggle, lens-holding cups formed by bending the frames thereof into the form of a cylinder with the meeting edges overlapped, means for adjusting said overlap.

pling edges circumferentially and securing the same together, a lens in each of said eye cups, and a nose piece connecting each pair of lens-holding cups.

1,306,550. HELMET. ROBERT MALCOM, Chicago, Ill. Filed Sept. 5, 1918. Serial No. 252,752. 6 Claims. (Cl. 2-117.)



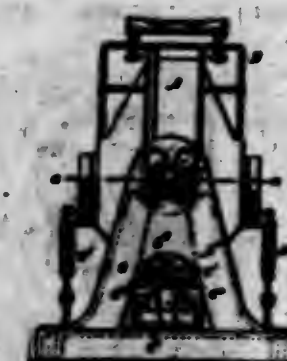
1. A helmet or head protector, comprising a body portion adapted to fit over the head of the wearer and to rest upon the shoulders, both ends of said helmet being open, said helmet being provided with openings in the front thereof, and glasses or lenses mounted in said openings.

1,306,551. ELECTRIC SWITCH. EZRA B. MERRIAM, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 7, 1916. Serial No. 102,311. 7 Claims. (Cl. 175-283.)



1. A circuit interrupting device comprising a pressure retaining chamber for containing oil and having a vent in one wall thereof, relatively movable cooperating contacts separable in said chamber, means for absorbing the energy of the oil ejected from said vent as said contacts separate comprising intercepting members shaped to provide annular pockets into which the oil is deflected and its energy absorbed.

1,306,552. GYROMETER. NICOLAI MINORSKY, Petrograd, Russia, assignor to The Sperry Gyroscope Company, Brooklyn, N. Y., a Corporation of New York. Filed June 17, 1918. Serial No. 240,556. 2 Claims. (Cl. 50-904.)



1. A system for indicating movement of a vehicle about an axis comprising a gyro rotor, means for constraining said rotor to move about either or both of two axes at an angle to each other and to said first mentioned axis,

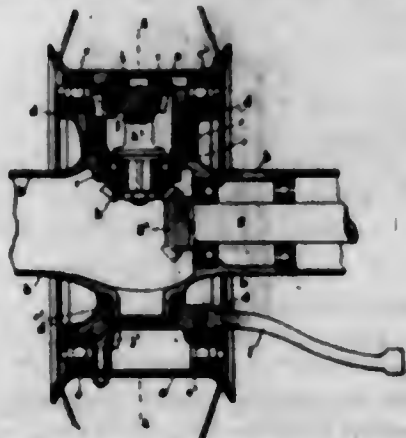
means biasing the gyro to a normal position in which its precessional axis is normal to said first mentioned axis, an indicating element and variable ratio means connecting said gyro and indicating element.

1,306,553. WRENCH. WILLIAM D. MORRISON, Denver, Colo. Filed Mar. 5, 1919. Serial No. 280,836. 5 Claims. (Cl. 81-60.)



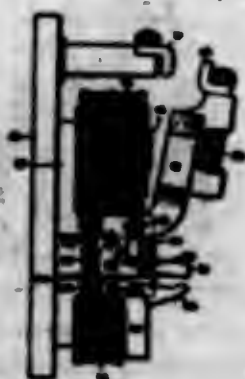
1. In tools of the character set forth, consisting of a base member suitably supporting a handle and a ratchet wheel associated with a ratchet-dog; in combination with a drum coupled with said ratchet wheel to rotatably co-act therewith; work-engaging means carried by said drum; and flexible means adapted to be so coiled around said drum as to impart rotary motion thereto, upon unwinding, independently of the co-acting ratcheting movement of said drum, substantially as described.

1,306,554. DRIVING AND STEERING WHEEL. CHARLES MARIUS MOTTE, Paris, France. Filed May 25, 1918. Serial No. 230,632. 6 Claims. (Cl. 180-13.)



1. A single wheel tractor unit comprising a hollow axle, a wheel rotatably mounted on said axle, a source of power supported by said axle on one side of said wheel, a driving mechanism supported by said axle on the other side of said wheel, a connection between said source of power and said mechanism and a connection between said mechanism and said wheel, both connections being supported within said axle.

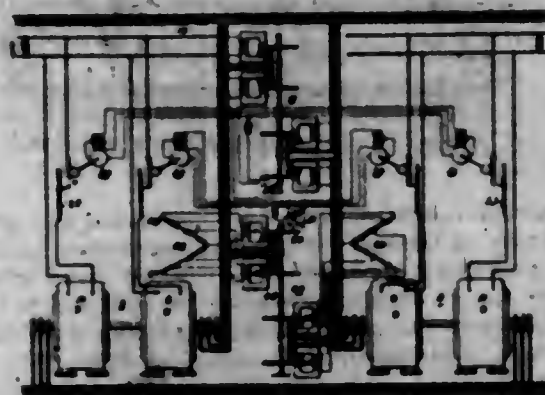
1,306,555. ELECTROMAGNETIC SWITCH. EDWIN J. MURPHY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 29, 1916. Serial No. 94,465. 10 Claims. (Cl. 175-281.)



1. An electromagnetic switch comprising a switch member, an actuating winding connected to a source of

substantially constant potential, and a magnetic structure therefor for moving the switch member to closed position, a winding carrying a variable current and means whereby the switch member is held in open position when the current in the latter winding is above a predetermined value and is closed by the potential coil when the current drops to said value regardless of variations in the pull of the potential coil.

1,306,556. SYSTEM OF LOAD DISTRIBUTION FOR SYNCHRONOUS TYPE FREQUENCY-CHANGERS. FRANK D. NEWBURY, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 13, 1918. Serial No. 234,987. 6 Claims. (Cl. 171-119.)



1. The method of operating two motor-generator sets in parallel, said sets comprising synchronous motors driving synchronous generators, respectively, which comprises regulating the field excitation of the various generators in accordance with the desired division of wattless load and regulating the field excitation of the various motors in accordance with the desired division of energy load.

1,306,557. RADIATOR-INDICATOR. RICHARD T. NEWTON, New York, N. Y. Filed Oct. 20, 1917. Serial No. 197,573. 3 Claims. (Cl. 73-82.)



1. An indicator for automobile radiators, comprising a rotary dial, a float, a V-shaped pin carried by the float, and a fixed abutment, the branches of said V-shaped pin having a sliding engagement respectively with a dial member and said abutment to cause the dial to rotate on the rise or fall of the float.

1,306,558. SHOCK-ABSORBER. RICHARD T. NEWTON, New York, N. Y. Filed Feb. 2, 1918. Serial No. 215,176. 3 Claims. (Cl. 267-19.)

1. A vehicle comprising a chassis and a body resiliently supported thereon, said resilient support comprising a leaf spring carried by the body, a lever, one end of which

straddles an end of the leaf spring, a link connecting the opposite end of the lever to the chassis, a second link connecting the lever, intermediate its ends, to the end of



the leaf spring, and a pair of cushioning springs interposed between the free end of the lever and the chassis element, substantially as described.

1,306,559. INCLOSED-ARC DEVICE. JOHN ARTHUR ORANGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 6, 1916. Serial No. 82,887. 6 Claims. (Cl. 176-1.)



1. The combination of a container, electrodes of refractory conducting material therein, a quantity of mercury, a refractory conductor connected at one terminal to one of said electrodes and contacting at the opposite terminal with said mercury, and connections for completing an electric circuit through said conductor, the mercury, and a cooperating electrode.

1,306,560. DETENT FOR PANIC-BOLTS AND THE LIKE. ALBERT A. PACE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Oct. 28, 1916. Serial No. 129,239. 8 Claims. (Cl. 70-120.)



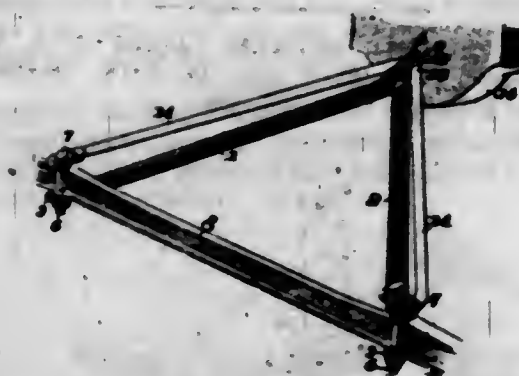
1. In a panic bolt construction, the combination of a door and door frame, a vertical sliding bolt adapted to project upward beyond the upper edge of the door, a keeper on the lintel to receive said bolt, a horizontally swinging elbow lever mortised in the upper edge portion of the door adjacent the corner thereof and having one arm adapted to overlie the bolt head to hold the bolt in retracted position, said lever having another arm disposed substantially transversely of the upper edge portion of the door, a pivot for said lever, and a depending projection on said keeper positioned to engage one arm to swing the elbow lever into bolt-engaging position and to engage the other arm to swing the elbow lever out of bolt-engaging position; substantially as described.

1,306,561. DRIVING-CHAIN. HANS RENOLD and ADRIAN ETHELBERT CARTER, Manchester, England, assignors to Hans Renold Limited, Manchester, England. Filed Aug. 17, 1917. Serial No. 186,753. 4 Claims. (Cl. 74-32.)



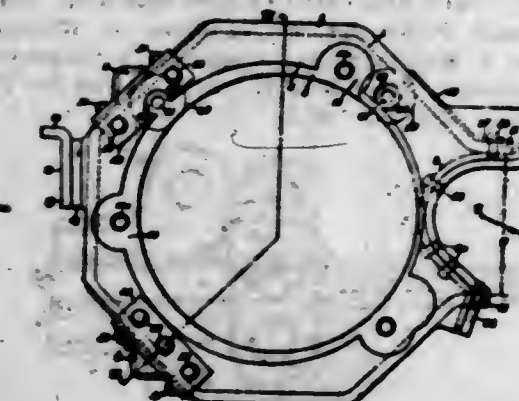
1. A block unit adapted to be mounted directly on studs in making up a multiple strand drive chain, such block unit consisting of a plurality of link plates provided with gear teeth, and a pair of bushes permanently connecting said link plates together in positions relatively spaced apart thereon, said bushes being of segmental form in the spaces between the link plates, whereby free space for lubrication is provided between the link plates of the block unit.

1,306,562. RADIUS-ROD. ROBERT F. SCALEI, Trenton, N. J. Filed Mar. 27, 1919. Serial No. 285,002. 4 Claims. (Cl. 21-182.)



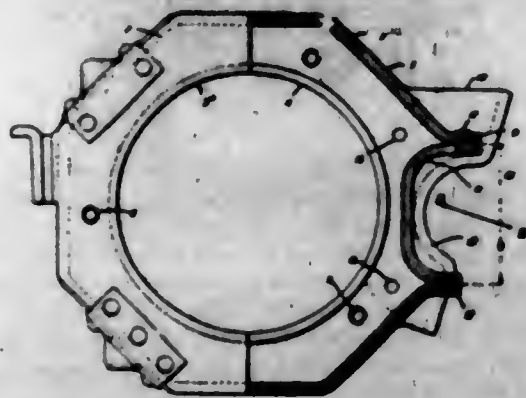
1. Auxiliary automobile radius rods, comprising a pair of members normally separate to facilitate packing, provided with companion ends contacting in a vertical plane, including original radius rod crotch engaging means, and having interlocking means; and means including flattened portions at the other ends to be secured to the common securing means of said original radius rod.

1,306,563. FRAME FOR DYNAMO-ELECTRIC MACHINES. CHARLES W. STARKER, Pittsburgh, and RUDOLF E. HELLMUND, Swissvale, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 24, 1916. Serial No. 127,359. 14 Claims. (Cl. 105-137.)



1. In a railway motor, a box frame embodying an end-ring having an integral portion shaped to form a substantially semicylindrical axle-bracket seat.

1,306,504. FRAME FOR DYNAMO-ELECTRIC MACHINES. CHARLES W. STARKER, Pittsburgh, Pa., and ALEXIS R. FRIBEL, Cleveland, Ohio, assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed July 19, 1917. Serial No. 181,542. 7 Claims. (Cl. 105-137.)



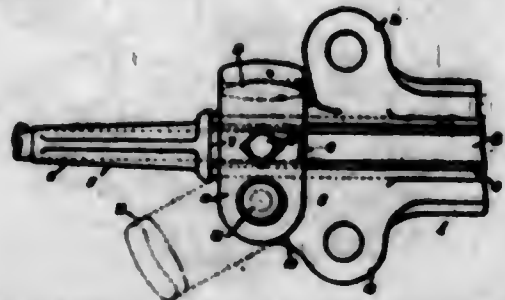
7. A frame for a dynamo-electric machine embodying an end-ring having an external portion shaped to form an axle-bearing seat and a centrally located flange shaped to form an armature shaft bearing seat, the said seats extending in opposite directions.

1,306,505. BALE-TIE BUCKLE. JAMES T. A. TODD, Fort Worth, Tex. Filed Jan. 18, 1918. Serial No. 212,512. 6 Claims. (Cl. 24-20.)



3. A bale tie buckle formed of a single piece of steel wire bent to a substantially quadrangular form open at one corner and having the ends beveled to form a receiving throat and having a side member and two band engaging members all bent inwardly from the corners of the buckle for creating leverage to increase the strength of the buckle.

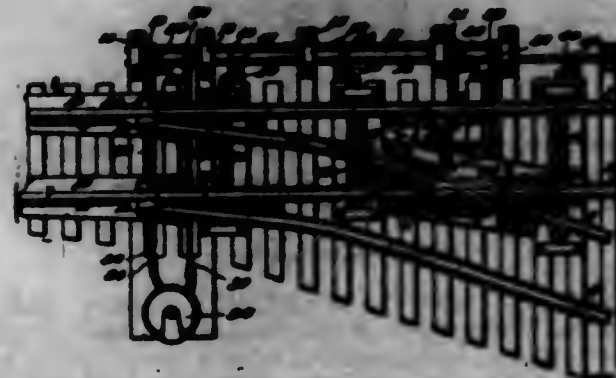
1,306,506. TROLLEY-CONDUCTOR DEVICE. NILS J. A. WAHLBERG, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed July 10, 1918. Serial No. 244,372. 8 Claims. (Cl. 191-40.)



8. A trolley-conductor device comprising a body member for the reception of said conductor, an approach mem-

ber, and a member relatively movably and permanently associated with said body member and having means for holding said approach member in position.

1,306,567. SWITCH OPERATING AND LOCKING MECHANISM. JAMES W. WALLER, Kansas City, Mo. Filed Jan. 3, 1918. Serial No. 210,174. 8 Claims. (Cl. 240-388.)



1. A swing rail switch operating and locking mechanism comprising a pair of main rock shafts adapted to be arranged to one side of said switch, a series of lock bolt operating rock shafts connected to one of the first mentioned rock shafts, lock bolts pivotally connected to said lock bolt operating shafts adapted to lock the movable switch rails, and a series of rods connected to the other main rock shaft having connections with the swinging rails of said switch.

1,306,568. METHOD OF PRODUCING PURE ELEMENTS. ERSCHIEL WEINTRAUB, New York, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 20, 1918. Serial No. 224,896. 7 Claims. (Cl. 75-17.)



1. The process of producing substantially pure elementary substance by the action of a reducing metal, such as sodium, on a compound of said substance, which consists in volatilizing by-products of said reaction at an elevated temperature not sufficient to volatilize appreciably the reduced element.

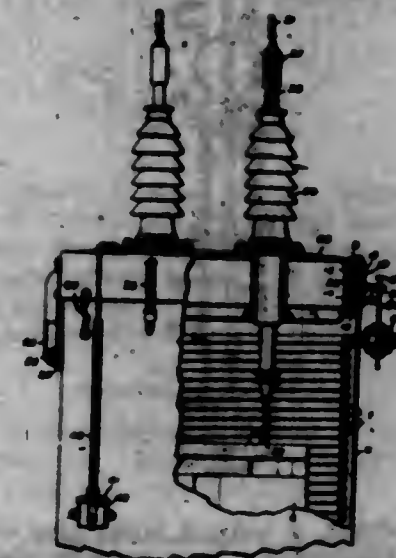
1,306,569. DRY YEAST AND PROCESS OF MAKING THE SAME. GEORGE F. WHITNEY, South Orange, N. J., assignor to Whitney Yeast Corporation, New York, N. Y., a Corporation of New York. Filed Oct. 24, 1918. Serial No. 259,534. 7 Claims. (Cl. 99-10.)

2. The process of making a dry yeast which consists in mixing with wet yeast soluble and insoluble substances suitable as yeast foods, disintegrating the mixture by agitation while wet and rapidly drying the disintegrated material by a current of air heated to a temperature of

220 degrees F. with an approximate limitation of 20 degrees F. on either side.

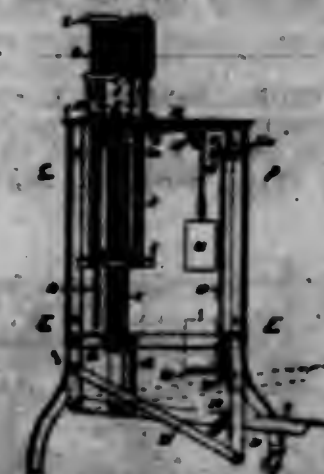
3. A dried yeast substantially free from acid ferments consisting essentially of live yeast cells and soluble and insoluble carbohydrates serving as yeast food, and in which the moisture content does not exceed 15% by weight and in which a major portion, substantially, of the yeast cells are viable.

1,306,570. ELECTRICAL APPARATUS. JAMES WILKINSON, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 28, 1915. Serial No. 69,106. 18 Claims. (Cl. 175-361.)



1. The combination with a tank, a liquid therein and electrical apparatus submerged in said liquid, of a single protecting cover for said tank arranged to float on the surface of said liquid, and a fluid seal between the edges of the cover and the tank excluding contact between said submerged liquid and the atmosphere.

1,306,571. BUNDLING PRESS. HERMANN ABEL, Zurich, Switzerland, assignor to Otto Felix Fierz, Zurich, Switzerland. Filed Aug. 2, 1916. Serial No. 112,729. 1 Claim. (Cl. 100-31.)



A bundling press comprising as its operative parts a foot lever in combination with a toothed rack articulated to the former, coupling mechanism for coupling the rack with a connecting table, the said table, compressing rods fixed to the table, capping trays for said rods, a top plate for the press with passage for the rods, socket-tubes fixed to the upper face of the top plate and engaging said rods, trays attached to the socket-tubes, a suspension weight, a rope fast to the weight and the said table respectively, guide pulleys for the rope, means for locking the foot lever in its lower position, and means for disengaging same.

263 G. G.—19

1,306,572. PUMPING MECHANISM. EARL E. BARTLETT, Low Bush, Ontario, Canada. Filed Jan. 24, 1918. Serial No. 212,008. 7 Claims. (Cl. 103-44.)



1. A pump comprising a conveyor, screw, and chamber in which said screw is disposed, a closure device, a second chamber for the reception of said closure device, the wall of the first named chamber being slotted for the greater part of its length which establishes communication with the second chamber, said closure device being movable longitudinally through the slot to substantially close the same and extending into the grooves of the screw, and means for propelling the screw.

1,306,573. SEALING-MACHINE. HENRY E. BAYNE, Battle Creek, Mich., assignor to Johnson Automatic Sealer Co., Battle Creek, Mich. Filed Feb. 5, 1917. Serial No. 146,732. 8 Claims. (Cl. 193-48.)



5. In a structure of the class described, the combination with movable forms for the cartons, of means for removing the sealed cartons from said forms comprising ejectors for gripping the opposite flat sides of the carton, and means for giving said ejector a quick forward and return movement, whereby the carton is removed from between said ejectors.

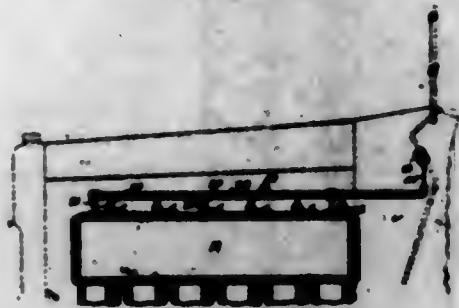
1,306,574. MERCHANDIZING PACKAGE. LOUIS J. BORALIN, Chicago, Ill. Filed Sept. 18, 1918. Serial No. 254,645. 3 Claims. (Cl. 229-44.)



1. A merchandizing package comprising a box like body having at one end a flap hingedly connected there-

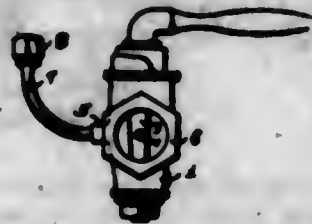
with, with a hingedly connected insert member at the side opposite the hinging to the body and a stop carried by said flap at one of the other sides positioned to limit the inward movement of the flap.

1,306,575. INDICATOR FOR ENGINES. HAROLD BROWN, Dacoma, Okla. Filed Nov. 24, 1917. Serial No. 203,797. 4 Claims. (Cl. 78-111.)



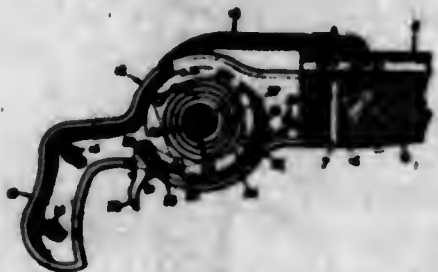
1. Pressure indicating means for internal combustion engines, comprising, in combination with a cylinder; a gage having an appropriate index; and a pointer movable thereover; a piston and a chamber in which it is operable by pressure from the cylinder; a check-return valve below the piston; a piston rod for the piston having an adjustable stop; an adjustable head in the chamber through which the rod runs; a spring reacting between the piston and said head to return the former to a position limited by the stop on the rod engaging the adjustable head, the said stop providing for adjustment of the resistance of the spring and the said head providing for adjustment of the piston without affecting the setting of the stop; and means connecting the piston rod and the pointer.

1,306,576. VALVE. WILLIAM J. BROWN, Macon, Ga. Filed July 7, 1917. Serial No. 179,197. 1 Claim. (Cl. 251-127.)



An attachment for drain valves, comprising a waste outlet having a discharge terminating in an upwardly presented end above the valve casing, and a check valve in said upwardly presented end adapted to permit the drainage from said valve through said outlet but close said outlet to back-flow from an outside source.

1,306,577. TOY MACHINE-GUN. GEORGE H. CARLSON, Omaha, Nebr., assignor to Hooschen Manufacturing Company, Omaha, Nebr., a Corporation of Nebraska. Filed May 27, 1918. Serial No. 236,951. 9 Claims. (Cl. 42-55.)



9. A toy machine gun including a shaft, a drum mounted on the shaft and having spaced side plates, and connecting transverse members, a spring connected with the shaft and with one of the said transverse members for actuating the drum, a rotary block mounted on the

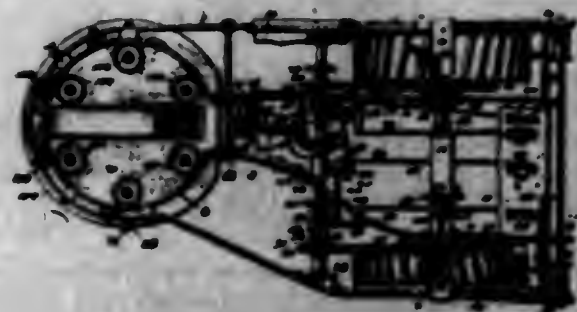
shaft at one side of the drum and connected with the latter and adapted to support a ribbon, feed rollers actuated by the said block for feeding the ribbon to the said block, and a trigger having a gear arranged to engage the transverse members of the drum for holding the same against rotary movement.

1,306,578. FIRE-HYDRANT. HENRY CHARLARD, Indian Orchard, Mass., assignor of one-half to Dennis J. McNamara, Springfield, Mass. Filed Mar. 30, 1918. Serial No. 235,738. 2 Claims. (Cl. 137-12.)



In a fire hydrant, a body, a stand pipe connected to the body and comprising a lower member and an upper member, a ring bolted between the lower and upper members of the stand pipe and having a bearing; a post bolted to the upper end of the upper stand pipe member and provided with a bearing near its upper end, and a valve operating rod comprising a lower member and an upper member, said lower member being arranged in the body and stand pipe and in the bearing of the said ring, said lower member having means coacting with said ring to prevent vertical movement of said lower rod member, and said upper rod member being arranged in the post, mounted in the bearing of the post and detachably jointed at its lower end to the said lower rod member, the said rod members being provided at their meeting ends with separable clutch members to release the upper rod member in the event that the post should become broken off.

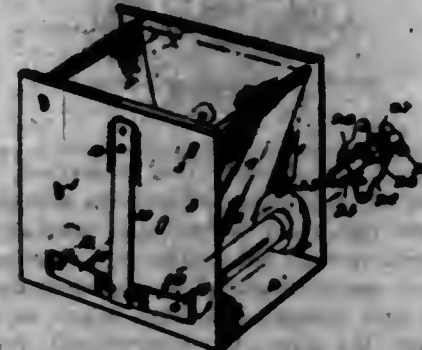
1,306,579. TRACTOR. BENJAMIN F. COOPER, Cassopolis, Mich., assignor of one-third to H. H. Stedman and one-third to George E. Wagner, Cassopolis, Mich. Filed Apr. 12, 1918. Serial No. 20,872. 7 Claims. (Cl. 180-17.)



1. In a traction engine of the class described, the combination of a frame provided with rear wheels, with a power transmission mechanism including a motor, a power shaft connected to said motor, independent means for connecting the power shaft to either of the rear wheels for propelling and turning the tractor, and a rotatable frame carrying a steering wheel and a clutch

member, said clutch member adapted to be connected with the power shaft through the turning of the steering wheel.

1,306,580. HOLDER FOR CAMERA. WALTER G. CHAMBER, Cincinnati, Ohio. Filed Apr. 30, 1918. Serial No. 231,689. 3 Claims. (Cl. 242-71.)



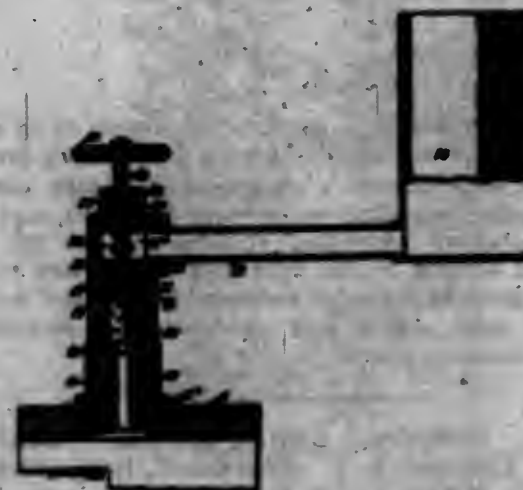
2. In a camera, a spool holding means including a spring arm of T-form, the leg of said arm being secured to the camera frame, and the branches respectively engaging the ends of two spools, and an arm for engaging the opposite end of one of said spools, in combination with means for engaging the opposite end of the other of said spools.

1,306,581. AUTOMOBILE-HEATER. PAUL J. CUNNINGHAM, New Castle, Pa. Filed Apr. 4, 1917. Serial No. 159,774. 8 Claims. (Cl. 257-126.)



6. A heater for utilization of the exhaust gases of internal-combustion engines, comprising a heating element proper having a plurality of adjacent passages therein, alternate adjacent passages being in communication at opposite ends of the heater, a port from the interior of the heater to the inlet passage arranged tangentially to said passage to direct gas from said inlet into the exhaust passage to accelerate the exhaustion of said gas, and also a port into the outlet port of the heater arranged tangentially to the wall of said outlet port whereby gas may escape from the interior of the heater element into said outlet passage and impart a whirling motion to the gases exhausting from said heater element to silence the noise of the exhaust.

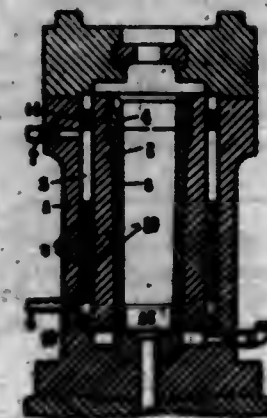
1,306,582. ATTACHMENT FOR HYDRAULIC SYSTEMS. FRANK J. DAVIS, San Francisco, Calif. Filed May 2, 1918. Serial No. 232,696. 1 Claim. (Cl. 137-69.)



An attachment of the class described including a valve casing adapted to be connected with a hydraulic system

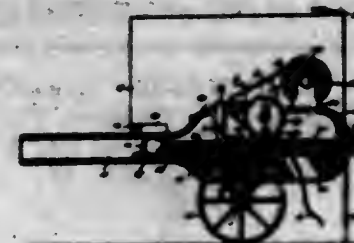
to receive liquid from the latter under normal fluid conditions therein, a liquid supply tank elevated above the casing and connected therewith to gravitationally supply liquid thereto, a float in said casing, a valve mounted on said float, said valve controlling the escape of air from the valve casing to the tank and the flow of liquid from the tank to the casing; together with a shut-off valve between the valve casing and the tank.

1,306,583. PRODUCTION OF SHELL AND LIKE FORGINGS. SEBASTIAN ZIANI DE FERRANTI, Hollinwood, England. Filed Mar. 8, 1919. Serial No. 280,819. 3 Claims. (Cl. 207-6.)



1. In an apparatus of the character described, a die chamber forming a jacket, a composite die mounted therein consisting of a liner, a sleeve surrounding and supporting the liner, a plurality of rings shrunk on the outer surface of the sleeve and provided with the plurality of shallow grooves to permit of the circulation of a cooling medium therethrough.

1,306,584. TOY CANNON. OSCAR E. DRONSON, Pompton Lakes, N. J., and GEORGE A. ROBINSON, New York, N. Y. Filed Sept. 12, 1918. Serial No. 253,757. 6 Claims. (Cl. 124-12.)



1. A toy cannon, comprising a support, a barrel on the support, a magazine mounted on the support and opening into the rear end of the barrel to successively charge the barrel with projectiles, a spring pressed plunger mounted on the support and adapted to eject the projectile out of the barrel, a percussion cap firing device mounted on the support, manually controlled means mounted on the support for retracting and releasing the said plunger, and means for actuating the said cap firing device from the plunger.

1,306,585. HOLDER. OSCAR E. DRONSON, Pompton Lakes, N. J., and GEORGE A. ROBINSON, New York, N. Y. Filed Oct. 29, 1918. Serial No. 260,188. 4 Claims. (Cl. 211-17.)

4. A holder, comprising a support provided on its face with longitudinally extending parallel slots, an abutment extending vertically across the slots, clamping

screws adjustably mounted in two of the said slots and engaging the said abutment, a clamping member on the face of the support to one side of the abutment, the said clamping member having an arm provided at one end with an eccentric cam face adapted to coact with the said side of the abutment to clamp an article between



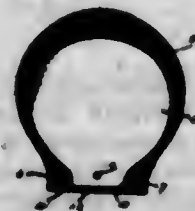
them, the said clamping member having a slot, a pivot adjustably mounted in one of the said support slots and on which the said arm is mounted to swing, and a retaining pin held adjustably in another of the said support slots and engaging the slot in the said clamping member.

1,306,596. BEET DIGGING AND TOPPING MACHINE. EDGAR DUKER, Ashton, Idaho. Filed Sept. 24, 1917. Serial No. 193,006. Renewed Apr. 17, 1919. Serial No. 290,899. 6 Claims. (Cl. 55-108.)



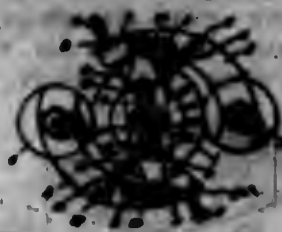
1. In a beet topping machine, the combination of a pair of endless belts having outwardly yieldable inner reaches moving in the same direction to grip and convey the beets, topping means above said reaches of the belts, and a pair of beet positioning belts converging with said first named belts toward said topping means and adapted to overlie the beet bodies to force the same downwardly and properly position them in respect to said topping means as they are conveyed rearwardly.

1,306,587. VEHICLE-TIRE. LYMAN H. FERGUSON, Ithaca, N. Y., assignor to Ferguson Tire Corporation, a Corporation of New York. Filed May 3, 1918. Serial No. 232,203. 1 Claim. (Cl. 152-10.)



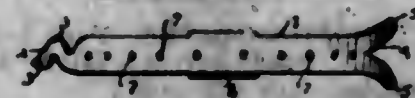
A vehicle tire constructed with flanges spaced apart, each flange having an annular rabbet or recess, integral radial resilient partitions leaving spaces between them of approximately the width of the partitions; each partition having an approximately circular imperforate part and a tongue part having an aperture providing a small port extending between each two spaces adjacent to the inner edge of the tire, and an annular sealing strip having its edges fitted in the annular rabbets or recesses and bridging and closing the inner ends of the spaces between the partitions independent of the rim on which the tire is mounted so as to provide a closed and sealed structure.

1,306,598. INSULATED-WIRE-STRIPPING MACHINE. MINNIE C. FRANCH, Cleveland, Ohio. Filed Jan. 11, 1918. Serial No. 211,357. 18 Claims. (Cl. 81-9.5.)



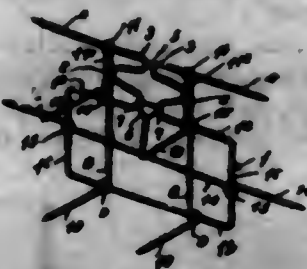
1. In a machine of the class described, a rotatable spindle; a knife blade mounted on said spindle in a plane transverse to the axis thereof and having its cutting edge presented toward said axis; a centrifugal weight; and operative connections between said knife blade, said spindle and said weight, whereby, when said spindle is rotated about its axis, the centrifugal force of said weight acts through the said connections to move the knife blade toward said axis.

1,306,599. HAIR-FASTENER. JACOB GERS, Brinkman, Mont. Filed June 15, 1918. Serial No. 240,143. 2 Claims. (Cl. 132-22.)



2. A hair fastener including an elongated bar adapted to extend transversely across the back of the head and curved longitudinally to conform to the shape of the head, the middle portion of the bar being provided with side flanges which are returned to form rounded edges so that the bar can be rotated about a longitudinal axis to bring the ends thereof into position at opposite sides of the head after the hair has been wrapped around the middle portion thereof, the said ends of the bar being provided with hair engaging prongs, while lateral projections are provided at intervals throughout the length of the bar.

1,306,590. Calf-WEANER. ERNE A. GORANTH, Wall, S. D. Filed Oct. 24, 1918. Serial No. 239,525. 5 Claims. (Cl. 119-132.)

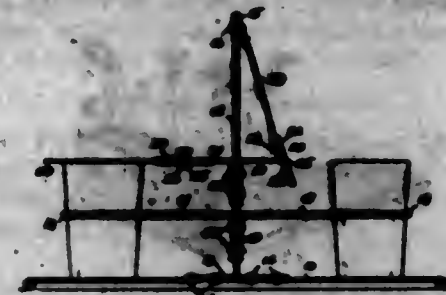


1. In a calf weaner, a main frame formed from a continuous piece of material, said main frame being provided above the body thereof with opposed gripping elements and laterally projecting spurs carried thereby, and reinforcing members extending transversely of the main frame and secured to the upper and lower bars thereof, the end portions of said members being bent substantially at right angles and sharpened to provide forwardly projecting spurs.

1,306,591. HOSPITAL MEDICINE-TRAY. WILBUR B. GRANT, Elmhurst, N. Y. Filed Oct. 7, 1918. Serial No. 257,300. 2 Claims. (Cl. 65-53.)

1. In a medicine tray, the combination of a base adapted to directly support a plurality of tumblers, rigid means extending upward from the longitudinal center of the

tray, individual tumbler holding means connected to said upright means and extending laterally therefrom, a plurality of brackets fixed to the upright means above the



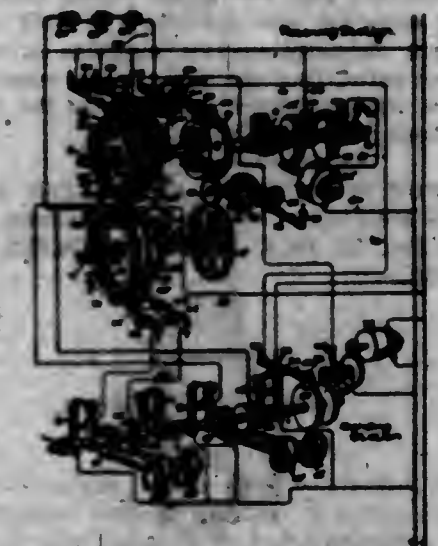
holding means, a series of individual and distinguishing covers for the several tumblers, and a plurality of cover holding clips pivotally connected for movement around the horizontal axes on said brackets.

1,306,592. TOY. HARRY E. GIBSON, St. John, New Brunswick, Canada. Filed Feb. 1, 1918. Serial No. 274,575. 2 Claims. (Cl. 46-34.)



1. A toy comprising a hoop, having spokes, a central spindle, fork arms journaled on said spindle and embracing the upper half of the hoop and adapted to support an emblem, the fork arms having a trailing member, and a rolling support for said trailing member.

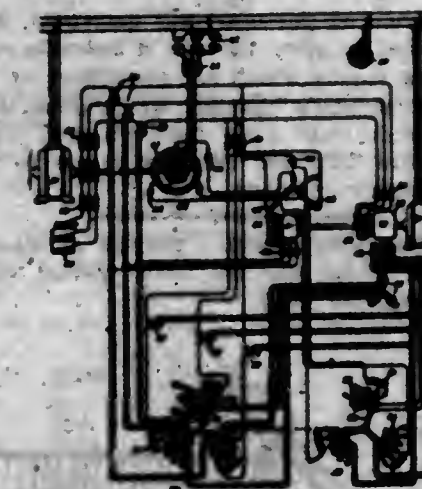
1,306,593. SIGNALING SYSTEM FOR TRANSMITTING INFORMATION FROM A SENDING-STATION TO ONE OR MORE RECEIVING-STATIONS. JOHN L. HALL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 23, 1918. Serial No. 251,354. 16 Claims. (Cl. 177-351.)



1. In a signaling system a receiving station comprising a continuously rotating element, a rotatable indicator ar-

ranged to be driven by said element, electromagnetic means for controlling the driving connection between the indicator and the element, a sending station comprising an element rotated continuously in synchronism with the element at the receiving station, and means whereby at a predetermined point in the travel of the element at the sending station the electromagnet is affected to render the driving connection inoperative and cause the indicator to be stopped at the corresponding point in the rotation of the element at the receiving station.

1,306,594. DOUBLE-RANGE REGULATING SET FOR CONTROLLING SPEED OF INDUCTION-MOTORS. JOHN I. HULL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 3, 1918. Serial No. 212,816. 29 Claims. (Cl. 172-274.)



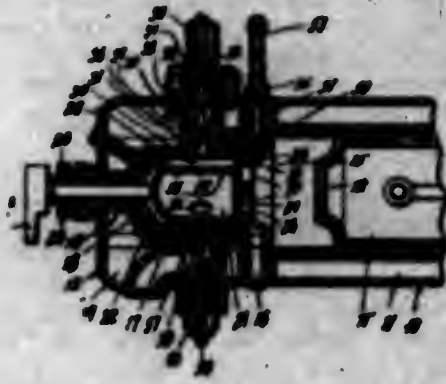
1. In combination, a source of supply, an asynchronous motor having its primary winding connected thereto, a commutator machine concatenated with the secondary winding of said motor, and means for exciting said machine with a flux having a frequency equal to the slip frequency of said motor and for maintaining said flux approximately constant notwithstanding variations in the speed of said motor over a range including asynchronous speed.

1,306,595. BRASSIERE. IRENE SCOTT JENNINGS, Chicago, Ill. Filed May 31, 1917. Serial No. 171,857. 1 Claim. (Cl. 2-73.)



A combined brassiere and corset cover comprising a back portion and a front portion, each being substantially a trapezium in shape, one of its parallel sides at the bottom and forming acute angles with the adjacent sides, spaced apart substantially parallel shoulder straps for connecting corresponding upper corners of the said trapeziums, means connected to the acute angles at the bottom of the back portion for exerting draft upon the lower edge and the side edges of the said back portion, and means connected to the acute angles at the bottom of the front portion for exerting draft upon the lower edge and the side edges of said front portion.

1,306,596. COAL-DUST AND LIQUID-FUEL ENGINE. HANS LADSGAARD KNUDSEN, St. Charles, Mo. Filed Oct. 2, 1915. Serial No. 53,754. 18 Claims. (Cl. 60—44.)



1. In an engine of the character described, a cylinder, a piston mounted to move therein, a movable combustion chamber having means which are controlled by the movement of the combustion chamber for placing it into and out of communication with the cylinder, and means whereby pressure from the cylinder serves to force fuel into the combustion chamber.

1,306,597. SHOCK-LOADER. JULIUS J. KROGAN, Bostineau, N. D. Filed Mar. 27, 1918. Serial No. 224,971. 2 Claims. (Cl. 56—61.)



2. In a machine of the character described, a vehicle having a body, an inclined frame on the vehicle and extending above and partly over the body, arms hinged to the lower end of the frame, sprocket wheels mounted in the upper end of the inclined frame and the forward ends of the said arms, sprocket chains passing around the said sprocket wheels and provided with slats connecting the chains, a plurality of shafts mounted in the sprocket wheels of said arms and having teeth and crank arms at their ends, stationary cams carried by the hinged arms and with which the cranks of the said shafts engage, and means for operating the shafts of the sprocket wheels at the upper end of the inclined frame.

1,306,598. CRIB DROP-SIDE LATCH. ARTHUR F. KUNZE, Montreal, Quebec, Canada. Filed Dec. 4, 1916. Serial No. 134,971. 1 Claim. (Cl. 5—58.)



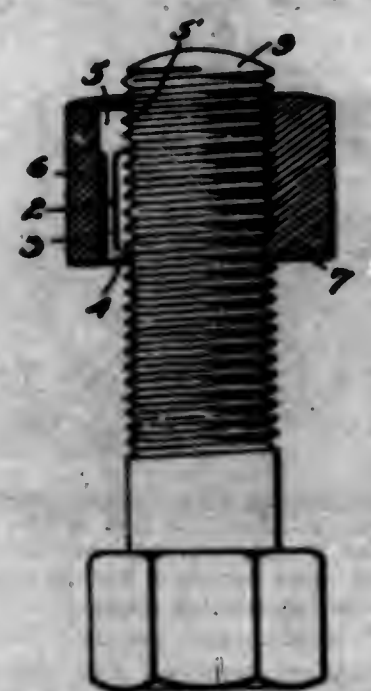
In a crib of the class described, a frame element, a sliding side element, and means for latching said frame and side comprising a normally vertical pivoted latch on one of said elements and means on the other element adapted to coact with said latch, said latch being movable for disengagement, and means on the latch for moving the coacting means for engagement.

1,306,599. PUMP-SUPPORTING BRACKET. GEORGE F. LAWRENCE and JONAS W. LAWRENCE, Uniontown, Kans. Filed June 20, 1918. Serial No. 240,994. 1 Claim. (Cl. 248—20.)



A device for supporting a pump upon the chassis of an automobile, comprising a horizontally disposed plate, with an upwardly and inwardly extending inverted L-shaped flange at one end, with integral bracket arms upon the angled end thereof designed to support the pump, and inclined bracket arms at one end thereof forming support for a bearing.

1,306,600. BOLT AND NUT LOCK. WILLIAM DUDLEY LEE, Oakland, Calif. Filed July 27, 1917. Serial No. 183,141. 5 Claims. (Cl. 151—25.)



1. In a device for locking nuts or bolts, a flexible key having a stock portion mounted in the nut or bolt, and having a locking member in the line of its thread adapted to yieldingly engage the body surface between the threads of a complementary part and permit easily relative movement in one direction and cut into the body surface to lock the parts normally against opposite or separating movement but permitting the parts to be separated upon application of sufficient force to overcome the cutting resistance without destroying the threads.

1,306,601. POT FOR USE IN ANNEALING AND CARBONIZING METALS. JOSEPH G. MCCABER, Rockford, Ill. Filed Feb. 12, 1919. Serial No. 276,655. 1 Claim. (Cl. 268—49.)



An annealing pot comprising a cylindrical steel shell, and a cast iron bottom piece provided with a dovetail groove into which the lower end of the shell is forced thus

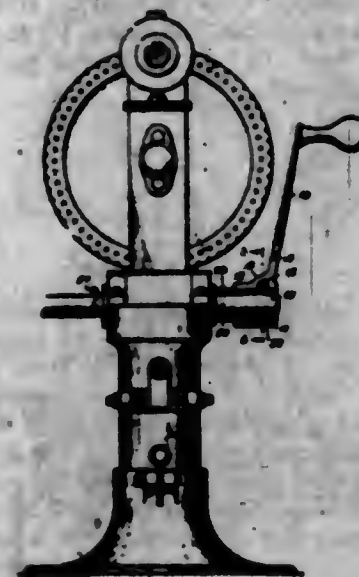
firmly connecting the two, the said bottom piece being also provided with downwardly projecting legs serving to hold the bottom of the pot above the supporting platform, and with a central leg serving to prevent the sagging down of the center of the bottom piece when highly heated, substantially as and for the purposes described.

1,306,602. PROCESS OF RETREADING TIRES. FRED E. McEWAN, Chicago, Ill., assignor to Solomon H. Goldberg, Chicago, Ill. Filed Dec. 9, 1918. Serial No. 265,839. 4 Claims. (Cl. 184—14.)



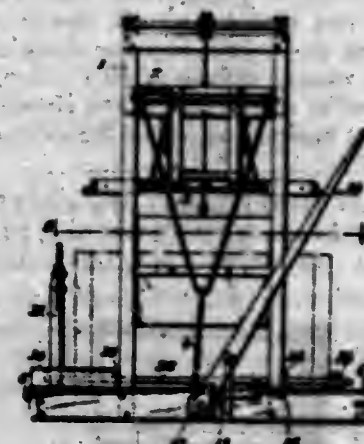
1. The described process comprising removing the tread portions from the carcass and smoothing the periphery of the carcass, then applying to the peripheral surface of the carcass one or more coats of a rubber solution containing a curing ingredient, then applying to said surface a strip of material formed of pure gum stock having a fabric breaker strip embedded therein throughout the middle portion of the same, then applying the main tread strip formed of tread stock with a coating of rubber solution containing a vulcanizing ingredient between the opposing surfaces of the main tread strip and said pure gum strip, suitably binding the parts together for holding them in the desired form during vulcanization and then curing the built-up article on an air bag in a dry air heater containing a vulcanizing agent in solution.

1,306,603. SLIP-CRANK. WILLIAM FREDERICK MANORLS, Brooklyn, N. Y. Original application filed Apr. 2, 1918, Serial No. 226,222. Divided and this application filed June 8, 1918. Serial No. 239,023. 2 Claims. (Cl. 74—83.)



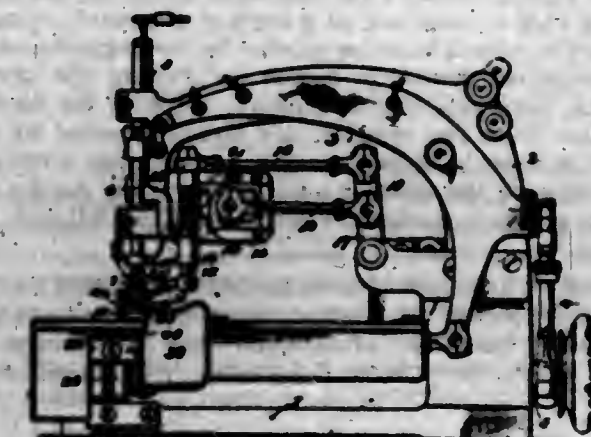
1. In a slip crank, a handle provided with a tubular slip member adapted to be engaged with either end of a shaft to be turned, the said member being provided with lips disposed approximately diametrically opposite each other, and cam faces on the sleeve extending from the said lips toward each other.

1,306,604. TOBACCO-PRESS. SIMON B. MINNICH, Landisville, Pa., assignor to Mary C. Minnich, Landisville, Pa. Filed Mar. 3, 1917. Serial No. 162,906. 19 Claims. (Cl. 100—57.)



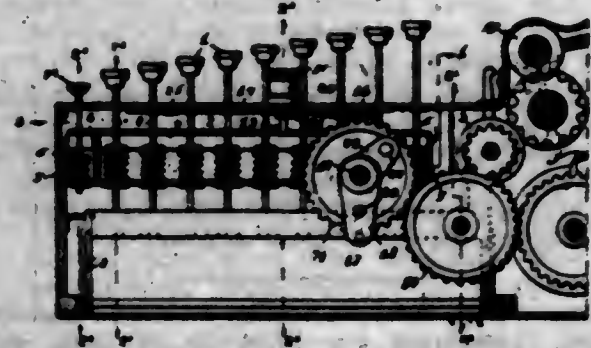
1. In a tobacco press, an expansible plunger adjustable to receptacles of various sizes, and an adjustable gage adapted to hold a receptacle in alignment with the path of travel of the plunger.

1,306,605. SEWING-MACHINE. JAMES R. MOWATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 14, 1913. Serial No. 767,009. 7 Claims. (Cl. 112—24.)



1. The combination of stitch-forming mechanism including spaced needles and devices for laying connecting loops between the needles, of a trimming mechanism having a trimmer blade located beneath the work support and projecting above and overhanging the work support directly in front of said needles, a presser foot, an edging guide carried by the presser foot and located directly above the trimmer blade, whereby an edging may be guided to the stitching mechanism in rear of the trimming point.

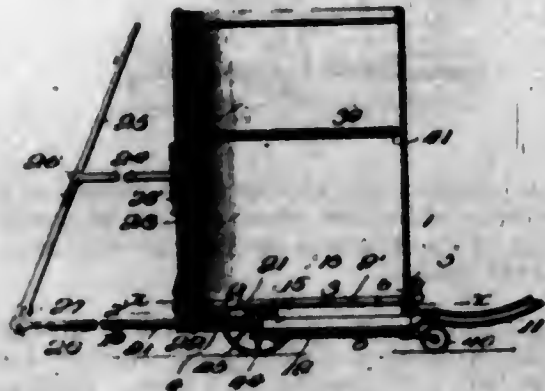
1,306,606. CALCULATING-MACHINE. JAY R. MONROE, New York, N. Y., assignor to Monroe Calculating Machine Company, New York, N. Y., a Corporation of New York. Filed Aug. 3, 1914. Serial No. 854,687. 6 Claims. (Cl. 235—79.)



1. In a calculating machine, spring retracted numeral keys, means for retaining said keys in depressed position,

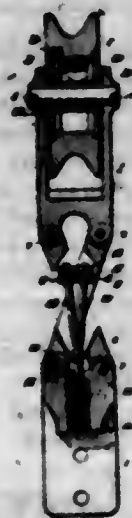
selecting elements movable to set up position upon depression of said keys, registering mechanism, means for actuating said registering mechanism in one direction for one problem and in a reverse direction for another problem including an operating device movable from normal position in either of two directions, and means cooperating with said operating device and capable of moving said retaining means to release said keys only after the actuation of said registering mechanism in the movement of said device from normal position in either direction.

1,306,607. GREASE-DISPENSING APPARATUS. JAMES H. MORGAN, Butte, Mont. Filed Aug. 23, 1916. Serial No. 116,480. 13 Claims. (Cl. 221-102.)



1. In an apparatus of the character described, the combination with a receptacle, of a support detachably secured to the receptacle, a cylinder carried by the support and in communication therewith, means for forcing the grease from the receptacle to the cylinder, a piston for forcing the forward movement of the piston for closing the communication between the cylinder and the receptacle during the time the piston is forcing the grease from the cylinder.

1,306,608. TROLLEY FOR ELECTRIC RAILWAYS. EDWIN EARL MOORE, Middleport, Ohio, assignor of one-half to Marvin De Maine, Middleport, Ohio. Filed May 26, 1918. Serial No. 236,599. 2 Claims. (Cl. 64-70.)



2. A trolley harp comprising lower and upper members, crossed links connecting said members and pivotally connected thereto and tensioning means acting on said links to normally hold said members in vertical alignment and permit said upper member to move transversely under side stress independently of the lower member.

1,306,609. ROOF FOR VEHICLE-BODIES. HARRY G. MOORE, Philadelphia, Pa. Filed Oct. 22, 1918. Serial No. 259,245. 9 Claims. (Cl. 21-62.)

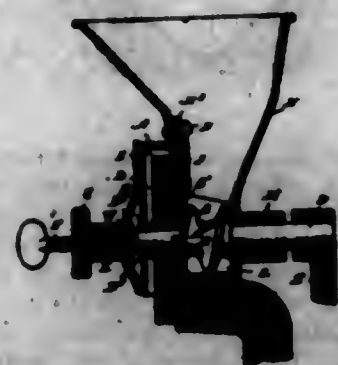
1. A vehicle-body top having a supporting frame and also having sets of strips connected at their ends with

said frame; the intermediate portions of one set of strips overlying the strips of the other set and disposed at angles



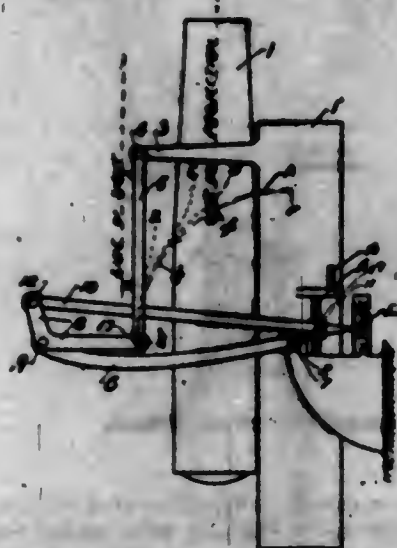
thereto, with the opposed intermediate portions of the strips disconnected and free to play each relative to the other.

1,306,610. GRINDING-MILL. CHARLES MORGAN, Freeport, Ill., assignor to Arcade Manufacturing Company, Freeport, Ill., a Corporation of Illinois. Filed June 7, 1918. Serial No. 238,674. 3 Claims. (Cl. 52-8.)



1. The combination with a casing and a grinding disk fixed thereto and having a large central opening, of a shaft extending through said opening and provided with a circumferential shoulder and with two sets of rigid radially projecting lugs in different planes transverse to the shaft, a co-acting grinding disk upon the shaft, having on one face a central projection abutting said shoulder and engaging one set of lugs to prevent rotation with respect to the shaft and having on the opposite face a corresponding recess, and a shaft-encircling sleeve grooved to slide over the outer set of lugs upon the shaft, resting against the bottom of said recess, and adapted to rotate and thus engage behind said lugs.

1,306,611. SIGHT-CONTROLLING LINKAGE FOR ANTI-AIRCRAFT GUNS. ROBERT V. MOORE, Ithaca, N. Y. Filed Sept. 13, 1917. Serial No. 191,270. 4 Claims. (Cl. 32-48.)



1. In a sight controlling device for anti-aircraft guns, the combination of a bell crank, a fixed pivot, a link piv-

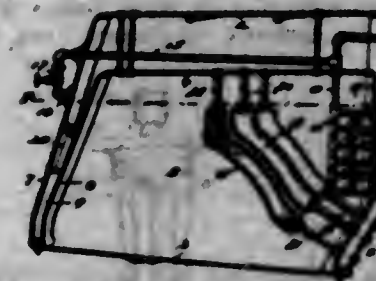
otally attached to the bell crank at one end, the other end of the link being attached to the fixed pivot, an adjustable pivot, a second link pivotally attached to the bell crank, the other end of said second link being attached to the adjustable pivot, a pivotal support attached to a part that moves with the vertical angular movements of the gun, a bar pivotally attached to the bell crank at one end and to said pivotal support at the other end and controlling the line of sight, and means for setting the adjustable pivot of the second link.

1,306,612. FIREPLACE-LINING. JOHN T. NELSON, Berclair, Miss., assignor of one-fourth to James L. Lacy, Greenwood, Miss. Filed Dec. 2, 1916. Serial No. 184,001. 1 Claim. (Cl. 124-130.)



A removable lining for fire places comprising a pair of side walls, a rear wall lying within the planes of the side walls and having its opposite vertical edges bent rearwardly and then forwardly to provide hooks for engaging over the rear vertical edges of the side walls, so as to connect the rear and side walls together, said hooks also forming means for engaging the rear wall of the fire place to space the lining from the rear wall of the fire place, the front vertical edges of the side walls being bent inwardly and then outwardly to provide hooks, and an inverted U-shaped frame having the inner side edges thereof slidably engaging the hooks of the side walls and serving to space the side walls of the lining from the side walls of the fire place and having its uprights extending outwardly from the side walls and bearing against the outer surface of the fire place, as and for the purpose specified.

1,306,613. STEAM-BOILER. JAMES S. NICHOLS, Atlanta, Ga. Filed May 22, 1916. Serial No. 29,883. 2 Claims. (Cl. 122-65.)

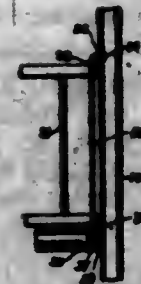


1. In a steam boiler having a fire-box, the combination of a superheater in the forward portion of the fire-box, and a water wall in the fire-box in rear of the superheater comprising a plurality of rows of transversely spaced hollow units forming interstices between them for the passage of the gases and having their tops and bottoms connected to the water space of the boiler, spaces being formed between the sides of the water wall and the adjacent sides of the fire-box for the passage of gases to the superheater.

1,306,614. ADJUSTABLE BED. MAX MOWAT, New York, N. Y. Filed Mar. 12, 1919. Serial No. 268,060. 1 Claim. (Cl. 5-23.)

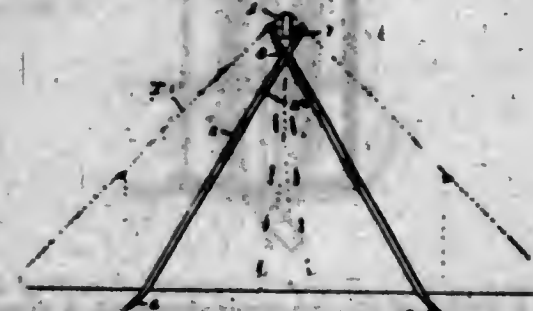
In a bedstead of the character set forth, the combination with a pair of corner posts on the same side of the

bed each having near its upper end a keyhole slot, of a spring frame supported upon said posts, the head and foot ends of the spring frame having vertical holes, verti-



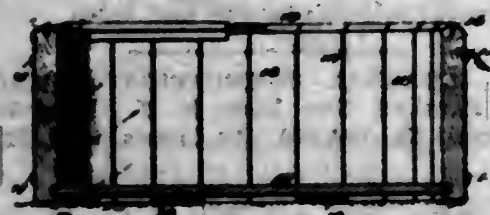
cal rods having bent shoulders and heads projected inward through said keyhole slots and having their lower ends fitted in said holes, and a drop side panel having slidable engagement with said vertical rods.

1,306,615. FOLDING TENT-FRAME. MICHAEL OSTROSKI, Coniston, Ontario, Canada. Filed Feb. 14, 1918. Serial No. 217,284. 3 Claims. (Cl. 185-4.)



1. A folding tent frame including a ridge pole, and frames formed of props which are pivotally connected at their upper ends and adapted to be swung apart at their lower ends, the upper ends of the props being extended beyond the pivotal connection to provide crutches when the props are swung apart, and triangular blocks fitted in the crutches and recessed at their edges to interlock with the sides of the crutch, said blocks being formed with seats for the reception of the ridge pole.

1,306,616. WOOD TANK. WILLIAM H. PANTON, Lincoln, Neb. Filed Jan. 21, 1916. Serial No. 214,700. 1 Claim. (Cl. 217-72.)



A receptacle having an open top and including a plurality of straight vertical staves arranged edge to edge in substantially circular form and having their upper ends inclined in opposite directions from the medial line thereof and their lower ends flat, a substantially circular bottom section spaced upwardly from the flat lower ends of the staves and fitting in a channel formed directly in the inner faces of said staves, yieldable packing strips interposed between the staves and of the same size as and conforming to the shape of said staves and having their inner edges notched to accommodate the bottom section, said packing strips being solid throughout their entire area and extended continuously from the inner to the outer face of the receptacle, binding elements embedded in the upper ends of the staves at the junction of the inclined faces thereof and connecting adjacent staves, and a cover of impervious material extending around the upper edge of the receptacle and having oppositely disposed

depending flanges engaging the inner and outer faces of the receptacle and the adjacent edges of the packing strips, said cover forming a housing for the upper ends of the staves and packing strips and serving to prevent vertical displacement of the binding elements.

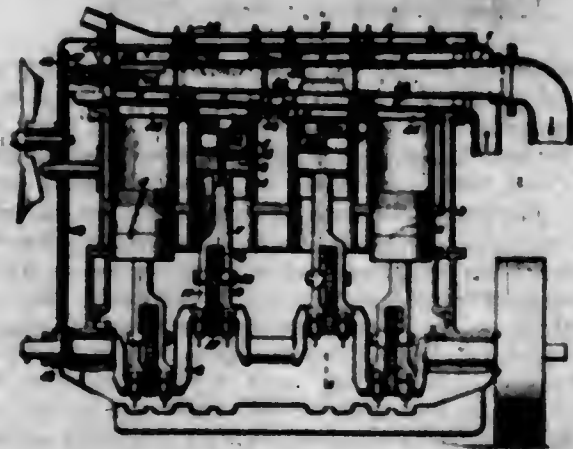
1,306,617. FIRE-EXTINGUISHER. DUNCAN W. PATTERSON, Philadelphia, Pa., assignor to Foamite Fire-foam Company, New York, N. Y., a Corporation of Delaware. Filed May 16, 1916, Serial No. 97,814. Renewed Apr. 29, 1919. Serial No. 293,558. 8 Claims. (Cl. 169-7.)



1. In a device of the character described, a plurality of adjacent solution tanks, contiguous walls of said tanks being recessed to form a mixing chamber, and said chamber having an outlet, a valve for establishing and closing communication between each solution tank and said mixing chamber, and a pump for supplying the contents of said tanks to said mixing chamber.

2. In a device of the character described, a plurality of solution tanks having each an outlet and an air port, a mixing chamber having inlets, a discharge pipe communicating with said mixing chamber, a pump adjacent said solution tanks, a rotatable disk valve having a series of passages for establishing communication between said outlets of said solution tanks and the inlets of said mixing chamber and between said pump and the ports of said solution tanks, a handle for manipulating said pump and controlling said valve, and a locking ring for regulating the movement of said handle and said valve.

1,306,618. INTERNAL-COMBUSTION ENGINE. OCTAVE S. PAYEANT, New York, N. Y. Filed June 19, 1916. Serial No. 104,476. 10 Claims. (Cl. 123-59.)



1. In an internal combustion engine, a plurality of cylinders, a head extending across the end of all of said cylinders, said head having a tapering bore, and a port

for each of said cylinders, a combined valve and inlet and outlet manifold arranged in said bore and divided into an independent drum or section for each of said cylinders, and springs for causing an independent and automatic adjustment of said drums as they wear and also as they expand and contract.

1,306,619. UPHOLSTERED SEAT STRUCTURE. HAZEL N. PEDERSEN, Racine, Wis. Filed Nov. 21, 1917. Serial No. 203,156. 15 Claims. (Cl. 153-25.)



1. In spring seat construction, a depending seat supporting and cover apron clamping bottom rim comprising a pair of longitudinally channelled and flanged complementary members, the flange of one member arranged to clamp the apron in the channel of the other member, and the flange of said other member arranged to form an exterior outwardly projecting apron guard.

1,306,620. COMPACTING APPARATUS. JOHN C. FETTER, San Francisco, Calif. Filed Sept. 11, 1918. Serial No. 253,511. 4 Claims. (Cl. 25-41.)



1. In an apparatus of the class described, a fluid supported mold form, and means for imparting motion thereto.

1,306,621. PUMP AND STRAINER THEREFOR. OTTO F. PRUSSON, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Dec. 5, 1918. Serial No. 205,404. 5 Claims. (Cl. 103-64.)



4. The combination with a pump having a bottom with a suction opening therein, of a strainer having a discharge opening, one of said openings being surrounded by a rounded boss which fits into the other opening, a member projecting from the pump casing between which and the strainer there are two points of contact, means forming knobs on the pump casing, and a spring carried by the strainer and detachably engaging said knobs to hold the strainer in position on the pump.

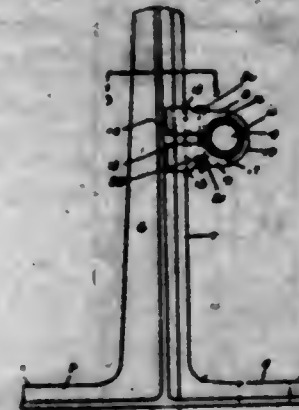
5. The combination with a pump having a section opening in its bottom and an inclined surface with a holding means thereon, of a strainer adapted to engage the bottom of the pump, and a U-shaped holding spring which is carried by the strainer and is adapted to slide up said inclined surface into engagement with said holding means.

1,306,622. SADDLE. CHARLES A. PERSONS, Worcester, Mass. Filed Jan. 22, 1917. Serial No. 143,618. 2 Claims. (Cl. 206-15.)



2. In a saddle of the character described, the combination with a seat, a cantle plate for said seat and a supporting truss, of two vertically arranged torsion springs each having two legs extending forwardly beyond the coiled portion of the spring, the legs of each of said springs being secured, respectively, to said truss and cantle plate, two coiled tension springs supported at their upper ends by said truss, and a U-shaped bridge member secured to said cantle plate and having the lower ends of its legs secured, respectively, to the lower ends of said tension springs.

1,306,623. SHAFT-HANGER. CHESTER R. PIERCE, La Crosse, Wis., assignor to Gund Manufacturing Company, La Crosse, Wis., a Corporation of Wisconsin. Filed July 1, 1918. Serial No. 242,913. 3 Claims. (Cl. 64-14.)



1. In a shaft hanger the combination of a base having slotted mounting holes therein, a pedestal extending from said base of general cross shaped section and having a rib extending along one of its edges, a bearing support clamp having a reversed C shaped extension to engage over said rib and be slidably adjustable thereon, and means for locking said clamp at any desired position on said rib.

1,306,624. ELECTRICAL MEASURING INSTRUMENT. WILLARD E. PORTER and ALVARADO L. E. BELLER, Lynn, Mass., assignors to General Electric Company, a Corporation of New York. Filed Nov. 12, 1917. Serial No. 201,618. 5 Claims. (Cl. 171-96.)

5. An electrical measuring instrument comprising a permanent magnet, spherical magnetic pole pieces secured to the ends of said magnet, a spherical magnetic core mounted between said pole pieces and separated therefrom by a substantially spherical air gap, the center of curvature of said pole pieces being slightly dis-

placed from the center of curvature of said core so that said air gap is slightly wider opposite the centers of the



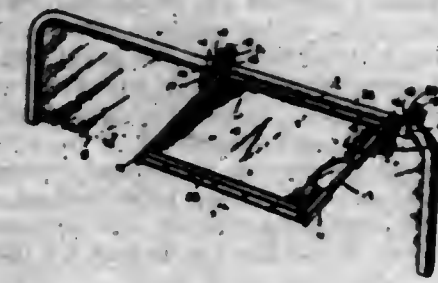
pole pieces than elsewhere, and a circular electric current carrying coil movably mounted in said air gap.

1,306,625. DYNAMO-ELECTRIC MACHINE. EDWARD D. PRINCE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 1, 1917. Serial No. 172,294. 5 Claims. (Cl. 171-206.)



2. In a dynamo electric machine, a core member provided with slots, coils therefor comprising a plurality of conductors, two sides only of the portions of each of said conductors which are located in the core slots being flattened, said flattened sides extending in the general direction of the radii of the core member.

1,306,626. GLARE-SHIELD. OLNEY REDMOND, Schenectady, N. Y. Filed Mar. 17, 1916. Serial No. 84,961. 3 Claims. (Cl. 21-148.)



1. In a device of the character described for attachment to a windshield, the combination of a frame comprising two brackets each perforated near one end, a translucent sheet adapted to intercept glare and secured to said frame, two clamping jaws each having a clamping face with a post projecting perpendicularly from said face and a flat perforated lug projecting from the back of said jaw perpendicularly to the plane of said face, two cooperating jaws movable along said posts, means for holding said latter jaws in clamping relation to said clamping faces, and bolts extending through said perforated lugs and the perforated ends of said brackets to clamp said brackets to said lugs and hold said frame projecting downward and in front of the windshield with said sheet in the field of view of the driver.

1,306,627. ORNAMENTAL ARTICLE. HERMAN RIER, New York, N. Y. Filed Oct. 21, 1918. Serial No. 258,965. 3 Claims. (Cl. 2-150.)

1. An ornamental article of manufacture, including a backing, an embossed design-producing member on the

backing having a marginal attaching flange bearing on the backing, and bending extending along the margin of said



member and laying on the flange and secured therewith to the backing.

1,306,628. BOILER-FURNACE. THOMAS J. ROBINSON, Chicago, Ill. Filed Mar. 6, 1917. Serial No. 182,063. 2 Claims. (Cl. 110-93.)



1. In a boiler, a furnace having a grate, said furnace having side walls consisting of water legs rising from the sides of the grate, hollow nipples secured to the inner walls of the water legs above the grate and between its ends and communicating with the interior of the water legs, enlarged caps closing the inner ends of said nipples, a fire brick arch composed of a plurality of bricks, the end bricks having shouldered recesses interlocking with said caps and being supported on said nipples, and a baffle wall supported on said arch and rising to the crown sheet of the furnace as and for the purpose specified.

1,306,629. DISK-SCRAPER. ALBERT A. ROBINSON, Estlin, Saskatchewan, Canada. Filed Oct. 16, 1918. Serial No. 238,420. 3 Claims. (Cl. 97-79.)



1. A scraper attachment for plows, including a scraper blade having a shank adapted to be pivotally mounted on a plow to position said blade for scraping, a counter-balance element, means to pivotally mount said element and

shank, and means on said element to engage said shank and subject the scraper to the weight of said element to hold the scraper blade to its work.

1,306,630. SHOE-BEATING MACHINE. ALBERT K. ROBERTS, Middleboro, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed July 26, 1918. Serial No. 246,679. 6 Claims. (Cl. 12-47.2.)



1. A shoe beating machine, having, in combination, a guide for the shoe and a beating device constructed and arranged to turn the marginal portion of the upper projecting beyond the insole inwardly over the lip of the insole and to beat the same down against the body of the insole.

1,306,631. RECORDING DEVICE. ROBERT H. ROBERTS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 14, 1918. Serial No. 114,927. 5 Claims. (Cl. 234-1.5.)



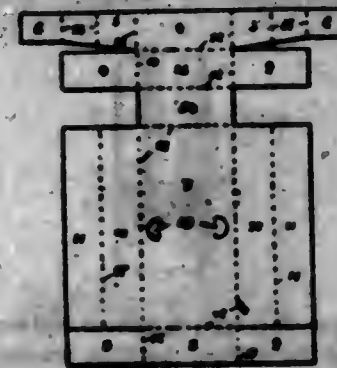
1. A recording device adapted for use with a strip of a thermally sensitive material, comprising the combination of a wire stylus, a holder therefor having a sharp edge engaging with said wire to present substantially a point contact with the strip on which a record is to be made, means for heating said stylus independently of said strip, and means for producing relative motion between said strip and said stylus.

4. A stylus for making a record upon a thermally sensitive material comprising a resilient holder, a heater wire held in a taut condition by said holder and a bridge of insulating material for maintaining one section of said wire bent at an angle.

1,306,632. DISPLAY-RECEPTACLE. BENJAMIN ROBERTSON, Brooklyn, N. Y. Filed May 2, 1918. Serial No. 232,574. 6 Claims. (Cl. 246-44.)

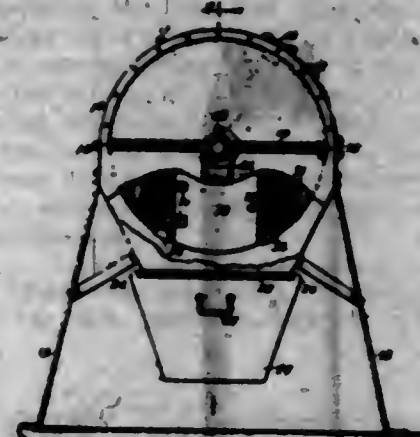
1. A receptacle comprising a body and a member movably connected to one end thereof and having internal extensions, said extensions being bent with respect to said

member and united at their ends, said extensions also being capable of being collapsed against said body, and of



being disposed under the body and expanded to enable said body to rest on same.

1,306,633. ASH-SIFTER. JOSEPH ROSEN, Pittsburgh, N. J. Filed May 2, 1918. Serial No. 232,873. 2 Claims. (Cl. 83-60.)



1. In an ash sifter, a drum comprising solid heads, a perforated rim having an opening closed by a door, and a shaft upon which the drum is mounted, said shaft having a crank at one end and a handle at the other end.

1,306,634. MILKING-MACHINE. CHARLES K. BALISNAY, Milwaukee, Wis., assignor of one-half to George Barber and one-half to Josephine A. Harbaugh, Milwaukee, Wis. Filed Aug. 27, 1917. Serial No. 188,457. 13 Claims. (Cl. 31-98.)

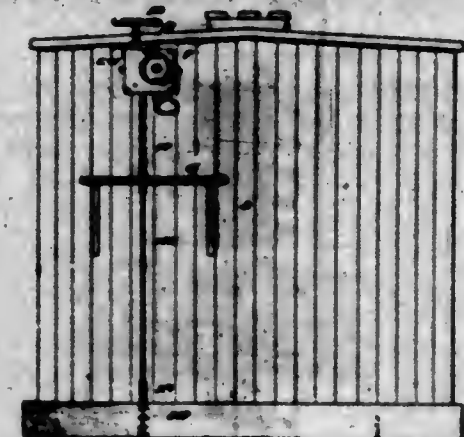


1. A milking machine comprising a milk chamber having a pump connection at its upper end and a teat cup connection at its side, and a valve seated on the lower end of the milk chamber and having a plunger working in the milk chamber between the pump connection and the teat cup connection and having the same amount of clearance from the walls of the milk chamber in all operative positions thereof.

1,306,635. RAILWAY HAND-BRAKE. WILLIAM H. SAUVAGE, Flushing, N. Y., assignor, by direct and mesne assignments, to The Atlantic Hand Brake Corporation, Buffalo, N. Y. Filed Mar. 20, 1918. Serial No. 223,580. 8 Claims. (Cl. 186-58.)

1. In a brake mechanism for railway cars, in combination, a casing adapted to be secured to the end wall of the car having a slot along one side and a removable wall to permit access to the interior thereof, an operating shaft pivoted at one end within the casing and projecting through the slot having a lateral movement therein, a worm on said shaft, a worm gear with which said worm normally meshes, a drum connected with said

worm gear, a chain passing about said drum, quick take up means connected with one end of said chain and brake mechanism connected with the other, and means normally holding said worm and gear in mesh but permitting an unmeshing thereof whereby the brakes may be quickly released or the slack taken up by operation of said take up means.



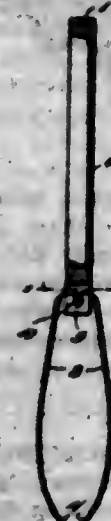
2. In a brake mechanism of the character described, in combination, an operating shaft and operated shaft, worm and gear connections therebetween, means for rotating the operating shaft, means for transmitting the power from the operated shaft, means permitting instant unmeshing of the worm and gear whereby a quick release of the brakes may take place and means connected with the operated shaft whereby it may be manually operated to quickly take up the excess slack in the brake rigging.

1,306,636. ABRASIVE WIRE ROPE. GEORGE MAY SELAY, Millwall, London, England. Filed June 18, 1918. Serial No. 240,000. 5 Claims. (Cl. 125-12.)



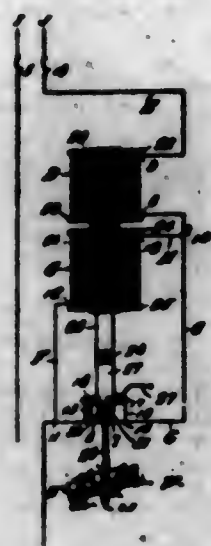
1. A rope strand comprising a plurality of alivers twisted in one direction, and an abrasive cord incorporated in the surface of the strand and projecting slightly beyond the surface of the latter, said abrasive cord comprising alivers twisted together in a direction opposite to the twist of the strand alivers, and being laid in the strand in accordance with the twist of the latter.

1,306,637. CARBON-REMOVING MEANS FOR INTERNAL-COMBUSTION ENGINES. HOWARD S. SHAVER, Nazareth, Pa. Filed Mar. 11, 1918. Serial No. 221,571. 2 Claims. (Cl. 51-2.)



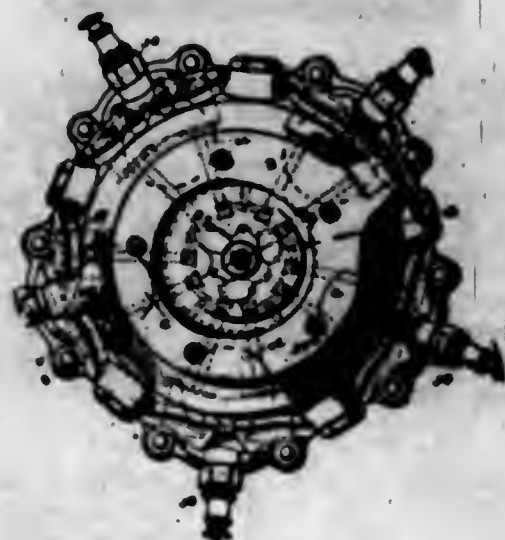
1. A tool for removing small bodies of metal from engine cylinders comprising a magnet insertible into the cylinder, and a finger carried by said magnet for moving said bodies of metal into the active field thereof.

1,306,636. CIRCUIT-CONTROLLING DEVICE. ROBERT S. SHAW, Port Hope, Ontario, Canada. Filed Mar. 16, 1918. Serial No. 222,940. 1 Claim. (Cl. 175-206.)



An electric switch comprising separable contacts normally engaging, a stationary carbon contact, a movable carbon contact normally engaging the stationary contact, solenoids, a plunger carried by the solenoids, and an insulating shield carried by the plunger, said shield, when raised, initially separating the separable contacts to shunt the current through the carbon contacts and then raise the movable carbon contact to break the circuit.

1,306,639. INTERNAL-COMBUSTION ENGINE. JOSEPH C. BOMMER, Newark, N. J. Filed Apr. 1, 1918. Serial No. 226,073. 8 Claims. (Cl. 123-58.)



1. In an engine of the class described, the combination of a plurality of cylinders, a shaft, pistons in the cylinders, connections between the shaft and the pistons, inlet and exhaust valves for each cylinder, means connecting the exhaust valve of one cylinder and the inlet valve of the adjacent cylinder, valve actuating means on the shaft for opening the valves, and means for closing the valves.

1,306,640. SELF-LUBRICATING PISTON FOR AIR-PUMPS. PHILIP H. STAPLEY, Milford, Conn., assignor to Coe, Stapley Manufacturing Corporation, Bridgeport, Conn., a Corporation of Connecticut. Filed Mar. 10, 1919. Serial No. 281,662. 5 Claims. (Cl. 108-63.)

3. A self lubricating piston comprising a piston rod having a shoulder, a metallic washer resting against the shoulder,

der, a second metallic washer, a flexible piston washer lying between said metallic washers, a ring shaped grease



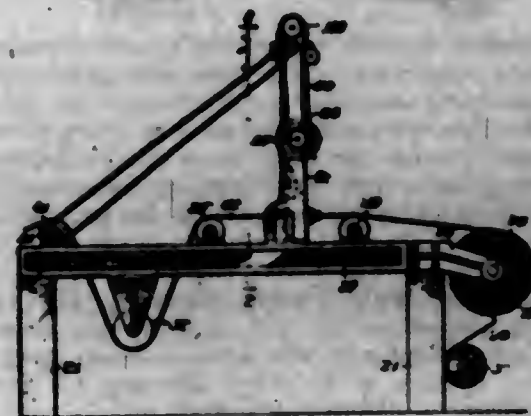
cake, a basket therefor, and a spacer between the bottom of the basket and the second metallic washer.

1,306,641. GAS-SHELL AND THE LIKE. CHRISTIAN BRAUNSTRAUP, Schoenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 18, 1918. Serial No. 240,191. 5 Claims. (Cl. 220-39.)



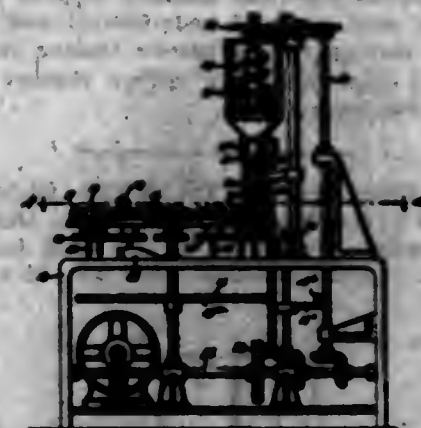
1. A metal gas shell having a smooth walled mouth in combination with a metal plug for closing said mouth which is adapted to be forced into said mouth by heavy radwise pressure, said plug having a plurality of continuous parallel projections, the edges of which are in firm frictional engagement with said wall.

1,306,642. HELVAGE-TRIMMER. WILLIAM C. STEVENS, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed June 5, 1914. Serial No. 848,123. 23 Claims. (Cl. 164-61.)



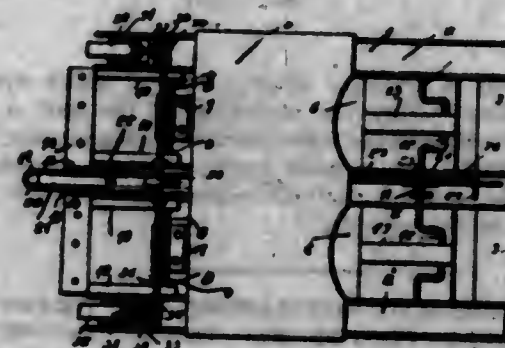
1. In a machine of the character described, the combination of means to support the fabric, a cutter adapted to sever the edge portion of the fabric, a gage adapted to travel on the edge of the fabric, and means tending to press said gage and cutter toward the fabric, substantially as described.

1,306,643. APPARATUS FOR BASING INCANDESCENT LAMPS. ALFRED SWAN, Montclair, N. J., assignor to General Electric Company, a Corporation of New York. Filed June 20, 1917. Serial No. 173,998. 10 Claims. (Cl. 18-5.)



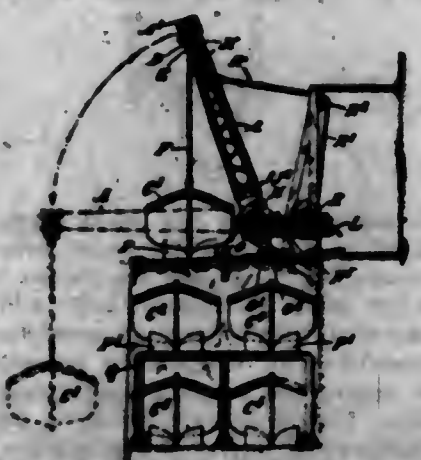
1. In a device of the character described, the combination of a holder for a tubular base, a feeding device constructed to discharge cement radially of the base held in said holder, and driving mechanism for moving said holder and said device relatively to each other to introduce said device into the base in said holder and to cause said base and said device to make one complete rotation relatively to each other while said device is applying cement to the inner wall of the base.

1,306,644. TRACTOR. ARMAND A. TIEBIS, Omaha, Nebr. Filed May 18, 1918. Serial No. 235,323. 4 Claims. (Cl. 180-8.)



1. A tractor comprising a frame, steppers connected to said frame, means actuating said steppers to move the frame forwardly, and an equalizer connected to the frame and to the device being moved by the tractor for giving an even pull thereon.

1,306,645. BOAT-LOWERING GEAR. GNORON TONNIE, Seven Kings, England. Filed Nov. 20, 1918. Serial No. 263,962. 5 Claims. (Cl. 9-22.)



1. In a boat-davit, the combination of a post which has a T-head and is pivoted near its lower end to the ship op-

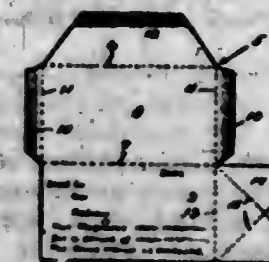
posite the middle of the length of the boat or boats which it commands, the T of its head and also the davit pivot being parallel to the said boat or boats, two fore and aft pivotal supports journaled one in each end of the T-head with their axes parallel to the axis of the davit pivot, and two sheaves rotatably mounted one in each of said supports, the center of support of each sheave being located below the axis of rotation of its pivotal support in the T-head.

1,306,646. CLEANER FOR OFFSET-WINDING DRUMS OF PRINTING-PRESSES. JAMES M. TARR, New York, N. Y. Filed Sept. 14, 1918. Serial No. 254,000. 11 Claims. (Cl. 101-423.)



2. A cleaner as characterized comprising a scraper; a carrier for said scraper, said carrier being disposed between and in supported relation to the rollers of a printing press for supporting the offset-wind-drum; and means for reciprocating said carrier lengthwise between said rollers.

1,306,647. LETTER-SHEET, ENVELOPE, AND COIN-HOLDER. AUGUST W. WALLNUTH, Elgin, Ill. Filed Aug. 14, 1918. Serial No. 249,889. 1 Claim. (Cl. 229-72.)

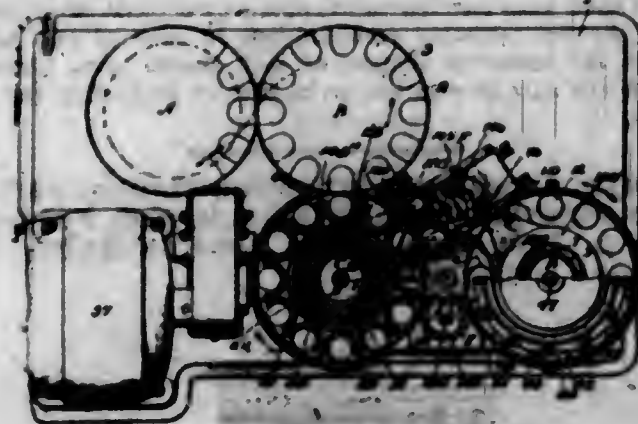


A device of the character described comprising a sheet of material transversely scored to provide a plurality of panels and a flap, the panel opposite the flap being longer than the other panel, the panel adjacent said flap being scored at right angles to said first named lines of scoring to produce end flaps, the other of said panels being scored at one side in alignment with one of said second named lines of scoring to provide an auxiliary panel disposed at one side of the second named panel said auxiliary panel being scored along diagonally intersecting lines to provide flaps, said last named flaps being foldable one upon the other to provide a substantially triangular pocket, foldable laterally onto said second named panel, said second named panel being foldable onto said first named panel and said first and second named flaps being foldable onto said second named panel to provide a closure.

1,306,648. MULTIPLE-SPINDLE DOUBLE SEAMER. IVAN F. WARNE, Syracuse, N. Y., and JOHN C. TALLAFERRO, Baltimore, Md., assignors to Continental Can Company, Incorporated, Syracuse, N. Y., a Corporation of New York. Filed Sept. 19, 1916. Serial No. 862,626. 22 Claims. (Cl. 113-14.)

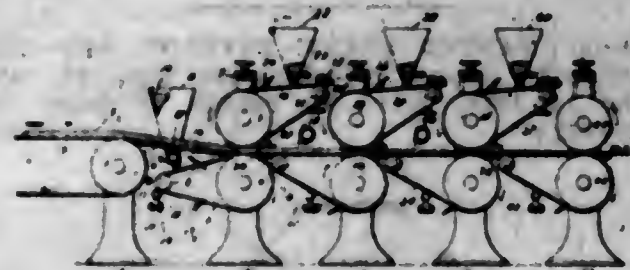
1. An end seaming machine including in combination a rotating carrier, a plurality of rotating chucks and cooperating can body supports, and means for placing a can end between each chuck and support as the carrier rotates, means for seating the can ends in the can bodies, the axes of said rotating chucks being substantially radially fixed relative to the axis of the carrier, a seaming member hav-

ing a wearing groove formed therein, said wearing member being set eccentrically to the axis of rotation of the car-



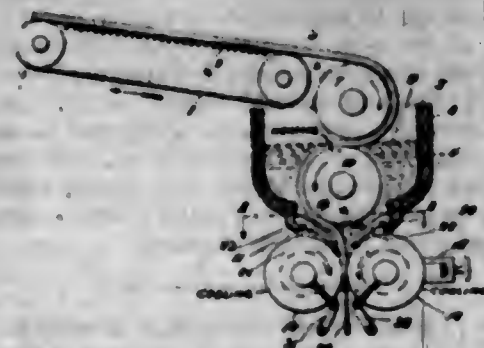
rier whereby the can ends are moved into and out of contact therewith as the carrier rotates.

1,306,049. MANUFACTURE OF SUBSTITUTE HIDE-LEATHER. EMIL WEINSTEIN, New York, N. Y. Filed May 20, 1918. Serial No. 235,445. 6 Claims. (Cl. 91-36.)



4. An apparatus for manufacturing substitute leather comprising means for forcing an impregnating dope, inwardly from both surfaces of a fabric substantially simultaneously; means for coagulating one surface of said so impregnated fabric; and means for making another application of dope to said so treated surface.

1,306,050. APPARATUS FOR IMPREGNATING FRAGILE FABRIC. EMIL WEINSTEIN, New York, N. Y. Filed July 10, 1918. Serial No. 244,137. 3 Claims. (Cl. 91-29.)



1. The continuous process of impregnating a trip of fragile non-self-sustaining body-fabric with a character converting dope comprising imparting a continuous substantially downward movement through a directly contacting bath of suitable dope having the quality of being relatively more fluid when heated; subjecting said bath of dope and said strip when passing down through said bath to the influence of heat; and subjecting said strip immediately upon its exit from said bath to horizontally applied pressure and surface chilling.

2. Apparatus for impregnating by continuous process a strip of fragile non-self-sustaining body-fabric, comprising a dope-tank having an exit opening at the bottom for said strip; a pair of laterally positioned cooling compression rollers forming part of a bottom closure to confine a suitable dope and adapted to pass downwardly therebetween said strip of body-fabric; and means for imparting a downward continuous feeding to said strip through said dope-tank into direct contact with said cooling compression rollers.

1,306,051. PROCESS OF DRAWING GLASS CYLINDERS. WILLIAM WOODMAN, Okmulgee, Okla., assignor to L. S. Shelton, Okmulgee, Okla. Filed Jan. 20, 1916. Serial No. 74,473. 1 Claim. (Cl. 48-42.1.)



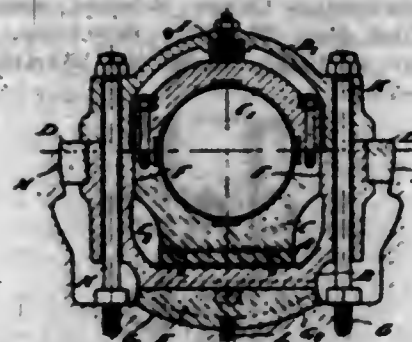
The method of drawing glass cylinders, which consists in maintaining during the elevation of the bait a complete air circuit within the cylinder being drawn, said circuit including downwardly and upwardly flowing air currents, the upward current coming into contact with the surface of the cylinder.

1,306,052. DRIVING MECHANISM FOR HEAVY MECHANICALLY-PROPELLED VEHICLES. WALTER GORDON WILSON, Farnborough, England. Filed Sept. 19, 1917. Serial No. 192,103. 3 Claims. (Cl. 190-17.)



1. In driving mechanism for heavy mechanically propelled vehicles of the type in which track chains or wheels in contact with ground are driven by independent mechanism from a common shaft, and each mechanism is provided with a pair of controllers, the combination comprising an independent operating lever for one of the controllers in each mechanism, a common operating lever for the other controllers, means connecting with the independent levers for producing independent or conjoint operation of the other controllers by the common lever, and means connecting the various levers to the controllers, substantially as described.

1,306,053. POWER-TRANSMISSION TOOTHED GEARING. BERNARD R. WINGFIELD, West Drayton, England. Filed June 5, 1918. Serial No. 238,349. 7 Claims. (Cl. 74-7.)



1. A bearing for supporting a driving or driven shaft, in which the bush of the bearing is formed with a flat bottom bearing face having on its underside a rounded projection that is supported on a diaphragm or spring plate, which is devoid of support in that portion on which the projection rests.

1,306,054. AUTOMATIC COUPLING. ARTHUR G. WOOD, Rockville, Ind. Filed June 8, 1918. Serial No. 238,912. 3 Claims. (Cl. 285-58.)



1. An air hose coupler comprising a pair of intercommunicating coupling members, each including a guard plate having a projecting pressure pin extending from one face thereof, each coupling member provided with a slot of greater depth at its open than at its closed end whereby the said pins may be received in the open ends of the slots and forced into the restricted ends thereof to press the said coupling members toward each other when the said pins are forced into the slots.

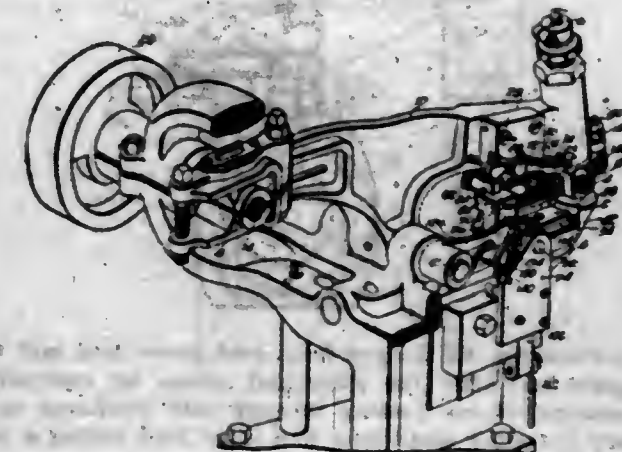
1,306,055. DECOY. LOUIS BACHO, Alexandria, La. Filed Feb. 3, 1917. Serial No. 146,373. 3 Claims. (Cl. 43-2.)



1. A decoy including a buoyant body and relatively soft flexible flanges shaped to resemble wings connected to the sides of the body and extensible when the body is placed in the water to prevent undue sidewise tipping of the body and being also collapsible against the sides of the body when the body is removed from the water.

263 O. G.—20

1,306,056. WELT-BEATING MACHINE. MICHAEL F. BACON, Lawrence, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed July 28, 1917. Serial No. 183,353. 21 Claims. (Cl. 12-67.2.)

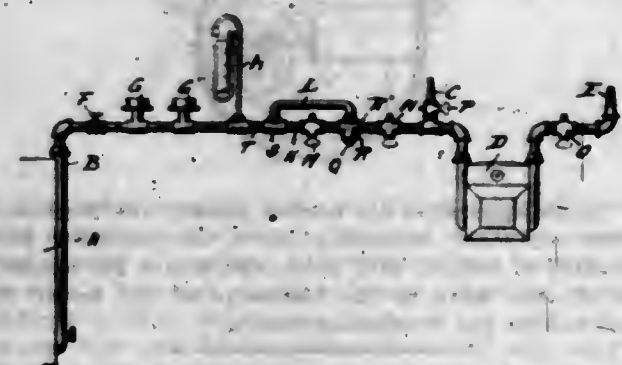


1. A welt beating machine, having in combination, a welt support, welt beating means, welt slashing means, and mechanism acting automatically after the welt slashing means is thrown into operation to cause the same to cut at least a predetermined number of slashes in the welt before it is thrown out of operation.

8. A welt beating machine, having in combination, a welt support, welt beating means, and a reciprocating welt slashing knife having an operative movement in a direction transverse to the plane of the welt.

12. A welt beating machine, having in combination, a welt support, welt beating means, a welt slashing knife, and means whereby the knife may be adjusted laterally.

1,306,057. MEANS FOR TESTING METERS. RICHARD LEE DEZENOUR, Richmond Hill, N. Y. Filed Apr. 8, 1916. Serial No. 89,754. 8 Claims. (Cl. 73-51.)

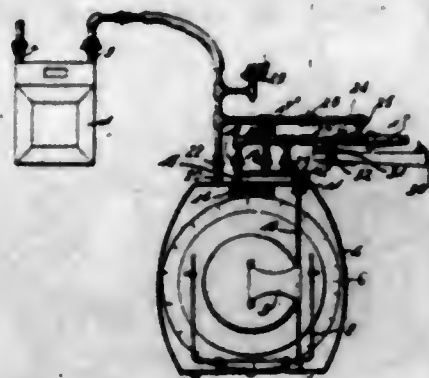


1. In an apparatus for testing gas meters in situ, the combination of a connection from the delivery port of the meter, a two-port discharge therefor, one port being calibrated to deliver gas constituting a definite small load upon the meter, the other port being calibrated to deliver a considerably larger amount of gas, means for closing said second port without closing the passage to said first port and controlling the flow of gas through both ports and means for burning the gas discharged during the test.

1,306,058. MEANS FOR TESTING GAS-METERS. RICHARD L. DEZENOUR, Richmond Hill, N. Y. Filed July 21, 1916. Serial No. 110,458. 12 Claims. (Cl. 73-51.)

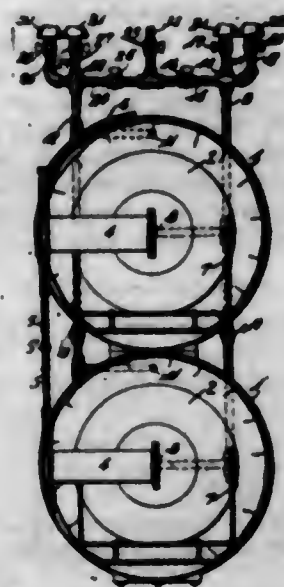
1. In a means for testing gas meters, the combination of a casing, flexible means dividing the interior of said casing into two separate chambers, so as to make it a double-chambered casing, an indicating device operated by said flexible means and having a to and fro movement, a discharge for gas from said chambers adapted to be con-

ected to and disconnected from either chamber, a supply pipe leading from the meter to be tested and adapted to be connected to and disconnected from either chamber, so



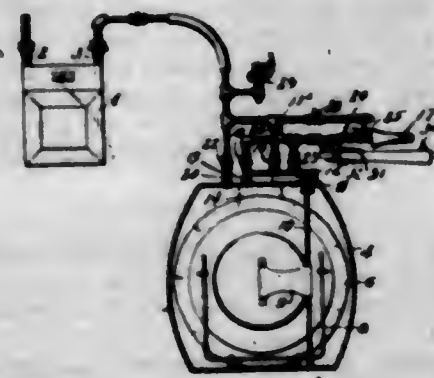
as to discharge all the gas from said meter into said two chambers one after the other and means for controlling the amount of gas passing through said discharge so as to vary it from a small load to a large load during a test.

1,306,659. MEANS FOR TESTING GAS-METERS. RICHARD LEE DEZENDORE, Richmond Hill, N. Y. Filed Nov. 9, 1916, Serial No. 130,318. Renewed Jan. 2, 1919. Serial No. 269,547. 8 Claims. (Cl. 73-1.)



1. In an apparatus for testing meters, the combination of two separable measuring units, an indicator jointly controlled by both of said units, and means for connecting both of said units to the discharge of the meter to be tested and to gas consuming means.

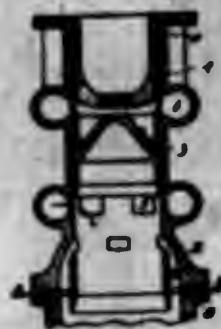
1,306,660. METHOD OF TESTING GAS-METERS. RICHARD LEE DEZENDORE, Richmond Hill, N. Y. Filed Dec. 8, 1916, Serial No. 135,875. Renewed Jan. 2, 1919. Serial No. 269,548. 5 Claims. (Cl. 73-51.)



1. The method of testing gas meters which consists in passing gas through the meter in situ during two periods, the gas during one period constituting a small load and the gas during the other period constituting a large load

and determining whether the total amount of gas passed from the beginning of the first period to the end of the last period corresponds to the amount indicated on the dial of the meter to be tested.

1,306,661. VALVELESS TWO-STROKE ENGINE. GASTON DOLNE-DUNAN, Cointe, Sclensta, near Liege, Belgium. Filed Nov. 22, 1912, Serial No. 72,300. Renewed Nov. 6, 1918. Serial No. 261,415. 6 Claims. (Cl. 123-78.)



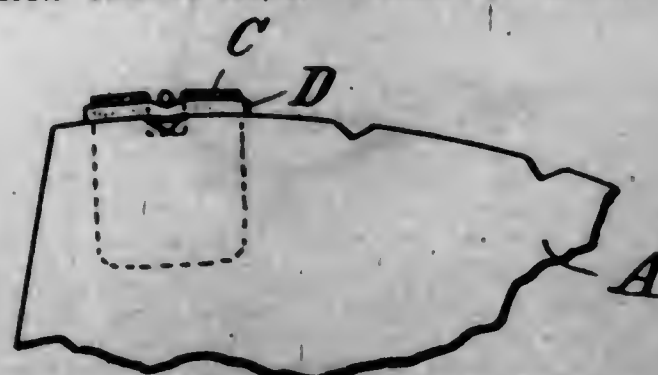
5. In a two-stroke internal combustion engine, the combination of a cylinder provided in its upper part with exhaust and admission ports, a pump barrel having connecting channels between it and said cylinder, said admission ports being located peripherically and above the level at which said connecting channels open, a sleeve piston having channels adapted to pass between the admission ports without any communication, said sleeve piston uncovering the exhaust ports by its upper edge and immediately afterward connecting the pump barrel with the inside of the cylinder, owing to the alignment of the piston channels and the connecting channels, while permitting, when at the upper end of their stroke, the opening of the admission ports to the pump by the lower edge of the piston, owing to the respective position of the admission ports and the connecting channels.

1,306,662. COMBINED TOY WHIST-WATCH AND WHISTLE. HENRY J. GUNN, Providence, R. I. Filed Feb. 20, 1919. Serial No. 273,144. 1 Claim. (Cl. 40-46.)



In a device of the character described, a hollow body having an inlet opening and an outlet opening to provide a whistle, apertured supporting ears united with said body and extending laterally of the body's side having said outlet opening therein, and an attaching element having a portion extending through the apertures of said ears and spanning the space between these apertures, the distance from the outlet opening to a straight line through said apertures being sufficient to provide an air passage when said portion of the attaching element is straight or somewhat bent inward toward said outlet opening.

1,306,663. ATTACHMENT FOR VIOLIN BRIDGES. FRED A. HART, New Brunswick, N. J. Filed Nov. 2, 1917. Serial No. 200,183. 3 Claims. (Cl. 84-73.)



1. The combination with a bridge for instruments of the violin type, which is adapted to be located on the

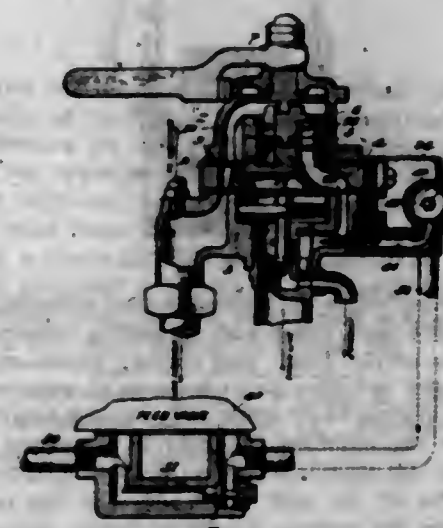
sounding board or belly of the same, of a metallic clip detachably attached to the top of the bridge at a point where a stretched wire string may cross to afford a bearing for such string.

1,306,664. BOMB FOR FLYING MACHINES. DARCY ALBERT HAWKIN, Auckland Point, Auckland, New Zealand. Filed Dec. 22, 1917. Serial No. 208,429. 7 Claims. (Cl. 102-2.)



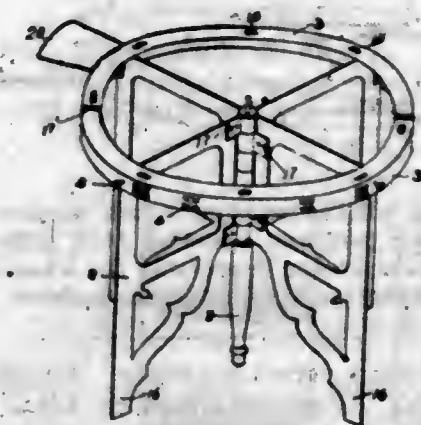
1. The herein described bomb, comprising a casing having external twisted vanes, a nut slidable in the casing and rotatable therewith, a screw threaded through the nut and having a plain end, a rotation retarding element fixed to the end of the screw outside the front of the casing, pivoted hammers operable by the screw, detonators adapted to be struck by the hammers, and an explosive charge adapted to be exploded by the detonators, substantially as set forth.

1,306,665. FLUID-PRESSURE BRAKE SYSTEM. JAMES ARNOLD HICKS, Atlanta, Ga., assignor to Hicks Improved Engine Brake Company, Atlanta, Ga., a Corporation of Georgia. Filed Apr. 6, 1906. Serial No. 310,333. 36 Claims. (Cl. 188-1.)



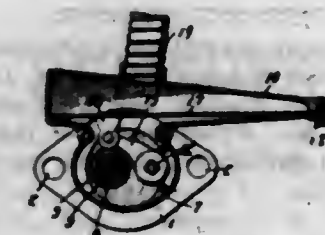
1. Controlling instrumentalities for fluid-pressure brake systems, having ports and passages for the usual automatic train-brake service, and ports and passages for feeding main reservoir pressure to the engine-brakes, comprising a manual valve device through which the air for both services passes and which controls directly the air for both services, said valve device being manipulable to give separate control of both services and effect the usual service application of train brakes, and an automatic valve to control main reservoir feed to the engine brakes.

1,306,666. REVOLVING AND FOLDING TABLE. MOSES H. HOUATON, Highland Park, Ky. Filed Aug. 31, 1918. Serial No. 252,276. 4 Claims. (Cl. 5-117.)



2. In a table of the character described, the combination of a central leg, collapsible frames hinged to said central leg, outer legs carried by said frames, a ring supported on the upper outer ends of said collapsible frames, means for detachably holding said ring in place on the outer ends of said collapsible frames, and also holding the frames against collapse, leaves removably supported around said ring, and a revoluble table top secured by said ring and central leg, substantially as described.

1,306,667. VACUUM-OPERATED MAKE-AND-BREAK SPARK-PLUG. HERBERT GLEN IRWIN, Spur, Tex. Filed Sept. 11, 1917. Serial No. 190,834. 2 Claims. (Cl. 123-153.)



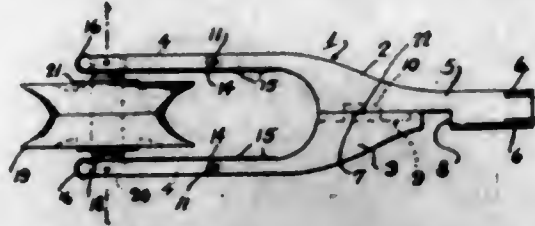
1. A vacuum-operated make and break spark plug, comprising a casing, a stationary insulated electrode mounted therein having a terminal, a movable spring pressed electrode with a terminal at one end, and a vacuum actuated diaphragm within the casing fixed at one end and its other end free and having connection with said movable electrode.

1,306,668. NEEDLE-THREADER. FRANKLIN P. JACKMAN, Portland, Ore. Filed Mar. 15, 1918. Serial No. 222,700. 3 Claims. (Cl. 223-36.)



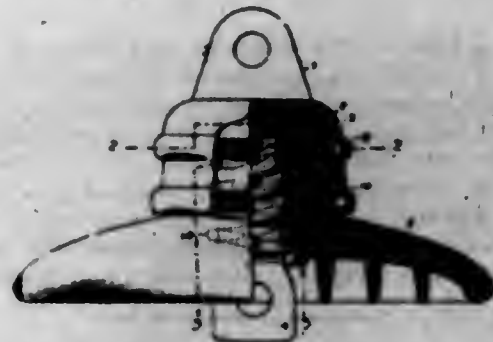
1. A needle threader comprising an elongated open ended pocket, a bifurcated member slidably mounted within said pocket and a spring hook member positioned within said bifurcated member and engageable with the inner wall of the pocket.

1,306,669. TROLLEY-HARP. JOHN M. JOHNSTON, Salem, Ohio. Filed Jan. 14, 1919. Serial No. 271,047. 3 Claims. (Cl. 66-70.)



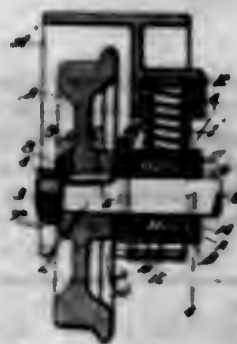
1. A trolley harp comprising a fork member consisting of a stationary part and a sliding part, arms hinged to said forked member and supporting the wheel and spring means for holding the arms in normal position.

1,306,670. INSULATING-SUPPORT. SAMUEL H. LANYON, Oakland, Calif. Filed June 12, 1916. Serial No. 103,144. 5 Claims. (Cl. 173-321.)



1. In an insulating support, an insulating shell having a circumferential groove, a metal portion of the insulating support having a registering groove, the two grooves forming a channel, and a coil of spring wire in said channel.

1,306,671. STORAGE-BATTERY LOCOMOTIVE. RAYMOND MANCHA and JOSEPH TRIPPEL, St. Louis, Mo., assignors to Mancha Storage Battery Locomotive Company, St. Louis, Mo., a Corporation of Delaware. Filed Aug. 31, 1918. Serial No. 252,217. 4 Claims. (Cl. 105-224.)



2. In a storage battery locomotive, a journal box provided with a cylindrical bore of uniform diameter throughout its entire length through which a wheel axle extends, annular devices arranged inside of said bore at the opposite ends of same and detachably connected to the journal box so as to form the end walls of same, and a roller bearing in said bore surrounding the wheel axle and comprising a sleeve that bears snugly against the side wall of said bore.

1,306,672. ELECTRIC PULL-SWITCH. EARL H. VAN LOON, New York, N. Y., assignor, by mesne assignments, of one-half to William V. Nelson, New York, N. Y. Filed June 23, 1917. Serial No. 176,500. 5 Claims. (Cl. 173-354.)

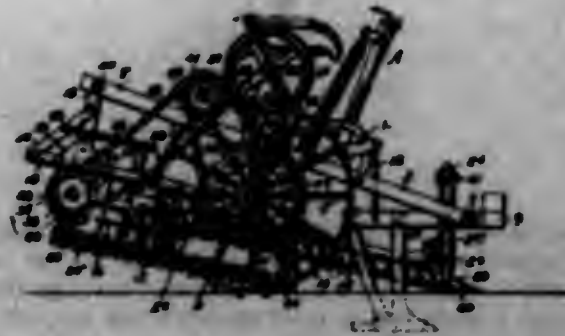
5. A pull socket electric switch comprising a shell, an oscillating device, a connection secured to the oscillating

device, said shell having a circumferential slot therein to permit of securing the connection to the oscillating device, and means on the outside of the shell so placed as to guide



the connection in such way that the switch can be operated in any position or angle it may be placed in by pulling on the connection.

1,306,673. BEET-TOPPING MACHINE. THOMAS MARION DANIELS, Redondo Beach, Calif. Filed Oct. 3, 1918. Serial No. 256,725. 16 Claims. (Cl. 55-9.)



3. In a beet topper, a supporting frame, a plurality of inclined depending beet-conveyer members carried in a spaced apart relation by said frame and adapted for lateral adjustment, and a beet topping element, said members arranged in pairs and having their inner faces inclined toward said element.

1,306,674. DRILL. CORNELIS J. EASLING, Heerlen, Netherlands. Filed Nov. 8, 1915. Serial No. 60,376. 11 Claims. (Cl. 255-71.)

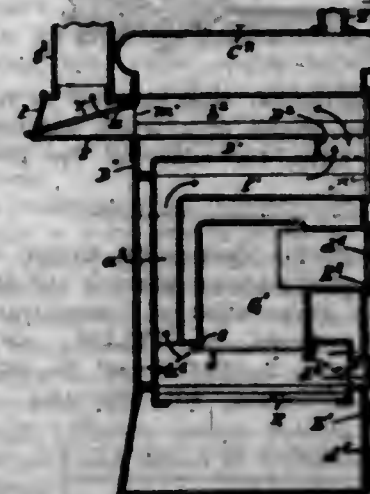


1. In combination, a drill head having opposing spindles inclined toward each other and extending toward the longitudinal axis of the head, and cutting members mounted on said spindles for free axial movement and in isoperative position having their outer ends spaced away from the outer ends of the spindles, whereby in operation said cutting members can slide outwardly on said spindles and engage the walls of the drill head adjacent the outer ends of the spindles for cutting a hole of larger diameter than the drill head.

1,306,675. SECTIONAL BOILER. WILLIAM M. MACRAY, East Orange, N. J. Filed Aug. 3, 1917. Serial No. 164,223. 3 Claims. (Cl. 122-225.)

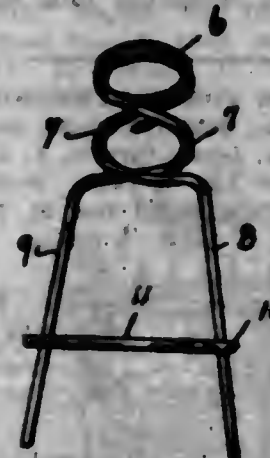
1. A steam or hot-water boiler formed of four sections with horizontal joints, comprising a base with grate thereon, a firebox section having a central magazine with water-space surrounding the sides and top of the same and having the lower part of the combustion-chamber recessed in the top of the section, a water-leg extended downward be-

low the bottom of the magazine, fire-tubes extended through the water-space from the said fire-box upwardly into the combustion-chamber, a deflector-section formed of a water-plate recessed upon the under side to form the upper part of the combustion-chamber and having a notch in one edge for the upward passage of the gases, the



periphery of the notch being entirely surrounded by space filled with water to absorb heat from the gases passing through such notch, and a dome-section fitted to the top of the deflector-section with their adjacent surfaces recessed to form a smoke-chamber, and a smoke-outlet extending from such chamber through the wall of the section.

1,306,676. HOSE-STAND. EARL E. RICO, Los Angeles, Calif. Filed Aug. 26, 1918. Serial No. 251,444. 2 Claims. (Cl. 248-29.)



1. A stand for hose formed from a single piece of wire bent centrally of its length to form a plurality of convolutions and having its legs extending downwardly and being provided with oppositely disposed loops at the termination of said convolutions, said legs being crossed at the termination of said loops and then being bent at an obtuse angle; and a cross bar pivotally mounted on said obtuse angled legs provided centrally of its length with a downwardly opening loop, the free end of said bar being adapted to rest upon the upper face of the other leg.

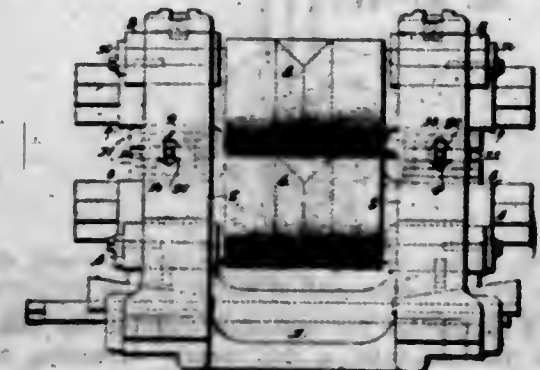
1,306,677. SPOON-HOLDER. WALTER E. ANDERSON and MARY A. ANDERSON, Banksville, Pa. Filed Sept. 5, 1917. Serial No. 189,836. 1 Claim. (Cl. 24-81.)



A spoon holder consisting of a single length of wire bent at a central point to provide right angular extending limbs

the rear extremity of one limb being formed into a coil for the purpose set forth and the rear extremity of the other limb being bent back upon itself to form a loop and twisted around its associating limb for the purpose set forth.

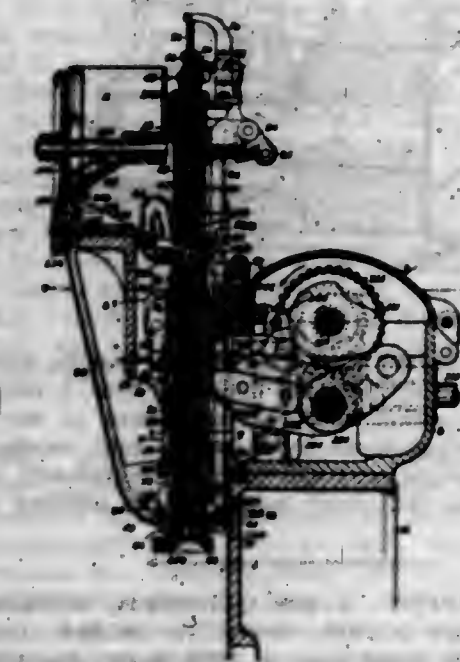
1,306,678. INTERBEARING-BLOCK. SMERIDAN A. SMITH, Hamilton, Ontario, Canada. Filed Jan. 25, 1919. Serial No. 273,083. 4 Claims. (Cl. 64-55.)



1. The combination with the bearings-supporting uprights, the upper and lower roll spindles projecting between the same and the upper and lower outer bearings for said spindles; of inter-bearings, each comprising a pair of carrier plates extended across between said uprights, said plates having centrally disposed bearing block grooves, bearing blocks mounted in said grooves and opposing wedges held between the cross plates of the pair, there being a wedge adjacent to each end of the plate, and means for simultaneously moving said wedges toward the center of the cross plate to spread the said plates apart with parallel movement and thereby move the bearing blocks correspondingly.

REISSUES.

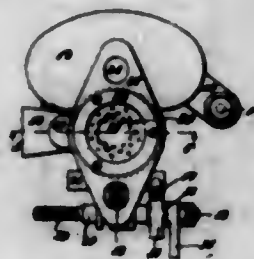
14,657. BOTTLE FILLING AND SEALING MACHINE. AMOS CALLESON, Brooklyn, N. Y., assignor to Adriance Machine Works, Inc., Brooklyn, N. Y., a Corporation of New York. Filed Mar. 30, 1918. Serial No. 225,818. Original No. 1,252,861, dated Jan. 8, 1918. Serial No. 87,805, filed Mar. 30, 1916. 56 Claims. (Cl. 226-28.)



52. In combination, coating means to exert pressure on a container and its closure interposed between them, a container closing appliance in one of them, and means

to intermittently oppose resistance to the container at the mouth end thereof during the thrust of one of said means toward the other.

14,658. CARBURETER. ERNEST F. CIOLIA and LOUIS F. PELLETIER, New York, N. Y., assignors, by mesne assignments, to E. & E. Carburetor Company, Inc., a Corporation of New York. Filed Mar. 9, 1918. Serial No. 221,542. Original No. 1,191,156, dated July 18, 1916, Serial No. 784,697, filed Aug. 14, 1913. 18 Claims. (Cl. 261-44.)

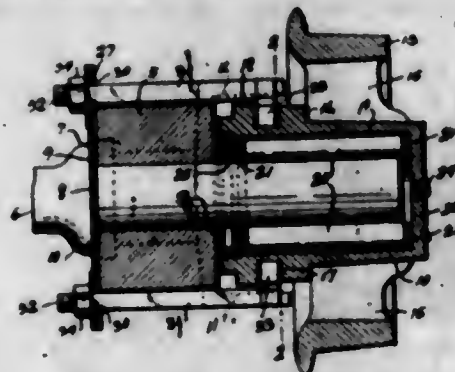


16. In a carbureter for explosion engines the combination of a Venturi tube, a fuel nozzle extending transversely into the throat of the Venturi tube, a fuel valve for said nozzle and a valve controlling said Venturi tube and consisting of a thin piece of material having an opening through it substantially as specified.

17. In a carbureter for explosion engines the combination of a Venturi tube, a fuel nozzle extending transversely into the throat of the Venturi tube, a fuel valve for said nozzle and a valve controlling said Venturi tube and consisting of a thin piece of material having an opening through it and arranged close to said nozzle, substantially as specified.

18. In a carbureter for explosion engines the combination of a Venturi tube, a fuel nozzle extending transversely into the throat of the Venturi tube, a fuel valve for said nozzle and a valve controlling said Venturi tube and consisting of a thin piece of material having an opening through it and arranged between said nozzle and the outlet of the Venturi tube, substantially as specified.

14,659. WHEEL CONSTRUCTION AND MOUNTING. WILLIAM M. COWELL, Evansville, Ind. Filed Nov. 12, 1918. Serial No. 262,256. Original No. 1,235,059, dated Aug. 7, 1917. Serial No. 132,126, filed Nov. 18, 1916. 22 Claims. (Cl. 295-42.)



1. The combination with the axle and bearing therefor, of a wheel rotatably mounted upon the axle, a relatively stationary supporting member independent of the bearing, and retaining means connected to said member and operatively engaged with the wheel independently of the bearing to hold the wheel against axial shifting movement.

14,660. FLOORING. ELMER C. DITTMAR, Williamsport, Pa. Filed Apr. 9, 1919. Serial No. 288,994. Original No. 1,268,694, dated June 4, 1918. Serial No. 108,592, filed July 12, 1916. 2 Claims. (Cl. 20-6.)

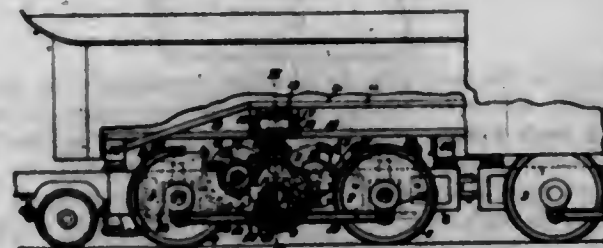
1. As a new article of manufacture, a flooring strip having one of its longitudinal edges formed with beveled

faces to provide a tongue of substantially V-shape in cross section, of a width equal to the thickness of the strip, said strip having its beveled faces rounded at the junction of the beveled faces with the face of the strip,



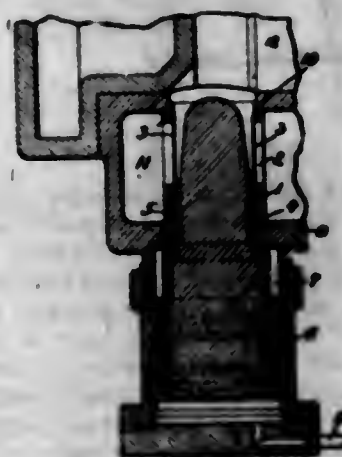
and the other longitudinal edge grooved to form a substantially V-shaped groove of a width substantially the thickness of the strip, the edges of the groove being rounded.

14,661. LOCOMOTIVE. GEORGE M. EATON, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 25, 1919. Serial No. 273,187. Original No. 1,241,500, dated Oct. 2, 1917. Serial No. 837,745, filed May 11, 1914. 46 Claims. (Cl. 105-49.)



29. The combination with a semi-cylindrical supporting frame having a seat therein, of an uncovered laminated magnetizable core of cylindrical form disposed in said seat.

14,662. UNLOADER FOR COMPRESSORS. HARRY V. HAUGHT, Sherbrooke, Quebec, Canada, assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Apr. 7, 1919. Serial No. 288,386. Original No. 1,291,854, dated Jan. 21, 1919. Serial No. 152,019, filed Mar. 2, 1917. 5 Claims. (Cl. 230-24.)



1. In an unloader for compressors, in combination, a valve casing carrying a plurality of valves, a seat for said valve casing, a piston mounted on said valve casing, and means for holding said valve casing against its seat.

2. In an unloader for compressors in combination, a valve casing carrying a plurality of valves, a seat for said valve casing, a piston mounted on said valve casing and means controlled by fluid pressure for holding said valve casing against its seat.

3. In an unloader for compressors, in combination, a valve casing carrying a plurality of leaf valves, a seat mounted on the compressor for said valve casing, a piston mounted on said valve casing and means for holding said valve casing against its seat.

4. In an unloader for compressors, in combination, a valve casing carrying a plurality of leaf valves, a seat mounted on the compressor for said valve casing, a piston

mounted on said valve casing and means controlled by fluid pressure for holding said valve casing against its seat.

5. In an unloader for compressors, in combination, a valve casing carrying a valve, a seat for said valve casing, a piston mounted on said valve casing and means for holding said valve casing against its seat and also away from its seat.

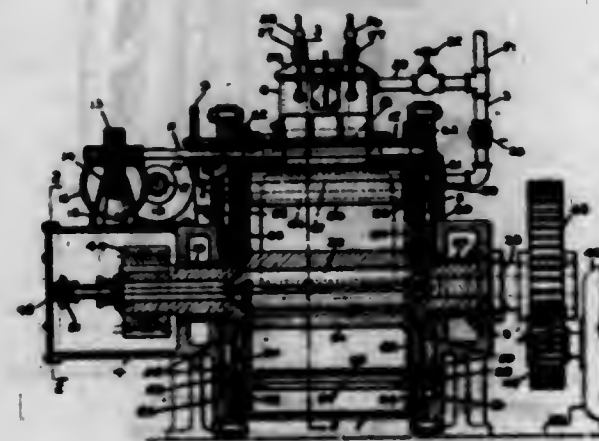
6. In an unloader for compressors, in combination, a valve casing, said valve casing being adapted to seat against a compressor cylinder and fluid operated means to retain said valve casing against said compressor cylinder, and positively acting means to hold said valve casing from its seat.

7. In a compressor, in combination, a cylinder, an intake passage, a valve casing mounted in said intake passage and seating against said cylinder, fluid operated means holding said valve casing against its seat and means to withdraw said valve casing from its seat.

8. In a compressor, in combination, a cylinder, an intake passage, a valve casing carrying a plurality of valves mounted in said intake passage, and seating against said cylinder, means holding said valve casing against its seat and means to withdraw said valve casing from its seat.

9. In a compressor, in combination, a cylinder, an intake passage, a valve casing mounted in said intake passage, and seating against said cylinder, a piston mounted on said valve casing and fluid means acting upon said piston to hold said valve casing against its seat.

14,663. MACHINE FOR TREATING PLASTIC MATERIALS. HOMER J. HOTT, Detroit, Mich., assignor to Morgan & Wright, a Corporation of Michigan. Filed Mar. 2, 1917. Serial No. 152,157. Original No. 1,163,069, dated Dec. 7, 1915. Serial No. 21,512, filed Apr. 15, 1915. 15 Claims. (Cl. 18-2.)



1. In a mixing mill, a closed chamber, means for controlling the fluid pressure therein, a device in said chamber for mixing or kneading plastic material, and a rotary conveying means movable relatively to said chamber and adapted to carry said material from below said device to the upper side thereof.

14,664. TOOL-HOLDER. ALFRED MARTI and ALFRED OESCH, Erie, Pa. Filed Apr. 25, 1919. Serial No. 292,745. Original No. 1,287,068, dated Dec. 10, 1918. Serial No. 219,086, filed Feb. 25, 1918. 2 Claims. (Cl. 279-103.)

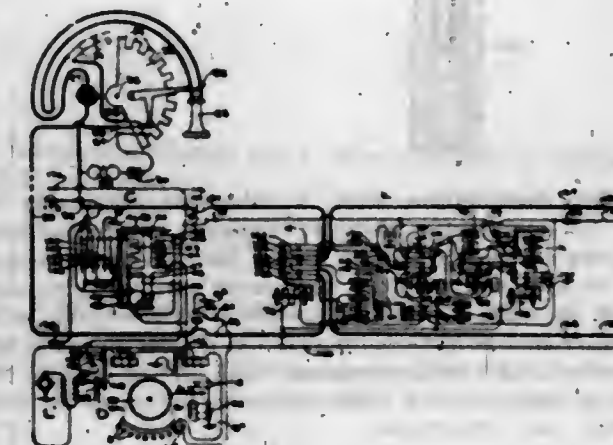
1. In a tool holder, the combination of a drill sleeve having a tapered socket therein; and a resilient contractible tool holder having its outer wall tapered to conform to the taper of the socket in the sleeve and containing a cylindrical opening concentric with its outer wall for receiving a drill shank, said holder extending when in place in the drill sleeve out of the socket to per-

mit of grasping the holder to force it into place and having overlapping alits extending longitudinally into the



walls thereof from opposite ends to permit a concentric contraction of the walls of the holder under pressure of the walls of the socket to engage an inserted drill.

14,665. AUTOMATIC TELEPHONE SWITCHING APPARATUS. TALBOT G. MARTIN, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 11, 1918. Serial No. 253,512. Original No. 1,221,246, dated Apr. 3, 1917. Serial No. 624,568, filed May 2, 1911. 69 Claims. (Cl. 179-18.)

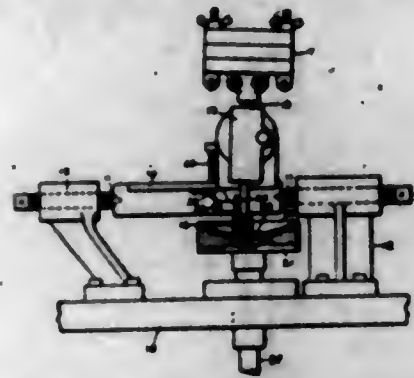


1. In a telephone system, an automatic switch having bank terminals divided into groups, the groups being disposed in parallel planes, movable arms having motion in one direction to find a group and motion in another direction to find a terminal in the selected group, a line relay for controlling the operation of said arms, an electromagnet, a trunk adapted by a single movement of the armature of said magnet to be connected with said arms, means for controlling the two sides of said trunk in series to control said relay, a local circuit governing the said second motion, normally closed contacts in said local circuit, which contacts are open during the said first motion, and means whereby said contacts are then closed to start the second motion.

14,666. APPARATUS FOR SURFACING LENSES. JOHN HARVEY PEARSON, Indianapolis, Ind., assignor to One-piece Bifocal Lens Company, Indianapolis, Ind., a Corporation. Filed Mar. 24, 1919. Serial No. 284,839. Original No. 1,288,156, dated Dec. 17, 1918. Serial No. 151,602, filed Feb. 28, 1917. 7 Claims. (Cl. 51-3.)

1. Apparatus for surfacing lenses and the like including a surfacing element, means for operating said element so that one portion of the element will travel over a

greater surface of the lens than another portion of the element, and means for exerting pressure on the portion



of the element having the greatest amount of travel so as to equalize the action of the element on the lens.

14,007. LUBRICATING SYSTEM. FRANK D. WINELEY, Madison, Wis. Filed Oct. 7, 1918. Serial No. 257,300. Original No. 1,201,414, dated Oct. 17, 1916. Serial No. 94,616, filed May 1, 1916. 17 Claims. (Cl. 184-14.)



12. The combination with a lubricant receptacle of means for supplying lubricant thereto under pressure, comprising a conduit having means for detachably securing it to said receptacle, a perforated member yieldably mounted in said first-named means for contacting with one end of said receptacle to seal the connection between said conduit and said receptacle, and spring means for yieldingly holding said yieldably-mounted means in contact with said receptacle.

DESIGNS.

53,405. RADIATOR-VALVE CASING AND HANDLE. JOSEPH F. BRIGHTMAN, Syracuse, N. Y., assignor to The Syracuse Faucet and Valve Company, Syracuse, N. Y., a Corporation of New York. Filed Feb. 7, 1916. Serial No. 76,865. Term of patent 3½ years.



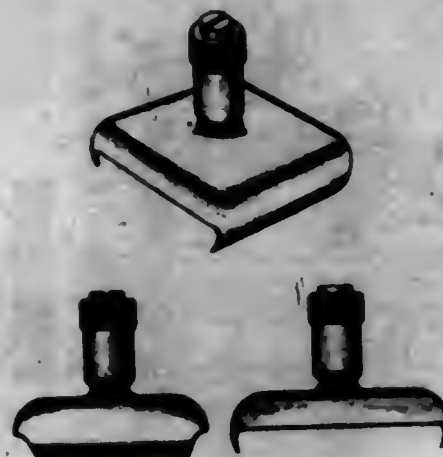
The ornamental design for a radiator valve casing and handle, substantially as shown and described.

53,406. SPRING-OILER. WILLIAM H. BROWN, Cleveland, Ohio. Filed Dec. 6, 1916. Serial No. 135,493. Term of patent 3½ years.



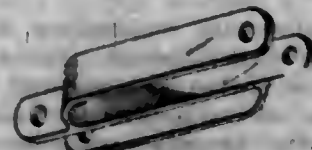
The ornamental design for a spring oiler as shown.

53,407. SPRING-OILER. WILLIAM H. BROWN, Cleveland, Ohio. Filed Dec. 6, 1916. Serial No. 135,495. Term of patent 3½ years.



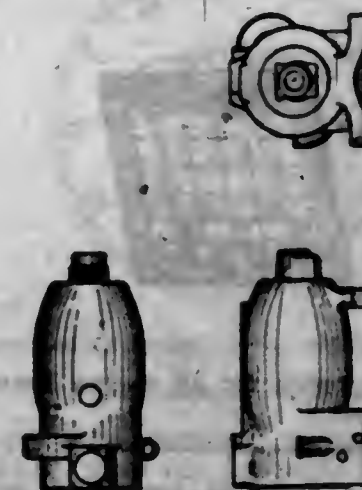
The ornamental design for a spring oiler as shown.

53,408. DOUBLE CLEVIS. MATTHIAS CLEMENS, Sherburn, Minn. Filed Dec. 23, 1916. Serial No. 135,682. Term of patent 7 years.



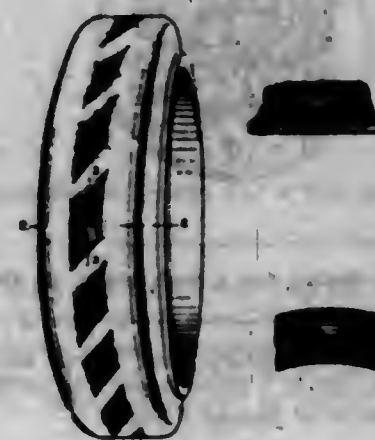
The ornamental design for a double clevis, as shown.

53,409. COMBINED ENGINE CRANK-CASE AND DYNAMO-SHELL. MARK C. COSGRAY, Sandusky, Ohio, assignor to The Matthews Engineering Company, Sandusky, Ohio, a Corporation of Ohio. Filed Jan. 30, 1919. Serial No. 274,147. Term of patent 14 years.



The ornamental design for a combined engine crank case and dynamo shell, substantially as shown.

53,410. ELASTIC VEHICLE-TIRE. LAURENCE R. DAVIS, Providence, R. I., assignor to Revere Rubber Company, a Corporation of Rhode Island. Filed Jan. 15, 1917. Serial No. 142,570. Term of patent 14 years.



The ornamental design for an elastic vehicle tire, as shown.

53,411. PIN-HOLDER. WENSTEN C. ESTES, New York, N. Y., assignor to E. B. Estes & Sons, New York, N. Y., a Corporation of Maine. Filed Mar. 13, 1919. Serial No. 282,515. Term of patent 14 years.



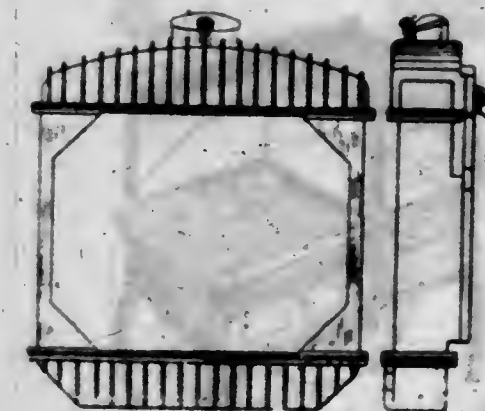
The ornamental design for a pin holder as shown.

53,412. SIFTER-TOP CAN OR SIMILAR RECEPTACLE. LEONARD GUNHARDT, Baltimore, Md., assignor to Tin Decorating Company of Baltimore, Baltimore, Md., a Corporation of New York. Filed Feb. 27, 1919. Serial No. 279,604. Term of patent 7 years.



The ornamental design for a sifter top can or similar receptacle, as shown.

53,413. RADIATOR-CASING. CHARLES L. GRANGER, Detroit, Mich., assignor to The Commerce Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 7, 1918. Serial No. 221,076. Term of patent 14 years.



The ornamental design for a radiator casing, substantially as shown.

53,414. BAG-FRAME. CROFTON C. HOLDEN, Leominster, Mass., assignor to Royal Comb Company, Leominster, Mass., a Corporation of Massachusetts. Filed Mar. 10, 1919. Serial No. 281,874. Term of patent 7 years.



The ornamental design for a bag frame as shown.

53,415. BAG-FRAME. CROFTON C. HOLDEN, Leominster, Mass., assignor to Royal Comb Company, Leominster, Mass., a Corporation of Massachusetts. Filed Mar. 10, 1919. Serial No. 281,875. Term of patent 7 years.



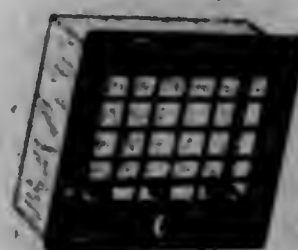
The ornamental design for a bag frame as shown.

53,416. STOVE. FRANK KUHN and JAY A. HAND, Detroit, Mich., assignors to American Electrical Heater Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 21, 1918. Serial No. 218,583. Term of patent 14 years.



The ornamental design for a stove, substantially as shown.

53,417. ELECTRIC-HEATER CASING. FRANK KUHN and JAY A. HAND, Detroit, Mich., assignors to American Electrical Heater Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 21, 1918. Serial No. 218,586. Term of patent 14 years.



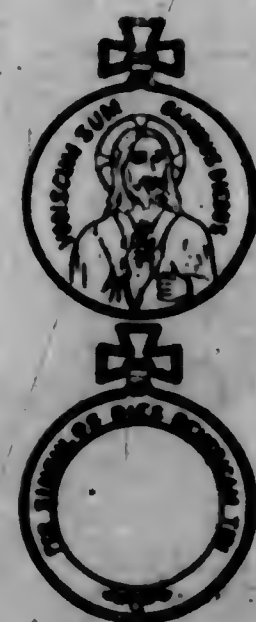
The ornamental design for an electric heater casing, substantially as shown.

53,418. WATCHCASE. ALEXANDER LEVIN and JOSEPH MEDIN, Calumet, Mich. Filed Mar. 10, 1919. Serial No. 281,879. Term of patent 7 years.



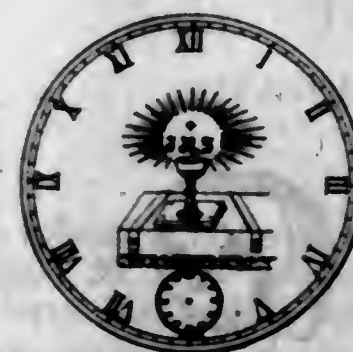
The ornamental design for a watchcase, as shown.

53,419. WATCHCASE. ALEXANDER LEVIN and JOSEPH MEDIN, Calumet, Mich. Filed Mar. 10, 1919. Serial No. 281,880. Term of patent 7 years.



The ornamental design for a watchcase, as shown.

53,420. WATCH-DIAL. ALEXANDER LEVIN and JOSEPH MEDIN, Calumet, Mich. Filed Mar. 10, 1919. Serial No. 281,881. Term of patent 7 years.



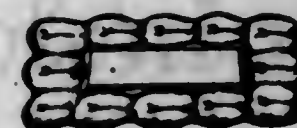
The ornamental design for a watch dial, as shown.

53,421. TIRE-PROTECTOR. HENRY LIGHTBOURNE, Detroit, Mich. Filed Jan. 10, 1919. Serial No. 270,595. Term of patent 14 years.



The ornamental design for a tire protector, as shown.

53,422. BAR OR CAKE OF CANDY OR CONFECTIONERY. ROBERT S. MANUS, Cleveland, Ohio, assignor to The Manus Candy Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 21, 1919. Serial No. 278,550. Term of patent 14 years.



The ornamental design for a bar or cake of candy or confectionery substantially as shown.

53,423. HAND-BAG FRAME. CHARLES MAZZA, Brooklyn, N. Y. Filed Mar. 10, 1919. Serial No. 281,864. Term of patent 3 1/2 years.



The ornamental design for a hand-bag frame, as shown.

53,424. HAND-BAG FRAME. GIUSEPPE MONTRONI, Hoboken, N. J., assignor to The Art Hand-Bag Frame Co., a Firm composed of Florindo Mazza and Charles Mazza, New York, N. Y. Filed Mar. 10, 1919. Serial No. 281,877. Term of patent 3 1/2 years.



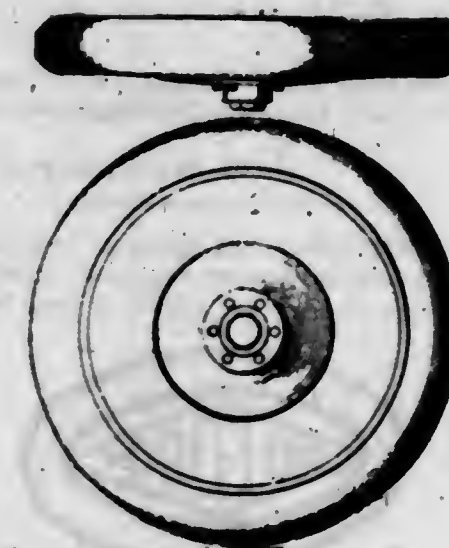
The ornamental design for a hand-bag frame, as shown.

53,425. HAND-BAG FRAME. GIUSEPPE MONTRONI, Hoboken, N. J., assignor to The Art Hand-Bag Frame Co., a Firm composed of Florindo Mazza and Charles Mazza, New York, N. Y. Filed Mar. 10, 1919. Serial No. 281,878. Term of patent 3 1/2 years.



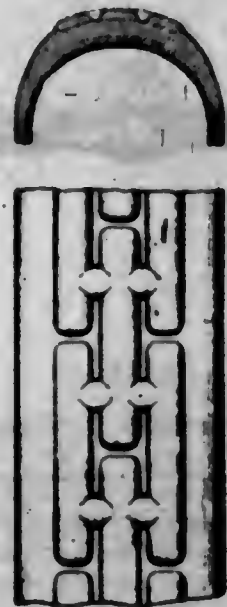
The ornamental design for a hand-bag frame, as shown.

53,426. WHEEL. WILLIAM J. P. MOORE, New York, N. Y. Filed Jan. 6, 1917. Serial No. 141,046. Term of patent 7 years.



The ornamental design for a wheel, as shown.

53,427. PNEUMATIC TIRE. IRVIN R. BENNER, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Nov. 21, 1918. Serial No. 263,690. Term of patent 14 years.



The ornamental design for a pneumatic tire as shown.

53,428. BOTTLE-STOPPER. FERDINAND RUSTANT, San Francisco, Calif. Filed Feb. 18, 1919. Serial No. 277,990. Term of patent 14 years.



The ornamental design for a bottle stopper, as shown.

TRADE-MARKS

OFFICIAL GAZETTE, JUNE 10, 1919.

[PUBLISHED JUNE 14, 1919.]

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 94,968. (CLASS 29. CLOTHING.) GOLDENBERG'S, Washington, D. C. Filed July 26, 1916.



No claim being made to the words "Washington, D. C." apart from the matter shown.
Particular description of goods.—Coats, Vests, Trousers.
Claims use since July 5, 1916.

Ser. No. 102,101. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) S. H. REYNOLDS' SON'S COMPANY, Boston, Mass. Filed Mar. 12, 1917.

Colonial

Particular description of goods.—Bronches, Burs, Polishing-Strips, Temporary Stopping, Hypodermic Needles, Fillings, Alloys, and Amalgams, Each and All of the Above Articles Being Intended for and Adapted to the Uses of Dentists.
Claims use since about March, 1900.

Ser. No. 103,666. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) LEON CAMMEN, New York, N. Y. Filed May 9, 1917.

Carsafe

Particular description of goods.—Rear-View Mirrors.
Claims use since May 1, 1917.

Ser. No. 103,672. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ELI LILLY AND COMPANY, Indianapolis, Ind. Filed May 9, 1917.

A. S. A.

Particular description of goods.—Acetylsalicylic Acid Preparations.
Claims use since Apr. 1, 1917.

Ser. No. 105,689. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MANGAN & Co., New York, N. Y. Filed Aug. 16, 1917.

Hair-Tonic

Particular description of goods.—Hair-Tonic.
Claims use since Jan. 20, 1917.

Ser. No. 106,358. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SANLEY BURNS, Montreal, Quebec, Canada. Filed Sept. 21, 1917.

Gumz-Cura

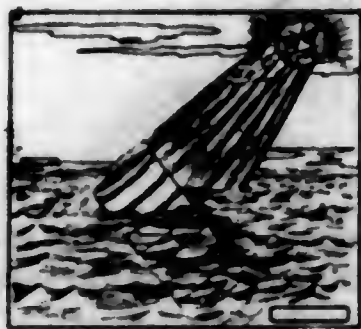
I disclaim "Cura" apart from the mark shown.
Particular description of goods.—A Tooth Powder and Paste.
Claims use since Oct. 15, 1908.

Ser. No. 107,794. (CLASS 32. FURNITURE AND UPHOLSTERY.) SANITARY SPECIALTIES CO., Philadelphia, Pa. Filed Dec. 6, 1917.



Particular description of goods.—Medicine-Cabinets, Bath-Room Chairs, Stools, and Mirrors, and Commodes.
Claims use since Nov. 17, 1900.

Ser. No. 108,053. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) COMMERCIAL SHIRT COMPANY, New York, N. Y. Filed Dec. 19, 1917.



Particular description of goods.—Cotton and Silk Piece Goods.
Claims use since September, 1913.

Ser. No. 109,065. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) AMERICAN CUTLERY COMPANY, Chicago, Ill. Filed Mar. 20, 1918.

MAJESTIC

Particular description of goods.—Electric Coffee-Percolators, Electric Chaffing-Dishes, Electric Irons, Electric Toasters, Electric Grills, Electric Food-Choppers, Electric Coffee-Mills, Electric Food-Presses, Electric Vacuum-Bottles, Electric Heaters, and Electric Warming-Pads for General Use.

Claims use since on or about the month of February, 1912.

Ser. No. 109,095. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JIFFY LIFE BELT MFG. CO., New York, N. Y. Filed Mar. 21, 1918.



The life-belt being in red, no claim being made to the exclusive use of the representation of the life-belt or the words "The Cartridge Does It" apart from the mark as shown in the drawing.

Particular description of goods.—Life-Belts and a Sealed Air-Tube for Charging the Same.
Claims use since November, 1917.

Ser. No. 109,704. (CLASS 10. PAINTS AND PAINTERS' MATERIALS.) SAMUEL F. WOODHOUSE, INC., Philadelphia, Pa. Filed Mar. 21, 1918.



Particular description of goods.—Paste and Ready-Mixed Paints, Turpentine, Linseed-Oil and Paint-Oil, Paint Pigments and Colors Ground in Oil, Paste and Liquid Wood and Iron Paint Fillers, Enamel Paint, and Paint, Oil, Varnish, and Enamel Driers.
Claims use since 1878.

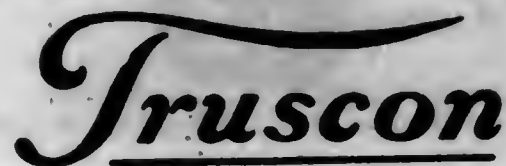
Ser. No. 110,351. (CLASS 30. CLOTHING.) NELSON PANTS CO., St. Louis, Mo. Filed Apr. 20, 1918.



The mark comprising the word "Biltwell," the letters comprising the same being each in red with a black border, superposed and displayed upon a stippled background, no exclusive claim as a technical trade-mark being made to the word "Biltwell" apart from the mark shown.

Particular description of goods.—Men's Trousers.
Claims use since July 1, 1915.

Ser. No. 110,510. (CLASS 12. CONSTRUCTION MATERIALS.) TRUSCON STEEL COMPANY, Youngstown, Ohio. Filed Apr. 27, 1918.



Consists of the word "Truscon" shown on the accompanying drawing.

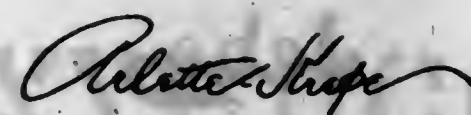
Particular description of goods.—Products Made of Steel, Asbestos, Clay, and other Materials—Namely, Plain Steel Bars, Round, Square, or Twisted, as Reinforcing Elements for Concrete; Deformed Steel Bars, Round, Square, or Twisted, as Reinforcing Elements for Concrete; Sheared Steel Bars as Reinforcing Elements for Concrete; Steel Floortyle, End Caps, and Floordomes, Integral or Collapsible, Being Plain or Corrugated Sheets of Steel Formed Into Various Sizes and Shapes as Elements of Concrete Floor Construction; Column-Hooping for Reinforcing Concrete, Expanded Columns; Metal Lathing, Expanded Metal for Concrete-Reinforcement, Screeds Made of Metal for Use in Plaster and Cement or Concrete Work, Corner-Beads Made of Metal for Protection of Plastered or Concrete Corners; Pressed-Steel Beams, Joists, Studs, Plates, and Channels for Use in Walls, Ceilings, or Floors of All Types of Building; Armor-Plates Made of Steel for Use in Concrete Pavements to Prevent Breaking Down at Expansion-Joints, Wire Mesh (Not Expanded Metal) as Reinforcing Element for Concrete; Curb-Bars and Edge-Protectors Made of Steel in Various Forms, Used to Protect and Reinforce Concrete Curbs, Exposed Corners and Edges of Walls, Pilasters, Columns, Platforms, Sidewalks, &c.; Hollow Slotted Inserts Made of Iron or Steel in Various Forms and Lengths for Use in Concrete Construction in Floors, Walls, or Ceilings; Sash, Windows, Casements, Doors, Panels, and Partitions, All Made of Steel or of Steel and Glass and All Intended as Permanent Structural Elements of a Building; Steel Chairs for Use to Insure Correct Location of Reinforcing-Steel in Concrete, Joist and Wall Hangers Made of Steel for Joist or Beam Connection, Asbestos Boards and Shingles; Tile, Brick, and Blocks Made of Clay; Floor-Hardeners in the Form of a Fine Powder and Also in Liquid Form, Both to be Applied Superficially and to Finished Work.
Claims use since 1906.

Ser. No. 111,076. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEPHEN L. BARTLETT COMPANY, Boston, Mass. Filed May 21, 1918.



Particular description of goods.—Cocoa.
Claims use since Jan. 1, 1917.

Ser. No. 111,152. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DOORLY AND WALLACE, New York, N. Y. Filed May 23, 1918.



We do not claim exclusive rights in the word "Krepe" or "Crepe" apart from the mark shown on the drawing.
Particular description of goods.—Silk Dress Goods.
Claims use since May 17, 1918.

Ser. No. 111,333. (CLASS 12. CONSTRUCTION MATERIALS.) FULTON FIRE BRICK COMPANY, Fulton, Mo. Filed June 3, 1918.



"Steel King."
Particular description of goods.—Fire or Refractory Bricks.
Claims use since Jan. 1, 1905.

Ser. No. 111,400. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) MASTER MANUFACTURING COMPANY, Oakland, Calif. Filed June 10, 1918.



Particular description of goods.—Skid-Chains for Automobiles.
Claims use since July 1, 1917.

Ser. No. 111,581. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo. Filed June 14, 1918.



Particular description of goods.—Axes, Adzes, Hatchets, Hammers, Wedges, Mallets, Chisels, Gouges, Carpenters' Slicks, Drawing-Knives, Screw-Driver Bits, Boring-Bits, Drill-Bits, Gimlet-Bits, Gimlets, Countersinks, Drills, Auger-Bits, Augers, Bit-Braces, Bit Extensions, Screw-Drivers, Planes, Plane Parts, Floor-Scrapers, Cabinet-Scrapers, Miter-Boxes, Miter-Box Parts, Saws, Saw-Blades, Saw-Frames, Saw-Tooth Sets, Saw-Jointers, Saw-Clamps; Saw-Tools—viz., Setting-Blocks and Holders for Use in Sharpening and Setting Saws; Beams, Files, Rasps, File-Cleaners, Mattocks, Hoes, Picks, Paddy-Knives, Tool-Handles, Wall-Scrapers, Farm-Implement Handles, Spade-Handles, Shovels, Shovel-Implement Handles, Spade-Cleaning Shovels, Post-Hole Diggers, Spades, Scoops, Drain-Cleaning Shovels, Post-Hole Diggers.

[Vol. 200.

Post-Hole Augers, Garden-Trowels, Bricklayers' Trowels, Cement-Workers' Trowels, Plasterers' Trowels, Cement-Groovers, Automobile-Tool Sets, Automobile-Tools in Rolls, Automobile-Tool Kits, Nail-Pullers, Nippers, Box-Hooks, Pinch-Bars, Box-Openers, Cotton-Hooks, Pliers, Pincers, Staple-Pullers, Linemen's Climbers, Awl-Handles, Punch-Tubes, Rivet-Sets, Nail-Sets, Wrenches, Wrench Parts, Vises, Lawn-Mowers, Lawn-Mower Parts, Grass-Catchers, Garden-Cultivators, Lawn-Rakes, Header-Forks, Hay-Forks, Barley-Forks, Manure-Forks, Mill and Street Forks, Hand Stone-Drags, Manure-Hooks, Potato-Hooks, Spading-Forks, Coal and Coke Forks, Baling-Press Forks, Stone-Forks, Cotton-Seed Forks, Potato-Forks, Gardeners' Forks, Barn-Forks, Horse-Clippers, File Skate-Sharpener, Lawn-Weeder Knives, Tree-Pruners, Beet-Topping Knives, Bush-Hooks, Fish-Knives, Cotton-Sampling Knives, Table-Knives of Base Metal, Grass-Hooks, Scythes, Hand-Shears of All Kinds, Farriers' Knives, Glass-Cutters, Ice-Picks, Hay-Hooks, Hedge-Shears, Hedge-Trimmers, Hedge-Knives, Corn-Knives, Cane-Knives, Bread-Knives, Chip-Carving Knives, Asparagus-Knives, Spatulas, Ice-Chisels, Household Food-Cutters, Household-Food-Cutter Parts, Lamb-Splitters, Cleavers, Butchers' Choppers, Kitchen-Choppers, Pocket-Knives, Plasterers' Hawks, Table-Forks of Base Metal, Grass-Shears, Pruning-Shears, Paring-Knives, Grape-Fruit Knives, Broom-Corn Knives, Slid-Knives, Utility-Knives, Pruning-Knives, Budding-Knives, Hunting-Knives, Scissors, Razors, Butcher-Knives, Carvers, Steels, Bricklayers' and Masons' Jointers and Beaders, Belt-Punches, Machine-Punches, Center-Punches, Prick-Punches, Leather-Punches, Scratch-Awls, Sheet-Metal Punches, Garden-Rakes, Tool-Grinders, Gravel-Rakes, Hand Hay-Rakes, Road-Rakes, Felloe-Clippers, Mounted Grindstones and Parts Thereof.
Claims use since the year 1864.

Ser. No. 112,460. (CLASS 30. CLOTHING.) E. HAYES, INC., New York, N. Y. Filed Aug. 1, 1918. Under ten-year proviso.



Particular description of goods.—Men's, Women's, and Children's Shoes, Boots, and Slippers Made of Leather, Cloth, and other Suitable Fabrics, Rubber, or a Combination of Two or More of These Materials.
Claims use since about 1878.

Ser. No. 112,798. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ELMER CANDY COMPANY, INC., New Orleans, La. Filed Aug. 20, 1918.



The word "Elmer's" being written by an officer of the applicant company.
Particular description of goods.—Candy.
Claims use since Apr. 2, 1918.

[Vol. 200.

Ser. No. 112,829. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) JAMES B. CLOW & SONS, Chicago, Ill. Filed Aug. 22, 1918.



No claim is made to the representation of the radiator apart from the mark shown in the drawing.
Particular description of goods.—Radiators.
Claims use since August, 1916.

Ser. No. 113,040. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SAMUEL A. MCKIBBIN, Boise, Idaho. Filed Sept. 5, 1918.

Snezene

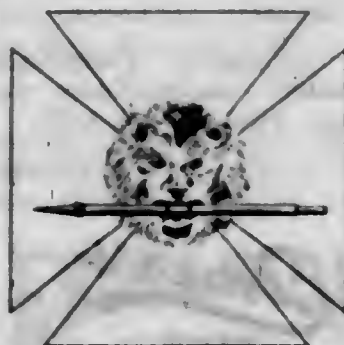
Particular description of goods.—A Preparation for the Treatment of Hay-Fever and an Eye-Wash.
Claims use since June 1, 1918.

Ser. No. 113,503. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEORGE EDWARD STARTUP, London, England. Filed Sept. 30, 1918.

FRANGLO

In which the lines are intended for the purpose of shading only.
Particular description of goods.—Educational Games.
Claims use since the 7th of February, 1918.

Ser. No. 113,603. (CLASS 37. PAPER AND STATIONERY.) A. T. CROSS PENCIL CO., Providence, R. I. Filed Oct. 7, 1918.



No claim is made to the representation of the pencil shown in the drawing except in connection with other features of the mark.

Particular description of goods.—Parts of Fountain Pens and Stylographic Pens and Lead-Pencils.
Claims use since 1893.

Ser. No. 113,650. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DILLING & Co., Indianapolis, Ind. Filed Oct. 10, 1918.

Jebbs

Particular description of goods.—Caramels.
Claims use since 1878.

Ser. No. 113,752. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HERMAN BOOS COMPANY, Lock Haven, Pa. Filed Oct. 16, 1918.

ARCHIBALD'S

The trade-mark consisting of the Christian name of Archibald Herman, the treasurer of the applicant corporation.

Particular description of goods.—Headache-Tablets.
Claims use since January, 1914.

Ser. No. 113,804. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ALEXANDER MCPHADEN, Chicago, Ill. Filed Oct. 23, 1918.

POPULAR 4

Particular description of goods.—A Game-Board and Pieces Adapted to be Used Therewith.
Claims use since Sept. 30, 1918.

Ser. No. 113,881. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ALLIED MACHINERY COMPANY OF AMERICA, New York, N. Y. Filed Oct. 25, 1918.



Particular description of goods.—Carpenters' and Machinists' Tools.—Namely, Arbors, Borers, Center-Punches, Center-Drills, Chain-Blocks, Chisels, Clamps, Clamp-Dogs, Counterbores, Countersinks, Dies, Drills, Drill-Blocks, Dividing-Heads, End Mills, Files, Machinists' Feelers, Hackaws, Hammers, Hand-Drills, Hollow Mills, Lathe-Tools, Mandrels, Milling-Cutters, Pliers, Pin-Punches, Machine-Punches, Planes, Reamers, Saws, Machinists' Scrapers, Scribers, Screw-Drivers, Cutters for Shaping and Planing Machines, Sledge-Hammers; Blacksmiths' Stamping Sets, Taps and Dies, Tongs, Vices, and Wrenches; Metal-Working and Woodworking Machinery.—Namely, Bench-Drill Stands, Boring and Drilling Machines, Gear-Cutting Machines, Grinding-Machines, Power-Hammers, Lathes, Milling-Machines, Power-Presses and Hand-Presses, Sawing-Machines, Shearing and Punching Machines, Edgers, Jointers, Matchers, Planers, Mortisers, Molders, Planers, Sanders, and Sizers.
Claims use since Sept. 23, 1918.

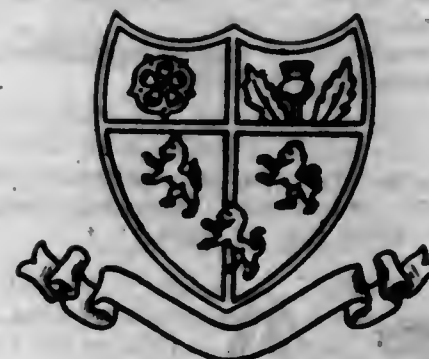
[Vol. 268. No. 2.]

Ser. No. 113,918. (CLASS 15. OILS AND GREASES.) INTERNATIONAL LUBRICATING COMPANY, INC., Port Huron, Mich. Filed Oct. 28, 1918.

XYLUCO

Particular description of goods.—Lubricating Oils and Grease.
Claims use since May 11, 1917.

Ser. No. 113,951. (CLASS 17. TOBACCO PRODUCTS.) THE UNITED KINGDOM TOBACCO COMPANY, LIMITED, Bishopsgate, London, England. Filed Oct. 30, 1918.



Particular description of goods.—Cigarettes.
Claims use since 1908.

Ser. No. 114,126. (CLASS 32. FURNITURE AND UPHOLSTERY.) BERNSTEIN MANUFACTURING COMPANY, Philadelphia, Pa. Filed Nov. 11, 1918.



Particular description of goods.—Bedsteads, Mattresses, and Pillows.
Claims use since about Sept. 1, 1918.

263 O. G.—21

[Vol. 268. No. 2.]

Ser. No. 114,360. (CLASS 38. PRINTS AND PUBLICATIONS.) BONY O'SSO, New York, N. Y. Filed Nov. 26, 1918.



The lining shown on the drawing is not a symbol for color, but a conventional representation of the musical staff.

Particular description of goods.—Musical Compositions.
Claims use since Sept. 13, 1918.

Ser. No. 114,516. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) AMERICAN ZINC, LEAD & SMELTING CO., Boston, Mass., and St. Louis, Mo. Filed Dec. 7, 1918.



No claim is made to the exclusive use of the words and characters "American Zinc L. & S. Co." apart from the other features shown.

Particular description of goods.—Zinc Oxids for Use as Paint-Pigments.
Claims use since about Nov. 21, 1918.

Ser. No. 114,520. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) AMERICAN ZINC, LEAD & SMELTING CO., Boston, Mass., and St. Louis, Mo. Filed Dec. 7, 1918.



No claim is made to the exclusive use of the words and characters "American Zinc L. & S. Co." apart from the other features shown.

Particular description of goods.—Zinc Oxids for Use as Paint-Pigments.
Claims use since about Nov. 21, 1918.

Ser. No. 114,655. (CLASS 32. FURNITURE AND UP-HOLSTERY.) ANGLE STEEL STOOL CO., Osego, Mich. Filed Dec. 16, 1918.

OTSTEEL

No claim is made to the word "Steel" other than as shown in the accompanying drawing.

Particular description of goods.—Stools and Chairs for Factory Use; Tables and Stands for Factory Use; and Cabinets and Racks for Factory Use.

Claims use since Sept. 12, 1916.

Ser. No. 115,003. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HOLDEN-LEONARD COMPANY, New York, N. Y. Filed Jan. 9, 1919.

TINSELTONE

Particular description of goods.—Woolen Fabric. Claims use since Dec. 1, 1918.

Ser. No. 115,143. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) W. R. GRACE & Co., New York, N. Y., and San Francisco, Calif. Filed Jan. 12, 1919.



Particular description of goods.—Textile Fabrics Consisting of Cotton Piece Goods. Claims use since Oct. 1, 1918.

Ser. No. 115,206. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HOLDEN-LEONARD COMPANY, New York, N. Y. Filed Jan. 15, 1919.

DUFFLEDOWN

Particular description of goods.—Woolen Piece Goods. Claims use since Jan. 1, 1919.

Ser. No. 115,240. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JAMES R. KRISER, INC., New York, N. Y. Filed Jan. 17, 1919.

OCTAGON

Consisting of the word "Octagon." Particular description of goods.—Handkerchiefs. Claims use since Nov. 21, 1918.

Ser. No. 115,294. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RICHMOND SILK COMPANY, Allentown, Pa. Filed Jan. 18, 1919.

**RICHMOND
SILK CO.**

Particular description of goods.—Ribbons. Claims use since Nov. 1, 1918.

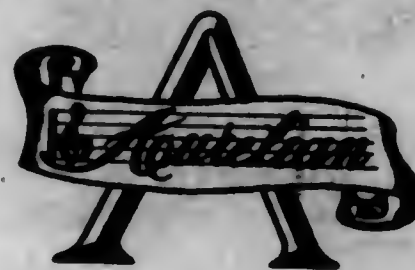
Ser. No. 115,414. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE BECKMAN COMPANY, Cleveland, Ohio. Filed Jan. 25, 1919.

"C.C. BLKT"

The shading of the letters is to indicate that they are used in red color. The shade-lines in the border are to be considered merely as ornamentation. No claim is made to the abbreviation "Blkt."

Particular description of goods.—Bed-Blankets. Claims use since Jan. 11, 1919.

Ser. No. 115,453. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) NORMAN GILLER, New York, N. Y. Filed Jan. 27, 1919.



The lining shown in the mark is for the purpose of shading only and is not intended for indicating any certain color.

Particular description of goods.—Phonographs. Claims use since Jan. 11, 1917.

Ser. No. 115,516. (CLASS 48. MALT BEVERAGES, EXTRACTS, AND LIQUORS.) AUGUSTA ICE & BEVERAGE COMPANY, Augusta, Ga. Filed Jan. 30, 1919.



Particular description of goods.—Non-Intoxicating Hop and Cereal Malt Beverages Containing Less Than One-Half Per Cent. Alcohol.

Claims use since Mar. 10, 1918.

[Vol. 208, No. 2.]

Ser. No. 115,725. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) FARNSWORTH, HOTT COMPANY, Boston, Mass. Filed Feb. 10, 1919.

FABST

Particular description of goods.—Narrow Webbing. Usually Woven, Sold in the Piece, and Especially Adapted for Use as Backstays in Shoes.

Claims use since Jan. 1, 1918.

Ser. No. 115,726. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EUGENE GRAY, Roseman, Mont. Filed Feb. 10, 1919.



I hereby disclaim the representation of a loaf of bread apart from the mark shown in the drawing herewith.

Particular description of goods.—Bread and Cake.

Claims use since about Dec. 15, 1914.

Ser. No. 115,748. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARTHUR LITTLE GODDARD, Homestead, Pa. Filed Feb. 6, 1919.



No claim being made to the words "Save Your Stock" apart from the mark shown in the drawing.

Particular description of goods.—A Tonic, Anodyne, and Restorative for Stock, to be Used in Cases of Colic, Diarrhea or Scour, Difficulty in Stalling, Colds and Influenza, Loss of Flesh, Debility, Fatigue, Inflammation and After-Pains, Bloating, Pains in the Bowels, Chills, Low Condition, Weakness and Loss of Appetite, Gorging and Stomach Diseases, and Coughs.

Claims use since Jan. 1, 1919.

Ser. No. 115,797. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BOOTH MILLS, Lowell, Mass. Filed Feb. 12, 1919. Under ten-year proviso.

SLAM CROCK

The trade-mark consists of the words "Slam Crock." Particular description of goods.—Cotton Drills. Claims use since 1853.

[Vol. 208, No. 3.]

Ser. No. 115,818. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) G. SOMMER & Co., St. Paul, Minn. Filed Feb. 12, 1919.

VIKING

Particular description of goods.—Paints, Varnishes, Enamels, Hard-Oil Finish, Turpentine, Japan Drier, Turpentine Asphaltum, Bronzing Liquid, Liquid Wood-Filler. The Paints on Which Applicant Has Used Said Mark are Mixed Paints Ready for Use; the Enamels are Mixed to Give the Color and a High Gloss Finish to Wood or Metal Surfaces in One Application, and Said Turpentine Asphaltum has the Appearance of Black Paint and is Used for Painting Either Metal or Wood to Give a Waterproof Coating.

Claims use since January, 1918.

Ser. No. 115,864. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SANIFECT CO., Newark, N. J. Filed Feb. 14, 1919.

SANIFECT



Particular description of goods.—A Deodoriser and Disinfectant.

Claims use since Oct. 20, 1918.

Ser. No. 115,951. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOSEPH F. DWYER, Seattle, Wash. Filed Feb. 18, 1919.

SILENT SALESMAN

Particular description of goods.—Ticket-Dispensing Machines.

Claims use since Jan. 1, 1917.

Ser. No. 116,003. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MILLS & GIBB CORPORATION, New York, N. Y. Filed Feb. 19, 1919.



Particular description of goods.—Piece Goods Constructed of Cotton, Silk, and Mixtures Thereof.

Claims use since September, 1917.

Ser. No. 116,027. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ERIE COLD STORAGE CO., Sandusky, Ohio. Filed Feb. 20, 1919.

Buttermilk

Particular description of goods.—Oleomargarin. Claims use since Feb. 10, 1919.

Ser. No. 116,029. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GUESS COMPANY, Vidalia, Ga. Filed Feb. 20, 1919.

GUESS

Particular description of goods.—Non-Alcoholic Non-Cereal Maltless Beverages Sold as Soft Drinks and Syrups for the Making of the Same.
Claims use since Feb. 5, 1919.

Ser. No. 116,041. (CLASS 39. CLOTHING.) CHAS. A. STEVENS & BROK., Chicago, Ill. Filed Feb. 20, 1919.

Ivon

Particular description of goods.—Corsets.
Claims use since Feb. 1, 1919.

Ser. No. 116,064. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RAINBOW SILK CO., New York, N. Y. Filed Feb. 21, 1919.

RAINBOW

Particular description of goods.—Silk, Satin, Velvet, Broadcloth, and Serge Piece Goods.
Claims use since Aug. 1, 1918.

Ser. No. 116,107. (CLASS 39. CLOTHING.) A. PHILLIPS & CO. INC., New York, N. Y. Filed Feb. 24, 1919.

PARFAIT

The word "Parfait" is disclaimed apart from the mark shown on the accompanying drawing.

Particular description of goods.—Overgarters or Spats; Slippers and Shoes of Felt and Combinations of Felt and Leather; Bathing-Shoes; Fabric Leggings; and Shoe-Tongue Pads—i. e., Pads of Cotton, Wool, or Cotton and Wool to be Attached or Inserted Under the Tongues of Laced Shoes.

Claims use since June 1, 1917.

Ser. No. 116,108. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PRICE BOOKER MFG. CO., Houston, Tex. Filed Feb. 24, 1919.

PEANUT BUTTER

Particular description of goods.—Peanut-Butter.
Claims use since the 19th day of December, 1918.

Ser. No. 116,133. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FORSTMANN & HUFFMANN CO., Passaic, N. J. Filed Feb. 25, 1919.

Suedesoie

Consisting of the word "Suedesoie."
Particular description of goods.—Woolen Piece Goods.
Claims use since Feb. 1, 1919.

Ser. No. 116,212. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE REDEL CANDY CORPORATION, Milwaukee, Wis. Filed Feb. 28, 1919.

REDEL

Particular description of goods.—Candy.
Claims use since January, 1917.

Ser. No. 116,313. (CLASS 17. TOBACCO PRODUCTS.) STODDARD, GILBERT & CO., INC., New Haven, Conn. Filed Mar. 5, 1919.

OLD GREEN

Particular description of goods.—Cigars.
Claims use since 1899.

Ser. No. 116,364. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALICE WUNDER EARLEY, Los Angeles, Calif. Filed Mar. 7, 1919.

Areal

Particular description of goods.—Hand-Creams, Face-Powders, a Hair-Remover, and an Enamel Which is a Face-Powder Put Up in Solid Form as a Cake or Cube, All Being Toilet Articles.

Claims use since October, 1918.

Ser. No. 116,366. (CLASS 37. PAPER AND STATIONERY.) EASTERN MANUFACTURING COMPANY, Bangor, Me. Filed Mar. 7, 1919.

IE

Particular description of goods.—Writing and Printing Paper and Cardboard.
Claims use since Jan. 7, 1919.

[Vol. 363. No. 2.]

Ser. No. 116,399. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) ALTORFER BROS. COMPANY, Peoria, Ill. Filed Mar. 8, 1919.

SUPER

Particular description of goods.—Laundry-Washing Machines.

Claims use since the 1st day of August, 1917.

Ser. No. 116,410. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROY C. CLEVELAND, Chicago, Ill. Filed Mar. 8, 1919.

3

No claim being made to the words "Unlucky for Cough" apart from the mark as shown in the drawing.

Particular description of goods.—A Liquid Preparation for the Alleviation of Coughs.

Claims use since Feb. 1, 1919.

Ser. No. 116,419. ((CLASS 12. CONSTRUCTION MATERIALS.) METROPOLITAN MATERIAL COMPANY, Brooklyn, N. Y. Filed Mar. 8, 1919.

Asbestif

Particular description of goods.—Elastic Cement for Roofing and Greenhouse Construction.

Claims use since Mar. 1, 1919.

Ser. No. 116,441. (CLASS 12. CONSTRUCTION MATERIALS.) H. H. HOPKINS COMPANY, Chicago, Ill. Filed Mar. 10, 1919.

RAINEX

Particular description of goods.—Waterproof Felt Roofing, Waterproof Building-Paper, Fibrous Plastic Roof-Coating, and Liquid Roof-Coating Containing Fibrous Matter.

Claims use since on or about Feb. 15, 1918.

Ser. No. 116,514. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUGUST A. BOSCH, St. Louis, Mo. Filed Mar. 12, 1919.

Bosch

Particular description of goods.—Cereal-Syrup for Table Use.

Claims use since Mar. 8, 1919.

[Vol. 363. No. 2.]

Ser. No. 116,529. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CELKO-KOLA CO., Portland, Oreg. Filed Mar. 13, 1919.

CELKO-KOLA

The picture being fanciful.
Particular description of goods.—A Laxative Tonic and Appetizer.
Claims use since Oct. 26, 1917.

Ser. No. 116,539. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) OTTO HEINEMAN PHONOGRAPH SUPPLY CO. INC., New York, N. Y. Filed Mar. 13, 1919.

OKEH

No claim is made to the words "The Needle of Quality" apart from the mark shown.

Particular description of goods.—Needles for Talking-Machines and Phonograph-Needles.

Claims use since the month of February, 1919.

Ser. No. 116,569. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HAWLEY & HOOPS, New York, N. Y. Filed Mar. 14, 1919.

ACE

Particular description of goods.—Candy.
Claims use since May, 1916.

Ser. No. 116,578. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HAWLEY & HOOPS, New York, N. Y. Filed Mar. 14, 1919.

ACE HIGH

Particular description of goods.—Chocolate Candy.
Claims use since May, 1916.

Ser. No. 116,702. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CROWN BOTTLING CO., Muncie, Ind. Filed Mar. 19, 1919.



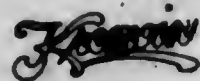
No claim being made to the representation of an orange.
Particular description of goods.—Non-Alcoholic Non-Cereal Maltless Beverages Sold as Soft Drinks and Syrups for Making Same.
Claims use since Jan. 1, 1918.

Ser. No. 116,762. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) SEVERN BLANCHER, Provost, Mich. Filed Mar. 21, 1919.



Particular description of goods.—A Non-Alcoholic Non-Cereal Maltless Beverage Sold as a Soft Drink.
Claims use since Jan. 1, 1919.

Ser. No. 116,766. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OSCAR W. DOWNSWELL, Bank Center, Minn. Filed Mar. 21, 1919.



Particular description of goods.—Toilet Cream and Chap-Lotion.
Claims use since Dec. 31, 1918.

Ser. No. 116,785. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MASSACHUSETTS CHOCOLATE COMPANY, Boston, Mass. Filed Mar. 21, 1919.



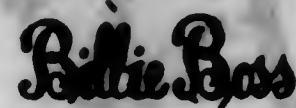
Particular description of goods.—Chocolate, Both Sweetened and Unsweetened; Chocolate Liquor; Milk-Chocolate; Chocolate Nut-Bars; Chocolate Coatings; Cocoa, Sweetened and Unsweetened; and Cocoa-butter.
Claims use since Aug. 23, 1911.

Ser. No. 116,789. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARCEL OLMESTED, Denver, Colo. Filed Mar. 21, 1919.



Particular description of goods.—Face-Emmel.
Claims use since about Nov. 10, 1918.

Ser. No. 116,810. (CLASS 39. CLOTHING.) CORN, GOLDWATER COMPANY, Los Angeles, Calif. Filed Mar. 22, 1919.



Particular description of goods.—Girls' Dresses.
Claims use since Jan. 2, 1919.

Ser. No. 116,846. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NARPO CHEMICAL CO., Los Angeles, Calif. Filed Mar. 24, 1919.



Particular description of goods.—A Concentrated Cathartic Water.
Claims use since Mar. 1, 1919.

Ser. No. 116,854. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SCHORNBOMER COMPANY, Chicago, Ill. Filed Mar. 24, 1919.



Particular description of goods.—Candy, Chocolate, and Cocoa.
Claims use since Mar. 15, 1919.

Ser. No. 116,903. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) G. A. REUTER COMPANY, Chicago, Ill. Filed Mar. 25, 1919.



The lining indicating shading only.
Particular description of goods.—Nut-Candies.
Claims use since November, 1918.

[Vol. 363. No. 2.]

Ser. No. 116,925. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) LIBERTY IGNITION COMPANY, Boston, Mass. Filed Mar. 26, 1919.



Particular description of goods.—Spark-Plugs and Insulators for Spark-Plugs.
Claims use since December, 1917.

Ser. No. 116,935. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM P. SAUNDERS, Birmingham, Ala. Filed Mar. 26, 1919.



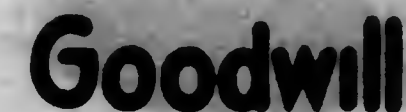
Particular description of goods.—Preparations for the Treatment of the Hair and Scalp—viz., a Preparation for Promoting the Growth of the Hair, a Preparation for the Treatment of Dandruff, a Shampoo for Cleansing the Hair and Scalp, an Oil Preparation for Use in Straightening the Hair.
Claims use since July 1, 1918.

Ser. No. 116,949. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE BARR & WILCOX COMPANY, Attleboro, Mass. Filed Mar. 27, 1919.



No claim to the exclusive use of the representation of the button or the word "Kuma-Part" is made apart from the mark as shown in the drawing.
Particular description of goods.—Cuff-Buttons.
Claims use since January, 1914.

Ser. No. 117,000. (CLASS 39. CLOTHING.) ARTHUR A. WILLIAMS, Holliston, Mass. Filed Mar. 28, 1919.



Particular description of goods.—Men's and Boys' Leather Boots and Shoes.
Claims use since Mar. 6, 1919.

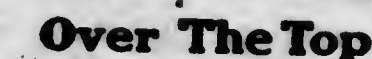
[Vol. 363. No. 2.]

Ser. No. 117,019. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MARSHALL MILLING CO., Marshall, Minn. Filed Mar. 29, 1919.



In which the diagonal lines in the paragon are for shading purposes.
Particular description of goods.—Wheat-Flour.
Claims use since about the 6th day of April, 1915.

Ser. No. 117,061. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FRIEND & BARUCHSON, Inc., New York, N. Y. Filed Apr. 1, 1919.



No claim is made to the exclusive use of the words "Strength and Durability" apart from the mark shown in the drawing.
Particular description of goods.—Velvets, Velvetens, Chiffon Velvets, and Venetians.
Claims use since Mar. 24, 1919.

Ser. No. 117,084. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) D. GHIRARDELLI CO., San Francisco, Calif. Filed Apr. 1, 1919. Under ten-year proviso.



Particular description of goods.—Chocolate and Cocoa.
Claims use since 1863.

Ser. No. 117,107. (CLASS 39. CLOTHING.) THE CAMPE CORPORATION, New York, N. Y. Filed Apr. 2, 1919.



Particular description of goods.—Knitted Underwear—viz., Children's Waists, Waist Union-Suits, and Children's Underwear in One and Two Piece Garments.
Claims use since Mar. 20, 1919.

[Vol. 363. No. 2.]

Ser. No. 117,142. (CLASS 2. RECEPTACLES.) CHARLES ROSENTHAL, New York, N. Y. Filed Apr. 3, 1919.

"Ro 4"

Particular description of goods.—Garment-Bag. Claims use since Jan. 6, 1919.

Ser. No. 117,227. (CLASS 10. PAINTS AND PAINTERS' MATERIALS.) N. Z. GRAVES, INCORPORATED, Philadelphia, Pa. Filed Apr. 7, 1919.

Gravolin

Particular description of goods.—Dry, Paste, and Ready-Mixed Paints, Varnishes, Varnish-Stains, Japans, Colors in Japan, and Stains; Enamel Paints, Shellacs, Dry Colors, Colors in Oil, Colors in Water. Claims use since on or about Oct. 9, 1913.

Ser. No. 117,229. (CLASS 10. PAINTS AND PAINTERS' MATERIALS.) A. R. HAEUSER CO., New York, N. Y. Filed Apr. 7, 1919.

MILANETTE

"Milanette" shown in the accompanying drawing. Particular description of goods.—Varnishes, Shellacs, Lacquers, and Finishes Consisting of a Combined Varnish, Stain, and Color for Staining, Varnishing, and Coloring Ladies' Straw Hats from the Natural Braid in One Operation. Claims use since September, 1912.

Ser. No. 117,251. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) REICHMAN & FAUST, New York, N. Y. Filed Apr. 7, 1919.

PRETTY POLLY

Particular description of goods.—Hair-Nets. Claims use since about April, 1915.

Ser. No. 117,303. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NOBIS PAYON, Louisiana, Mo. Filed Apr. 9, 1919.



Particular description of goods.—A Salve for Use in the Treatment of Piles. Claims use since 1894.

Ser. No. 117,326. (CLASS 39. CLOTHING.) FREEDMAN BROS. CORP., New York, N. Y. Filed Apr. 10, 1919.

JAZZ

Particular description of goods.—Ladies' Capes, Dresses, Coats, and Suits. Claims use since Nov. 10, 1918.

Ser. No. 117,352. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PARIS MEDICINE COMPANY, St. Louis, Mo. Filed Apr. 10, 1919.

O-PEN-TRATE

Particular description of goods.—An Antiseptic, Healing-Salve for External Use for the Relief of Colds in the Chest and in the Head and for Use as a Germicide for the Nose and Throat by Application to the Nostrils. Claims use since Mar. 22, 1919.

Ser. No. 117,364. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGIANA M. WHITCOMB, New York, N. Y. Filed Apr. 10, 1919.

PEKTABS

Consisting of the word "Pektabs." Particular description of goods.—A Laxative. Claims use since June, 1917.

Ser. No. 117,377. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CLARENCE C. HAY, Como, Miss. Filed Apr. 11, 1919.

HAY-PO

Particular description of goods.—A Hair-Dressing. Claims use since Feb. 27, 1917.

Ser. No. 117,417. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) SOCIETE ANONYME "LA BRUYERE," Paris and St. Claude, France. Filed Apr. 12, 1919.

SENATE

Particular description of goods.—Tobacco-Pipes. Claims use since the 7th of January, 1913.

Ser. No. 117,418. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) SOCIETE ANONYME "LA BRUYERE," Paris and St. Claude, France. Filed Apr. 12, 1919.

SHIELD

Particular description of goods.—Tobacco-Pipes. Claims use since the 30th of July, 1915.

Ser. No. 117,423. (CLASS 17. TOBACCO PRODUCTS.) WILLIAM M. SIERS, York, Pa. Filed Apr. 12, 1919.



The picture shown being wholly fanciful. Particular description of goods.—Cigars. Claims use since November, 1917.

Ser. No. 117,444. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) DALLWIG DISTRIBUTING CO., Chicago, Ill. Filed Apr. 14, 1919.

DALLWIG DOLL

No claim is made to the word "Doll" except in connection with the trade-mark as shown. Particular description of goods.—Dolls and Wigs Therefor, and More Particularly Dolls Provided with Detachable and Interchangeable Wigs and for Such Wigs. Claims use since Feb. 11, 1919.

Ser. No. 117,461. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHAR. F. KELLER, Mechanicsburg, Ohio. Filed Apr. 14, 1919.

SORBOL

Particular description of goods.—A Liquid Medicine for the Treatment of Gout. Claims use since Aug. 1, 1910.

Ser. No. 117,480. (CLASS 31. FILTERS AND REFRIGERATORS.) WM. ENDERS MANUFACTURING COMPANY, Walden, N. Y. Filed Apr. 15, 1919.



Particular description of goods.—Refrigerators. Claims use since Sept. 9, 1915.

Ser. No. 117,481. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) WM. ENDERS MANUFACTURING COMPANY, Walden, N. Y. Filed Apr. 15, 1919.



Particular description of goods.—Paint-Brushes, Varnish-Brushes, Scrub-Brushes, Whitewash-Brushes, Stucco-Brushes, Paper-Hangers' Brushes, Plasterers' Brushes, Calcimine-Brushes, Paste-Brushes, Glue-Brushes, Window-Brushes. Claims use since Mar. 1, 1917.

Ser. No. 117,512. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Apr. 15, 1919.

KNOXALL

Particular description of goods.—Fish-Lines and Minnow-Selnes. Claims use since Nov. 4, 1896.

Ser. No. 117,513. (CLASS 27. HOROLOGICAL INSTRUMENTS.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Apr. 15, 1919.



Particular description of goods.—Watches. Claims use since December, 1912.

Ser. No. 117,560. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE DE FREE CHEMICAL COMPANY, Holland, Mich. Filed Apr. 17, 1919.



Particular description of goods.—Complexion-Powder, Complexion-Cream, Talcum Powder, Toilet Water, and Almond-Cream. Claims use since the 15th day of February, 1913.

Ser. No. 117,588. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GASTON J. BLOCK, New York, N. Y. Filed Apr. 18, 1919.

CLEOPATRA

Particular description of goods.—Perfumery.
Claims use since Mar. 13, 1918.

Ser. No. 117,589. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) HERMAN COHN, New York, N. Y. Filed Apr. 18, 1919.

YANK-E

Particular description of goods.—Musical-Instrument Strings.
Claims use since January, 1919.

Ser. No. 117,683. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) EDWARD S. MILLER, New York, N. Y. Filed Apr. 21, 1919.

DEE-LIGHT

Particular description of goods.—Non-Alcoholic Maltless Non-Cereal Beverages Sold as Soft Drinks and Syrups for Making the Same.
Claims use since Jan. 2, 1919.

Ser. No. 117,705. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAX SHARAGA, New York, N. Y. Filed Apr. 21, 1919.

Gellay

Particular description of goods.—A Medicine for Chronic Constipation, Indigestion, and Kidney Trouble.
Claims use since on or about the 8th day of April, 1919.

Ser. No. 117,761. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) WESTERN GROCER COMPANY, Marshalltown, Iowa. Filed Apr. 22, 1919.



The lines on the drawing are used for shading purposes only.

Particular description of goods.—Ginger-Ale, Root-Beer, Cider, and Grape-Juice.
Claims use since Mar. 11, 1918.

Ser. No. 117,709. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMERICAN DRUGGISTS SYNDICATE, Long Island City, N. Y. Filed Apr. 23, 1919.

ADSOL

Particular description of goods.—A Disinfectant and Antiseptic.
Claims use since Apr. 1, 1919.

Ser. No. 117,781. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OTTO LAUER, Brooklyn, N. Y. Filed Apr. 23, 1919.

FLUER

Particular description of goods.—An Antiseptic and Germicide Particularly Efficacious in the Treatment of Influenza, Grippe, Colds, Catarrh, and Sore Throat.
Claims use since Feb. 19, 1919.

Ser. No. 117,812. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) LINDAHL, LAVICK & COMPANY, Chicago, Ill. Filed Apr. 24, 1919.

NO-TRUB

Particular description of goods.—Cuff-Links.
Claims use since Mar. 15, 1919.

Ser. No. 117,829. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALEX BROWN, Astoria, N. Y. Filed Apr. 25, 1919.

GIGGLES

Particular description of goods.—Cathartic Pills or Medicines for Internal Use.
Claims use since Feb. 6, 1919.

Ser. No. 117,871. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRED W. DUBNICK, St. Louis, Mo. Filed Apr. 26, 1919.

PHENIAL

Particular description of goods.—An Ointment for Healing Cuts, Burns, Chaps, and Bruises.
Claims use since about Apr. 15, 1919.

Ser. No. 117,894. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANTHONY OVERTON, Chicago, Ill. Filed Apr. 26, 1919.

HELLON

Particular description of goods.—Roach, Ant, and Bedbug Killer.
Claims use since Apr. 12, 1919.

[Vol. 263. No. 2.]

Ser. No. 117,901. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) RALO TOY COMPANY, Worcester, Mass. Filed Apr. 26, 1919.

Ralite

Particular description of goods.—Toy Blocks.
Claims use since Nov. 6, 1918.

Ser. No. 117,907. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Apr. 26, 1919.

Volo

Particular description of goods.—Sewing-Machines and Attachments Therefor.
Claims use since the year 1905.

Ser. No. 117,909. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Apr. 26, 1919.

Belox

Particular description of goods.—Sewing-Machines and Attachments Therefor.
Claims use since Mar. 1, 1909.

Ser. No. 117,921. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BAYER COMPANY, INC., New York, N. Y. Filed Apr. 28, 1919.

INSTANTIN

Particular description of goods.—An Antirheumatic, Analgesic, and Antipyretic.
Claims use since about Apr. 23, 1919.

Ser. No. 117,922. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BAYER COMPANY, INC., New York, N. Y. Filed Apr. 28, 1919.

INSTANTINE

Particular description of goods.—An Antirheumatic, Analgesic, and Antipyretic.
Claims use since about Apr. 23, 1919.

Ser. No. 117,923. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BAYER COMPANY, INC., New York, N. Y. Filed Apr. 28, 1919.

INSTANTINA

Particular description of goods.—An Antirheumatic, Analgesic, and Antipyretic.
Claims use since about Apr. 23, 1919.

[Vol. 263. No. 2.]

Ser. No. 117,924. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BAYER COMPANY, INC., New York, N. Y. Filed Apr. 28, 1919.

INSTANTINO

Particular description of goods.—An Antirheumatic, Analgesic, and Antipyretic.
Claims use since about Apr. 23, 1919.

Ser. No. 117,954. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK STEARNS & Co., Detroit, Mich. Filed Apr. 28, 1919.

I Amusette

Particular description of goods.—Perfumes, Talcum and Face Powders, Toilet Waters, and Face-Creams.
Claims use since Apr. 21, 1919.

Ser. No. 117,988. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PEARSON PRODUCTS CORPORATION, New York, N. Y. Filed Apr. 29, 1919.

"RETARDEXU"

Particular description of goods.—Waterproofing Preparation for Wearing-Apparel and Textile Fabrics.
Claims use since Mar. 19, 1919.

Ser. No. 118,004. (CLASS 31. FILTERS AND REFRIGERATORS.) THE WHITE MOUNTAIN FREEZER COMPANY, Nashua, N. H. Filed Apr. 29, 1919. Under ten-year proviso.



Particular description of goods.—Ice-Cream Freezers.
Claims use since the year 1878.

Ser. No. 118,012. (CLASS 46. MALT BEVERAGES, EXTRACTS, AND LIQUORS.) HENZE-TOLLEN BREWING COMPANY, Iron Mountain, Mich. Filed Apr. 30, 1919.

JINX

Particular description of goods.—Non-Intoxicating Malt Beverage Containing Less Than One-Half of One Per Cent. of Alcohol Sold as a Soft Drink.
Claims use since Nov. 10, 1917.

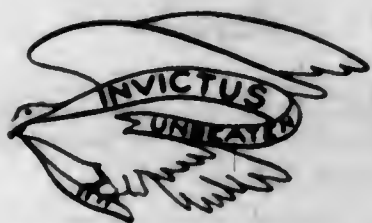
[Vol. 263. No. 2.]

Ser. No. 118,013. (CLASS 48. MALT BEVERAGES, EXTRACTS, AND LIQUORS.) HENZE-TOLLEN BREWING COMPANY, Iron Mountain, Mich. Filed Apr. 30, 1919.

HOPE

Particular description of goods.—Non-Intoxicating Malt Beverage Containing Less Than One-Half of One Per Cent. of Alcohol Sold as a Soft Drink.
Claims use since Nov. 10, 1917.

Ser. No. 118,046. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CASTEN & COMPANY, West Hoboken, N. J. Filed May 1, 1919.



No claim is made to the word "Invictus" or the word "Unbeaten" apart from the mark shown in the drawing.
Particular description of goods.—Cream to Believe Tired, Burning, Aching, and Calloused Feet.
Claims use since Apr. 15, 1919.

Ser. No. 118,070. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) WILLIAM M. SHLAES, Chicago, Ill. Filed May 1, 1919.

HALLMARK

Particular description of goods.—Phonographs.
Claims use since Mar. 19, 1919.

Ser. No. 118,077. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W. L. CAPELL, Omaha, Nebr. Filed May 2, 1919.

UROLUETIC

Particular description of goods.—A Chemical Compound for Testing Urine.
Claims use since July, 1916.

Ser. No. 118,134. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BURRELL-DUGGER CO., Indianapolis, Ind. Filed May 5, 1919.

TALCIMIZED

Particular description of goods.—Insecticide or Preparation to Kill Lice.
Claims use since Mar. 15, 1919.

Ser. No. 118,190. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK STEARNS & CO., Detroit, Mich. Filed May 5, 1919.

ABSOCLEAN

Particular description of goods.—Dental Cream, Liquid for Perspiration, Shampoo, Hair-Tonic, Foot-Powder, and Mouth-Wash.
Claims use since Sept. 25, 1917.

Vol. 263. No. 2.

TRADE-MARK REGISTRATIONS GRANTED

JUNE 10, 1919.

125,716. COTTON PIECE GOODS. AMORY BROWNE EXPORT CORP., Boston, Mass., and New York, N. Y.
Filed November 22, 1918. Serial No. 114,282. PUBLISHED MARCH 4, 1919.

125,717. NIGHT-TAPERS. PETER ALEXANDER BEATTY, New Orleans, La.
Filed December 20, 1918. Serial No. 114,728. PUBLISHED MARCH 4, 1919.

125,718. CHOCOLATE COATINGS AS APPLIED TO CONFECTIONERY. BORDEN'S CONDENSED MILK COMPANY, New York, N. Y.
Filed June 14, 1918. Serial No. 111,562. PUBLISHED FEBRUARY 18, 1919.

125,719. PHARMACEUTICAL PREPARATION FOR GENERAL DEBILITY, NEURASTHENIA, ANEMIA, CHLOROSIS, DYSPMENORRHEA, LEUCORRHEA, CONSTIPATION, GONORRHEA, URETHRAL CATHARRH. JOHN BOURAZANIS, Pittsburgh, Pa.
Filed May 23, 1918. Serial No. 111,124. PUBLISHED FEBRUARY 25, 1919.

125,720. MEDICINAL TONIC FOR THE NERVOUS SYSTEM FOR PURIFYING THE BLOOD AND AIDING DIGESTION. JOHN BOURAZANIS, Pittsburgh, Pa.
Filed May 23, 1918. Serial No. 111,125. PUBLISHED FEBRUARY 25, 1919.

125,721. CERTAIN NAMED ARTICLES MADE OF COTTON AND LINEN. JOHN S. BROWN & SONS, LIMITED, Belfast, Ireland.
Filed May 13, 1918. Serial No. 110,856. PUBLISHED JANUARY 28, 1919.

125,722. PURGATIVE LIVER-TABLETS. THE CALOIDS COMPANY, Atlanta, Ga.
Filed December 21, 1918. Serial No. 114,761. PUBLISHED FEBRUARY 25, 1919.

125,723. HAIR-TONIC. MACK COMMINS, Gadsden, Ala.
Filed May 25, 1918. Serial No. 111,149. PUBLISHED FEBRUARY 25, 1919.

125,724. CANNED ARTICLE OF FOOD CONSISTING PRINCIPALLY OF FRIED FRESH CODFISH AND MASHED POTATOES. CROCKER & COMPANY, Seattle, Wash.
Filed July 16, 1918. Serial No. 112,164. PUBLISHED MARCH 4, 1919.

125,725. STEEL IN FORM OF BARS, RODS, BILLETS, BLOOMS, SHEETS, PLATES, SLABS, STRIPS, BLOCKS, AND FORGINGS. CRUCIBLE STEEL COMPANY OF AMERICA, Pittsburgh, Pa.
Filed August 28, 1918. Serial No. 112,903. PUBLISHED FEBRUARY 11, 1919.

125,726. BREAD, ROLLS, AND CAKES. PETER M. DORSCH, Washington, D. C.
Filed March 23, 1917. Serial No. 102,373. PUBLISHED JANUARY 28, 1919.

125,727. RESUSCITATING APPARATUS, BREATHING APPARATUS, MASKS, HELMETS, PRESSURE REGULATORS, AIR-REGENERATORS, VALVES, AND PARTS THEREFOR. THE DRACER OXYGEN APPARATUS COMPANY, New York, N. Y., and Pittsburgh, Pa.
Filed November 25, 1918. Serial No. 114,334. PUBLISHED MARCH 4, 1919.

125,728. TEXTILE GOODS FOR UNDERWEAR MADE OF COTTON, WOOL, SILK, OR A MIXTURE OF THESE. FAIRFAX TEXTILE MILLS, INC., New York, N. Y.
Filed November 25, 1918. Serial No. 114,336. PUBLISHED MARCH 4, 1919.

125,729. COTTON-TWILL SHOE-LININGS IN THE PIECE. FARNSWORTH, HOYT CO., Boston, Mass.
Filed October 7, 1918. Serial No. 113,008. PUBLISHED MARCH 4, 1919.

125,730. IRON AND STEEL. FEDERAL TOOL & ALLOY STEEL CORPORATION, New York, N. Y.
Filed December 16, 1918. Serial No. 114,671. PUBLISHED FEBRUARY 11, 1919.

125,731. CERTAIN NAMED COOLING PREPARATION. FISKE BROTHERS REFINING CO., New York, N. Y.
Filed January 26, 1917. Serial No. 100,958. PUBLISHED FEBRUARY 11, 1919.

125,732. LAUNCHING-GREASE. FISKE BROTHERS REFINING CO., New York, N. Y.
Filed December 20, 1918. Serial No. 114,737. PUBLISHED FEBRUARY 11, 1919.

125,733. SURGICAL DEVICES TO COMPRESS THE FLESH, AND THEREBY ABRASE AND SCORE IT. WILLIAM H. FITZ GERALD, Hartford, Conn.
Filed June 23, 1917. Serial No. 104,642. PUBLISHED FEBRUARY 25, 1919.

125,734. TIES, CRAVATS, FOUR-IN-HAND TIES, AND BOW-TIES. FRIEDMAN BROS. & SON NECKWEAR COMPANY INC., New York, N. Y.
Filed March 25, 1918. Serial No. 109,765. PUBLISHED MARCH 4, 1919.

125,735. VEILS AND VEILINGS. FULD, TRAUBE & CO., INC., New York, N. Y.
Filed November 22, 1918. Serial No. 114,289. PUBLISHED MARCH 4, 1919.

125,736. COMPOSITION IN THE NATURE OF A LUBRICATING OIL OR GREASE FOR COOLING HOT BOXES. JULIUS Q. GILL, Peoria, Ill.
Filed September 6, 1918. Serial No. 113,046. PUBLISHED FEBRUARY 11, 1919.

125,737. CHEWING-GUM. THE GODEY GUM CO., Boston, Mass.
Filed December 2, 1918. Serial No. 114,447. PUBLISHED MARCH 4, 1919.

125,738. PIANO-POLISH. JOHN HARDY, Buffalo, N. Y.
Filed August 3, 1918. Serial No. 112,491. PUBLISHED MARCH 4, 1919.

125,739. COTTON, SILK, LINEN, AND CANVAS SHOE FABRICS. DANIEL W. HERRMAN, New York, N. Y.
Filed November 7, 1918. Serial No. 114,077. PUBLISHED FEBRUARY 18, 1919.

125,740. CERTAIN NAMED PAINTS AND PAINTERS' MATERIALS. HEYSTER & CANFIELD CO., Grand Rapids, Mich.
Filed August 27, 1918. Serial No. 112,891. PUBLISHED MARCH 4, 1919.

125,741. CANNED VEGETABLES, CANNED FRUITS, WHEAT-FLOUR AND SELF-RISEING FLOUR, AND COFFEE. H. G. HILL GROCERY COMPANY, Nashville, Tenn.
Filed January 13, 1919. Serial No. 115,145. PUBLISHED MARCH 4, 1919.

125,742. AUTOMOBILE-BODY POLISH AND FURNITURE-POLISH. GEORGE H. INVINE, Detroit, Mich.
Filed December 28, 1918. Serial No. 114,855. PUBLISHED MARCH 4, 1919.

125,743. RIBBONS. JOHNSON, COWDIN & CO., New York, N. Y.
Filed April 10, 1918. Serial No. 110,095. PUBLISHED MARCH 4, 1919.

125,744. RIBBONS. JOHNSON, COWDIN & CO., New York, N. Y.
Filed January 28, 1919. Serial No. 115,483. PUBLISHED MARCH 4, 1919.

- 125,745. PREPARATION FOR CERTAIN NAMED AILMENTS AND DISEASES. MAURICE P. KASSMAN, Binghamton, N. Y.
Filed December 3, 1918. Serial No. 114,466. PUBLISHED MARCH 4, 1919.
- 125,746. UNPOPPED POPCORN. HARRY A. KESTING, Kansas City, Mo.
Filed October 31, 1918. Serial No. 113,973. PUBLISHED MARCH 4, 1919.
- 125,747. FLAVORING EXTRACT FOR FOODS. H. KOHNSTAMM & CO., New York, N. Y.
Filed January 13, 1919. Serial No. 115,149. PUBLISHED MARCH 4, 1919.
- 125,748. CANDY. CYRIL C. MAHAN, Baltimore, Md.
Filed July 15, 1918. Serial No. 112,147. PUBLISHED MARCH 4, 1919.
- 125,749. RAZORS AND RAZOR-BLADES. JOE. MCKENTHIN & SONS, Newark, N. J.
Filed July 28, 1917. Serial No. 105,345. PUBLISHED FEBRUARY 11, 1919.
- 125,750. CERTAIN NAMED DRILLS AND FILES USED FOR THE MACHINING AND CUTTING OF STEEL AND IRON. MONDIAL STEEL AND TOOL COMPANY, Inc., New York, N. Y.
Filed March 29, 1918. Serial No. 109,874. PUBLISHED JANUARY 28, 1919.
- 125,751. BAKERY PRODUCTS—NAMESLY, BREAD. RALPH L. NAFZIGER, Kansas City, Mo.
Filed January 28, 1919. Serial No. 115,485. PUBLISHED MARCH 4, 1919.
- 125,752. CERTAIN NAMED ENAMELED METAL WARE. NATIONAL ENAMELING & STAMPING CO., New York, N. Y.
Filed February 5, 1918. Serial No. 108,837. PUBLISHED FEBRUARY 11, 1919.
- 125,753. COFFEE, TEA, COCOA, LEMON EXTRACT AND VANILLA EXTRACT FOR FLAVORING FOODS. GEORGE LAWSON NEFF, Pittsburgh, Pa.
Filed June 21, 1917. Serial No. 104,591. PUBLISHED MARCH 4, 1919.
- 125,754. RHEUMATISM MEDICINE. CLIFFORD V. NEWELL, Oklahoma, Okla.
Filed August 13, 1918. Serial No. 112,096. PUBLISHED MARCH 4, 1919.
- 125,755. DYES. NORTH AMERICAN DYE CORPORATION, New Rochelle, N. Y.
Filed December 20, 1918. Serial No. 114,744. PUBLISHED FEBRUARY 25, 1919.
- 125,756. PREPARATIONS FOR THE TREATMENT OF EARACHE, TOOTHACHE, HEADACHE. FRED H. OSBORNE, Detroit, Mich.
Filed April 5, 1917. Serial No. 102,751. PUBLISHED MARCH 4, 1919.
- 125,757. LEATHER-DYE. RESTORFF & BETTMANN, New York, N. Y.
Filed December 2, 1918. Serial No. 114,457. PUBLISHED FEBRUARY 25, 1919.
- 125,758. SALAD SANDWICH-FILLING. THE RIALTO CORPORATION, Long Beach, Calif.
Filed October 21, 1918. Serial No. 113,836. PUBLISHED MARCH 4, 1919.
- 125,759. MOTION-PICTURE FILMS. ROTHACKER FILM MFG. CO., Chicago, Ill.
Filed January 13, 1919. Serial No. 115,162. PUBLISHED FEBRUARY 18, 1919.

- 125,760. LUBRICATING-OILS. THE SCHOFIELD OIL CO., Inc., New York, N. Y.
Filed January 17, 1919. Serial No. 115,264. PUBLISHED FEBRUARY 18, 1919.
- 125,761. SELF-RISEING FLOUR. THE SOUTHWESTERN MILLING COMPANY, Inc., New York, N. Y., and Kansas City, Mo.
Filed May 5, 1918. Serial No. 94,942. PUBLISHED MARCH 4, 1919.
- 125,762. LADIES' AND GENTLEMEN'S CRAVATS. ARTHUR SIDOMAN, Inc., New York, N. Y.
Filed June 6, 1918. Serial No. 111,398. PUBLISHED DECEMBER 10, 1918.
- 125,763. WHITE MINERAL OIL FOR USE AS AN INGREDIENT IN THE MANUFACTURE OF FACIAL CREAM. STANDARD OIL COMPANY, Bayonne, N. J.
Filed December 18, 1918. Serial No. 114,707. PUBLISHED FEBRUARY 25, 1919.
- 125,764. MOLASSES. SUGAR PRODUCTS COMPANY, New York, N. Y.
Filed May 15, 1918. Serial No. 110,911. PUBLISHED MARCH 4, 1919.
- 125,765. ANTISEPTIC AND HEALING BALM FOR INTERNAL AND EXTERNAL APPLICATION. WILLIAM TAYLOR, Hampton Hill, England.
Filed October 5, 1918. Serial No. 113,595. PUBLISHED FEBRUARY 25, 1919.
- 125,766. COTTON PIECE GOODS. THORNDIKE COMPANY, Thorndike, Mass.
Filed November 22, 1918. Serial No. 114,303. PUBLISHED MARCH 4, 1919.
- 125,767. CHEMICAL CARBON-REMOVER AND CHEMICAL GAS-SAVER. CHRIST J. ULICH, St. Louis, Mo.
Filed October 9, 1918. Serial No. 113,638. PUBLISHED MARCH 4, 1919.
- 125,768. DISINFECTANTS AND INSECTICIDES. UNITED SANITARY PRODUCTS CO., Inc., New York, N. Y.
Filed November 18, 1918. Serial No. 114,232. PUBLISHED MARCH 4, 1919.
- 125,769. MACARONIC FOODS—NAMESLY, MACARONI, VERMICELLI, SPAGHETTI, AND BOG-NOODLES. UNITED STATES MACARONI COMPANY, Los Angeles, Calif.
Filed November 6, 1917. Serial No. 107,209. PUBLISHED MARCH 4, 1919.
- 125,770. COTTON PIECE GOODS. WATTS, STUBBINS & CO., New York, N. Y.
Filed November 4, 1918. Serial No. 114,046. PUBLISHED MARCH 4, 1919.
- 125,771. HAIR-NETS. AUGUSTUS A. WAST, Philadelphia, Pa., assignor to David L. Short, Philadelphia, Pa.
Filed January 7, 1919. Serial No. 115,038. PUBLISHED MARCH 4, 1919.
- 125,772. STORAGE BATTERIES. WILLARD STORAGE BATTERY COMPANY, Cleveland, Ohio.
Filed September 10, 1917. Serial No. 106,168. PUBLISHED DECEMBER 4, 1917.
- 125,773. STORAGE BATTERIES AND PARTS THEREOF. WILLARD STORAGE BATTERY COMPANY, Cleveland, Ohio.
Filed December 7, 1917. Serial No. 107,823. PUBLISHED FEBRUARY 11, 1919.

TRADE-MARK REGISTRATIONS RENEWED.

16,892. RUBBER OR COTTON HOSE. REVERE RUBBER COMPANY, Boston, Mass., a Corporation of Massachusetts; Revere Rubber Company, a Corporation of Rhode Island, successor.
Registered July 30, 1889. Renewed July 30, 1919.

16,893. RUBBER OR COTTON HOSE. REVERE RUBBER COMPANY, Boston, Mass., a Corporation of Massachusetts; Revere Rubber Company, a Corporation of Rhode Island, successor.
Registered July 30, 1889. Renewed July 30, 1919.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE THE CRAIG TRACTOR COMPANY.

Decided May 28, 1919.

TRADE-MARKS—NAMES OF THE APPLICANT—DISTINCTIVE DISPLAY.

The words "Craig Tractor," in staggered relation, with a heavy black line over the word "Craig" and a heavy black line under the first three letters thereof, the bottom black line forming the top of the first letter of the word "Tractor," held registrable, since the name is distinctively displayed.

ON APPEAL.

TRADE-MARK FOR FARM-TRACTORS.

Messrs. Hervey, Barber & McKee for the applicant.

NEWTON, Commissioner:

This is an appeal from the decision of the Examiner of Trade-Marks refusing to register as a trade-mark for tractors the words "Craig Tractor," the words being in staggered relation, with a heavy black line over the word "Craig" and a heavy black line under the first three letters of the name, the bottom black line forming the top of the "T," the first letter of "Tractor," the refusal being based on the ground that "Craig" is a common surname and that the display of it is not sufficient "to submerge the identity of the word Craig."

The statutes do not require that the name be so written as to "submerge the identity of the name." The statute only says, in effect, that more names will not be registered. Just how much variation from the plainly-written name will take it into the realm of registrability is difficult to say. As a matter of fact the registration of facsimile signatures of individuals' names has never been refused. Whether a facsimile signature "submerges the identity of the name" is questionable. To some people it might, but to the ordinary observer it would not.

Since the courts will ordinarily protect these names, it is held that the Office should not require more than the statute intended. It is apparent from the discussion of the trade-mark statute before its passage that the framers of the statute tried to follow the prevailing trade-mark practice at the time the statute was proposed, and up to that time the practice had been to register marks of the character displayed by applicant, and following that practice it is held that applicant's mark may be registered, since the statute, fairly construed, is broad enough to permit it, and the decision of the Examiner of Trade-Marks is overruled.

[Vol. 288.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Fifth Circuit.

TIFFANY & PAPER PRODUCTS CO.

Decided October 28, 1918.

[258 Fed. Rep., 958.]

1. PATENTABILITY—MAKING TWO PARTS INTEGRAL.

Where the prior art disclosed a cone-tube for supporting yarn having a square nose or tip and it was the custom to provide such tip with a button or ball of acorn shape, it involved no invention to make in one piece a cone-tube of the same shape.

2. SAME—ROUNDING END OF A CONE-TUBE FOR KNITTING-MACHINES.

The Gess patent, No. 986,379, for a cone-tube for use in knitting-machines as a support for masses of yarn, which involved the rounding of the nose or end of prior devices to eliminate the danger of the last few rounds catching and breaking on the edge of the cone, while a distinct improvement, held invalid as lacking invention; also anticipated by prior art devices.

3. SAME—DEVICE MUST INVOLVE INVENTION.

The design of the patent laws is to reward those who make some substantial discovery which adds to our knowledge, etc.; but it was never the object of those laws to grant a monopoly for every trifling device or shadow of a shade of an idea which would naturally occur to any skilled mechanic.

4. SAME—ANTICIPATION—PRIOR USE.

Under Revised Statutes, section 4896, (Comp. St., 1916, sec. 9430,) use by others of an invention prior to patenting does not invalidate the patent where the time did not exceed two years prior to the application and the patentee was the first to actually make the invention.

APPEAL from the District Court of the United States for the Northern District of Georgia; William T. Newman, judge.

Bill by Henry L. Tiffany against the Paper Products Company. From a decree dismissing the bill (244 F., 178) complainant appeals. Affirmed.

Mr. Frederick L. Emery, Mr. Irving U. Townsend, and Mr. Robert C. Alston for the appellant.

Mr. John M. Colt and Mr. Wm. H. Trawick for the appellee.

Before WALKER and BATES, Circuit Judges, and JACK, District Judge.

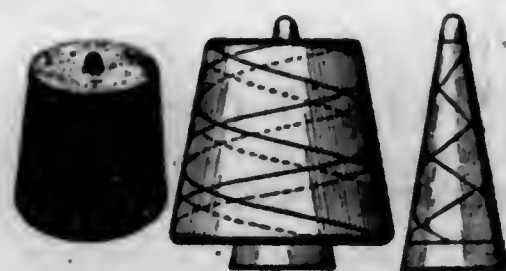
JACK, Dis. J.:

The appellant has appealed from a decree dismissing his bill of complaint, charging infringement of a patent to one Charles Gess, granted March 7, 1911, on application filed January 8, 1911, covering an improvement in the construction of a cone-tube adapted for use in knitting-machines as a support for masses of yarn, from which the yarn

329

is drawn to the knitting-machine which knits it into fabric.

The cone patented is made of compressed paper or pasteboard with roughened outer surface to hold the yarn, which is wound on it axially as shown in illustration:



At the point of the cone the paper is smooth, and the edges turned in and rounded in an arch or dome shape, so as to practically or quite close the opening in the apex. The improvement on the old cone, which had been in use many years, was in thus smoothing and turning in the point. The new cone, in contradistinction to the old, is generally known as a round-nosed cone; the old cone being generally referred to as a square-nosed cone, though this latter term is misleading, as the point is not square, but circular, and flat, instead of arched, as in the Gess cone.

The chief advantage claimed for the Gess patent is that it removes the sharp edges, which are easily mashed outward, and on which the yarn, as the top of the cone becomes bare in unwinding, frequently catches and breaks.

In addition to the advantage claimed for the "round-nosed" cone in the unwinding of the yarn, it is claimed that its arched formation gives it greater strength, so that it stands greater weight and is less apt to be crushed in shipping. This, however, is not one of the advantages claimed for it in the specifications, and the drawing indicates a central opening left in the apex, although the patent suggests that the tip be turned "preferably so as to substantially, if not wholly, close said tip end."

The fundamental purpose of the patentee was to make a cone from which all of the yarn could be unwound, eliminating the danger of the last few rounds catching and breaking on the edge of the cone; hence the name which he gave it, "Knittall."

The sole question at issue is the validity of the patent. The trial court, in dismissing the bill, held that the improvement in the cone did not involve invention, but was merely such an improvement as would have readily occurred to any one skilled in the art.

Even assuming, then, that this round-nosed cone had not been anticipated in the prior art, if it is a thing which would naturally and spontaneously occur to any skilled mechanic or operator, in the ordinary progress of manufacture, it is not a patentable invention. The distinction between mere mechanical knowledge or the knowledge of one familiar with the particular art or trade, on the one hand, and the exercise of the creative faculty or the faculty of invention, on the other hand, is at times quite difficult. There may be some difficulty about it here, but it seems to me that the mere turning of the edges of the square-nosed cone which had been in use for many years, and turning it in so that the ragged edges of the square-nosed cone would not be there to in-

tercept the movement of the yarn or thread, is a thing which would occur readily to any one skilled in the art or even reasonably familiar with the business of spinning yarn and adapting the same to be used readily in knitting mills. It is not right to the public to class it as having been such an invention or discovery as is patentable.

The evidence shows that Gess's idea was not a new one. It had been applied by McCausland in the cop-tube many years before. The cop-tube, like the cone, was, and still is, used as a support for yarn. McCausland's patent specifically provides for the turning in of the edge of the smaller end of the tube (see illustration) and the same idea is also found in several wooden bobbins with rounded noses.



The Gess cone. McCausland cop-tube.

It has, for a long time, been the custom to cap the "square-nosed" cone with a button or ball, of acorn shape, with a stem which fits down into the hole in the apex of the cone, thus giving the top of the "square-nosed" cone the same rounded, arched, shape as the Gess "round-nosed" cone.

Plaintiff, Tiffany, himself testified that he had seen many of these "acorns" used, before the Gess cone came on the market, entirely doing away with their use. With the acorn inserted, the cones were practically the same, save that the Gess cone consisted of only one piece, and the square-nosed cone of two. Combining the two into one did not involve invention.

Not only was Gess's idea in rounding the nose of his cone utilized long prior by McCausland in his cop-tube, and by many manufacturers in the use of the acorn device, but the record fails to show that Gess was even the first to apply this old idea in the manufacture of cones. The evidence shows that the same McCausland who invented the cop-tube, as early as September, 1900, over a year prior to Gess's application for patent, January 3, 1911, had installed a machine for the purpose, and was turning in the edges of second-hand cones.

The plaintiff claims, however, that such use by others under section 4896 of the Revised Statutes did not invalidate the patent, where the time did

[Vol. 22.]

not exceed two years prior to the application. This is true, provided the patentee was the first to actually make the invention; but there is no proof in the record to show the date of the invention. Gess was not a witness. The only dates shown in the record are the dates of the application for the patent and the date the patent was issued. The record shows that plaintiff, Tiffany, who later became the assignee of Gess, as early as April, 1909, contracted with the Pairpoint Corporation to manufacture a number of these round-nosed cones. There is no evidence, however, to show any privity between Tiffany and Gess at the time, or that Tiffany acted as the agent or the licensee of Gess. The only testimony bearing on this point is that of Shurtleff, of the Pairpoint Corporation, who testified that Tiffany—

discovered that a round-pointed, smooth-finished cone, that was closed at the tip end, would be a great improvement.

He was asked by counsel for the plaintiff in what sense he used the word "discovered," and replied:

He (Mr. Tiffany) first brought it to our attention, though I understand that the discovery was made by Mr. Gess.

Shurtleff does not state that he understood, from Tiffany or any one else, at the time the order was given, that the invention was that of Gess. It is only clear that he so understood at the time of the trial. Neither does Tiffany, who was a witness, testify that he was acting for, or as the licensee of, Gess. From the mere fact that he afterward became the assignee of Gess and had the patent issued to him, it would not necessarily follow that he was acting for Gess at the time he made the contract with the Pairpoint Corporation. He may have gotten the idea from Gess, or from a third person.

Regardless, however, of the question as to who first conceived the idea, or put it into effect, it was but a simple and natural step in the progress of the art, and the patent should not have issued.

It is evident that the turning in of the small end of the cone-tube constituted a distinct improvement; but it required no inventive faculty, because of the very fact that it was so evident. It was but the natural thing to do. The evidence shows that employees, in factories using the square-nosed cones, frequently, as the yarn was wound off, pushed in the edges of the points with their fingers. The advantage of having the point turned in was thus obvious, and such as would, in due course, suggest itself to any skilled mechanic.

Gess noticed that the edge of the top of the cone, while the yarn was being unwound, had a tendency to protrude outward in the way of the yarn. His idea was simply to bend it inward out of the way. This required merely the brain of a skilled workman, and not the genius of an inventor. The patentee had the foresight to see that this very simple and natural evolution of the cone-tube would be of commercial value; but such business acumen did not make the idea patentable.

As was said by the Supreme Court in *Atlantic* 263 O. G.—22 [Vol. 200.]

Works v. Brady, (107 U. S., 192; 2 Sup. Ct., 223; 27 L. Ed., 493.)

The design of the patent laws is to reward those who make some substantial discovery or invention, which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favor. It was never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufacture. Such an indiscriminate creation of exclusive privileges tends rather to obstruct than to stimulate invention. It creates a class of speculative schemers, who make it their business to watch the advancing wave of improvement, and gather its foam in the form of patented monopolies, which enable them to lay a heavy tax upon the industry of the country, without contributing anything to the real advancement of the arts. It embarrasses the honest pursuit of business with fears and apprehensions of concealed liens and unknown liabilities to lawsuits and vexatious accounting for profits made in good faith.

And again in *Pope v. Gormally*, (144 U. S., 254; 12 Sup. Ct., 643; 36 L. Ed., 426.)

They appear to involve such immaterial changes as would be required to adapt a known device to use in a combination with other elements already existing, and such as would occur to any skilled mechanic. Indeed, the object of these patents, and the same remark may be made of all, or nearly all, involved in these suits, seems to have been principally to forestall competition, rather than to obtain the just rewards of an inventor.

We are of the opinion that there is no error in the decree of the lower court, and the same is affirmed.

Supreme Court of the United States.

BROTHERS v. THE UNITED STATES.

Decided May 12, 1919.

PATENTS—INFRINGEMENT—CABLE-CRANES WITH GRAVITY-ANCHORS.

The Brothers' patent, No. 551,614, for a cable-crane with a gravity-anchor consisting of a rigid tower and a tilting anchor-tower, from which a counterweight is suspended to take up the slack of the cable, held not infringed by a crane in which both towers were designed and intended to be rigid, even though in the subsequent tightening of the cables for the purpose of carrying the load over and free from the work which was being constructed there was a yielding of the towers under stress of the load, since there was no semblance of an outward inclination of a yielding support, but rather a tendency on the part of both rigid towers to collapse inwardly under an undue stress.

APPEAL from the Court of Claims.

Mr. William F. Brothers pro se.

Mr. Assistant Attorney-General Frierson for the defendant.

Mr. Justice PITNEY delivered the opinion of the Court.

Appellant brought this action in the Court of Claims under the act of June 25, 1910, (ch. 423; 36 Stat., 851,) to recover compensation for the unlicensed use by the United States in the Panama Canal work of his patented invention for "improvements in cable-cranes with gravity-anchors." That court made findings of fact upon which it concluded as matter of law that there was no infringement of claimant's patent, and thereupon dismissed his petition. (52 Ct. Cls., 462.)

From the findings it appears that claimant filed application for his patent July 18, 1895, and, upon such application, Letters Patent No. 551,614 were granted and issued, under date December 17, 1895, to his assignees Sarah E. Brothers and Maria A. Brown, to whom he had made assignment pending the application. Subsequently the Letters Patent No. 2.]

were assigned to claimant, under date October 2, 1912, two and one-half months prior to their expiration by limitation on December 17, 1912. His claim to compensation is necessarily limited to this brief period, since there could be no assignment to him of any unliquidated claim against the Government arising prior to the time he became the owner of the patent. (Rev. Stat., sec. 3477.)

No question is made but that plaintiff's invention was broadly new, a pioneer in its line, and the patent entitled to a broad construction and the claims to a liberal application of the doctrine of equivalents. (See *Brothers v. Lidgerwood Mfg. Co.*, 223 Fed. Rep., 350.) It relates to the method of erecting and operating a suspension-cable adapted to carrying a traveling crane or the like. Roughly speaking, the prior art consisted in supporting such cables upon rigid and unyielding towers at each end, so as to prevent an undue sagging of the cable under the strain of its load. Claimant's invention consisted in employing a rigid support or abutment at one end of the cable and what is called a "gravity anchor" at the opposite end, consisting of outwardly-inclined shears with the cable attached thereto and a weight hung permanently from the shears on the opposite side, which weight, together with the weight of the shears, puts a tension upon the cable varying according to the weight of the structure and counterweight, combined with the degree of inclination of the structure; the operation of the tension device being automatically to take up the slack of the suspended cable when the load approaches the supports, with the result of permitting the load to be moved closer to the supports, with a given exertion of power, than before. There are other advantages not necessary to be specified. The essential feature of the patent is a non-yielding support or anchor at one end of the cable, and a yielding, tilting, or rocking support at the opposite end, consisting of outwardly-inclined shears or some equivalent structure held movably at the base, and a counterweight on the outer side. It is to be observed that rigidity of the head-tower is a *sine qua non*, necessary to produce tension of the cable; yielding supports at both ends would be a contradiction of terms, since with such an arrangement there would be no support, and the entire structure would collapse under its own weight. The importance of this will appear.

In the construction of the Panama Canal the Government installed in the year 1900, and maintained and used continuously thereafter until the expiration of the Brothers patent, one single cableway and six duplex or double cableways which are complained of in this case as infringements. As to the mode of construction, maintenance, and operation of these cableways, the findings of the Court of Claims are as follows:

The single and the duplex cableways were similar in general design and construction except that the towers of the former supported a single cable, while those of the latter supported two cables, parallel to each other, at a distance of eighteen feet apart, and each operated independently of the other, the length of the towers longitudinally of the canal cut being of proportionate dimension for the accommodation of the two cables. The towers were of structural steel construction; and taking the duplex cable-

[Vol. 93.]

ways for illustration, each tower in vertical cross section from front to rear was in the shape of a right-angle triangle, with a base of approximately fifty feet, a perpendicular or vertical height of about eighty-five feet, and a hypotenuse of about ninety-eight feet, with a length of about thirty-eight feet longitudinally of the canal. The two towers of the cableway stood facing each other, on opposite banks of the canal cut, with their hypotenuses facing toward the cut. The cable spanned across the cut between the tops of the towers was approximately eight hundred feet. The cables used were two and one-fourth inch steel-wire cables having a rated breaking stress of 200 tons. The cables were supported by headblocks or saddles at the tops of the towers, and their ends were carried down and firmly anchored to the counterweighted bases of the towers.

Rigidity of the towers was desired; and in order to secure this and hold the towers rigid against any tendency to tip, tilt, or yield under the stress of the suspended cables and their loads, the platform base at the rear side of each tower—that is, the side farthest from the canal cut—was counterweighted by a block of cement concrete of over one hundred and fifty tons weight, cast about the structural steel members of the base of the tower and extending along practically the entire length of the base. The entire weight of each tower, including the tower proper, the trucks upon which it was mounted, and the concrete counterweight, was upward of five hundred tons.

To facilitate the shifting or moving of the cableways along the canal cut as the work progressed each tower was mounted upon sets of trucks, similar to the trucks of railway cars, on the front and rear sides of the base of the tower, and the whole structure was mounted upon two standard-gauge railway tracks located on the bank of the canal cut at the proper distance from each other and from the similar tower tracks on the opposite bank of the cut.

The cableways were operated by electrical power from the machinery stations in the head tower of each cableway.

Subsequent to the construction and installation of said cableways they were maintained and operated without change in structural form or method of operation other than that as the height of the walls and other work of the canal increased, beginning about August, 1910, it became necessary, in order to admit of the loads being carried to pass clear of the works and men engaged thereon as the height of the work increased, to take up the slack or decrease the deflection of the cable. The cables were accordingly drawn up for said purpose. This tightening up of the cables or reduction of their deflection increased the effect of the load and weight of the cables upon the towers as regards their tendency to yield or tilt.

It was the intent and purpose of the engineer officers of the Canal Commission, by and under whom said cableways were designed, constructed, and operated, that the towers thereof should be rigid and nonyielding to the full extent that rigidity in cable towers was possible; and there was no tilting or yielding of said towers other than such as resulted from a yielding of the roadbed of the tracks supporting them, portions of which roadbed consisted of "fills" of excavated materials upon swampy ground. There is no satisfactory evidence that the towers either yielded or tilted at any time during the period of claimant's ownership of said Letters Patent.

Upon the argument here, appellant quoted somewhat amply from the evidence taken before the Court of Claims. For the purposes of our review the findings of that court are to be treated like the verdict of a jury, and we are not at liberty to refer to the evidence, any more than to the opinion, for the purpose of eking out, controlling, or modifying their scope. (*United States v. Smith*, 94 U. S., 214, 218; *Stone v. United States*, 164 U. S., 390, 392; *District of Columbia v. Barnes*, 197 U. S., 146, 150; *Crocker v. United States*, 240 U. S., 74, 78, and cases cited.)

We concur in the opinion of the Court of Claims that no infringement of claimant's patent is shown. In the act of June 25, 1910, under which this suit is brought and under which alone it could be brought, it is expressly provided that there shall be no such suit—

based on the use by the United States of any article heretofore owned, leased, used by, or in the possession of the United States.

In view of this and of the fact that the cableways complained of were theretofore in the possession of and used by the United States, claimant insists

[Vol. 93.]

that after the passage of the act the Government materially altered the cableways in such a manner as to make them infringe his patent. The contention is that the cables were tightened up in order to decrease their deflection, and that this tightening, in view of the loads carried by the cables, caused the supporting-towers to yield or tilt, and thus to become in essence movable towers like the gravity-anchors covered by the claimant's patent. But, as pointed out by the Court of Claims, it is beyond question that, as constructed and used generally, and as intended to be used, the Government cableways did not infringe claimant's device. The subsequent tightening of the cables was done in the orderly conduct of the work for the purpose of carrying the loads over and free from the work that was being constructed. So far as this caused a yielding of the tower under the stress of the load, it was an incidental result, affecting or tending to affect the towers on both sides, and not upon one side to the exclusion of the other. It did not amount to a mechanical equivalent of the claimant's structure; there is no semblance of an outward inclination of a yielding tower or yielding support, but rather a tendency on the part of rigid towers to break down or collapse inwardly under an undue stress. And, as we have shown, the rigidity of one support is as essential to claimant's structure as is the movability of the other.

Inasmuch as the findings fully support the judgment of the court below, its judgment must be and it is affirmed.

Supreme Court of the United States.

JOSEPH SCHLITZ BREWING COMPANY v. HOUSTON ICE & BREWING COMPANY et al.

Decided May 20, 1919.

1. TRADE-MARKS—INFRINGEMENT.

In determining the question whether two labels are deceptively similar it is not necessary that the imitation of a feature to which the plaintiff has the exclusive right when taken alone should be sufficient to deceive. It would be enough if, taken with the elements common to the public, the inscription accomplished a result that neither would alone.

2. SAME—SAME.

Where both plaintiff and defendant sell beer in brown bottles with brown labels, but plaintiff has no exclusive right to the color of the bottle or label, and the shape of defendant's label is quite different from that of plaintiff's and the script upon it is wholly different and the two labels are applied to the bottles in quite unlike modes, held that defendant's use of its label did not amount to unfair competition.

ON WRIT of certiorari to the United States Circuit Court of Appeals for the Fifth Circuit.

Mr. Russell H. Jackson for the petitioner.

Mr. H. M. Garwood for the respondent.

Mr. Justice HOLMES delivered the opinion of the Court.

This is a bill in equity brought to restrain the use of a trade-mark alleged to infringe the plaintiff's or at least to be used in a way that is calculated to deceive and unfairly to interfere with the plaintiff's good-will. Both courts have found for the defendant, (241 Fed. Rep., 817; 154 C. C. A.,

[Vol. 93.]

519,) so that the only question that we shall consider is whether upon inspection it can be said as matter of law that the admitted acts of the defendant are a wrong of which the plaintiff can complain.

Both parties sell beer in brown bottles with brown labels and the plaintiff conceded below and still with some unwillingness seems to concede that, although perhaps it first introduced them in this connection and this place, it cannot claim the brown bottle, the brown label, or the two combined. These could be used without a warning, such as sometimes is required, that the beer was not the plaintiff's. The only question is how the additional element, the form of the inscription, should be treated. It often is said that the plaintiff must show a deception arising from some feature of its own not common to the public. (*United States Tobacco Co. v. McGroenery*, 144 Fed. Rep., 551, 552, cited by the court below.) But so stated the proposition may be misleading. It is not necessary that the imitation of the plaintiff's feature taken alone should be sufficient to deceive. It is a fallacy to break the fagot stick by stick. It would be enough if taken with the elements common to the public the inscription accomplished a result that neither would alone. (*New England Aul & Needle Co. v. Marlborough Aul & Needle Co.*, 168 Mass., 154, 156.)

But it is true that the unlawful imitation must be what achieves the deception, even though it could do so only on the special background lawfully used. The question again narrowed is whether that is the case here. The shape of the defendant's label is different from the plaintiff's; the script upon it not only is wholly different from the other in meaning, to one who reads the two, but hardly can be said to resemble it as a picture. The two labels are attached to the bottles in quite unlike modes. The Schlitz is applied in a spiral around the length of the bottle so as to make the ends of the label parallel to the sides of the glass. The defendant's is pasted around the bottom of the bottle in the usual way. This diversity of itself renders mistake unlikely. If there were deception it seems to us that it would arise from beer and brown color and that it could not be said that the configuration appreciably helped. (*Coats v. Merrick Thread Co.*, 149 U. S., 562, 573.) Beyond stating the principles to be applied there is little to be said except to compare the impression made by the two, or, if that form of statement is preferred, the memory of Schlitz with the presence of the defendant's bottles as marked.

Decree affirmed.

Mr. Justice McKENNA and Mr. Justice PITNEY dissent.

ADJUDICATED PATENTS.

(U. S. C. C. A. N. Y.) The Howe reissue patent, No. 13,765, (original No. 1,043,771.) for box-strap-ping, Held valid and infringed. *Stanley Works v. Twisted Wire & Steel Co.*, 256 Fed. Rep., 66.

[Vol. 93.]

Appeals to the Court of Appeals of the District of Columbia—Time for Filing Transcript—Authority of the Commissioner to Extend.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,

Washington, D. C., June 3, 1919.

The following letter received from the clerk of the Court of Appeals of the District of Columbia is published for the information of those concerned.

J. T. NEWTON,
Commissioner.

OFFICE OF THE CLERK,
COURT OF APPEALS OF THE
DISTRICT OF COLUMBIA,

Washington, D. C., June 2, 1919.

The Commissioner of Patents, Washington, D. C.

SIR: In the case of *Lambert v. Hope & Lambert*, No. 534 on the original docket of this court, petition having been made to extend the time for filing the transcript, on appeal from the Commissioner of Patents, the court on May 31 denied said petition, on the ground that under the rules of this court the Commissioner of Patents has the authority to grant such extensions.

Very respectfully yours,

HENRY W. HODGES,
Clerk.

Applications Made to the Federal Trade Commission for Licenses Under Enemy-Controlled Patents and Trade-Marks Pursuant to the "Trading with the Enemy Act."

Patent No. 1,068,870, dated July 29, 1913, to Frederic B. Egler, of Göttingen, Germany, for "Dental apparatus." Application for license by Stratford-Cookson Company, Forty-second and Ludlow streets, Philadelphia, Pa.

Changes in Classification.

(Order No. 2,493.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 29, 1919.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 175, Electricity—General Applications, (Division XXXVII,) establish subclasses—

Switchboards—
369. Panel-board type—
370. Metering.
371. Sectional.

The patents contained in these subclasses have been taken for the most part from class 175, Electricity—General Applications, subclasses 274, Cut-outs, Thermal, Branch; 298, Switchboards, Miscellaneous, and 300, Switchboards, Details, and Class 247, Electricity—Conduits, subclasses 11, Junction-boxes, Thermal cut-outs, and 13, Junction-boxes, Overground, Panel-board type.

J. T. NEWTON,
Commissioner.

[Vol. 298. No. 2.]

Changes in Classification.

(Order No. 2,494.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 2, 1919.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 158, Liquid and Gaseous Fuel Burners, (Division XXX,) establish the following subclass and definition:

Burners—
Liquid fuel—
Fuel-feeding—
Steam regulation.

45.5. BURNERS, LIQUID FUEL, FUEL-FEEDING, STEAM REGULATION. Includes the fuel-burner structure and liquid-fuel-feeding systems, in which the feed of the fuel is controlled by pressure of the steam from the boiler, heated by the liquid-fuel burner.

The patents contained in this subclass have been taken for the most part from class 158, Liquid and Gaseous Fuel Burners, subclass 36, Burners, Liquid fuel, Fuel-feeding, and class 236, Dampers, Automatic, subclass 6, Fluid-pressure, abolished in Order No. 2,481.

J. T. NEWTON,
Commissioner.

Changes in Classification.

(Order No. 2,495.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 5, 1919.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 105, Railway Rolling-Stock, (Division XXXIV,) establish the following subclass and definition:

Trucks—
100.5. Lumber.

100.5. TRUCKS, LUMBER. Trucks for handling lumber, conveying it to drying-kilns, etc.

The patents contained in this subclass have been taken for the most part from class 21, Carriages and Wagons, subclass 122, Trucks, Drying.

J. T. NEWTON,
Commissioner.

Adverse Decisions in Interference.

PATENT No. 1,180,122.

On May 6, 1919, a decision was rendered that Nathan B. Hutton was not the first inventor of the subject-matter covered by claims 1 and 2 of his Patent No. 1,180,122, subject, "Safety clothes-wringer," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,364,938.

On May 8, 1919, a decision was rendered that Albert Hedina was not the first inventor of the subject-matter covered by claims 1 and 4 of his Patent No. 1,364,938, subject, "Electrical torpedo-net," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,371,961.

On May 9, 1919, a decision was rendered that William S. Teeple was not the first inventor of the subject-matter covered by claim 6 of his Patent No. 1,371,961, subject, "Glass-forming machine," and no appeal having been taken within the time allowed such decision has become final.

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 298—No. 2.

TUESDAY, JUNE 17, 1919.

Price—\$5 per year.

PUBLISHED JUNE 21, 1919.]

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.		Page.
LIST OF JUNE 17, 1919		285
ADVERSE DECISIONS IN INTERFERENCE		286
ADJUDICATED PATENTS		287
ADVERSE DECISIONS UNDER EXAMINATION		288
PATENTS GRANTED		289
DEATHS		290
DEATHS—RECEIVED FOR REGISTRATION		291
TRADE-MARK REGISTRATIONS GRANTED		292
TRADE-MARK REGISTRATIONS RENEWED		293
DEATHS OF THE U. S. OFFICE		294
DEATHS OF THE U. S. OFFICE		295
DEATHS OF THE U. S. OFFICE		296
DEATHS OF THE U. S. OFFICE		297
DEATHS OF THE U. S. OFFICE		298
DEATHS OF THE U. S. OFFICE		299
DEATHS OF THE U. S. OFFICE		300

Issues of June 17, 1919.

Patents	654—No. 1,366,679 to No. 1,367,332, inclusive.
Trade-Marks	81—No. 12,670 to No. 12,671, inclusive.
Trade-Marks	82—No. 12,672 to No. 12,673, inclusive.
Trade-Marks	83—No. 12,674 to No. 12,675, inclusive.
Trade-Marks	84—No. 12,676 to No. 12,677, inclusive.
Trade-Marks	85—No. 12,678 to No. 12,679, inclusive.
Trade-Marks	86—No. 12,680 to No. 12,681, inclusive.
Trade-Marks	87—No. 12,682 to No. 12,683, inclusive.
Trade-Marks	88—No. 12,684 to No. 12,685, inclusive.
Trade-Marks	89—No. 12,686 to No. 12,687, inclusive.
Trade-Marks	90—No. 12,688 to No. 12,689, inclusive.
Trade-Marks	91—No. 12,690 to No. 12,691, inclusive.
Trade-Marks	92—No. 12,692 to No. 12,693, inclusive.
Trade-Marks	93—No. 12,694 to No. 12,695, inclusive.
Trade-Marks	94—No. 12,696 to No. 12,697, inclusive.
Trade-Marks	95—No. 12,698 to No. 12,699, inclusive.
Trade-Marks	96—No. 12,700 to No. 12,701, inclusive.
Trade-Marks	97—No. 12,702 to No. 12,703, inclusive.
Trade-Marks	98—No. 12,704 to No. 12,705, inclusive.
Trade-Marks	99—No. 12,706 to No. 12,707, inclusive.
Trade-Marks	100—No. 12,708 to No. 12,709, inclusive.
Trade-Marks	101—No. 12,710 to No. 12,711, inclusive.
Trade-Marks	102—No. 12,712 to No. 12,713, inclusive.
Trade-Marks	103—No. 12,714 to No. 12,715, inclusive.
Trade-Marks	104—No. 12,716 to No. 12,717, inclusive.
Trade-Marks	105—No. 12,718 to No. 12,719, inclusive.
Trade-Marks	106—No. 12,720 to No. 12,721, inclusive.
Trade-Marks	107—No. 12,722 to No. 12,723, inclusive.
Trade-Marks	108—No. 12,724 to No. 12,725, inclusive.
Trade-Marks	109—No. 12,726 to No. 12,727, inclusive.
Trade-Marks	110—No. 12,728 to No. 12,729, inclusive.
Trade-Marks	111—No. 12,730 to No. 12,731, inclusive.
Trade-Marks	112—No. 12,732 to No. 12,733, inclusive.
Trade-Marks	113—No. 12,734 to No. 12,735, inclusive.
Trade-Marks	114—No. 12,736 to No. 12,737, inclusive.
Trade-Marks	115—No. 12,738 to No. 12,739, inclusive.
Trade-Marks	116—No. 12,740 to No. 12,741, inclusive.
Trade-Marks	117—No. 12,742 to No. 12,743, inclusive.
Trade-Marks	118—No. 12,744 to No. 12,745, inclusive.
Trade-Marks	119—No. 12,746 to No. 12,747, inclusive.
Trade-Marks	120—No. 12,748 to No. 12,749, inclusive.
Trade-Marks	121—No. 12,750 to No. 12,751, inclusive.
Trade-Marks	122—No. 12,752 to No. 12,753, inclusive.
Trade-Marks	123—No. 12,754 to No. 12,755, inclusive.
Trade-Marks	124—No. 12,756 to No. 12,757, inclusive.
Trade-Marks	125—No. 12,758 to No. 12,759, inclusive.
Trade-Marks	126—No. 12,760 to No. 12,761, inclusive.
Trade-Marks	127—No. 12,762 to No. 12,763, inclusive.
Trade-Marks	128—No. 12,764 to No. 12,765, inclusive.
Trade-Marks	129—No. 12,766 to No. 12,767, inclusive.
Trade-Marks	130—No. 12,768 to No. 12,769, inclusive.
Trade-Marks	131—No. 12,770 to No. 12,771, inclusive.
Trade-Marks	132—No. 12,772 to No. 12,773, inclusive.
Trade-Marks	133—No. 12,774 to No. 12,775, inclusive.
Trade-Marks	134—No. 12,776 to No. 12,777, inclusive.
Trade-Marks	135—No. 12,778 to No. 12,779, inclusive.
Trade-Marks	136—No. 12,780 to No. 12,781, inclusive.
Trade-Marks	137—No. 12,782 to No. 12,783, inclusive.
Trade-Marks	138—No. 12,784 to No. 12,785, inclusive.
Trade-Marks	139—No. 12,786 to No. 12,787, inclusive.
Trade-Marks	140—No. 12,788 to No. 12,789, inclusive.
Trade-Marks	141—No. 12,790 to No. 12,791, inclusive.
Trade-Marks	142—No. 12,792 to No. 12,793, inclusive.
Trade-Marks	143—No. 12,794 to No. 12,795, inclusive.
Trade-Marks	144—No. 12,796 to No. 12,797, inclusive.
Trade-Marks	145—No. 12,798 to No. 12,799, inclusive.
Trade-Marks	146—No. 12,800 to No. 12,801, inclusive.
Trade-Marks	147—No. 12,802 to No. 12,803, inclusive.
Trade-Marks	148—No. 12,804 to No. 12,805, inclusive.
Trade-Marks	149—No. 12,806 to No. 12,807, inclusive.
Trade-Marks	150—No. 12,808 to No. 12,809, inclusive.
Trade-Marks	151—No. 12,810 to No. 12,811, inclusive.
Trade-Marks	152—No. 12,812 to No. 12,813, inclusive.
Trade-Marks	153—No. 12,814 to No. 12,815, inclusive.
Trade-Marks	154—No. 12,816 to No. 12,817, inclusive.
Trade-Marks	155—No. 12,818 to No. 12,819, inclusive.
Trade-Marks	156—No. 12,820 to No. 12,821, inclusive.
Trade-Marks	157—No. 12,822 to No. 12,823, inclusive.
Trade-Marks	158—No. 12,824 to No. 12,825, inclusive.
Trade-Marks	159—No. 12,826 to No. 12,827, inclusive.
Trade-Marks	160—No. 12,828 to No. 12,829, inclusive.
Trade-Marks	161—No. 12,830 to No. 12,831, inclusive.
Trade-Marks	162—No. 12,832 to No. 12,833, inclusive.
Trade-Marks	163—No. 12,834 to No. 12,835, inclusive.
Trade-Marks	164—No. 12,836 to No. 12,837, inclusive.
Trade-Marks	165—No. 12,838 to No. 12,839, inclusive.
Trade-Marks	166—No. 12,840 to No. 12,841, inclusive.
Trade-Marks	167—No. 12,842 to No. 12,843, inclusive.
Trade-Marks	168—No. 12,844 to No. 12,845, inclusive.
Trade-Marks	169—No. 12,846 to No. 12,847, inclusive.
Trade-Marks	170—No. 12,848 to No. 12,849, inclusive.
Trade-Marks	171—No. 12,850 to No. 12,851, inclusive.
Trade-Marks	172—No. 12,852 to No. 12,853, inclusive.
Trade-Marks	173—No. 12,854 to No. 12,855, inclusive.
Trade-Marks	174—No. 12,856 to No. 12,857, inclusive.
Trade-Marks	175—No. 12,858 to No. 12,859, inclusive.
Trade-Marks	176—No. 12,860 to No. 12,861, inclusive.
Trade-Marks	177—No. 12,862 to No. 12,863, inclusive.
Trade-Marks	178—No. 12,864 to No. 12,865, inclusive.
Trade-Marks	179—No. 12,866 to No. 12,867, inclusive.
Trade-Marks	180—No. 12,868 to No. 12,869, inclusive.
Trade-Marks	181—No. 12,870 to No. 12,871, inclusive.
Trade-Marks	182—No. 12,872 to No. 12,873, inclusive.
Trade-Marks	183—No. 12,874 to No. 12,875, inclusive.
Trade-Marks	184—No. 12,876 to No. 12,877, inclusive.
Trade-Marks	185—No. 12,878 to No. 12,879, inclusive.
Trade-Marks	186—No. 12,880 to No. 12,881, inclusive.
Trade-Marks	187—No. 12,882 to No. 12,883, inclusive.
Trade-Marks	188—No. 12,884 to No. 12,885, inclusive.
Trade-Marks	189—No. 12,886 to No. 12,887, inclusive.
Trade-Marks	190—No. 12,888 to No. 12,889, inclusive.
Trade-Marks	191—No. 12,890 to No. 12,891, inclusive.
Trade-Marks	192—No. 12,892 to No. 12,893, inclusive.
Trade-Marks	193—No. 12,894 to No. 12,895, inclusive.
Trade-Marks	194—No. 12,896 to No. 12,897, inclusive.
Trade-Marks	195—No. 12,898 to No. 12,899, inclusive.
Trade-Marks	196—No. 12,900 to No. 12,901, inclusive.
Trade-Marks	197—No. 12,902 to No. 12,903, inclusive.
Trade-Marks	198—No. 12,904 to No. 12,905, inclusive.
Trade-Marks	199—No. 12,906 to No. 12,907, inclusive.
Trade-Marks	200—No. 12,908 to No. 12,909, inclusive.
Trade-Marks	201—No. 12,910 to No. 12,911, inclusive.
Trade-Marks	202—No. 12,912 to No. 12,913, inclusive.
Trade-Marks	203—No. 12,914 to No. 12,915, inclusive.
Trade-Marks	204—No. 12,916 to No. 12,917, inclusive.
Trade-Marks	205—No. 12,918 to No. 12,919, inclusive.
Trade-Marks	206—No. 12,920 to No. 12,921, inclusive.
Trade-Marks	207—No. 12,922 to No. 12,923, inclusive.
Trade-Marks	208—No. 12,924 to No. 12,925, inclusive.
Trade-Marks	209—No. 12,926 to No. 12,927, inclusive.
Trade-Marks	210—No. 12,928 to No. 12,929, inclusive.
Trade-Marks	211—No. 12,930 to No. 12,931, inclusive.
Trade-Marks	212—No. 12,932 to No. 12,933, inclusive.
Trade-Marks	213—No. 12,934 to No. 12,935, inclusive.
Trade-Marks	214—No. 12,936 to No. 12,937, inclusive.
Trade-Marks	215—No. 12,938 to No. 12,939, inclusive.
Trade-Marks	216—No. 12,940 to No. 12,941, inclusive.
Trade-Marks	217—No. 12,942 to No. 12,943, inclusive.
Trade-Marks	218—No. 12,944 to No. 12,945, inclusive.
Trade-Marks	219—No. 12,946 to No. 12,947, inclusive.
Trade-Marks	220—No. 12,948 to No. 12,949, inclusive.
Trade-Marks	221—No. 12,950 to No. 12,951, inclusive.
Trade-Marks	222—No. 12,952 to No. 12,953, inclusive.
Trade-Marks	223—No. 12,954 to No. 12,955, inclusive.
Trade-Marks	224—No. 12,956 to No. 12,957, inclusive.
Trade-Marks	225—No. 12,958 to No. 12,959, inclusive.
Trade-Marks	226—No. 12,960 to No. 12,961, inclusive.
Trade-Marks	227—No. 12,962 to No. 12,963, inclusive.
Trade-Marks	228—No. 12,964 to No. 12,965, inclusive.
Trade-Marks	229—No. 12,966 to No. 12,967, inclusive.
Trade-Marks	230—No. 12,968 to No. 12,969, inclusive.
Trade-Marks	231—No. 12,970 to No. 12,971, inclusive.
Trade-Marks	232—No. 12,972 to No. 12,973, inclusive.
Trade-Marks	233—No. 12,974 to No. 12,975, inclusive.
Trade-Marks	234—No. 12,976 to No. 12,977, inclusive.
Trade-Marks	235—No. 12,978 to No. 12,979, inclusive.
Trade-Marks	236—No. 12,980 to No. 12,981, inclusive.
Trade-Marks	237—No. 12,982 to No. 12,983, inclusive.
Trade-Marks	238—No. 12,984 to No. 12,985, inclusive.
Trade-Marks	239—No. 12,986 to No. 12,987, inclusive.
Trade-Marks	240—No. 12,988 to No. 12,989, inclusive.
Trade-Marks	241—No. 12,990 to No. 12,991, inclusive.
Trade-Marks	242—No. 12,992 to No. 12,993, inclusive.
Trade-Marks	243—No. 12,994 to No. 12,995, inclusive.
Trade-Marks	244—No. 12,996 to No. 12,997, inclusive.
Trade-Marks	245—No. 12,998 to No. 12,999, inclusive.
Trade-Marks	246—No. 13,000 to No. 13,001, inclusive.
Trade-Marks	247—No. 13,002 to No. 13,003, inclusive.
Trade-Marks	248—No. 13,004 to No. 13,005, inclusive.
Trade-Marks	249—No. 13,006 to No. 13,007, inclusive.
Trade-Marks	250—No. 13,008 to No. 13,009,

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business June 18, 1919.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting other action.		No. of applications awaiting action.
		New.	Amended.	
314	1. Closure Operators; Fences; Gates; Harrows and Diggers; Plows; Planting; Seeding; Unloading; Trees, Plants, and Flowers.	Apr. 14	Apr. 28	281
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Paper Fills and Binders; Medicines; Papermaking; Preserving; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Jan. 28	Mar. 1	875
175	3. Electric Heating and Rheumatism; Electrochemistry; Heating; Metal-Forming; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Apr. 19	Dec. 17	149
284	4. Conveyors; Elevators; Escalators; Material or Article Handling; Pneumatic Dispatch; Packing and Filling; Impellers; Railway Mail Delivery; Store-Servants; Traveling Home.	Feb. 13	May 16	684
167	5. Book-Making; Books, Strips and Leaves; Harvesters; Jewelry; Manufacturing; Muds; Printed Matter; Tying Cards or Strands.	Mar. 6	Jan. 19	171
315	6. Blasting and Dredging; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Submarine Propulsion.	Feb. 27	Mar. 16	311
313	7. Educational Appliances; Games and Toys; Optics; Velocipedes.	Apr. 15	Apr. 24	285
181	8. Beds; Chairs; Flexible-Sheet Spreading Devices; Furniture; Kitchen and Table Articles; Store Furniture; Stoves.	Apr. 9	Mar. 28	195
221	9. Air and Gas Pumps; Hydraulic Motors; Injectors and Ejectors; Motors; Fluid; Motors, Fluid-Circuit; Pumps.	Jan. 15	Apr. 11	305
225	10. Carriages and Wagons; Motor Vehicles.	Feb. 21	Apr. 17	350
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Eyes, and Rivet Setting; Hammers; Leather Manufacturing; Nailing and Stapling; Sewing Devices; Wings and Whip Apparatus.	Mar. 24	May 13	388
229	12. Journal-Bears, Pulleys, and Gearing; Machine Tools.	Dec. 5	Dec. 2	685
220	13. Ammunition and Explosive Charge Making; Shot, Ball, Nail, Rivet, and Screw Making; Button Making; Chain, Rope, and Twine Making; Drives, Hoisted, and Screw-Threaded; Fasteners; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Working; Metal Rolling; Metal Tools and Implements; Molding; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Jan. 25	May 5	645
323	14. Compound Tools; Cutting and Punching Sheets and Bars; Forging; Metal-Bending; Packaging Liquids; Sheet-Metal Ware; Making; Tools; Wire Fabric and Structure; Wire-Working.	Mar. 10	Mar. 17	168
306	15. Bread, Pastry, and Confection Making; Cakes; Fats; Oils; Laminated Fabrics and Analogous Manufactures; Paper-Making and Filter Manufacture; Plastic Sheet and Earthenware Apparatus; Plastics.	Feb. 5	Apr. 2	280
111	16. Radiant Energy; Telegraphy; Telephony.	Jan. 24	Jan. 24	671
307	17. Label Fastening and Paper Handling; Ornamentation; Paper Manufacture; Printing; Type Casting; Sheet Material Association or Folding; Sheet Feeding or Delivering; Type Setting.	Mar. 26	Apr. 24	357
320	18. Fluid-Pressure Regulators; Liquid Meters and Vaporizers; Power Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Feb. 19	Apr. 2	286
226	19. Dampers; Automatics; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels.	Mar. 15	Mar. 17	373
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Locks; Saws; Underlamps.	May 13	May 5	254
212	21. Brakes and Gears; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Windmills and Rolling.	Nov. 28	Feb. 19	355
340	22. Aerostatics; Firearms; Ordnance.	Mar. 25	May 2	374
317	23. Acoustics; Com-Handling; Horology; Records; Registers; Sound Recording and Reproducing; Time-Controlling Mechanisms.	Apr. 14	Apr. 28	372
164	24. Apparel; Apparel Apparatus; Garment Supporters; Sewing-Machines.	Nov. 2	Apr. 2	450
315	25. Agitating; Hatching; Centrifugal Bowl Separators; Milk; Threshing; Vegetable Cutters and Crushers; Gas Separation.	May 7	May 5	157
106	26. Electricity; Generation; Motive Power; Prime Mover and Dynamo Plants.	Nov. 14	Jan. 11	645
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Mar. 31	Apr. 9	450
225	28. Internal-Combustion Engines.	Jan. 27	Apr. 17	381
147	29. Boring and Drilling; Chucks or Sockets; Coopering; Fire-Knives; Ladders; Rod Joints or Couplings; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking Tools.	Jan. 5	Mar. 15	687
182	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 15	May 21	280
172	31. Alcohol; Alcohols; Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Gums; Sugar and Salt.	Mar. 3	Mar. 3	340
278	32. Gas and Liquid Contact Apparatus; Heat Exchangers; Refrigeration.	Dec. 5	Mar. 19	675
70	33. Bridges; Hydraulic and Earth Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving; Roads and Pavements; Roofs.	Jan. 25	Feb. 25	281
304	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Switches and Signals; Railway Ties and Fasteners; Railway Wheels and Axles; Track-Sanders; Vehicle-Propellers.	Mar. 14	Mar. 29	287
87	35. Buckles, Buttons, Clips, Etc.; Card, Picture, and Sign Exhibiting; Signals; Tents.	May 2	May 9	304
204	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring.	Apr. 28	Apr. 7	684
107	37. Electric Lamps; Electricity; Circuit Makers and Breakers; Electricity; General Applications.	Feb. 13	Mar. 1	642
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Mining, Quarrying, and Ice-Harvesting; Stationary; Stone-Working; Wells.	May 15	May 14	128
220	39. Joint Packings; Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Valved Pipe Joints or Couplings; Valves; Water Distribution.	Dec. 26	Dec. 7	280
273	40. Baggings; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposits and Collection Receptacles; Metallic Shipping and Storing Vessels; Packages and Articles Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Mar. 28	Mar. 24	450
126	41. Railway Draft Appliances; Radiant Tires and Wheels.	Mar. 1	Mar. 8	304
114	42. Electricity; Conductors; Electricity; Transmission to Vehicles; Electricity; Conductors; Electric Signaling.	Feb. 17	Feb. 4	450
382	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity; Medical and Surgical; Fire-Extinguishers; Sewage; Surgery; Water Purification.	Apr. 8	Apr. 28	113
288	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Bombs and Bombs; Ships.	Mar. 28	May 8	169
379	45. Clutches; Lubrication; Motors; Railway Brakes.	Mar. 3	Apr. 15	247

Oldest new case, Nov. 2; oldest amended, Dec. 2.

Total number of applications awaiting action..... 17,373

168	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:	May 1	May 28	1994
	Trade-Marks.....	Apr. 13	May 28	450
	Designs.....	May 27	May 28	285
	Labels and Prints.....			

PATENTS

GRANTED JUNE 17, 1919.

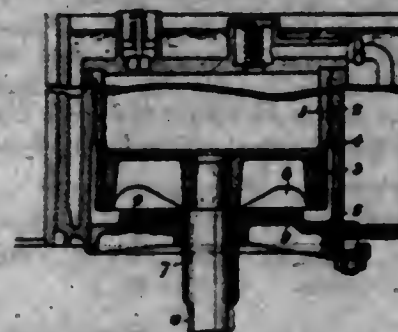
1,306,679. METHOD OF FORMING STORAGE-BATTERY CONTAINERS. JOHN M. ANGLAND, Indianapolis, Ind. Filed Mar. 2, 1918. Serial No. 220,102. 6 Claims. (Cl. 18-58.)



2. The method of forming a storage battery container which consists in forming a mass of fibrous material into the shape of the container and at the same time pressing it against a body of material adapted to constitute a protective lining, to adhere the bodies, fibrous material being shaped to form the walls and integral cross-partitions of the container during the forming and pressing steps.

4. The method of forming a storage battery container which consists in forming in a mold a lining of pliable, acid and heat resistant material, and removing said lining, applying it to a hollow mold and forcing a mass of fibrous material while in a soft condition against the said lining, removing the completed article from the mold and drying it.

1,306,680. COMPRESSOR. GEORGE BERNHARD AX, Stockholm, Sweden, assignor, by mesne assignments, to Ludwigsbergs Verkstads Aktiebolag, Stockholm, Sweden. Filed Sept. 12, 1917. Serial No. 199,909. 2 Claims. (Cl. 230-97.)



1. In a compressor for air or gases, the combination with a working cylinder, the piston operating in the same, and openings provided in the wall of the said cylinder at the inner end of the same so that they are uncovered by the piston at the end of its suction stroke, of a chamber provided at the said end of the cylinder and communicating with the same and with said openings, and longitudinal grooves provided in the rod of the said piston passing through one of the walls of the said chamber, said grooves ending at a distance from the piston.

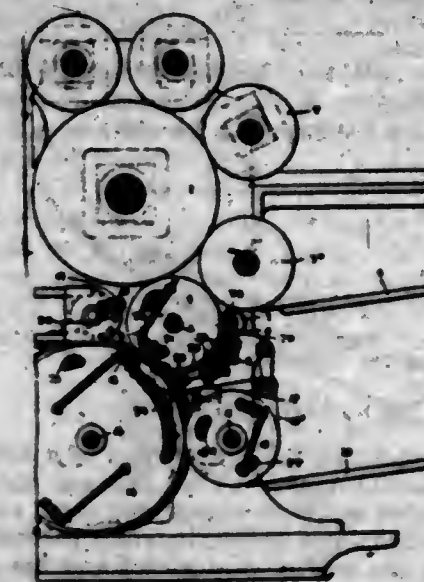
1,306,681. PHENOLIC CONDENSATION PRODUCT AND PROCESS OF MAKING SAME. LEO H. BARKER, Yonkers, N. Y., assignor to General Bakelite Company, New York, N. Y., a Corporation of New York. Filed Nov. 9, 1916. Serial No. 180,482. 15 Claims. (Cl. 160-22.)

1. A fusible body consisting essentially of a condensation product of para-cresol and a substance containing a

mobile methylene group, said body fusing at temperatures materially above 115° C.

15. A process of making a phenolic condensation product of the saliretin class, which consists in reacting with a body containing a mobile methylene group upon a cresol mixture enriched in para-cresol.

1,306,682. DELIVERY MECHANISM FOR PRINTING-PRESSES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 11, 1917. Serial No. 200,500. 26 Claims. (Cl. 101-419.)



1. A printed sheet delivery mechanism including a common means for feeding printed sheets side by side, a common means for feeding slip sheets side by side, a common means for associating the slip sheets with their respective printed sheets and a common means for delivering the pairs of so associated sheets.

1,306,683. [WITHDRAWN.]

1,306,684. SCREEN-HINGE. JOSEPH B. BRADLEY, Miami, Fla. Filed Feb. 11, 1919. Serial No. 276,402. 1 Claim. (Cl. 16-48.)



A hinge for screen frames comprising a flat body having longitudinally disposed apertures arranged to receive attaching devices, attaching devices extending therethrough and entering the wood of the frame, lateral imperforate flanges extending from the side edges of the body and arranged to straddle the vertical pieces of the frame to which the body is attached and lie parallel to each other and to the fastening devices to prevent splitting of the frame and a longitudinally extending lip formed integrally with the body and having a central aperture to receive a pivot member for the hinge.

1,306,685. SUPPORTING-FRAME FOR MOTOR-TRUCKS. HUGH F. CARTWRIGHT, St. Louis, Mo. Filed Oct. 6, 1917. Serial No. 195,021. 4 Claims. (Cl. 21-182.)



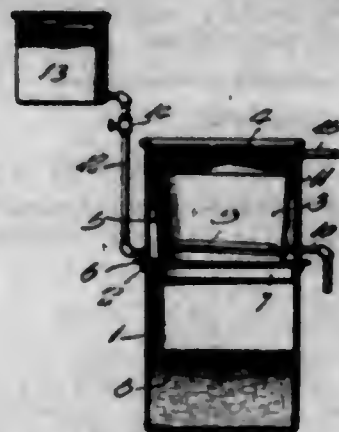
1. The combination with the main frame, rear axle and spring housing of a motor vehicle, said spring housing extending across the main frame and being provided with a spring attached to the rear axle, of an extension device comprising an auxiliary frame resting on said main frame and in projection from the rear thereof, a pair of auxiliary springs carried by said auxiliary frame, and means for securing said auxiliary spring directly to the rear axle, said auxiliary springs extending between the axle and the first named spring.

1,306,686. GUARD-FINGER FOR MOWERS. FRED CRAWFORD, Prosser, Wash. Filed Jan. 7, 1918. Serial No. 210,682. 4 Claims. (Cl. 66-48.)



1. In a guard finger, the combination of a body having a threaded mutilated stem at its forward end, a point having a threaded socket to engage said stem, and a knife held upon the body and having its front extremity interposed between the wall of said socket and the mutilated portion of the stem.

1,306,687. DISTILLING APPARATUS. JULIAN R. DOUGLASS, Alexandria, Va. Filed Aug. 19, 1918. Serial No. 250,506. 1 Claim. (Cl. 208-5.)



A distilling apparatus comprising a boiler open at its upper end, a dome above said boiler having a substantially flat though slightly conical top, and a side wall increasing in diameter from its lower to its upper end, an annular flange extending laterally outward from said lower end of the dome or wall and resting on the upper end of said boiler, a second annular flange depending from said first named flange and snugly received in the upper end of the boiler, a third annular flange extending inwardly from said dome wall near the lower end of the latter and forming therewith a trough adapted to collect liquid of condensation flowing down said wall, an outlet from said trough, and a water jacket wall rising from said first named annular flange around said dome.

1,306,688. COFFEE-PERCOLATOR. CORA M. DOWNHAM, Beloit, Wis. Filed July 11, 1917. Serial No. 179,948. 1 Claim. (Cl. 63-3.)



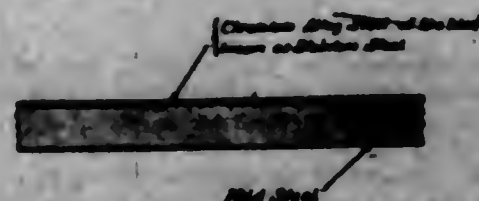
A coffee percolator comprising a coffee pot having a hollow base member mounted in its bottom, a hollow pedestal connected to the said hollow base member and equipped with a coffee receptacle at its upper end, the said hollow pedestal establishing communication between the said base member and the interior of the said receptacle, a perforated cover mounted upon the top of the said receptacle, the latter being disposed approximately midway between the top and bottom of the said coffee pot, a vertically extended tube carried by the said cover and in alignment with the said pedestal, the said pedestal being extended centrally through the interior of the said receptacle to a point adjacent the said cover.

1,306,689. DENTAL APPLIANCE. BERNET DYBARE, Cincinnati, Ohio. Filed May 10, 1918. Serial No. 223,705. 16 Claims. (Cl. 123-12.)



12. In a dental appliance of the character described, the combination with two juxtaposed members arranged for relative turning movement, and a spool of dental floss supported between said members, of an arm extending from each of said members, overlapping flanges in connection with said arms, each of said flanges having a slot extending in a plane different from the plane of the slot in the other arm, an element arranged to slide in said slots to move said arms toward and away from each other, and to effect relative turning movement of said two members, and means in connection with the ends of said arms for holding a strand of the dental floss.

1,306,690. SHEET METAL. ALEXANDER EDWIN GILLESPIE, London, England. Filed July 31, 1918. Serial No. 247,653. 2 Claims. (Cl. 29-181.)

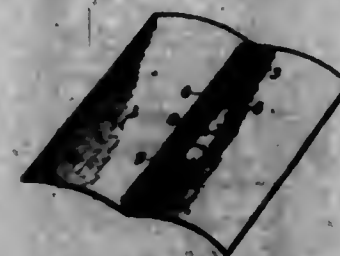


1. A new article of manufacture having an incoerred-fable surface, consisting of a sheet of mild steel coated on one side with chromium alloy steel of the kind known as stainless steel.

1,306,691. BOOKLET-COVER. GEORGE LEONARD GORRE, Chicago, Ill. Filed Mar. 12, 1918. Serial No. 222,100. 3 Claims. (Cl. 261-30.)

1. A cover device for receiving a booklet insert and holding it in flat-opening relation thereto, said device comprising a pair of covers suitably related to hinge one

upon the other, and a binding attachment comprising a single strip of material having along its middle line a single line hinging connection with and at the hinge line of the covers, presenting on opposite sides of said hinge line a pair of integral free margins for receiving the insert to be held, leaving between said free edges a space that admits a multiple page insert in position with the inner hinging edges of its pages approximately coincident



with the hinging axes of said binding attachment and cover; the opposed faces of said free margins of the attachment being provided with means for adhesion to the external faces of the inner margin of the insert; said means for adhesion being adjacent the hinge line in order to leave the main area of the attached insert unobscured.

1,306,692. TATTLING-SHUTTLE. GEORGE ALFRED HOUSEMAN, El Paso, Tex. Filed Feb. 8, 1918. Serial No. 216,061. 1 Claim. (Cl. 66-10.)



A gear mount for tatting shuttles, including a frame, a spool rotatably mounted therein, spur gear teeth cut around one of the flanges of the spool, a sleeve rotatably mounted in the frame adjacent said gear teeth, a pinion permanently mounted on the inner end of the sleeve and in mesh with said gear teeth of the spool, an angular, central opening formed through said sleeve, a crank rotatably mounted through the opposite side of the frame and having an angular end to detachably engage said angular central opening in said sleeve.

1,306,693. CURTAIN-DRIER. RICHARD H. HOTT, Buffalo, N. Y. Filed Jan. 12, 1918. Serial No. 211,640. 7 Claims. (Cl. 45-24.)



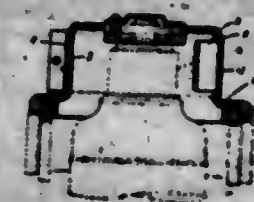
2. A curtain drier comprising two parallel stretching bars to which opposite edges of a curtain are adapted to be attached, an endless belt having oppositely moving parts one of which is connected with one of said bars and the other with the other bar, wheels around which the opposite turns of said belt pass, a bracket on which one of said wheels is mounted, and a shaft on which the other one of said wheels is mounted.

1,306,694. ROLLER-BORING DRILL. HOWARD E. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed Apr. 10, 1918. Serial No. 760,167. 16 Claims. (Cl. 255-71.)



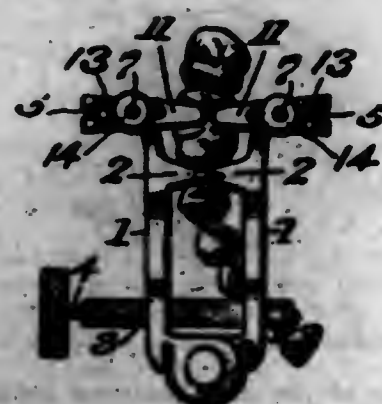
1. A boring drill comprising a head, means on said head for forming a tapered recess at the bottom of the hole so as to center the drill, said means comprising a diametrical cross roller with cutters thereon of largest diameter at the center of said head, and rollers on said head which describe an annular path around said recess, one of said rollers having a cutting surface that projects laterally beyond the drill-head.

1,306,695. DYNAMO-CABING. WILLIAM H. HUTCHINS, Rochester, N. Y., assignor to North East Electric Company, Rochester, N. Y., a Corporation of New York. Filed July 23, 1917. Serial No. 182,297. 1 Claim. (Cl. 74-66.)



In a dynamo-electric machine, the combination of a casing-member provided with a cylindrical surface of uniform diameter extending to the end of the casing, and with a transverse opening, through said surface, affording access to the interior of the casing; and a band adjustable to fit and clamp upon said surface, to cover said opening, and provided with an integral inwardly pressed projection adapted to enter said opening and retain the band on said surface.

1,306,696. TOOTH-SEPARATOR. JAMES W. IVORY, Philadelphia, Pa. Filed Mar. 4, 1919. Serial No. 280,618. 8 Claims. (Cl. 32-19.)



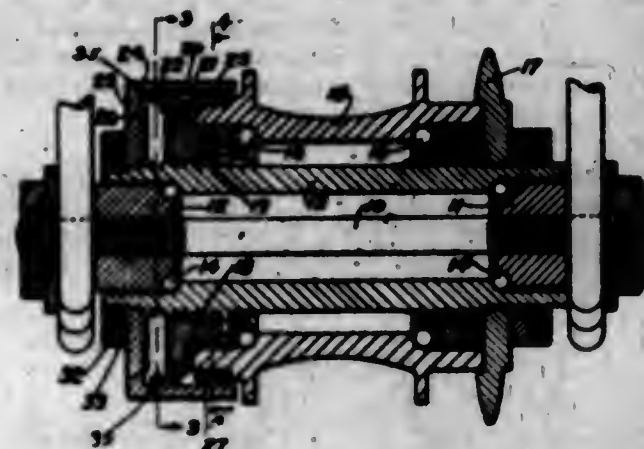
1. A tooth separator formed of arms, and wedges thereon, and means engageable with said arms whereby said wedges are adapted to be operated, and further of means mounted on or about the extreme ends of said arms adapted to engage a tooth for preventing the separator when in use from changing its position.

1,306,697. NAPKIN OR ROLL ATTACHMENT FOR RUBBER-DAM CLAMPS. JAMES W. IVORY, Philadelphia, Pa. Filed Mar. 4, 1919. Serial No. 280,619. 3 Claims. (Cl. 32-20.)



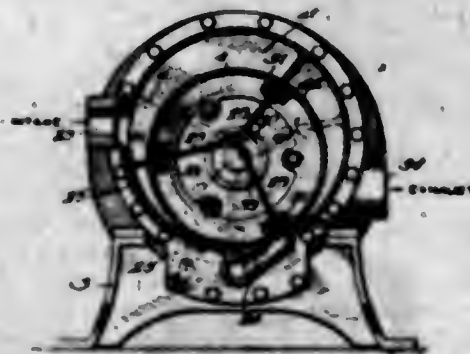
1. A rubber dam clamp having jaws and a resilient bow carrying the same, and auxiliary resilient clamping devices on opposite sides of said bow pivotally mounted thereon and adapted to adjustably engage a roll or napkin and additionally retain it in position on a tooth in the manner stated.

1,306,698. COASTER-BRAKE. JAMES P. JENSEN, Escanaba, Mich. Filed Feb. 27, 1919. Serial No. 279,510. 4 Claims. (Cl. 208-57.)



1. The combination of a hub, a driving member therefor, means for establishing a driving connection between the hub and the driving member, said means including a longitudinally movable clutch member, a rotatable member supported by the driving member and adapted to be coupled thereto by the clutch member when said driving member is rotated backward, a brake band engageable with the hub, and a connection between the rotatable member and the brake band for setting the latter when the rotatable member is coupled to the driving member.

1,306,699. INTERNAL-COMBUSTION ENGINE. EMIL G. JOHANSON, Chicago, Ill., assignor to The Norling Rotary Engine Company, Pierre, S. D., a Corporation of South Dakota. Filed June 11, 1917. Serial No. 178,919. 2 Claims. (Cl. 121-72.)



1. Apparatus of the class described including an external cylinder, an internal cylinder eccentric with respect to the external cylinder and rotatable therein, a shaft formed of separated sections connected respectively with the end walls of the internal cylinder and forming in conjunction with the latter seats at the ends of the internal cylinder disposed in circumscribing relation to respective shaft sections, blades passing through the inter-

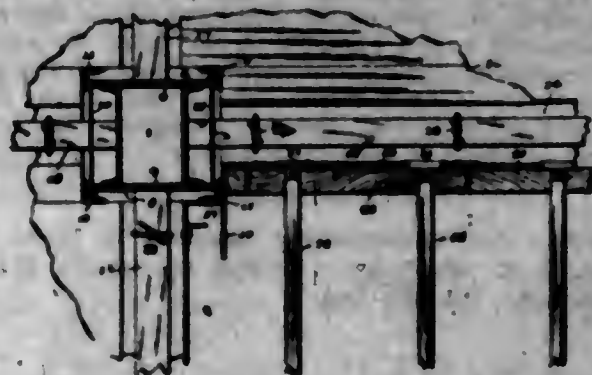
nal cylinder into engagement with the external cylinder, and a rod having its ends disposed respectively in said seats to permit bodily shifting movement of the rod and upon which latter said blades are mounted to swing.

1,306,700. SYSTEM OR METHOD OF CONCRETE FIREPROOFING OF STRUCTURAL STEEL. FRANK P. KAPKA, New Rochelle, N. Y. Filed May 23, 1918. Serial No. 236,445. 21 Claims. (Cl. 25-181.5.)



1. In a system for concrete fireproof construction, a frame adapted to support a form to mold concrete about a beam or girder, a plurality of said frames being employed for the purpose, said frame having a platform to support the base board of the form and two slots one on each side of said platform and at right angles thereto, said slots adapted to receive and support the side boards of the form at right angles to the base board of the form, and means to suspend said frame beneath the beam or girder.

1,306,701. SYSTEM OR METHOD OF CONCRETE FIREPROOFING OF STRUCTURAL STEEL. FRANK P. KAPKA, New Rochelle, N. Y. Original application filed May 23, 1918, Serial No. 236,445. Divided and this application filed Nov. 9, 1918. Serial No. 261,718. 5 Claims. (Cl. 25-121.)

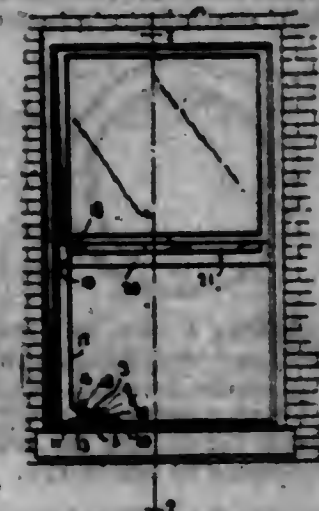


4. In a system for incasing vertical pillars in concrete for purposes of fire protection and reinforcement a plurality of right angular forms adapted to be mounted at the corners of a rectangular pillar with means to secure said forms to the pillar, and form boards adapted to cooperate with said right angular forms to form a mold about the pillar, and means to secure said boards to said angle forms.

1,306,702. ALARM AND RELEASING ATTACHMENT FOR WINDOWS. JAMES C. LARSON, Chatsworth, Ill. Filed Nov. 14, 1917. Serial No. 261,909. 1 Claim. (Cl. 268-4.)

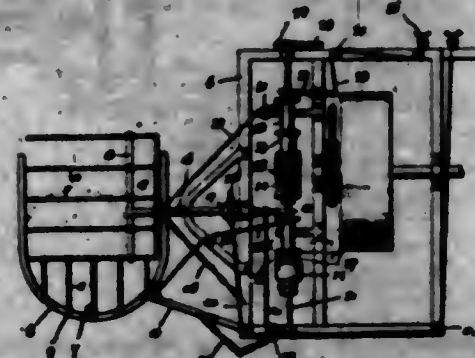
An attachment for windows, comprising a supporting frame adapted to be mounted in the window casing, a cover for said frame, said cover having a downwardly inclined top provided at a suitable point with a transverse slot, a window catch releasing member hinged to said frame and a counter-balanced trip member provided at

one end with a water receptacle and adapted to give impulse to the releasing member when one end of said trip



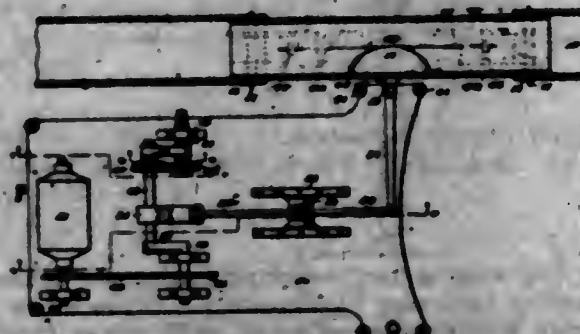
member is depressed by the added water of the water flowing through the slot of the cover into said receptacle.

1,306,703. GRAIN-SHOCKER. CARL OSCAR LINDBERG, Sanborn, N. D. Filed Aug. 12, 1918. Serial No. 269,555. 4 Claims. (Cl. 56-422.)



1. A grain shocker comprising a portable frame having a socket fixed to one side thereof, a cage supported by and disposed at one side of said frame, a fork closing the bottom of said cage and equipped with a rod projecting toward the said socket and having its terminal provided with a ball received within the said socket, the latter having a pair of openings therein, one of which receives the said rod, a pin secured to the ball and projecting through the other of the said openings, a flexible element secured to the said pin for moving the same, and mechanically operated means for swinging the said rod.

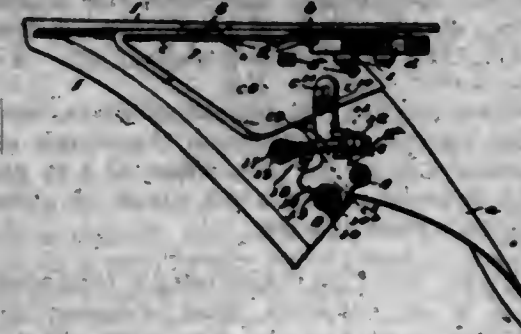
1,306,704. COAL-MINING CHUTE. ADOLF MALINOWSKY, Throop, Pa. Filed Sept. 12, 1918. Serial No. 252,769. 2 Claims. (Cl. 193-61.)



1. A device of the class described, comprising a flexibly suspended chute, a base positioned adjacent thereto, an operating lever pivoted to said base, an arcuate head at one end of the lever, chains secured to the opposite ends of said head and passing over the periphery of the head in opposite directions, connections between the said chains and said chute whereby the chute is adapted for re-

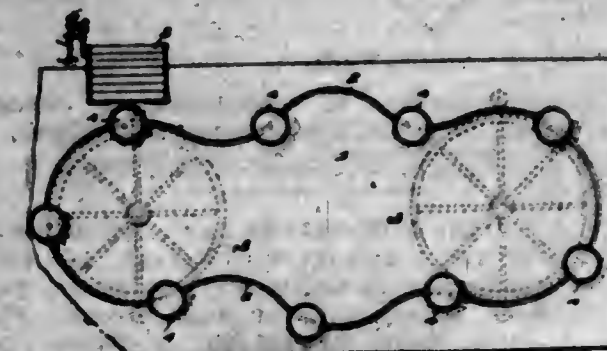
ciprocation during the swinging movements of the lever, a crank mounted for operation upon said base having a rotatable wrist portion, operating means for revolving the crank, reciprocating connections for said lever, eccentric connections between said reciprocating connections and the wrist portion of said crank, including an eccentric secured on said wrist portion, and means to positively rotate the wrist portion of the crank and the eccentric simultaneously with the operation of the crank.

1,306,705. FLOW. CHARLES H. MELVIN, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Feb. 28, 1914. Serial No. 821,792. 5 Claims. (Cl. 97-18.)



1. The combination of the moldboard, the land side, the detachable share with a land side flange, the stud 6, and the abutment 8, the frog having the shoulder 7 engaging vertically with said stud the extension projecting away from the land side and the abutment 8 and formed with the shoulder 14 engaging with the said abutment on the share, and the drawing and locking bolt pivotally connected to the share and provided with a nut engaging with an abutment whereby the said bolt can, under the camming action of the stud 6 and abutment 8, be caused to draw the share longitudinally of the land side and transversely of the moldboard and lock the stud 6 and shoulder 7 in engagement and lock the shoulder 14 and abutment 8 in engagement.

1,306,706. AMUSEMENT DEVICE. WILLIAM E. MILLER, Providence, R. I., assignor to Gliding Waits Amusement Co., Pawtucket, R. I., a Corporation of Rhode Island. Filed Feb. 21, 1918. Serial No. 278,342. 4 Claims. (Cl. 104-66.)



1. An amusement device comprising a floor having an endless slot therein, supporting bed sections underlying the floor on opposite sides of the slot and in spaced relation to the floor, track rails supported on the bed sections, wheeled trucks operable over the track, guard rails secured to the under side of the floor to cooperate with the wheels of the trucks, tub-like carriers arranged above the floor and each equipped with a depending supporting rod passing downwardly through the floor slot and between the bed sections, each rod having oppositely extending transverse journals on a respective truck for lateral swinging, an endless cable engaged with the lower ends of the rods for propelling the carriers, and means for guiding the lower ends of the rods and adjustable laterally of the floor slot to impart at intervals sidewise motion to said carriers.

1,306,707. FIRE-EXTINGUISHING COMPOSITION. HARRY S. MONK, Brookline, Mass., assignor, by mesne assignments, to American La France Fire Engine Company, Inc., Elmira, N. Y., a Corporation of New York. Filed Jan. 14, 1918. Serial No. 211,832. 7 Claims. (Cl. 23-5.)

7. A carbonate solution for fire extinguishers, comprising as essential ingredients normal sodium carbonate and lactate of sodium, substantially in the proportions of 8.40 grams of sodium carbonate, 66 grams of sodium lactate and 100 cubic centimeters of water.

1,306,708. FIRE-EXTINGUISHER COMPOSITION. HARRY S. MONK, Brookline, Mass., assignor, by mesne assignments, to American La France Fire Engine Company, Inc., Elmira, N. Y., a Corporation of New York. Filed Jan. 14, 1918. Serial No. 211,837. 1 Claim. (Cl. 23-5.)

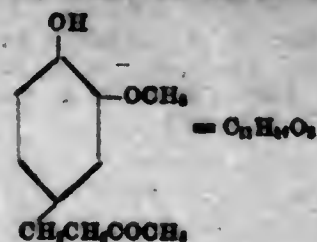
A carbonate solution for fire extinguishers, comprising as essential ingredients, ammonium bicarbonate and glycerin, substantially in the proportions of 5.31 grams of ammonium bicarbonate and 100.3 grams of glycerin in 100 cubic centimeters of water.

1,306,709. FIRE-EXTINGUISHER COMPOSITION. HARRY S. MONK, Brookline, Mass., assignor, by mesne assignments, to American La France Fire Engine Company, Inc., Elmira, N. Y., a Corporation of New York. Filed Jan. 14, 1918. Serial No. 211,838. 1 Claim. (Cl. 23-5.)

A carbonate solution for fire extinguishers, comprising as essential ingredients normal potassium carbonate and glycerin, in substantially the proportions of 4.54 grams of potassium carbonate and 102 grams of glycerin in 100 cubic centimeters of water.

1,306,710. METHOD OF EXTRACTING A PUNGENT PRINCIPLE FROM GINGER ROOT. Himeuni NOMURA, Sendai, Japan. Filed June 6, 1917. Serial No. 178,118. 4 Claims. (Cl. 23-24.)

1. A new pungent principle "zingiberone" (methyl 3-methoxy-4-hydroxyphenylethyl ketone) of ginger root (*Zingiber officinale*) which has the chemical formula



and the characteristics of crystallizing in colorless needles, soluble in ether, 50% alcohol and melting at 40-41°.

1,306,711. GUARD FOR SLIVER-LAP AND RIBBON-LAP MACHINES. MICHAEL T. O'MALLEY, New Hartford, N. Y., assignor to Whittin Machine Works, Whiteville, Mass., a Corporation of Massachusetts. Filed July 15, 1918. Serial No. 244,899. 7 Claims. (Cl. 19-8.)



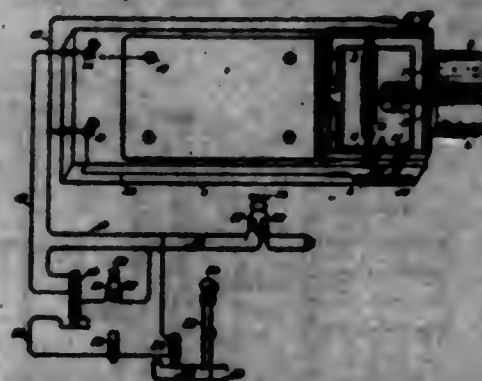
6. In a guard for sliver lap and ribbon lap machines, having rotary drums, a lap spool mounted between said drums, a vertically movable shaft for carrying said spool, a member for covering said drums and spool, means connecting said member with the vertically movable shaft, whereby one end of said member will rise and fall with said shaft, and rollers on one end of said member, whereby said member can move bodily to change its relative position with respect to said drums and spool.

1,306,712. FIRE-HOLDER. EMANUEL PACHEN, Winnetka, Ill., assignor to Pacher Auto Specialty Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 2, 1918. Serial No. 64,617. 10 Claims. (Cl. 234-29.)



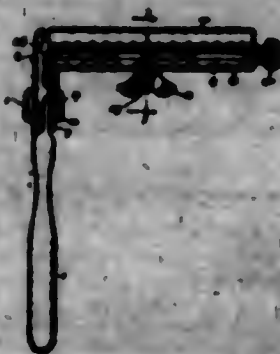
4. A holder comprising a strip bent into the form of a ring having its ends overlapping, a quick-acting expanding and contracting device arranged between the end on the inner side of the ring and an adjacent portion on the other end, and means for varying the length of the long arc of the ring subtended by said device.

1,306,713. BEAM-DETECTOR FOR FABRICS OR THE LIKE. FRANKLIN A. PAPIERNAU, Webster, Mass., and WILLIAM F. PAPIERNAU, New York, N. Y. Filed Dec. 14, 1918. Serial No. 266,774. 8 Claims. (Cl. 177-311.)



1. An apparatus for detecting varying dimensions of traveling material, comprising material-engaging members movable in the direction of travel of the material and toward and from one another under the influence of the variations in dimensions, and indicating means controlled by both movements of the members.

1,306,714. HOG-RINGER. ALONZO T. PARKER, Richmond, Ind. Continuation in part of application Serial No. 112,961, filed July 31, 1916. This application filed Mar. 20, 1919. Serial No. 263,866. 5 Claims. (Cl. 122-322.)



1. A hog ring tool comprising pivotally connected jaws having open ring receiving cavities therein, a ring containing magazine extending at right angles from the jaws, a spring pressed follower located in the magazine and adapted to successively supply open rings into the cavities of the jaws as the latter are opened, spaced jaw receiving stops projecting from the magazine and each adapted to engage with and to receive the outer edge of one of the jaws to limit the opening movement of the latter and to maintain the magazine in alignment with the recesses in the jaws as the rings are being fed from

the magazine, and a central stop projecting from the magazine and lying between the jaws to engage therewith for centering the magazine with relation to said cavities as the jaws are being closed, substantially as set forth.

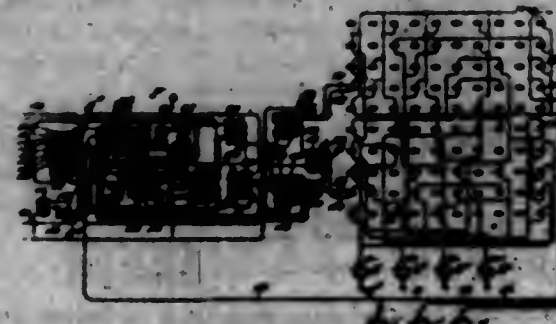
1,306,715. SCREEN ATTACHMENT. WILLIAM F. PILLSBURY, Dalton, Neb. Filed Mar. 18, 1919. Serial No. 263,347. 10 Claims. (Cl. 156-14.)



1. In combination with a window and a screen therefor, a device interposed between the window sill and the lower edge of the screen and providing for ready escape of moisture.

10. A window screen attachment, comprising a support, gates pivoted at their outer ends to the support, a rod mounted upon one of the pivot fastenings and adapted to engage the other pivot fastening and a plate slidable on the rod and adapted to close the space between the extremities of the gates.

1,306,716. SELECTIVE SIGNALING SYSTEM. WINFRED T. POWELL, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 28, 1916. Serial No. 116,482. 28 Claims. (Cl. 179-17.)



1. In a telephone system, a party line provided with substitution ringers connected from opposite sides of said line to ground, a calling terminal and a called terminal for said line, ring-back apparatus at the exchange, means for extending a connection from said line to said ring back apparatus via said calling terminal, and means for operating said apparatus to project ringing current back over said calling terminal to the calling line to enable one party to selectively signal the other parties on the same line.

1,306,717. ENGINE. CLARENCE E. FARR, Dallas, Tex. Filed Sept. 26, 1916. Serial No. 121,922. 10 Claims. (Cl. 121-102.)



1. A steam engine including an engine shaft, a crank associated with said shaft and including a crank pin, a shaft extending through the crank pin eccentric to the

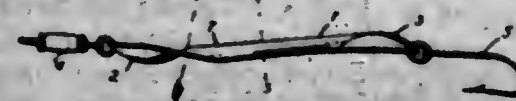
latter, a valve mechanism, a reach rod connected to the valve mechanism and operatively connected to one end of the second shaft, and a governor operatively connected to the other end of the second shaft.

1,306,718. HAND-GRENADE. EARL J. W. RAGSDALE, U. S. Army, assignor to United States Ordnance Company, Washington, D. C., a Corporation of Virginia. Filed May 25, 1916. Serial No. 90,836. Renewed Jan. 18, 1917. Serial No. 143,186. 14 Claims. (Cl. 102-29.)



1. In a grenade, the combination of a body, a firing mechanism carried by the body, a safety device normally locking the firing mechanism against activity and releasable by the tendency to rotate the grenade in the act of throwing the same to permit activity of the firing mechanism.

1,306,719. TROLLING-SPOON. GILBERT ROBERTSON, Vancouver, British Columbia, Canada. Filed Nov. 27, 1918. Serial No. 264,800. 5 Claims. (Cl. 42-30.)



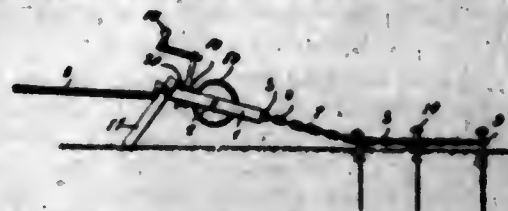
1. A trolling spoon, comprising an elongated body of thin sheet metal having oppositely cupped ends, and a lengthwise groove impressed in the medial line between the cupped ends.

1,306,720. ENGINE-LATHE ATTACHMENT. GEORGE ELLIS ROBINSON, Portland, Ore. Filed Aug. 27, 1918. Serial No. 251,651. 2 Claims. (Cl. 51-4.)



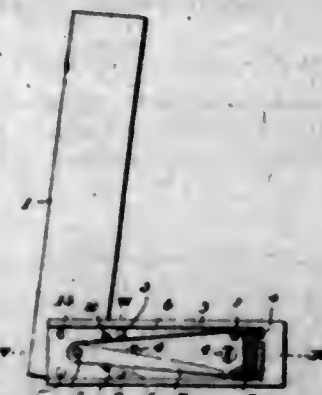
1. A lathe attachment comprising a grinding shaft having at one end an offset plate in which the grinding shaft is journaled, a base plate having means for connecting the same with the face plate of the lathe, the offset plate and the base plate being pivoted eccentric to the grinding shaft and the axis of rotation of the base plate, a micrometer screw adjustment at the other end of the said plates for moving the offset plate with respect to the base plate, rigidly connected sprocket wheels at the pivotal connection of the plates, a sprocket wheel on the grinding shaft, a sprocket wheel at the axis of rotation of the base plate, chains connecting the respective wheels, an eccentric mounting for the rigidly connected sprocket wheels and adjustable for tensioning the chains, said offset plate and base plate being recessed on their adjacent faces to receive the wheels and chains and to form a housing for the said wheels and chains.

1,306,721. DEVICE TO PULL AUTOMOBILES OUT OF MUD. HARM ROSS, Rosemont, Nebr. Filed Apr. 25, 1916. Serial No. 93,427. 2 Claims. (Cl. 74-36.)



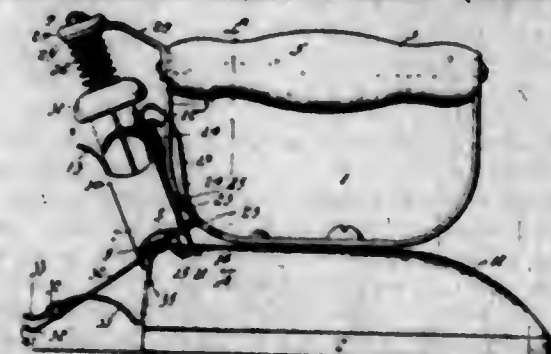
1. An apparatus of the character described comprising a frame; a drum journaled through said frame; a gear carried by the drum; a supporting arm pivotally secured to said frame; a worm gear rotatably carried by said supporting arm and adapted for engagement with said first named gear; and a pin engaged with said frame and said supporting arm for retaining said worm gear in engagement with said first named gear, said pin being removable to permit of the disengaging of said gears.

1,306,722. SQUARE. ABRAHAM SCHACHAT, Brooklyn, N. Y., assignor to Slocum, Avram & Slocum, Laboratories, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 25, 1917. Serial No. 164,423. Renewed May 9, 1919. Serial No. 295,925. 4 Claims. (Cl. 28-120.)



1. A square, comprising a stock, a blade pivoted thereto and capable of limited adjustment to either side of a 90° angle with respect to said stock, said stock and blade having apertures adapted to register when the two are at a 90° angle, a pin removably disposed in said aperture to retain said stock and blade in said adjusted position, a spring interposed between said stock and blade for maintaining said blade at the inner extreme of its pivotal adjustment by tension in that direction when not retained by said pin, and a pointer and scale disposed between the parts to indicate the degree of variation from said 90° angle.

1,306,723. AUTOMATIC SWITCH FOR FLAT-IRONS. FRANK A. SCHULTZ, Chicago, Ill., assignor to Pelouze Manufacturing Co., a Corporation of Illinois. Filed Mar. 17, 1917. Serial No. 155,426. 8 Claims. (Cl. 219-25.)



2. An electric flatiron having a pair of terminals at its rear end, a socket member surrounding said terminals, a plug member adapted to coact with said socket and terminals, means for supporting said plug yieldably and adapted to urge the plug to its open position, yielding lock means adapted to automatically fasten the plug in its closed position and a diagonally disposed trip member extending backward and downward from the lower part of the socket and adapted to release said lock means by thrusting upward against the same.

1,306,724. TIRE. ALFRED T. SCHILLINGER, Toledo, Ohio, assignor of one-half to Charles R. Adamson, Toledo, Ohio. Filed Sept. 21, 1918. Serial No. 121,344. 1 Claim. (Cl. 152-10.)



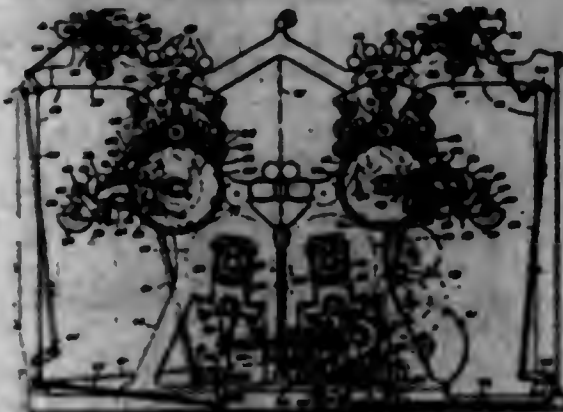
A casing, and a tire inner tube unit for ready removable mounting in said casing, said unit embodying a pneumatic section, an enveloping felted section, a first fabric envelop therefor, a yieldable protector of crescent shape in cross section, said protector embracing the pneumatic section and first fabric envelop, and a second fabric envelop for the felted section, first fabric envelop, pneumatic and protector sections, said second envelop having an entrance opening permitting assembling of the sections longitudinally therethrough, and closure means for the opening to maintain assembly of the tire unit for mounting in the casing.

1,306,725. BRIDGE-ABUTMENT CONSTRUCTION. FRANK S. SMALL, New York, N. Y. Filed May 9, 1918. Serial No. 233,491. 5 Claims. (Cl. 14-75.)



1. A structure of the class described including spaced cribs formed of interlocking longitudinal and transverse timbers, the members connecting the lower portions of the cribs below the water line of the structure and interlocked with the transverse timbers thereof, piles extending vertically through the cribs, and means engaging the piles for bracing them against the transverse timbers of the cribs.

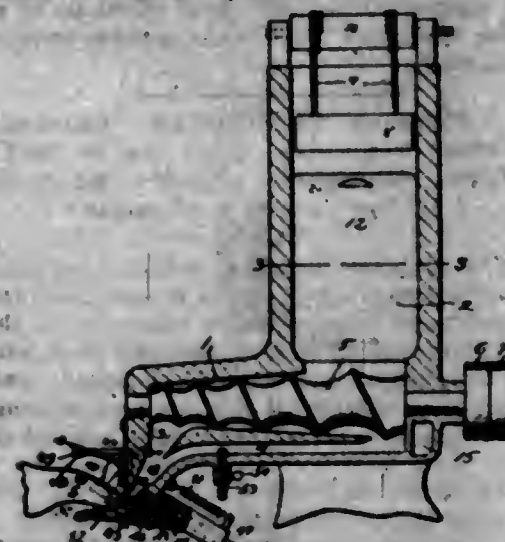
1,306,726. PLANOGRAPHIC-PRINTING MACHINE. HENRY JAMES SMITH, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed July 27, 1918. Serial No. 111,003. 19 Claims. (Cl. 101-143.)



1. In a printing machine, the combination of a frame, two form cylinders revolvably mounted on said frame, rigidly-mounted slideways on said frame adjacent to said

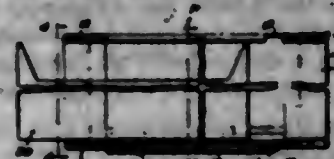
form cylinders and extending downward therefrom at a slight angle from the vertical, slide-blocks movably mounted in said slideways, two transfer cylinders revolvably mounted on said slide-blocks adapted to rotate in contact with said cylinders and in contact with each other for printing upon a web passing between the transfer cylinders, and means for moving said slide-blocks along said slideways for moving the transfer cylinders out of contact with said form cylinders and out of contact with each other.

1,306,727. MACHINE FOR FILLING SHOE-BOTTOMS. ANDREW THOMA, Cambridge, Mass., assignor to North American Chemical Company, New York, N. Y., a Corporation of Maine. Filed Apr. 13, 1914. Serial No. 832,946. 29 Claims. (Cl. 12-1.)



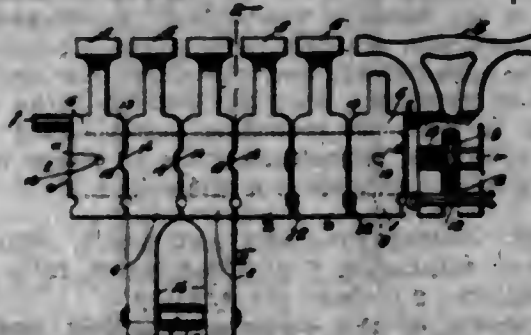
12. A shoe-filler machine, having a delivery orifice, mechanism for effecting the continuous flow of the filler past said orifice when closed, and a hand-operated device tending to aid in the forcible ejection of the filler when the orifice is open and for regulating the pressure of said filler.

1,306,728. FILING-CABINET. CHARLES E. ULBACH, Jamestown, N. Y. Filed July 25, 1917. Serial No. 162,764. 13 Claims. (Cl. 45-2.)



1. In a filing device, a cabinet unit having a sheet metal top and bottom provided with formed grooves extending longitudinally of said cabinet and opening in the same direction, the grooves being of a size such that the walls of a groove on the bottom of one such unit engage the walls of a groove on the top of another such unit when the units are stacked one on the other to prevent horizontal displacement of said units relatively to each other, said grooves extending substantially from front to rear of said cabinet to reinforce the top and bottom thereof.

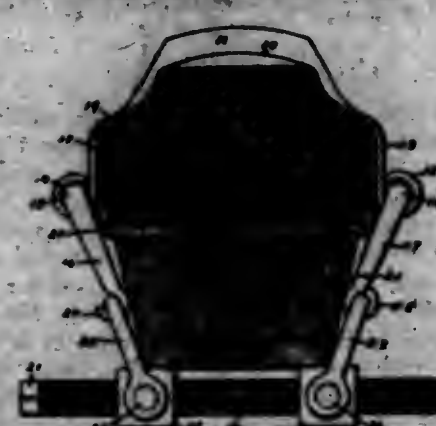
1,306,729. SEGMENTAL GRATE-BAR. CALVIN R. WARD, Birmingham, Ala. Filed Aug. 16, 1918. Serial No. 260,210. 4 Claims. (Cl. 128-180.)



1. In a segmental grate bar, a bar, a plurality of grate segments having bases slotted to straddle and project

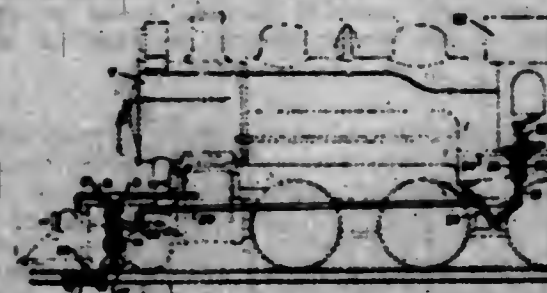
below said bar, there being aligning registering notches in the abutting faces of adjacent segments adapted to form holes disposed below the bar, and keys adapted to be inserted through said holes and to pass under said bar to tie the adjacent segment bars thereon.

1,306,730. TRACTION AND ANTISKID DEVICE FOR TRUCK TIRES. DICK WILLIS and HOWARD H. MARTIN, Westside, Iowa. Filed Apr. 13, 1918. Serial No. 228,908. 8 Claims. (Cl. 152-2.)



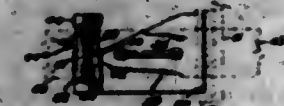
1. A traction and anti-skid device for truck tires, comprising a mud lug having eyes on opposite sides thereof, links pivoted in said eyes, clevises pivoted to said links, a bolt having oppositely arranged threaded portions at its opposite end portions, traveling blocks threaded on the respective threaded portions of said bolt, and pivotal connections between each of said clevises and one of said blocks.

1,306,731. AUTOMATIC TRAIN-STOPPING MECHANISM. SIGFRED ANDERSON, Windber, Pa. Filed Sept. 23, 1918. Serial No. 253,214. 6 Claims. (Cl. 246-182.)



2. Mechanism of the character described including a stop; a valve operative to effect operation of braking mechanism; a valve stem movable to open and close said valve; a swinging pendulum lever; means operatively connecting said pendulum lever with said valve stem whereby when the pendulum lever is swung due to engagement with said stop, the valve stem will be rocked to render said valve operative to effect the operation of the braking means; and means for moving said pendulum lever to a position clear of said stop, substantially as described.

1,306,732. TRIP DEVICE. SIGFRED ANDERSON, Windber, Pa. Filed Dec. 10, 1918. Serial No. 266,022. 4 Claims. (Cl. 246-206.)



1. A portable trip device of the character described including two relatively movable members having portions adapted to engage opposite faces of a tie, one of said members having a recess, the other of said members having a projection slidably fitting said recess; and means connecting said members and movable to cause movement of said projection into said recess and said portions into clamping engagement with said tie; substantially as described.

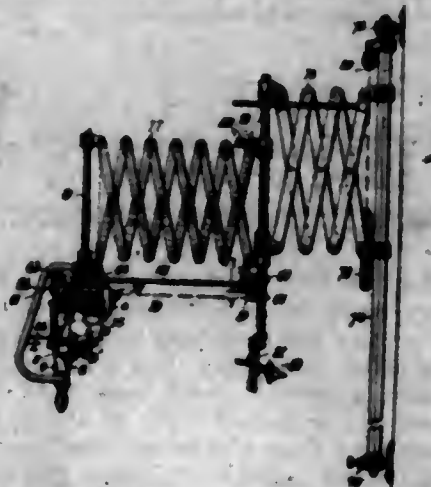
1,306,733. SHARPENING-MACHINE. RUDOLPH A. ANSCHUTZ, Spokane, Wash. Filed July 14, 1916. Serial No. 100,361. 7 Claims. (Cl. 51-14.)



1. In a blade sharpening machine, an endless strop, a relatively larger roller for supporting one bight of said strop and a relatively small roller for supporting the remaining bight of said strop whereby the laps of said strop will converge toward the smaller roller and the laps of said strop being unrestrained between said rollers to permit said laps to assume the position of convergence caused by said rollers, and means for supporting a double edge blade between said laps in a position to engage the chamfer or bevel of one edge on one side of said blade with one lap of said strop and one bevel of the other edge and on the other side of said blade with the remaining lap of said strop, said means being rotatively movable about a fixed axis disposed nearer to one lap than the other and nearer one cutting edge of the blade than the other, whereby said blade holding means will engage said bevels at angle coincident with said laps without stropping off the cutting edges of said blade, substantially as described.

1,306,734. DYNAMIC OPTOMETER. CHARLES E. H. ARMSTRONG, Denver, Colo. Filed Apr. 25, 1917. Serial No. 164,497. 40 Claims. (Cl. 88-20.)

35. In a dynamic optometer, the combination with a carrier having a sight-opening, of a plurality of test-type charts separately movable therein, means to effect a movement of the carrier whereby to vary its distance



from a given point, and mechanism cooperative with said means, to move the charts at predetermined distances from said point and in regular order to a position in which they register with the sight-opening.

1,306,735. DYNAMIC OPTOMETER. CHARLES E. H. ARMSTRONG, Denver, Colo. Filed June 21, 1917. Serial No. 176,175. 17 Claims. (Cl. 88-20.)

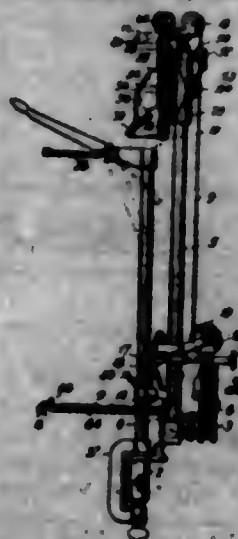
16. In a dynamic optometer, a base, a wheel rotatably mounted thereon and having an upstanding rim bearing a series of successively arranged test-types, a hood secured to said base and increasing said wheel, a sight-tube on the hood having openings within and without the same, reflectors in said tube to reflect a type registering with its inner opening at a point opposite its other opening, a reel on the base, a flexible tape on said reel, having means for its attachment to a stationary support, a rotary transmission member on the base in

driving connection with said element, and cooperative devices on said tape and said member to intermittently



rotate the member at predetermined distances in a movement of the optometer relative to a point at which the tape is attached.

1,306,736. DYNAMIC OPTOMETER. CHARLES E. H. ARMSTRONG, Denver, Colo. Filed Aug. 20, 1917. Serial No. 187,284. 41 Claims. (Cl. 88-20.)



1. A dynamic optometer comprising a movable test-type bearing carrier, a reflector on said carrier, and a stationary reflector which are relatively disposed to reflect a test-type of the carrier, said carrier being mounted for movement in a determinate path to vary the distance between said reflectors, and means for effecting said movement.

1,306,737. RECORD-HOLDER. EDWARD A. RANSCHBACH, Chicago, Ill. Filed Mar. 28, 1917. Serial No. 187,952. 12 Claims. (Cl. 211-16.)

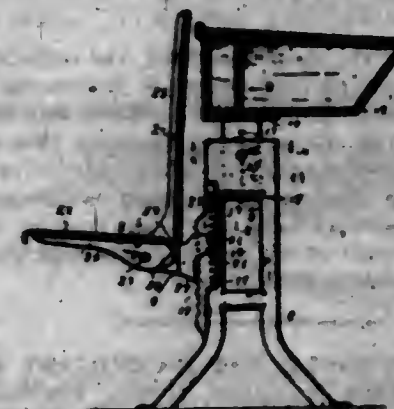


1. In a disk record holder, the combination with a container comprising two covers, and protecting means pivoted in the covers of substantially the thickness of a single record with a curved recess adapted to closely fit about the edge but not over the sides of a record and adapted by its weight, when the holder is in an upright position, to hold the protecting means closed in the holder, and when rotated outwardly to expose the central portion at both sides of a disk record.

1,306,738. COMBINED DISK AND SEAT. WALTER C. BRASANT, Manitowish, Wis. Filed Oct. 9, 1916. Serial No. 134,471. 2 Claims. (Cl. 186-34.)

1. A device of the character described, comprising spaced standards each having a series of teeth on one

edge and a series of through openings arranged in parallel relation to said teeth and spaced a distance apart equal to the length of each tooth, and seat-frames each having a single projecting lug to engage any one of the teeth, and also a rear portion located above said lug and provided with openings adapted to align with one of the through openings of the standard when said projecting lug is engaged with one of said teeth, bolts for engaging the openings in



the seat frames and the registering openings in the standards, said seat frames being freely detachable from the standards at any point of attachment after the securing bolts have been removed, and said projecting lugs and teeth being constructed to partially support the loads imposed upon the seat and also to provide an initial support while the holding bolts are being secured in place.

1,306,739. ADVERTISING DEVICE. RICHARD THOMAS BELL, Toronto, Ontario, Canada. Filed July 7, 1916. Serial No. 107,916. 4 Claims. (Cl. 40-63.)



1. In a display weight scale, the combination with the scale beam and weight indicating mechanism, of a rotatable display member, means actuated by the movement of the scale beam for rotating said member, means for limiting the movement of the display mechanism, and means for returning said display mechanism to normal actuated by the return of the scale beam.

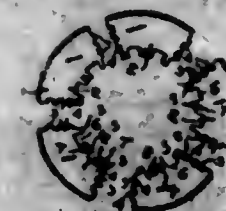
1,306,740. FLASH-LIGHT. HYMAN BIRSS, Liverpool, England. Filed Aug. 9, 1917. Serial No. 185,262. 2 Claims. (Cl. 240-8.5.)



1. An electric flash light: comprising a casing, an electric filament lamp, the bulb whereof projects through an aper-

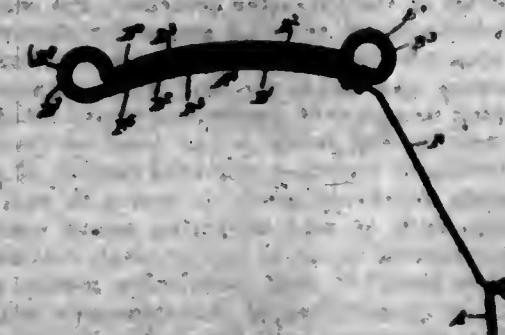
ture in said casing top, a metal plate secured in contact with said lamp, means controlling the amount of projection of said lamp bulb through said casing aperture, and a dry cell provided with a spring terminal in continuous contact with said lamp and a terminal adapted to make contact with said metal plate when said cell is moved within the casing.

1,306,741. METHOD OF SAW RECONSTRUCTION. GEORGE L. BLANCHARD, Atlanta, Ga. Filed Mar. 30, 1918. Serial No. 223,519. 3 Claims. (Cl. 76-112.)



1. A process of reconstructing circular saws, for glazing machines and the like, consisting in removing a plurality of segmental sections from two defective saws of the solid type and uniting such sections in a predetermined manner to form a complete circular saw, substantially as described.

1,306,742. RESILIENT AUTOMOBILE FENDER. EUGENE B. BOWLING, Chicago, Ill. Filed June 5, 1918. Serial No. 238,287. 12 Claims. (Cl. 21-22.)



12. An elastic yielding fender for road vehicles and the like comprising a rigid base, and a yielding elastic cover therefor for completely inclosing it, and extending outwardly beyond its edge.

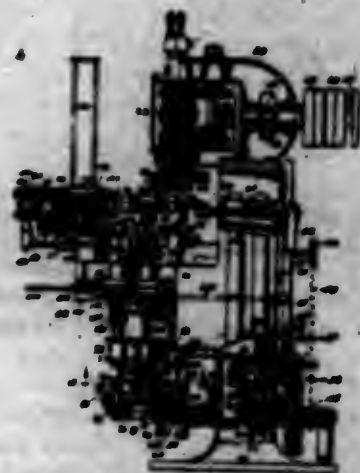
1,306,743. INCLOSING CASING. ALLEN A. BOWMAN, Fort Wayne, Ind. Original application filed Oct. 15, 1914, Serial No. 866,789. Divided and this application filed Mar. 31, 1916. Serial No. 87,995. 6 Claims. (Cl. 221-81.)



1. The combination with manually operable mechanism to be inclosed, of a lower fixed inclosing casing above

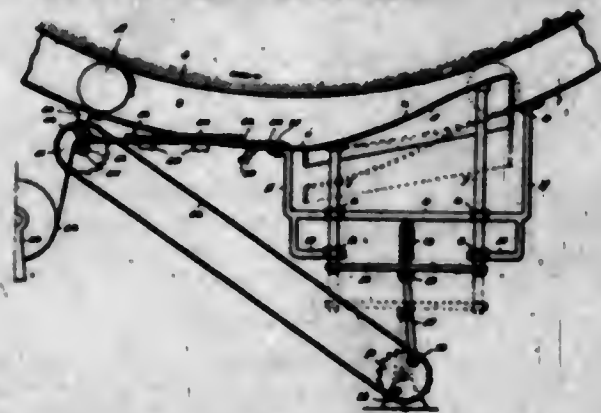
which some of the mechanism extends, a support extending above the mechanism and a hood carried by and enclosing the support and movable upon it from a juncture with the lower casing to an upper position where the mechanism is uncovered for manual operation.

1,306,744. ASSEMBLING AND FEEDING DEVICE FOR CAN-HEADING MACHINES. JULIUS BANNAISON, Fairfield, Conn., assignor to The Max Ams Machine Company, Bridgeport, Conn., a Corporation of New York. Filed July 14, 1917. Serial No. 180,808. 48 Claims. (Cl. 112-14.)



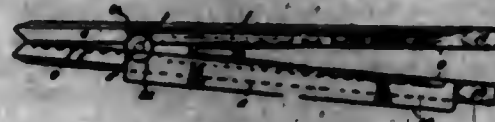
1. In a device of the character described, the combination, with intermittently actuated means for successively positioning open containers in the seaming mechanism of a heading machine, and means for delivering containers to said positioning means, said positioning means being also adapted to receive and retain a can head or cover immediately above each container delivered thereto, of means for successively delivering heads or covers to said positioning means, both of said delivering means operating when said positioning means is at rest, each container so delivered being placed in said positioning means underneath a head or cover delivered simultaneously with the last preceding container, and means for automatically checking effective operation of said head or cover delivering means in the absence of a container in said container delivering means to subsequently receive the head or cover which would otherwise be delivered.

1,306,745. BREAD-LABELING DEVICE. OTTO C. BUSLBY, St. Louis, Mo. Filed Feb. 9, 1917. Serial No. 147,540. 3 Claims. (Cl. 216-25.)



1. A labeling device for loaf molders comprising a loaf actuated plate arranged in an opening in the bottom of a molder in such a manner that the plate may be depressed by the loaf rolling over the same, means for returning the plate to its uppermost position after the loaf has passed over the same, label advancing mechanism, means actuated by the loaf actuated plate for actuating said label advancing mechanism, label guiding means, and label cutting means adapted to be actuated by a loaf rolling over the same.

1,306,746. WELDING-TOOL. JOHN J. CAMPBELL, Brooklyn, N. Y. Filed Jan. 20, 1919. Serial No. 273,811. 8 Claims. (Cl. 210-8.)



1. In a device of the class described, the combination of two metal members pivoted together intermediate their ends, means disposed between said members on one side of the pivot for forcing the members apart on this side and together on the other side of the pivot, said latter end of the members being constructed to grasp electrodes of different size with substantially the same opening of jaws, while the opposite end of the metal members is adapted to receive electrical conductors.

1,306,747. RECEPTACLE FOR INCENDIARY AERIAL BOMBS. AUGUSTE CHANARD, Rueil, France. Filed July 29, 1918. Serial No. 247,298. 15 Claims. (Cl. 102-29.)



2. A receptacle for incendiary aerial bombs comprising two shells and a band of combustible material uniting the edges of these two shells.

1,306,748. HAY-STACKER. LEON R. CLAUSEN and ROBERT E. BOWMAN, Ottumwa, Iowa, assignors to The Dain Manufacturing Company of Iowa, Ottumwa, Iowa, a Corporation of Iowa. Filed May 27, 1918. Serial No. 100,290. 6 Claims. (Cl. 214-141.)



1. In a hay-stacker, the combination with a swinging carrier-frame comprising two arms spaced a distance apart, brackets at each side of each arm and projecting beyond the forward ends of said arms and a cross-piece connected to the forward ends of said brackets, of a rotatable shaft, two gears fixed on said shaft—one located between each set of brackets—a sticher-head frame movably connected to said bars of the carrier-frame, means

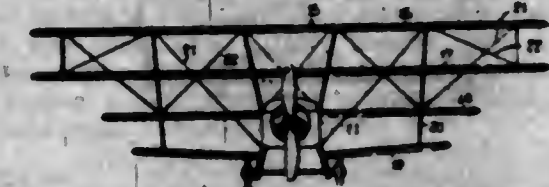
on said sticher-head frame with which said gears respectively engage, and means for rotating the shaft to cause a projection or retraction of said sticher-head frame.

1,306,749. TWIN-FLOAT HYDROAEROPLANE. GLENN H. CURTIS, Buffalo, N. Y., assignor to Curtiss Aeroplane and Motor Corporation, Buffalo, N. Y., a Corporation of New York. Filed Aug. 12, 1916. Serial No. 114,581. 11 Claims. (Cl. 244-2.)



5. In an airplane, a fuselage, a supporting surface including a central panel, landing devices mounted beneath the supporting surface and symmetrically at opposite sides of the fuselage with their longitudinal center lines in the longitudinal vertical plane of the ends of the panel, and struts transversely downwardly divergent from the ends of the panel for the support of the landing devices.

1,306,750. AEROPLANE-WING TRUSS. GLENN H. CURTIS, Garden City, N. Y., assignor to Curtiss Aeroplane and Motor Corporation, Buffalo, N. Y., a Corporation of New York. Filed Mar. 13, 1918. Serial No. 222,218. 2 Claims. (Cl. 244-14.)



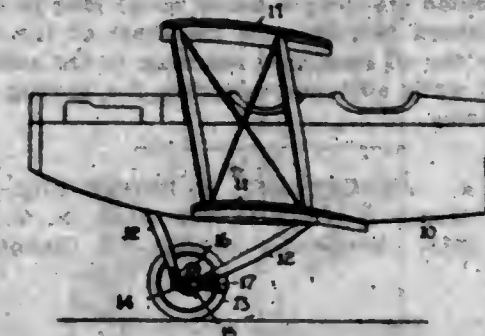
1. In an airplane, the combination with the fuselage and landing gear, of a wing truss including superposed wings arranged respectively above and below the plane of the fuselage, the lowermost wings being attached to the landing gear, wing posts, and lift and drop wires cross arranged, the lift wires at one end being fastened to the fuselage adjacent the points of attachment of the landing gear rather than at the points of attachment of the adjacent wings.

2. An airplane wing truss including cross arranged lift and drop wires, the outer ends of the outermost cross arranged wires being fastened to wings in closer proximity to each other than the wings to which the inner ends of said wires are fastened and the outer ends of the cross arranged wires next inwardly removed from the outermost being fastened to the same wings as the inner ends of the outermost wires are fastened, said last mentioned cross arranged wires being fastened at their inner ends at points even more distantly removed from each other than the distance between the wings to which the outer ends of said wires are fastened.

1,306,751. COMBINATION LANDING-GEAR FOR AEROPLANES. GLENN H. CURTIS, Garden City, N. Y., assignor to Curtiss Aeroplane and Motor Corporation, Buffalo, N. Y., a Corporation of New York. Filed Mar. 13, 1918. Serial No. 222,214. 4 Claims. (Cl. 244-2.)

1. In an airplane, the combination of a landing gear including ground runners adapting the machine to arise from and alight upon the ground, a cross connection between the runners, a principal aerial supporting surface adapting the machine to aerial flight, and a cambered auxiliary supporting surface carried by the landing gear

and streamlining the cross connection between the ground runners, the cross sectional form of said aerial auxiliary



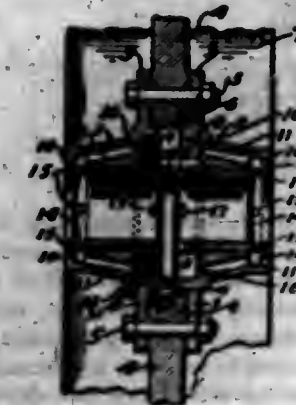
supporting surface being such that the machine is adapted to alight upon the water should occasion demand.

1,306,752. PRESSER-FOOT MECHANISM FOR SEWING-MACHINES. ALBERT H. DE VON, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Aug. 29, 1917. Serial No. 188,781. 7 Claims. (Cl. 112-12.)



1. A presser mechanism for sewing machines comprising telescopically arranged main and auxiliary presser-bars, cloth-pressers sustained by said presser-bars, springs exerting a pressure upon each of said presser-bars, and mutually independent means for regulating the pressures exerted by said springs.

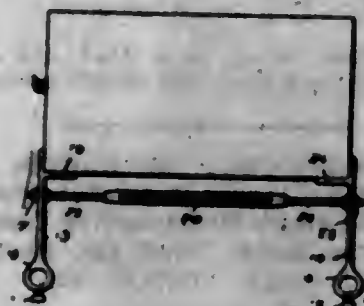
1,306,753. RING-OILING DEVICE FOR LOOSE PULLEYS, GEARS, &c. CARL A. DIERCK, St. Louis, Mo. Filed Oct. 21, 1918. Serial No. 259,083. 2 Claims. (Cl. 64-81.)



1. An improved ring oiling device for loose pulleys and other machine elements, consisting of two hub sections having an oil reservoir between their inner ends, there being annular grooves near the outer ends of the

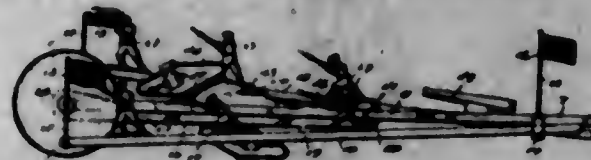
interior of the bearing of said hubs, inclined ducts communicating at their inner ends with the said oil reservoir, and radial ducts connecting said inclined ducts to the said annular grooves; a heavy metal ring in said oil reservoir adapted to ride upon the shaft of the bearing and to carry the oil from said reservoir to the said shaft, and inclined walls adjacent said ring, for forcing the oil into the bearing.

1,306,754. ADJUSTABLE SUPPORT FOR GLUE-TANKS. MOORE B. DISKIN, New York, N. Y. Filed Apr. 20, 1918. Serial No. 231,532. 2 Claims. (Cl. 248-41.)



1. A support comprising parallel brackets having slidably supported eyes at their lower ends for longitudinal adjustment and inwardly projecting shelves at their upper ends to support a tank, and an adjustable connection disposed between the eyes and shelves of the brackets for drawing them toward each other to clamp the tank in position.

1,306,755. TRUNDLE TOY. GEORGE T. ERNEST and JOHN BARRY, Washington, D. C. Filed Mar. 20, 1919. Serial No. 283,904. 3 Claims. (Cl. 46-48.)



1. A toy for simulating a tank charge in warfare, comprising a support, a wheel connected with the forward end of the support, a tank carried by the support, means to cause the tank to travel longitudinally of the support, a plurality of soldiers, and means to advance the soldiers so that they move in proximity to the tank and in the same direction.

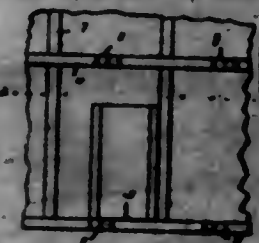
1,306,756. FOLDING BED. GEORGE FISCHBUFF, Chicago, Ill. Filed July 8, 1915. Serial No. 39,850. 3 Claims. (Cl. 5-51.)



1. In a folding bed, the combination of a main frame, a reversible seat member, and pivotal means intermediate of said parts and adapted to impose a pivotal and a simultaneous longitudinal movement on said seat member, the same comprising a pair of crossed bars pivoted at their intersection with an end of the respective bars pivoted directly to the main frame and to the seat member, the pivot connections to the main frame being on an approximately horizontal plane, and radius links connecting an opposite end of the respective bars to the seat member and main frame, one of said radius links having an angular formation, adapted to open the pivotal

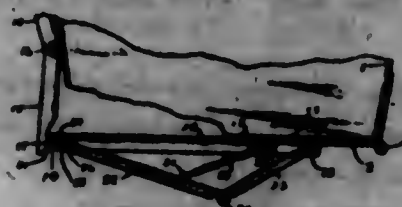
connection of a companion link on said seat member and have its individual pivotal connection at a point beyond that of said companion link.

1,306,757. DEVICE FOR INDICATING THE PRESENCE OF ARTICLES IN PIGEONHOLES. GEORGE F. FLACKENBERG, Sioux City, Iowa. Filed Oct. 12, 1917. Serial No. 194,102. 3 Claims. (Cl. 40-14.)



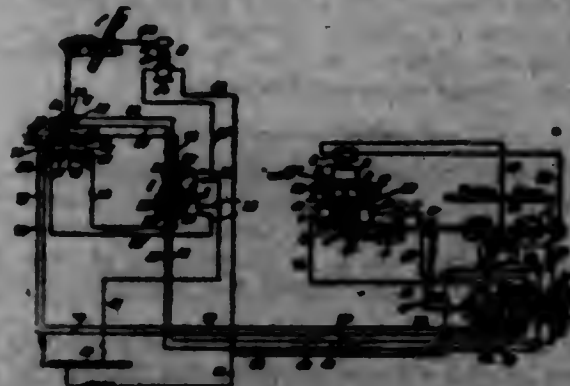
3. A device for indicating the presence of articles in a pigeon hole, comprising an elongated base plate adapted to be removably inserted in the pigeon-hole, and having its front end portion bent upwardly, the side edge portions of said end portion being overturned to retain cards and the like, and the plate being cut away from one rear corner diagonally toward the front end and thence laterally to the side edge, whereby the front end of the plate may be moved laterally in the pigeon-hole to admit comparatively large articles in the pigeon hole.

1,306,758. SELF-DUMPING CONVEYING-BUCKET. JOHN F. GOERNY, Elkhart, Ind. Filed May 31, 1918. Serial No. 287,864. 5 Claims. (Cl. 57-12.)



1. The combination with a bucket of the class described provided with a pair of hinged bottom dumping doors, of a carrier bar member mounted upon one of said doors and projecting therefrom beneath and across the other door; a movable spring pressed latch member engaging beneath said bar for supporting same and said doors; and a movable trip member mounted upon said carrier bar and adapted to actuate said latch member upon the descent of the bucket, whereby said latch is disengaged from beneath said carrier bar.

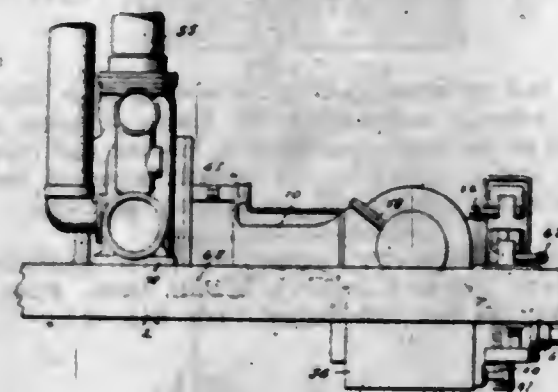
1,306,759. POWER-ACTUATED SYSTEM OF TRAFFIC CONTROL. GARDNER E. GRAY, Pittsburgh, Pa.; Helen F. Gray, executrix of said Gardner E. Gray, deceased, assignor, by mesne assignments, to A. G. Williamson, trustee, Pittsburgh, Pa. Filed Aug. 27, 1914. Serial No. 858,001. 23 Claims. (Cl. 246-135.)



1. A power actuated system of traffic control comprising: traffic governing appliances operating means, controlling means for supplying power to the operating means,

means controlled by the operating means for cutting off the power supplied by the controlling means, indication means exercising control over the controlling means, means controlled by the operating means for supplying power to actuate the indication means, and means controlled by the power supplied by the controlling means for preventing power from reaching the indication means so long as power is flowing to the operating means.

1,306,760. AUTOMOBILE FIRE-ENGINE. WILLIAM G. HAWLEY, Elmira, N. Y., assignor to American La France Fire Engine Company, Inc., Elmira, N. Y., a Corporation of New York. Filed Jan. 3, 1917. Serial No. 140,346. 3 Claims. (Cl. 160-19.)



1. In an automobile fire engine, the combination with the chassis frame, of a transverse truss rigidly connecting the longitudinal side bars of said frame, said transverse truss including pump cylinders arranged on horizontal axes, cylindrical cross-head guides coaxially arranged with said pump cylinders respectively and rigidly united with each other, pistons in said pump cylinders, cross-heads in said cross-head guides and connected to said pistons respectively, and means for reciprocating said cross-heads and pistons.

1,306,761. DROSS-MOLD. ISAAC NEWTON HEMINGEN, Findlay, Ohio. Filed Jan. 16, 1919. Serial No. 271,426. 2 Claims. (Cl. 22-153.)



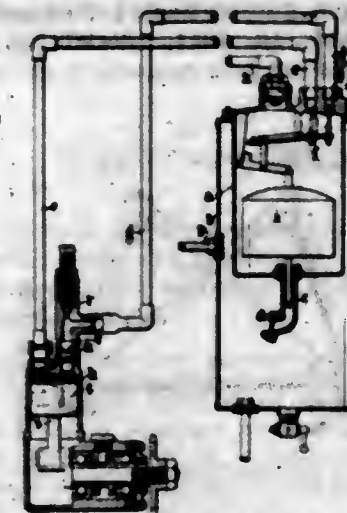
1. A dross mold, comprising a cylindrical receptacle open at one end and formed of semi-cylindrical sections hinged together along one edge, fastening means along the opposite edges of said sections to hold the same in closed position during filling, and a bottom plate carried by one of said sections and engaged by the other section, to close the lower end of the mold, when the sections are fastened together.

1,306,762. LIQUID-FUEL-SUPPLY APPARATUS FOR INTERNAL-COMBUSTION ENGINES. JOSEPH HIGGINSON and HUBERT MAUNDEL, Stockport, England. Filed Dec. 26, 1917. Serial No. 209,010. 3 Claims. (Cl. 158-36.)

1. In liquid fuel supply apparatus for internal combustion engines, in combination, an intermediate vessel, a supplementary vessel receiving the fuel from the intermediate vessel, a non-return valve on the connection between said vessels, positively operated means placing said intermediate vessel alternately under suction and pressure, a conduit between said means and the intermediate

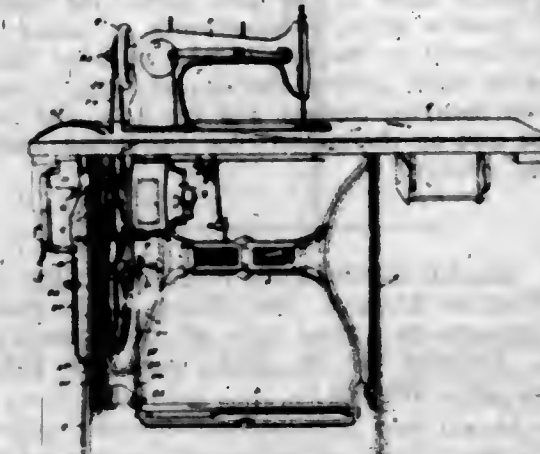
263 O. G.-24

vessel allowing the continuous flow of air therethrough in both directions, and a float valve for cutting off the



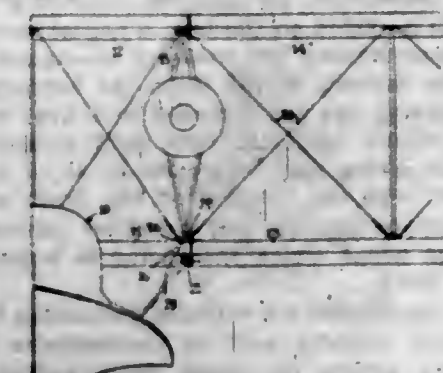
suction and pressure from the intermediate vessel independently of the positively operated means, as set forth.

1,306,763. STAND FOR SEWING-MACHINES. LEO C. KIEHNLE, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Sept. 21, 1918. Serial No. 255,091. 5 Claims. (Cl. 172-179.)



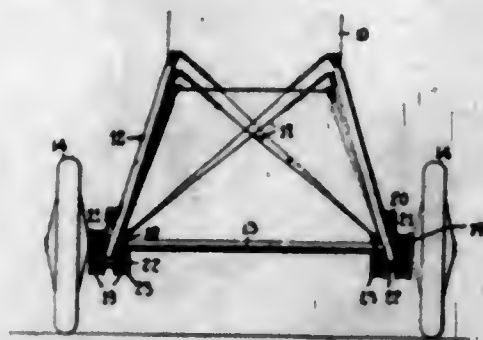
3. In a stand for sewing machines, power and manual driving devices operatively arranged to operate the machine and including a foot-treadle, a pitman section articulated to the foot-treadle, and a pair of end-threaded pitman sections connected respectively to said power and manual driving devices and adapted to be connected to the first mentioned pitman section which is also threaded at one end.

1,306,764. AEROPLANE-WING HINGE. HENRY KLECKLER, Buffalo, N. Y., assignor to Curtiss Aeroplane and Motor Corporation, a Corporation of New York. Filed Apr. 16, 1917. Serial No. 162,532. 3 Claims. (Cl. 244-31.)



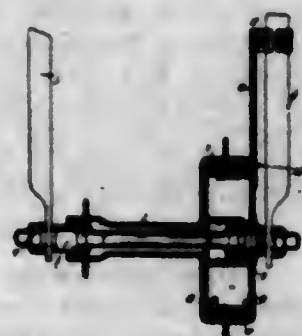
1. An airplane wing truss including wing panels arranged to provide separable wing cells together with wiring cross arranged between the panels of one cell, the wiring at one end extending beyond the particular cell which it cross braces for connection with an adjacent cell to firmly tie the adjacent cells together.

1,306,765. LANDING-GEAR FOR AIRCRAFT. HENRY KLECKLER, Buffalo, N. Y., assignor to Curtiss Aeroplane and Motor Corporation, a Corporation of New York. Filed Nov. 16, 1917. Serial No. 202,402. 5 Claims. (Cl. 244-2.)



1. In a landing gear for aircraft including a substantially V-shaped strut inclined to the vertical and extended straight away from the body of the craft without a bend in the strut, an axle, an axle guide mounted at the foot of the strut, the plane of the axle guide and plane of the strut intersecting, separate groups of shock absorber elastics mounted at opposite sides of the V-strut and at opposite sides of the axle guide, the separate groups of elastics acting independently, a support for the elastics carried by the V-strut and extended beneath and across its right portion, the elastics being laced for contact with both the support and the axle, and means on the axle and on the support for preventing displacement of the elastics.

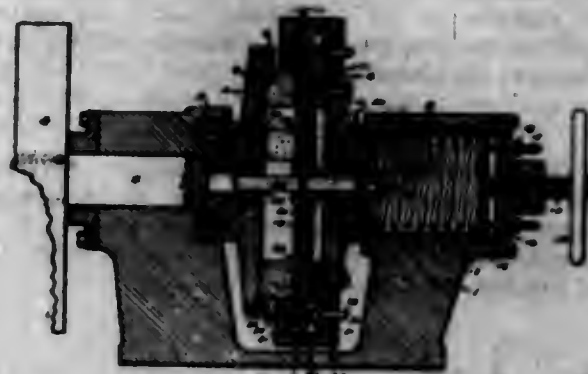
1,306,766. BRAKE MECHANISM FOR VEHICLES. CONNEL WILLEM KUIJPER, Den Hout, a. d. Dedemsvaart, Netherlands. Filed Nov. 26, 1917. Serial No. 204,061. Renewed Dec. 30, 1918. Serial No. 209,029. 6 Claims. (Cl. 208-60.)



2. Brake mechanism for vehicles, consisting of a hub, a brake drum provided on the hub, a helical spring within the brake drum having the tendency to expand into contact with the interior of the drum, an actuating device, the spring having one end fastened to a fixed part of the vehicle, the other connected with said actuating device by which the spring may be wound so as to be removed from contact with the interior of the drum or released and permitted to expand, and a carrier having a cylindrical portion about which the spring is wound, for the purpose set forth.

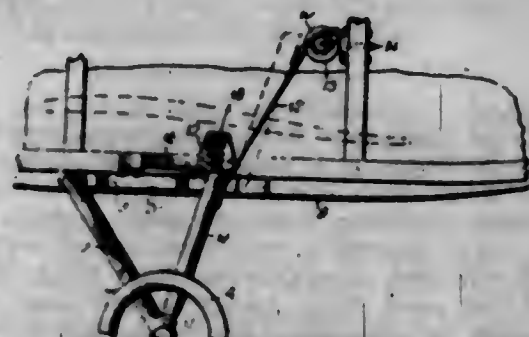
6. Brake mechanism for vehicles, consisting of a brake drum, a lever forming part of transmission means, a helical spring within the brake drum having the tendency to expand into contact with the interior of the drum, a carrier having a cylindrical portion about which the spring is wound, the spring having one end fastened to said carrier, the other end of the spring being connected with said lever, and means for locking the mechanism when the brake is applied, substantially as set forth.

1,306,767. AUTOMATIC ROUGH-BALL GRINDER. JOHN J. MCINTYRE and CHARLES KOWHLEN, Hartford, Conn. Filed Aug. 21, 1918. Serial No. 250,784. 9 Claims. (Cl. 51-4.)



1. A ball grinding machine consisting of a frame, a grinder rotarily mounted on the frame, a spiral guide mounted on the frame and movable toward and from the grinder, and a slotted carrier rotarily mounted between the face of the grinder and the face of the guide.

1,306,768. AIRCRAFT RUNNING AND ALIGHTING DEVICE. JAMES V. MARTIN, Detroit, Mich. Filed June 19, 1918. Serial No. 194,595. 19 Claims. (Cl. 244-2.)



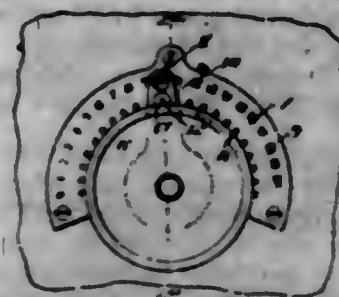
8, 1916, Serial No. 102,576. Renewed Oct. 3, 1917. Re-17. In an aeroplane, a retractible chassis, a fuselage having a sheathing open to receive said chassis, and means for closing said sheathing operated by a movement of said chassis.

1,306,769. VEHICLE-TIRE. HENRY L. OCHO, Kansas City, Mo. Filed Nov. 29, 1918. Serial No. 264,517. 5 Claims. (Cl. 152-10.)



1. The combination of a pneumatic tire, a plurality of clamping devices peripherally engaging the tire, each device comprising two sections pivotally fastened together, and a tread portion circumferentially surrounding the tire and secured in place by said clamping devices.

1,306,770. SWITCH-OPERATING MECHANISM. OSCAR H. PIERCE and ALPHONSE F. PIERCE, Rochester, N. Y. Filed Oct. 30, 1915. Serial No. 55,856. Renewed Apr. 26, 1918. Serial No. 231,027. 3 Claims. (Cl. 200-14.)



1. The combination with a rotary handle, of a supporting plate fixedly attached to the handle and extending lat-

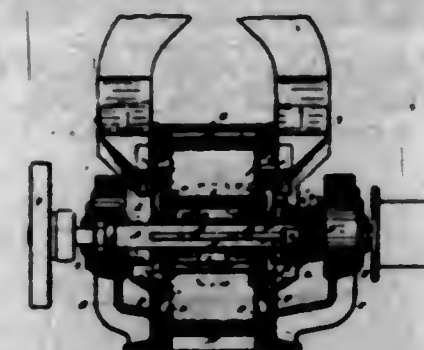
erally beyond the same, a stationary locking plate having a series of apertures, a housing on the supporting plate, a locking pin slidable in said housing of the supporting plate into engagement with any of said apertures, a spring actuating the locking pin toward the locking plate, a handle carried by the locking pin and having a recess on its inner surface, and a supplemental pin fixed upon the aforesaid housing in position to engage the recess in the last mentioned handle.

1,306,771. UNION-UNDERGARMENT. JAMES K. P. FINE, Troy, N. Y., assignor to United Shirt and Collar Company, Troy, N. Y., a Corporation of New York. Filed Oct. 14, 1915. Serial No. 55,797. 4 Claims. (Cl. 2-144.)



4. A union cult having an upper front portion comprising two side front members, and a bib-member between, and throughout its length substantially lapping each of said side front members, each of said front members being made of a piece of fabric separate from the lower front portion of the garment to which its lower edge is secured by a seam, and means for detachably securing the upper end of said bib-member in lapped relation to the respective side front members.

1,306,772. REDUCING-MACHINE. HAROLD M. PLASTER, Granite City, Ill. Filed June 10, 1918. Serial No. 239,194. 4 Claims. (Cl. 53-11.)



1. A reducing machine comprising a solid cylindrical cage, a shaft, rotary hammers having inclined faces adapted to act as a blast fan, a casing having feed and air inlet openings in the sides below the shaft and discharge openings in the sides above the shaft, and fan blades at each side operating past said feed and air openings but not said discharge openings, substantially as described.

1,306,773. TEMPLE. LAWRENCE POWSON, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Apr. 1, 1918. Serial No. 235,908. 2 Claims. (Cl. 53-52.)

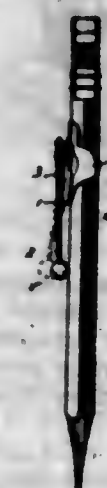
1. In a temple, the combination with a non-metallic ear hook having a longitudinal bore, of a metallic butt sec-

tion of a smaller diameter than the diameter of the bore, prongs carried by the butt section and adapted to be forced into the walls of the bore at the inner end thereof, and the butt section being provided with recessed portions adapted



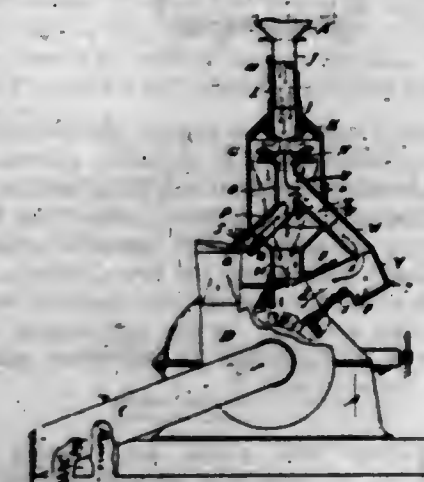
to receive portions of the non-metallic ear hook to interlock therewith upon the application of pressure to the non-metallic portion for retaining the parts together-as and for the purpose set forth.

1,306,774. PEN AND PENCIL CLIP. MALCOLM M. RABD, Waterbury, Conn., assignor to The Hoge Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Mar. 21, 1919. Serial No. 284,126. 2 Claims. (Cl. 24-11.)



1. A one-piece pen and pencil clip comprising a lever having two lateral extensions at a medial portion thereof, an article-encircling portion having two arms substantially parallel to its axis and extending from the side of said portion nearest the free end of the holding arm of said lever, and offsets extending outwardly from the ends of said arms and connecting said ends to sides of said lateral extensions so that the body portion of said lever is spaced away from a pen or pencil within said encircling portion, all of said parts of said clip being integrally connected.

1,306,775. PNEUMATIC METAL-CATCHER. ALONZO J. ROSSIER, St. Louis, Mo., assignor to Williams Patent Crusher and Pulverizer Co., St. Louis, Mo., a Corporation of Missouri. Filed Mar. 1, 1919. Serial No. 280,007. 4 Claims. (Cl. 53-54.)



1. A pneumatic metal catcher comprising a drum having a top feed inlet opening and an outlet opening subject to air suction, a pipe having a flaring top centrally disposed below said inlet and having its lower end extended outside

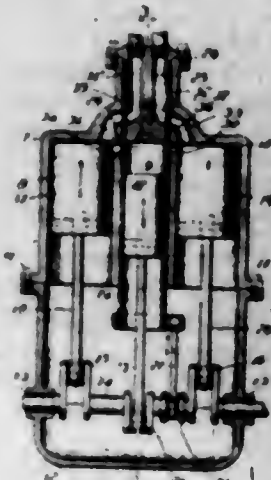
said drum and forming a pocket, an air regulating valve in the outside part of said pipe, and means to vary the size of the space and consequently the air velocity between said flaring end and the top inlet.

1,306,776. DISK-BEARING FOR GRAIN-DRILLS. CHARLES W. ROBINSON, Hamilton, Ontario, Canada, assignor to International Harvester Company of Canada, Limited, a Corporation of Ontario. Filed Dec. 24, 1917. Serial No. 208,681. 9 Claims. (Cl. 64—66.)



1. In a grain drill, a frame member, a rotatable member, a reversible bearing member carried by said frame member and engaging said rotatable member, and means for preventing relative rotation between said bearing member and frame member in all positions of the adjustment of said bearing member.

1,306,777. INTERNAL-COMBUSTION ENGINE. ALLEN M. ROSSMAN, Wilmette, Ill. Filed June 8, 1917. Serial No. 173,456. 13 Claims. (Cl. 60—44.)

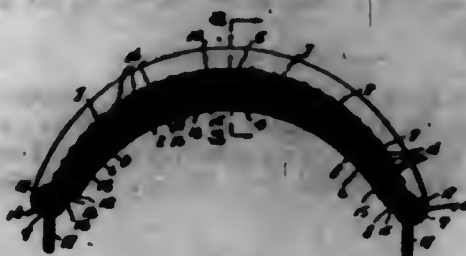


1. In an internal combustion engine, the combination of a compression cylinder, a power cylinder, pistons in said cylinders, a combustion chamber, valve mechanism for providing communication between the cylinders and the combustion chamber, a movable wall in the combustion chamber for mechanically scavenging the gases therein, a crank shaft connected with said pistons and movable wall, and means for igniting a charge in the combustion chamber when the movable wall reaches its outermost position in the combustion chamber.

1,306,778. HANDLE FOR BAGS, &c. HENRY SADLOVSKY, Newark, N. J., assignor of one-half to Roman Pryslansky. Filed Sept. 20, 1918. Serial No. 254,911. 7 Claims. (Cl. 190—57.)

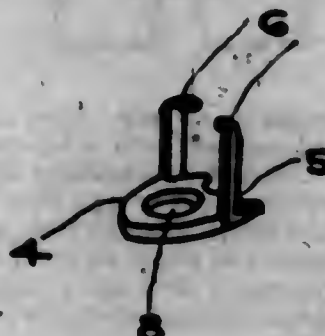
7. A handle comprising a core, a metallic strip extending longitudinally over said core, the ends of said strip being doubled back under said main body to loop the

same into eye members projecting from each end of said core, said strip and its underlapping ends having longitudinal openings therethrough, a covering having end tongues, the side marginal edges of said covering being folded around said core to meet and overlap on the under side of the latter, said end tongues being infolded around in covering relation to said eye-members of said strip and



the free ends thereof tucked between said core and a portion of said overlapping side marginal edges of said covering, and a longitudinal line of stitches extending downwardly through said central longitudinal portion of said covering, through the openings of said strip, through the core and thence through the free ends of said tongues and the overlapping marginal edges of said covering from one eye member to the other.

1,306,779. OPHTHALMIC MOUNTING. ELMER L. SCHUMACHER, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts. Filed Nov. 30, 1917. Serial No. 204,598. 2 Claims. (Cl. 88—47.)



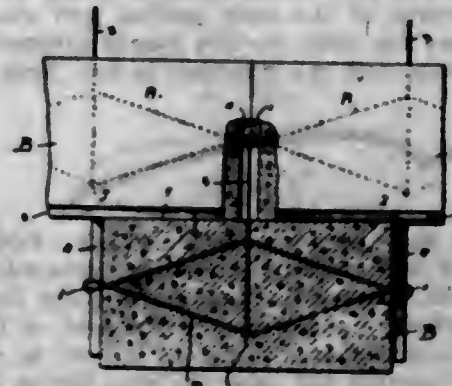
1. A device of the character described including a holding member for a non-metallic rim, comprising a sheet metal stamping having a washer-like portion adapted to be secured to a metallic frame and having laterally extending portions adapted to be bent at right angles thereto to grippingly engage a non-metallic member.

1,306,780. HEADLIGHT-LENS. WILLIAM H. SHERRON, Seattle, Wash. Filed June 17, 1918. Serial No. 240,415. 3 Claims. (Cl. 240—48.4.)



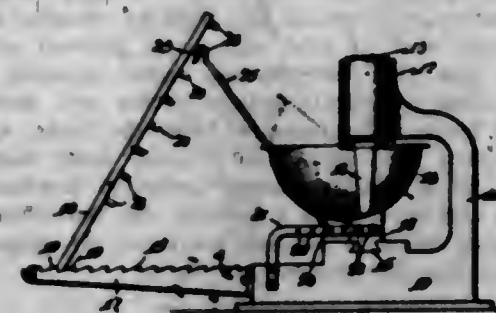
1. A lens of the class described comprising an upper section of increasing thickness from top to bottom thereof, two triangularly shaped side sections of increasing thickness from the center to side edges of said lens, a central section having an arcuate lower edge of greater thickness than the upper edge thereof and a bottom section of increasing thickness toward the bottom edge thereof.

1,306,781. BUILDING-BLOCK. ALBERT A. SMILEY, Albia, Iowa. Filed Oct. 24, 1918. Serial No. 250,474. 2 Claims. (Cl. 72—40.)



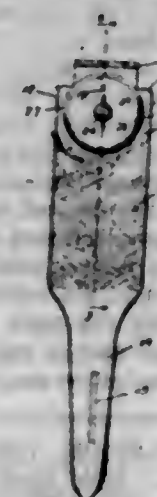
1. In combination with a building block, a reinforcement embedded therein and formed of a single length of material, said reinforcement being substantially diamond shape with its end portions extending beyond the end faces of the block, said extended portions being formed into loops, an end portion of the strand from which the reinforcement is produced extending transversely across the diamond shape and terminating exteriorly of the block.

1,306,782. WORK-SUPPORT. THEODORE SMOLINSKY, Gary, Ind. Filed Aug. 7, 1918. Serial No. 248,708. 4 Claims. (Cl. 153—32.)



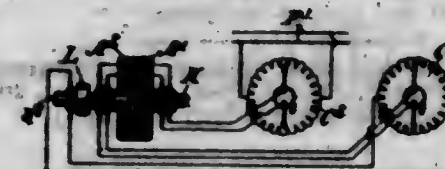
2. A work support for power hammers, comprising an anvil positioned beneath the hammer, a pair of legs pivoted forwardly of the anvil on a substantially horizontal axis, and means permitting adjustment of the free ends of said legs at various heights with respect to the anvil.

1,306,783. KITCHEN UTENSIL. THEODORE SMOLINSKY, Gary, Ind. Filed Jan. 18, 1919. Serial No. 271,189. 6 Claims. (Cl. 146—7.)



1. The combination with a channel-shaped handle, of a circular cutting blade pivoted in the channel thereof and adjustable to a position wherein a portion of its circumference stands clear of the handle.

1,306,784. ELECTROMAGNETIC CLUTCH. ALFRED SOAKES and WALTER LANGDON-DAVIES, London, England. Filed Oct. 30, 1918. Serial No. 260,318. 8 Claims. (Cl. 171—231.)



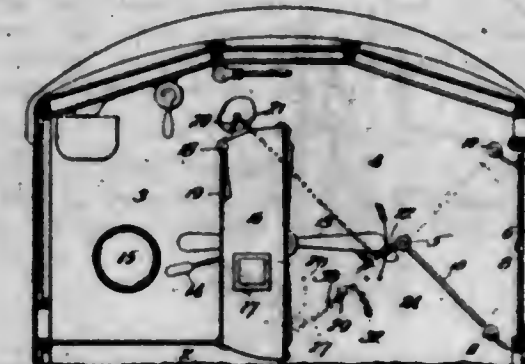
1. The combination with an electromagnetic friction clutch, of a magnetizing coil and means for controlling the current in such coil so that changes in the magnetic flux in the iron circuit of the clutch must always take place in the same direction in the cycle of magnetisation.

1,306,785. MANIFOLDING OR DUPLICATING PAPER. CHARLES L. SPENCE, Sturgis, Mich. Filed July 3, 1915. Serial No. 37,819. 7 Claims. (Cl. 282—26.)



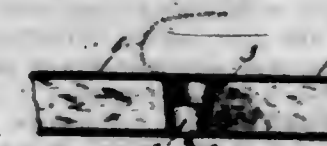
1. An integral sheet of paper comprising two sections, one of said sections being impermeable and the other section being permeable to transfer material whereby transfer material taken upon or applied to one side of such section will permeate the latter section and become visible from the other side.

1,306,786. ENTRANCE AND EXIT CONTROL AND SIGNAL MECHANISM FOR STREET-CARS. FRED STEPHENS, St. Joseph, Mo. Filed Oct. 20, 1917. Serial No. 190,602. 4 Claims. (Cl. 105—341.)



3. A street car having a door opening at one side of its front end, a swinging gate for adjustment to stand in such relation to the opening that passengers may enter or leave the car through said opening but never at the same time, and means dividing the space between the gate and the closed side of the car at the front end thereof to provide a passageway leading to the interior of the car and an isolated chamber or stand at the closed side of the car, for the motorman.

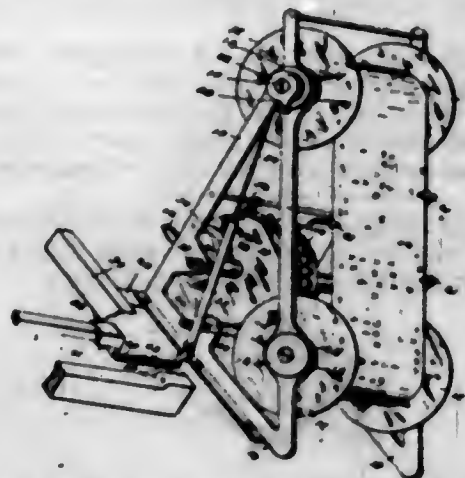
1,306,787. MATTRESS. MINERVA GLADDIS STEVENSON, Orange Lake, Fla. Filed Nov. 10, 1917. Serial No. 201,303. 1 Claim. (Cl. 5—13.)



A pneumatic mattress having an opening extending therethrough, the walls of the opening being tapered downwardly, and a plug insertible upwardly into the opening, said plug being indatable to completely fill the opening and to bind upon the walls thereof, the upper and lower end of the plug lying flush with the corresponding

faces of the mattress and the upper end of said plug being of greater diameter than the lower end to prevent downward withdrawal of the plug while inflated, the wall of the opening being held by pressure of air within the mattress against the wall of the plug.

1,306,788. COPY-HOLDER. NELLE M. THOMPSON and EDWARD F. O'LEARY, Pueblo, Colo. Filed Dec. 20, 1915. Serial No. 67,898. 3 Claims. (Cl. 120—30.)



1. In a device of the class described, a symmetrical note holder frame, a typewriter, a pair of reversible racks carried by said frame, a ratchet-movement reversibly secured to one of said racks, and a link connection of adjustable length connecting the spacer bar of said typewriter to the said ratchet.

1,306,789. BURGLAR-ALARM. WILLIAM TURNER, Seattle, Wash. Filed Mar. 21, 1919. Serial No. 283,976. 1 Claim. (Cl. 116—42.)



A burglar alarm of the character described, comprising a substantially vertical base to be secured to the door jamb, said base being provided between its ends with an L-shaped slot, upper and lower horizontal lugs carried by the base and arranged above and below the L-shaped slot, a rod mounted to slide within the openings in the lugs and provided at its lower end with an element to turn it and having its upper end pointed, said rod being provided near its upper pointed end with a transverse recess providing a shoulder, a horizontal pin rigidly secured to the rod and operating within the L-shaped slot, a compressible coil spring surrounding the rod and engaging the lower lug and the pin to move the rod upwardly, a trigger lever pivoted to the upper lug and having an extension to enter the recess of the rod to engage the shoulder, said trigger lever extending in the path of travel of the door, and a cartridge holding lug carried by the base and arranged above the upper lug.

1,306,790. SHOE-BUTTONER. WILLIAM VOGEL, New York, N. Y. Filed Sept. 27, 1913. Serial No. 792,063. 1 Claim. (Cl. 24—40.)

As an article of manufacture, a combined shoe-buttoner and shoe-horn consisting of a single sheet metal stamping and comprising a wide body portion of curved cross section; an elongated shank of channel-iron cross section with its concavity on the same side of but of shorter radius of curvature than the concavity of said body por-

tion, said shank being so curved, in the direction of its length, as to provide a cam portion extending in a direction approaching 90° from the initial direction of said shank, both the cross-sectional curvatures and the longitudinal curvatures of the body portion and the shank being such that the body portion blends gradually into the shank portion and the structure is free from abrupt



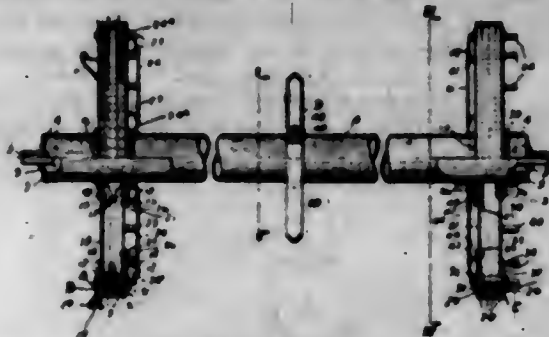
angles in the body portion and the shank; said shank being provided with a claw extending outwardly from the end of said shank for gripping the under face of a shoe button, whereby a downward movement of the free end of said shank causes it to act as a lever, to cam the shoe margins together and snap the shoe button through the button hole.

1,306,791. TIMER FOR ENGINES. LEO HAWTHORNE, Wheelan, Youngstown, Ohio. Filed Jan. 2, 1919. Serial No. 269,406. 3 Claims. (Cl. 123—167.)



1. In a timer, the combination with a shell having a cylindrical body and a conical cap with an opening at its apex, the inner wall of said cap being grooved toward the opening and the body having holes opposite said grooves, a series of points whose stems are mounted through said holes and insulated from the body, and a fiber cup within said shell and having holes opposite said grooves; of a tubular member mounted rotatably in said opening and serving as a conduit for the cable and the grooves and holes as passage ways for the respective wires thereof, for the purpose set forth.

1,306,792. SECTIONAL BULL-WHEEL. ROBERT B. WOODSWORTH, Pittsburgh, Pa. Filed Dec. 5, 1917. Serial No. 205,686. 3 Claims. (Cl. 242—117.)



1. In a bull wheel, the combination of a tubular metal shaft, a sectional tug rim at one end and sectional brake rim at the other end of the shaft, said rims being formed of laminated wooden cants having overlapping ends and being separable diametrically into sections, and converging metal spokes connecting the rims to the shaft, said spokes being secured at one end to the rim sections and detachably connected at the other end to said shaft.

1,306,793. STRUCTURAL-STEEL DERRICK. PATRICK YONKS, Washington, Pa. Filed Sept. 28, 1918. Serial No. 256,049. 2 Claims. (Cl. 189—16.)

1. In a structure of the character described, parts adapted to be secured together and capable of detachment, one of said parts being adapted to carry a bolt and the other being formed with a bolt receiving slot extending from the edge of said part and having a round inner

portion and a relatively contracted entrance portion, the bolt having its shank rotatably mounted in the part which



carries it, and said shank being formed with a flattened portion adapted to snugly fit in and pass through the contracted entrance portion of the slot and to be turned in the inner end thereof whereby to prevent the accidental detachment of the parts.

1,306,794. WRENCH. ALLEN C. ALLAN, Chicago, Ill. Filed Mar. 27, 1919. Serial No. 285,580. 2 Claims. (Cl. 81—127.)



1. In a wrench of the character described, the combination of a bifurcated member having a fixed clamping-jaw, a companion sliding clamping-jaw movable toward and from said first jaw and having a base-portion accommodated in the bifurcated part of said member, an operating lever having a direct rocking connection with said base-portion, and a fulcrum-pin fixed to and projecting from opposite sides of said lever, each of such projections having a reduced transverse dimension, the spaced walls of said bifurcated member having a plurality of registering bearings for said fulcrum-pin, the bearings of each wall being connected together by one or more narrower passages, whereby said pin may occupy and be retained in any pair of said bearings and act as a fulcrum for said operating-lever and may be shifted to any other pair of bearings by reason of said reduced dimensions which permit it to pass through said connecting passages when in register therewith, substantially as described.

1,306,795. TICKET-CABINET. OLS B. ANDERSEN, Minneapolis, Minn. Filed Mar. 8, 1918. Serial No. 221,312. 5 Claims. (Cl. 211—37.)

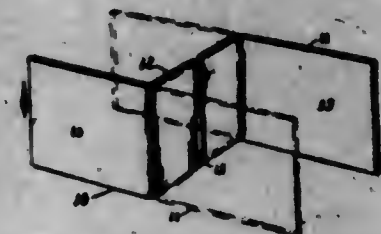
4. A ticket cabinet comprising a main receptacle having a hinged cover and an inclined bottom, said bottom being provided with a plurality of finger holes at its front, a plurality of compartments resting by gravity upon said bottom and adapted to be lifted at the front

ends by inserting a finger in said finger holes, and means on the walls of said compartments for preventing dis-



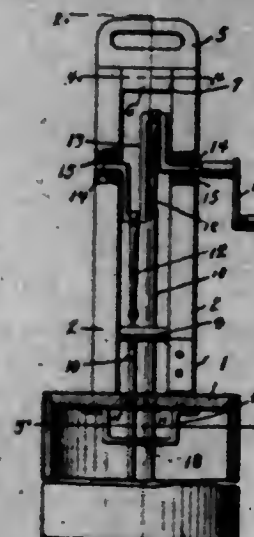
placement of tickets from their compartments in all positions of the cabinet when said cover is fastened in closed position.

1,306,796. PARTITION AND REINFORCING MEMBER FOR SHIPPING-CASES. ROY L. BOSWELL and HARRY E. MARTIN, Tate, Nebr. Filed Apr. 16, 1917. Serial No. 162,473. 1 Claim. (Cl. 229—15.)



The combination with a shipping case of a combined partition and reinforcing member consisting of two U-shaped strips each having a slot in its right portion extending half-way through it, the slot of one right portion receiving the right portion of the other member from the bottom of its slot to its unslotted edge and corresponding sides of the U-shaped members being in a common plane and the right portions in mutual superficial contact, the sides of the U-shaped members being disposed continuously of the inner faces of the sides of the case with their free ends against the ends of the case whereby to hold the right portions against movement longitudinally of the case.

1,306,797. CHURN-DASHER. FOUNT P. BAUDOU and LESLIE L. PRITCHETT, Depoy, Ky. Filed Sept. 30, 1915. Serial No. 53,459. 2 Claims. (Cl. 256—112.)



1. In a churn dasher, the combination with a churn cover; of spaced uprights supported by the cover and having aligned recesses formed in their upper ends, a handle grip having a block at its lower portion with extensions at the ends thereof fitting said recesses whereby said block and uprights form a member of substantially rectangular cross section, dasher rods supported between said uprights, guide means for said dasher rods and means for actuating said rods.

1,306,798. [WITHDRAWN.]

1,306,799. FASTENING DEVICE FOR AUTOMOBILES. ADAM CHAMBERS, New York, N. Y. Filed Feb. 2, 1916. Serial No. 75,867. 1 Claim. (Cl. 70-3.)



The combination with an automobile frame and a hood thereon, of a base plate secured to said frame and having a part rising therefrom adapted to contact with an inner wall of said hood, a connecting member provided with an elongated head journaled in said plate for lateral movement between the hood and the frame, an overlying clamp engaging said member so as to bear at opposite points upon the hood and the plate, and means for holding said clamp in a fixed position.

1,306,800. HOSE-SUPPORTER. FRANK H. CHILDS, Stroud, Okla. Filed Dec. 14, 1918. Serial No. 266,794. 1 Claim. (Cl. 241-6.)



A hose supporter comprising an elongated webbing, a hose engaging means with which the extremities of the webbing are engaged, clips loosely engaged with the webbing, and a pad bridging the space between the clips and with which the clips are engaged; said pad and the connections of the clips therewith being arranged at the side of a limb opposite to the side at which the hose engaging means is secured to the hose, the connections of the clips with the pad being in close proximity to each other so that the central portion of the webbing substantially entirely encircles the limb with the end portions of the webbing diverging around the limb when the supporter is in applied position.

1,306,801. GARMENT-SUPPORTER. RICHARD T. CLARKE, Columbus, Ohio. Filed Nov. 20, 1918. Serial No. 263,334. 2 Claims. (Cl. 24-245.)



2. The combination of a button having a hollow tubular shank, the latter having a slot in its side, a wire loop, the

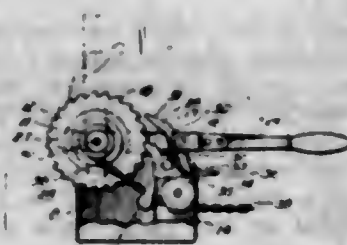
free ends of the two side members of which pass through the slot in the shank of the button, and are curved to conform to the curvature of the shank, and a rivet securing the wire loop to the button, the said rivet passing through the button and shank between the curved ends of the loop and through a garment or suspender end and locked by upsetting one end thereof.

1,306,802. TIMBER-HOOK. ANDREW M. CLOUGH, Batavia, N. Y. Filed Jan. 4, 1919. Serial No. 209,689. 7 Claims. (Cl. 57-9.)



1. An unloading device including pivotally united jaws having extensions, a stem interposed between the jaws, an elevating device connected with the stem, a combined releasing and locking member slidably mounted on the stem, a connection between the jaw extensions and said member, the member being movable downwardly to locking position between the extensions of the jaws, and means for elevating said member to release the jaws and permit discharge of the load while the latter is in suspension.

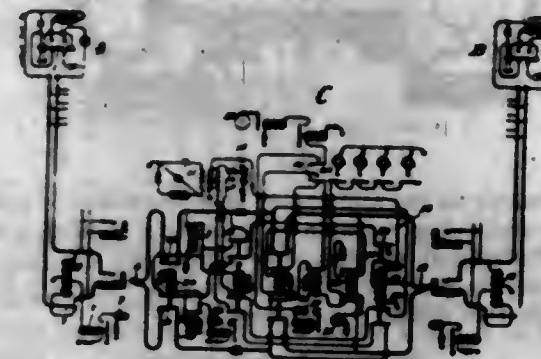
1,306,803. BRAKE-OPERATING MECHANISM. CHARLES C. CREWSON, Kansas City, Mo. Filed Oct. 19, 1916. Serial No. 126,611. 1 Claim. (Cl. 74-16.)



A brake mechanism, comprising a horizontal drum provided with a ratchet wheel rigid with the same, a forwardly extending lever, a pawl pivotally mounted on the lever and having a tooth directed toward and movable by the lever into engagement with the teeth of the ratchet to actuate the winding drum, the opposite end of the pawl forming a downwardly directed depending foot, and a ratchet detent pawl pivotally mounted in vertical alignment with the said pawl in advance of the ratchet and provided with an inner upwardly and rearwardly extending tooth to engage the ratchet and having a depending weighted arm, said detent pawl being also provided with a forwardly extending arm having an outer projecting treadle portion located below the said lever, the inner portion of the forwardly projecting arm of the detent pawl being provided with a recess arranged to receive the depending foot of the pawl of the lever to permit the lever to rock the detent pawl out of engagement with the ratchet.

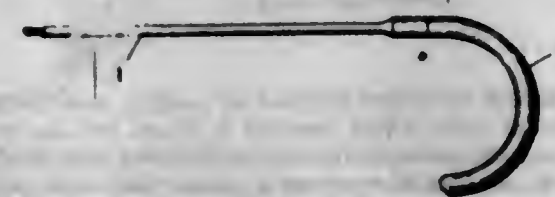
when the said lever is swung to the limit of its downward movement, said weighted arm being arranged for causing the detent pawl to engage the ratchet wheel when the lever is swung upwardly.

1,306,804. TELEPHONE SYSTEM HAVING INSTANTANEOUS DISCONNECT AND RECALL. HIRAM D. CURRIER, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 19, 1914. Serial No. 862,464. 18 Claims. (Cl. 170-58.)



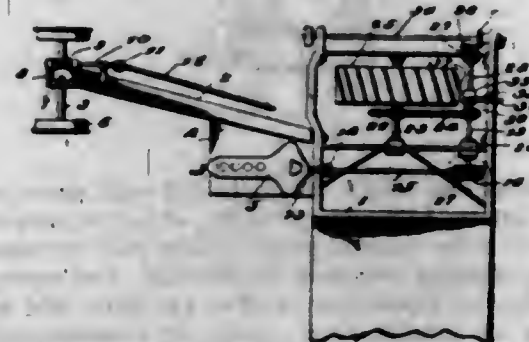
1. A telephone system comprising a telephone line having a line relay and a differentially wound cut-off relay, an operator controlled link circuit having a manual connection terminal for connecting with said line, said cut-off relay being controlled by said terminal, and means controlled at the substation of said line for operatively disconnecting said link circuit from said line.

1,306,805. TEMPLE. GEORGE H. DAY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Sept. 13, 1917. Serial No. 191,177. 4 Claims. (Cl. 88-32.)



1. An improved temple or ophthalmic mounting, the combination with a metallic side having a flared terminal portion, of a non-metallic tip abutting the flared terminus of the metallic side, and means carried by said terminus adapted to embrace and exteriorly clamp the non-metallic member against the metallic member to form a substantial continuation of the flared portion of the side and secure the tip to the side.

1,306,806. DRIVING MECHANISM FOR GRAIN BINDERS AND HARVESTERS. BEAT CLARENCE DILL, Sargent county, N. D. Filed July 8, 1918. Serial No. 243,817. 2 Claims. (Cl. 74-7.)



1. The combination of a supporting frame, a traction wheel mounted thereon, a shaft mounted upon the frame, means for rotating the shaft, a hollow shaft mounted upon the frame in axial alignment with the first mentioned

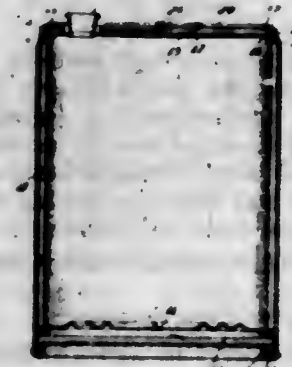
shaft and receiving and supporting the outer end of the same, gearing to be driven by the hollow shaft, and means for operatively connecting the hollow shaft with the first-mentioned shaft to rotate therewith.

1,306,807. POST-SPADE. GEORGE W. FELTON, Elm Springs, S. D. Filed Oct. 26, 1917. Serial No. 198,636. 4 Claims. (Cl. 255-66.)



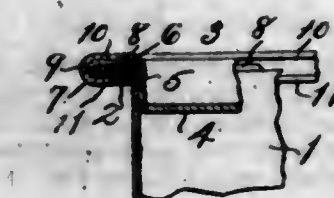
1. A spade comprising, a blade; a shank extending from the blade; a dirt removing plate pivotally carried by the blade; and a stop element carried by the blade and adapted to contact with the dirt removing plate.

1,306,808. JACKETED CAN. BEN K. FORD, Oak Park, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 22, 1913. Serial No. 802,372. 5 Claims. (Cl. 220-10.)



1. A jacketed can comprising a body provided with a bottom and a straight end at the top, a top having a countersunk portion soldered within the straight end of the body and having an outwardly extending single flange at the under side of which said straight end of the body terminates, a side jacket section consisting of a paper tube extending over the can body, and an end jacket section in the countersunk top, the top having an integral double flange bent inwardly over the end jacket section, and said single flange bent downwardly over the straight end of the body and curled into the side jacket section to firmly secure the parts together, substantially as specified.

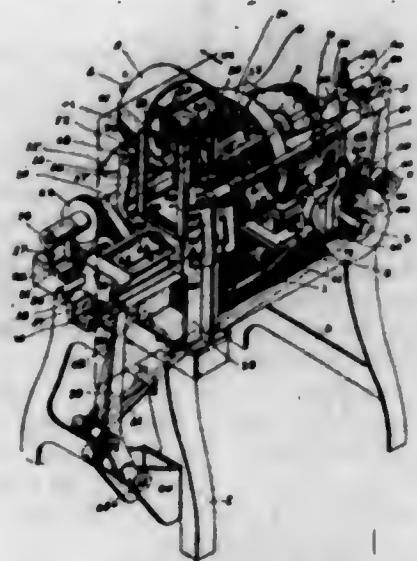
1,306,809. CAN. CHARLES W. GRAHAM, Crestwood, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 5, 1916. Serial No. 76,342. 5 Claims. (Cl. 220-67.)



2. In a can, in combination: a body having at its mouth an outstanding peripheral flange; a can cover having a

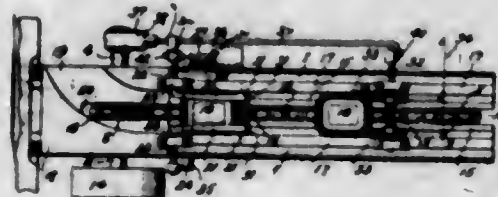
flange cooperating with the body flange to form a seam; a sealing strip having opposing members between which said body and cover flanges may be clamped; the peripheral edge of the cover flange and the peripheral edge of the body flange having an abutted engagement which holds the cover flange against being drawn inward out of its sealing position; and a packing interposed between the said flanges out of line of said engagement, and extending over said line.

1,306,810. APPARATUS FOR RE-FORMING CAN-BODIES. JAMES A. GRAY, San Francisco, Calif., assignor to American Can Company, San Francisco, Calif., a Corporation of New Jersey. Filed Sept. 30, 1915. Serial No. 53,370. 48 Claims. (Cl. 153—32.)



1. In a machine for the described purpose, the combination of means for receiving and holding a deformed can body, feeding devices for successively applying deformed can bodies in an axial direction to said receiving and holding means, and means associated therewith for engaging with the surface of a can body for ironing the same into substantially cylindrical form, and means for spreading deformed can bodies prior to their reception on said holding means.

1,306,811. CAN-END-SORTING APPARATUS. JAMES A. GRAY, San Francisco, Calif., assignor to American Can Company, a Corporation of New Jersey. Original application filed Nov. 11, 1915, Serial No. 60,968. Divided and this application filed Nov. 22, 1916. Serial No. 132,874. 29 Claims. (Cl. 83—92.)

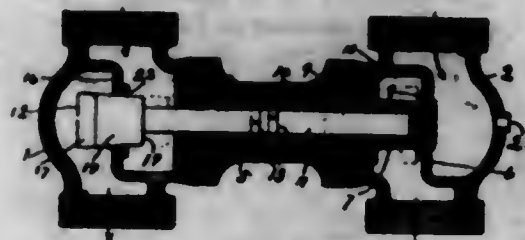


1. An can end sorting apparatus comprising a conveyor having a track for the passage thereover of lined can ends to be sorted; and upwardly acting separating means operated by a can end which has no liner for removing unlined can ends from said track and conveying the same to a place of deposit.

1,306,812. AUTOMATIC CONTROL FOR GAS WATER-HEATERS. PAUL H. HAMILTON, Fort Worth, Tex., assignor, by means assignments, to Esda Manufacturing Company, Wilmington, Del., a Corporation of Delaware. Filed July 17, 1915. Serial No. 40,438. 9 Claims. (Cl. 126—351.)

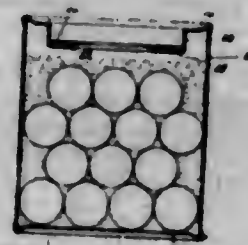
7. A proportional flow regulator comprising a partition provided with a passageway in the line of flow, a controller

in said passageway and being provided with static pressure areas and a variable dynamic pressure area inclined toward the direction of flow, the static area on the inlet side of the partition being less than the static area on the outlet side of said partition, the effective dynamic area be-



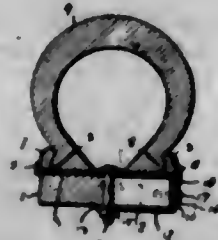
ing dependent on the relation of said controller to said passageway and being variable to produce a condition of balance proportional to said flow when the effective inlet static pressure plus the effective dynamic pressure is equal to the effective outlet static pressure.

1,306,813. PROCESS OF CANNING. JOHN G. HODGSON, Maywood, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 27, 1913. Serial No. 797,537. 2 Claims. (Cl. 90—8.)



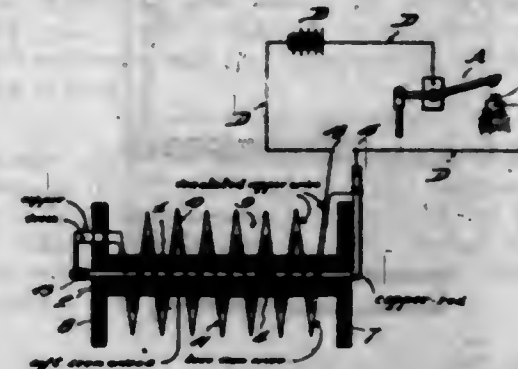
1. The herein described process of cooking and sealing the contents of cans, which consists in filling the can with the contents to be processed or cooked, heating and cooking the contents, sealing the can by a gasket and superposed closure, and maintaining a metallic spring pressure on said gasket irrespective of any shrinking or setting of the same.

1,306,814. TIRE-MOUNTING AND CLAMP THEREFOR. JOSEPH RUDOLPH HOLCOMB, New York, N. Y. Filed Feb. 15, 1919. Serial No. 277,258. 1 Claim. (Cl. 152—21.)



The combination with a felly provided with slots extending substantially half-way its width, of a tire supporting band on the felly carrying bolts, which pass through the slots when slipping the band on the felly, and means for securing the tire supporting band on the felly, said means comprising an annular ring angular in cross-section, engaging the felly, means for securing the ring to the felly, said tire supporting band having a rib to be engaged by a radial flange of the ring, for holding the tire supporting band on the felly, and means on the bolts for clamping against the cylindrical part of the ring.

1,306,815. COIL. ALFRED W. HOUCHIN and CHARLES E. LUNDS, Kirkwood, N. J., assignors to Shockless Electric Corporation, Kirkwood, N. J., a Corporation of New Jersey. Filed Apr. 30, 1917. Serial No. 165,592. 7 Claims. (Cl. 175—357.)



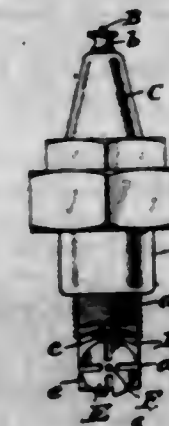
1. An electro-magnet including a winding composed of sections of magnetic and non-magnetic metals and a current conducting member connected in series with one of said sections and arranged in inductive relation with respect thereto.

1,306,816. SYRINGE FOR INJECTING CEMENT IN TEETH. WILLIAM B. HOWARD, Newport, R. I. Continuation of applications Serial No. 66,893, filed Dec. 15, 1915, and Serial No. 100,430, filed July 15, 1916. This application filed July 14, 1917. Serial No. 180,555. 11 Claims. (Cl. 32—10.)



1. A syringe comprising a holder of tubular form, a barrel projecting lengthwise through the holder and having a reduced end projecting therefrom to form a nozzle, and a plunger located in the holder and movable longitudinally thereof for cooperating with said barrel, said holder having a reduced end to engage the barrel and hold it against longitudinal movement.

1,306,817. SPARK-PLUG. JOSEPH IACONO, New Brunswick, N. J. Filed Nov. 27, 1918. Serial No. 264,288. 4 Claims. (Cl. 123—159.)



1. A spark plug provided with a terminal, and a rotatable terminal carried by the plug for rotation on an axis extending across the axis of the first terminal, said rotatable terminal being provided with a plurality of blades separated one from the other by intervening spaces and posi-

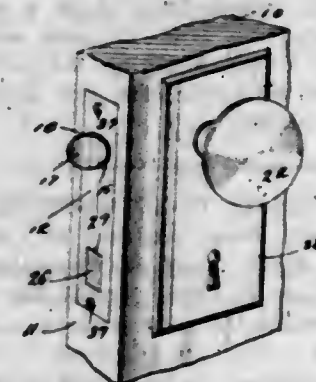
tioned for the peripheral edges of said blades to lie opposite to the first terminal and produces therewith a succession of spark gaps upon the rotation of said terminal.

1,306,818. SAFETY OR SHIELD PIN. JAMES W. IVORY, Philadelphia, Pa. Filed June 21, 1917. Serial No. 176,000. 1 Claim. (Cl. 24—161.)



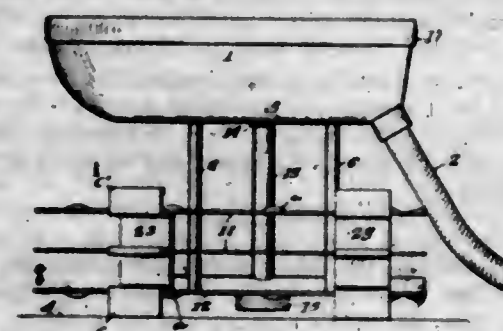
A safety pin composed of opposite arms, one arm having a piercing point, a shield with which said point is adapted to engage, the end of the opposite arm being fixed in said shield, and an auxiliary supporting member which latter projects from said shield toward the point arm, the portion of the other arm being formed of a plurality of lengths of the material of the latter named arm, said plurality of lengths occupying the interior of the adjacent portion of said shield and clamped tightly by the same, said auxiliary member being continuous of said plurality of lengths and extending therefrom outside of said shield.

1,306,819. LOCK. ALBIN J. JOHNSON, Duluth, Minn. Filed Sept. 27, 1918. Serial No. 255,946. 1 Claim. (Cl. 70—29.)



In a lock of the class described, the combination with the door stile provided in its edge with two horizontal holes and in its body with a hole transverse to and intersecting the uppermost of said edge holes and another in line with the lowermost thereof and counter-bored at one end into a round opening of a latch case in the upper edge hole, a latch bolt, therein, a knob splindle through the uppermost transverse hole engaging said latch bolt, a lock casing in said round opening, the casing being notched at one edge, a two-part lock bolt extending from the opening out the lower edge hole, the parts lapping each other, and a screw passing through said notch and connecting the parts where they lap.

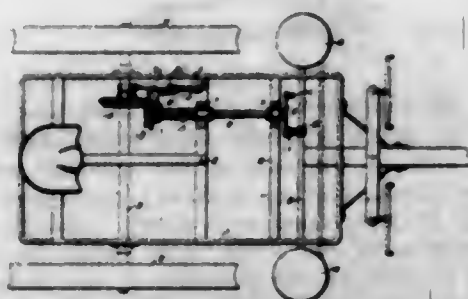
1,306,820. ELECTRIC HEATER. CHARLES T. JOHNSON, Dover, Ohio, assignor to The Dover Manufacturing Co., Dover, Ohio, a Corporation of Ohio. Filed Feb. 9, 1916. Serial No. 77,116. 8 Claims. (Cl. 68—27.)



1. In a support for a heating device, the combination with a plurality of parallel plates; of side members con-

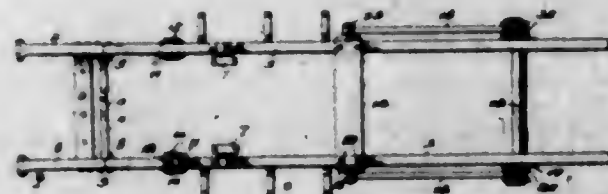
necting said plates and projecting outwardly therefrom forming two similar sets of feet projecting in opposite directions, whereby said support may be reversed.

1,306,821. CHECK-ROW DEVICE FOR CORN-PLANTERS. OTTO HENRY KOHLHAAS, Calumet, Mich. Filed May 22, 1918. Serial No. 236,053. 1 Claim. (Cl. 74-14.)



In a planter, the combination of a rock shaft for the seed-dropping mechanism, an axle, a gear on the axle, a longitudinal shaft extending between the axle and rock shaft and at right angles to both, a pinion on the intermediate shaft, and meshing with the gear of the axle, a cam wheel on the intermediate shaft and having cam projections on one face, a curved arm on the rock shaft for engagement by the cam projections, means for feathering the pinion on the intermediate shaft, a spring acting on the pinion to hold the same in mesh with the said gear, a lever having a fork engaging the pinion to move it out of engagement with the gear, and means for locking said lever in position.

1,306,822. CHASSIS CONSTRUCTION. WILLIAM KRAEVE, Fall River, Mass., assignor to Capitol Motors Corporation, Fall River, Mass., a Corporation of Massachusetts. Filed June 6, 1918. Serial No. 238,421. 12 Claims. (Cl. 21-182.)

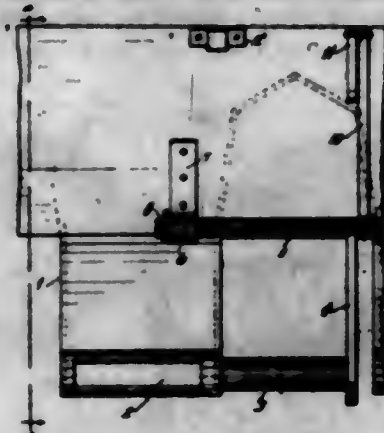


1. A chassis construction including spaced side frame members of U-section, downwardly curved forward terminal sections, a transversely arranged motor-supporting cross bar having end flanges seating in the channel of the frame members and bolted to the latter and to the respective terminal sections for connecting the same together, front springs secured at their forward ends to the terminal sections, brackets bolted to the frame members, shackle blocks swingingly supporting the rear ends of the springs from the brackets, spaced pairs of brackets bolted to the rear portions of the frame members and each having a depending bearing, a shaft bolt extending through and outwardly from each bearing, rear springs connected at their forward ends to the shaft bolts of one pair of brackets, shackle blocks connecting the opposite ends of the rear springs to the shaft bolts of the second pair of brackets, and spacing bars connecting the side frame members at points adjacent the mountings of the pairs of brackets.

1,306,823. GRAIN-DRILL. THORVALD LARSON, Arco, Minn. Filed May 21, 1917. Serial No. 170,034. 2 Claims. (Cl. 221-142.)

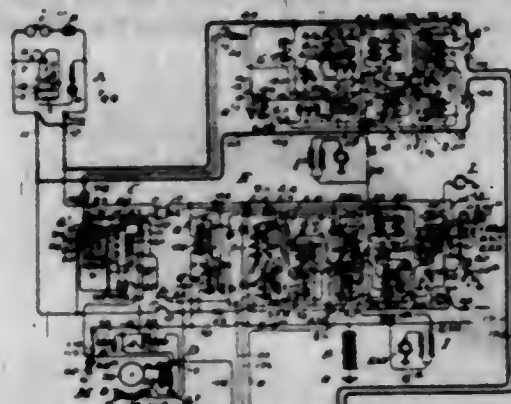
1. In a grain drill, the combination with a seed box having a discharge opening therein, of a gate normally closing said opening, a sliding rod carried by said seed

box, connection between said rod and said gate, an angular pin carried at one end of said sliding rod, a lever



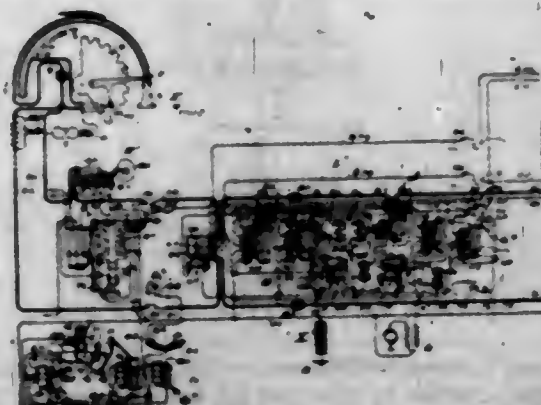
arm connected to said sliding rod for engagement with said angular pin, a latch bar pivotally connected to said lever arm, and a keeper for said latch bar.

1,306,824. SEMI-AUTOMATIC TELEPHONE EXCHANGE SYSTEM. FRITZ LUBBERGER, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed June 16, 1910. Serial No. 547,298. Renewed Apr. 12, 1919. Serial No. 289,745. 53 Claims. (Cl. 179-27.)



1. In a telephone system, a line, a non-numerical switch for said line, a numerical switch, a trunk leading to said numerical switch adapted to be seized by said non-numerical switch, another trunk, and means for controlling said numerical switch over two sides of both of said trunks in series to extend a talking circuit connection from said line through said switch, which connection excludes one of said trunks.

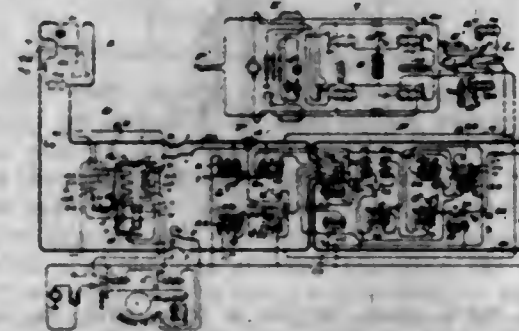
1,306,825. TELEPHONE DISTRICT EXCHANGE SYSTEM. BERNARD D. WILLIS and TALBOT G. MARTIN, Chicago, Ill., assignors to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 11, 1913. Serial No. 784,111. Renewed Aug. 3, 1918. Serial No. 248,222. 68 Claims. (Cl. 179-18.)



1. In a telephone system, a plurality of branch exchanges, subscribers' lines connected with said branch

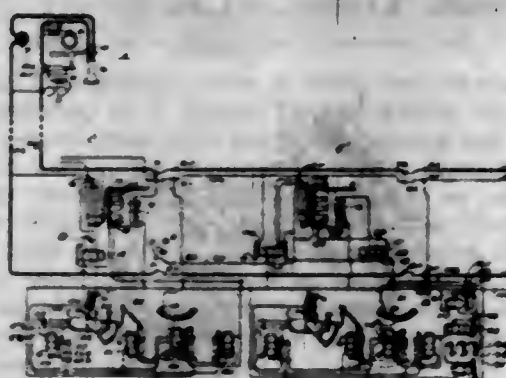
exchanges, means for establishing a connection between two of said subscribers' lines, said means including a trunk line having a terminal in a branch exchange, a branch for said trunk extending toward the main exchange, a local branch for said trunk normally disconnected therefrom, and means for connecting the local branch when a call is made by a subscriber in the same branch exchange, and for disconnecting the main branch during talking.

1,306,826. SEMI-AUTOMATIC TELEPHONE SYSTEM. BERNARD D. WILLIS, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed July 7, 1913. Serial No. 777,659. Renewed Apr. 28, 1919. Serial No. 293,343. 28 Claims. (Cl. 179-27.)



1. In a telephone system, a trunk line, having two branches having a common terminal, means for extending a talking connection from said terminal over either of said branches, an automatic switch associated with one of said branches, a relay connected with said trunk, means for transmitting impulses back over the other branch of said trunk to operate said relay, means controlled by the operation of said relay for operating said automatic switch and means controlled by the operation of said switch for breaking the circuit of said relay.

1,306,827. AUTOMATIC TELEPHONE SYSTEM. WINFRED T. POWELL, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 26, 1914. Serial No. 821,192. 48 Claims. (Cl. 179-27.)

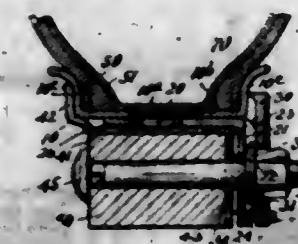


2. In a telephone system, a plurality of trunk lines, a plurality of line switches normally standing opposite one of said trunks, a reciprocating master switch, and means controlled by said master switch for moving said line switches to an idle trunk if the trunk opposite said line switches is busy when a call is initiated.

1,306,828. DEMOUNTABLE RIM FOR VEHICLE WHEELS. STEWART R. MCKAY, Cleveland, Ohio, assignor to The McKay Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 28, 1916. Serial No. 111,785. 2 Claims. (Cl. 152-21.)

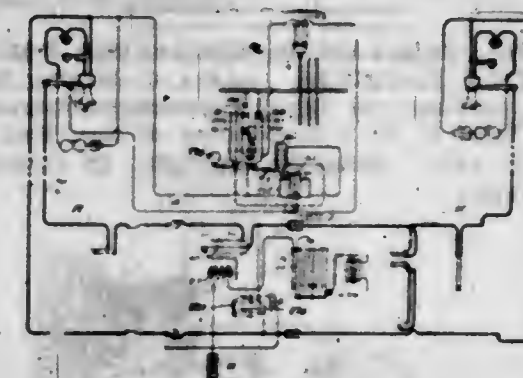
1. A demountable tire carrying wheel rim comprising two circumferentially separable rim sections, a plurality of bridge plates each connected to the inner periphery of

the inner rim section and passing under and in contact with the inner periphery of the outer rim section, and each having an arm which extends toward the axis of the rim and having a hole for the passage of a rim retaining



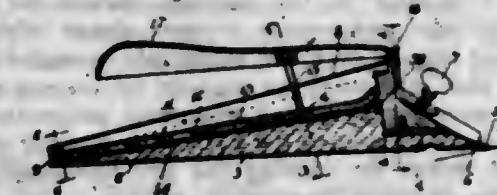
bolt, a clamp slidably supported upon said arm and movable away from the axis of the wheel and into engagement with the inner rim section or away from the axis of the wheel out of the path of said outer rim section, and means to hold said clamp in operative position.

1,306,829. AUTOMATIC TELEPHONE SYSTEM. EDWARD A. MULLINSON, Chicago, Ill. Filed Feb. 17, 1913. Serial No. 748,811. 9 Claims. (Cl. 179-16.)



2. In a telephone system, a plurality of subscribers' lines, means including automatic switches for establishing connection between two of said lines, and means for indicating to a calling party before he has removed his receiver from the hook that the called party has answered.

1,306,830. SURFACE-COATING APPARATUS. ROBERT A. MOORE, Detroit, Mich. Filed Feb. 18, 1918. Serial No. 217,736. 4 Claims. (Cl. 18-3.5.)

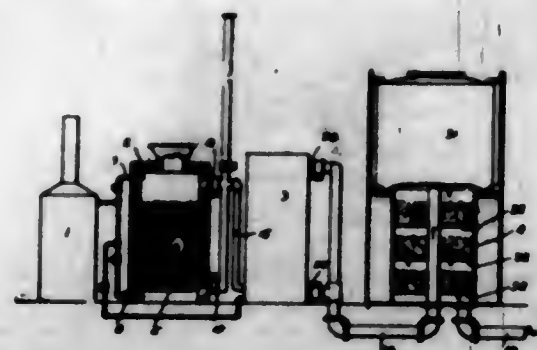


4. In apparatus of class described, the combination of a reservoir, a discharge opening leading therefrom, and adapted to be opened by pressure against a surface to be coated, a pivoted ejecting member mounted in said reservoir and adapted to force material therefrom through said discharge opening, and double power multiplying connections for operating said ejecting member.

1,306,831. APPARATUS FOR MAKING HYDROGEN. FRANK D. MOORE, Trenton, N. J. Filed Sept. 13, 1917. Serial No. 191,251. 2 Claims. (Cl. 48-198.)

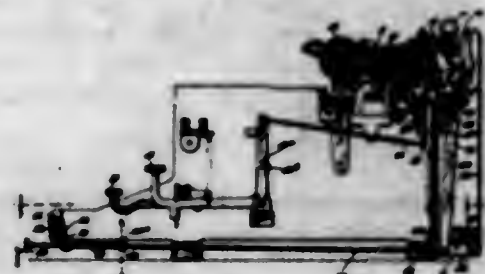
1. In gas making apparatus such as described, the combination of a gas producer and a gas generator, the latter of the alternate reduction and oxygen absorbing type, said generator arranged to be heated by the combustion of gas supplied by the producer and in turn to heat incoming gas and water vapor, means for the supply of water vapor to the gas generator, and a combined gas purifier and holder, comprising a gas holder adapted to

receive gas direct from said generator and comprising also a purifier through which such gas is passed from the holder, said gas holder and purifier so coordinated as to capacity with the gas making capacity of the generator



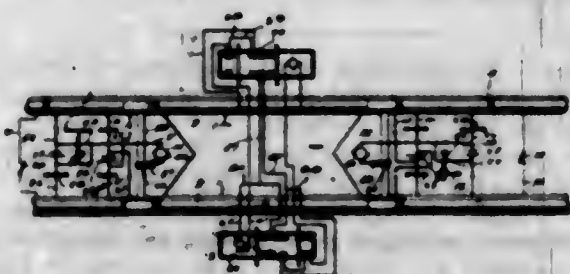
that the gas holder will be substantially filled at the conclusion of the gas making operation of the gas generator and will be approximately empty at the end of the heating up period and beginning of the gas making period of the generator.

1,306,832. TABULATING MECHANISM FOR TYPE-WRITING MACHINES. Lewis C. Myers, Brooklyn, N. Y., assignor to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 3, 1918. Serial No. 265,103. 12 Claims. (Cl. 197-176.)



1. Tabulating mechanism for typewriting machines comprising: a transversely movable carriage, carriage escapement means, carriage escapement release means, a tabulating stop stationary as regards transverse movement of the carriage, means for projecting said stop into the path of a member on the carriage, means for actuating the carriage escapement release means when so projecting said stop, a group of selectively operated tabulating stops also stationary as regards transverse movement of the carriage, means for selectively projecting one of said groups of stops into the path of a member of the carriage, and means for causing the first-mentioned stop to actuate the carriage escapement release means when projecting any one of the group of selective stops.

1,306,833. SIGNAL-OPERATING AND COLLISION-PREVENTING APPARATUS. SAMUEL L. NEELY, Longton, Kans. Filed June 9, 1918. Serial No. 33,077. 2 Claims. (Cl. 246-66.)



2. In a device of the class described a movable supporting frame, a motor on said frame, a railroad track, a

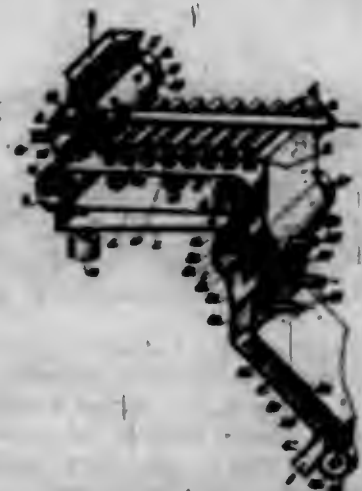
source of electric energy on said frame, a conductor rail, electric conducting means on said frame and movable along said rail, a transverse axle, electrical connecting means between said motor and one pole of the source of electric energy, electric connections between the other pole of said source and said motor, and electric connections between said motor and said axle.

1,306,834. SPARK-PLUG. ISAAC B. OWENS, New York, N. Y., assignor to Charles C. Owens, Detroit, Mich. Filed June 2, 1917. Serial No. 172,404. 8 Claims. (Cl. 123-169.)



1. A spark plug, having a body with its lower end threaded and a shoulder immediately above the threaded portion, the upper part of the body being, internally, a central porcelain insulator having an annular enlargement, the insulator extending through the body and spaced therefrom and projecting above the same and the annular enlargement lying between the said shoulder and the internal upper end of the body and a mass of relatively soft metal molded within the body of the spark plug between the said shoulder and the internal upper end thereof, by which relatively soft metal the insulator is permanently held gas tight in place in the body and the heat absorbed by the insulator is carried off to the body and permitted to radiate from the same to prevent the heat cracking the porcelain.

1,306,835. APPARATUS FOR TREATING AND DRYING VEGETABLES. DOMINICUS JOSEPHUS PENNOCK, Zevenbergen, Netherlands. Filed Apr. 23, 1918. Serial No. 230,383. 6 Claims. (Cl. 99-2.)



1. In apparatus of the type referred to, in combination a closed receptacle adapted to stand internal pressure, a conveyor mounted in said receptacle, a number of nozzles on said receptacle for the admission of steam under a pressure exceeding the atmospheric pressure, means for feeding the material to be treated at the top side and means for discharging the treated material at the bottom side of the said receptacle, each of said means comprising

a cylindrical casing, a shaft rotatably mounted therein, and radial blades secured on said shaft and adapted to move with their edges tight over the inner walls of said casing.

1,306,836. VEHICLE-BODY. JACQUES M. PERLMAN, New York, N. Y. Filed Dec. 4, 1918. Serial No. 265,188. 1 Claim. (Cl. 21-62.)



A vehicle body having a back extension and a top in a plurality of sections, the rear section comprising side portions and an intermediate portion extending across between the same and being hinged directly to the top of the back extension so that it may be swung down against the inner face of said extension, and a second section comprising side portions slidably engaging the side portions of said rear section and an intermediate portion extending across between the side portions so that said second section may be slid back on said rear section and swung down with it, said back extension having its upper portion bent forward so as to substantially cover said top when collapsed and swung down, and a pocket into which said back extension and collapsed top can be lowered and the width of which is practically filled by said bent forward portion of the back extension.

1,306,837. TANK-CAR HEATER. EDWARD A. SCHREIBER, Chicago, Ill., assignor, by mesne assignments, to Vapor Car Heating Company, Inc., a Corporation of New York. Filed Dec. 14, 1916. Serial No. 136,968. 7 Claims. (Cl. 257-207.)



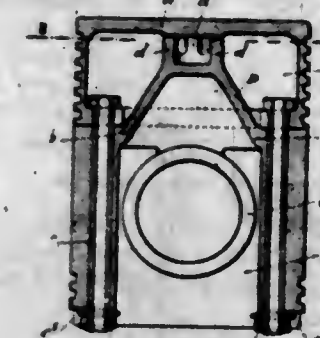
1. The combination with a tank car having a discharge opening, of a header located within the tank at a point remote from said discharge opening and provided with inlet and outlet chambers, a set of circulating pipes extending lengthwise of said tank, secured to said header and communicating with the inlet chamber thereof, and open at their outer ends, and a set of return pipes surrounding said first named pipes respectively, connected at one end with the said header and communicating with the outlet chamber thereof and closed at their opposite extremities.

1,306,838. PROCESS FOR TREATING LATEX AND PRODUCT THEREOF. EDWARD MARK SLOCUM, Medan, Sumatra, Dutch East Indies, assignor to General Rubber Company, a Corporation of New Jersey. Filed Feb. 27, 1917. Serial No. 151,163. 22 Claims. (Cl. 18-50.)

1. A process for treating coagulated or uncoagulated latex which comprises rendering the nitrogenous matter contained in a mass of latex containing nitrogenous matter and moisture, insoluble, subjecting the said so-treated mass to vacuum evaporation and adding a vulcanizing agent thereto.

2. As a new compound, a rubber mass produced by vacuum evaporation containing an insoluble nitrogenous material insolubilized by heat.

1,306,839. PISTON FOR HEAT-ENGINES. EUGENE SCHNEIDER, Paris, France, assignor to Schneider & Cie., Paris, France, a Limited Joint-Stock Company of France. Filed Feb. 14, 1918. Serial No. 217,202. 3 Claims. (Cl. 74-85.)



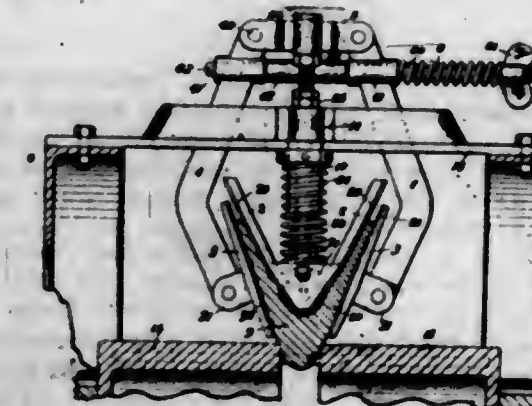
1. A piston comprising a piston body, and a hollow piston head removably secured thereto, said body having an end extension adapted to form an outer closure for said head and to project into supporting contact with the working end thereof whereby said piston head is free to expand longitudinally.

1,306,840. RETAINING MEANS FOR SHOE-LACES. LILY B. SMITH, Atlanta, Ga. Filed Dec. 27, 1918. Serial No. 268,540. 5 Claims. (Cl. 24-140.)



4. A lace retaining device including an inner facing band stitched adjacent its top and bottom edges to the inner surface of the upper, whereby the portion between said stitching is free of the upper, said band being cut transversely to said stitching to provide an entrance for the end of the shoe lace between said band and the upper; and rows of stitches substantially parallel to said cutting, whereby pockets are formed jointly by said band and upper and at the side of said cutting; substantially as described.

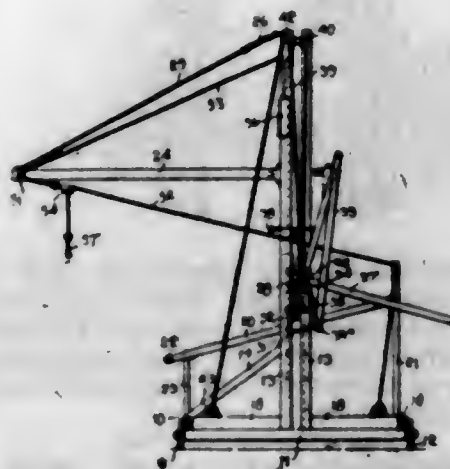
1,306,841. FISH-CLEANING DEVICE. EDWARD H. WAUGH, Seattle, Wash., assignor to Smith Cannery Machines Company, Seattle, Wash., a Corporation of Washington. Filed Dec. 8, 1917. Serial No. 206,276. 10 Claims. (Cl. 17-10.)



1. A fish cleaning device comprising a body having flaring sides provided externally with scraping ribs placed

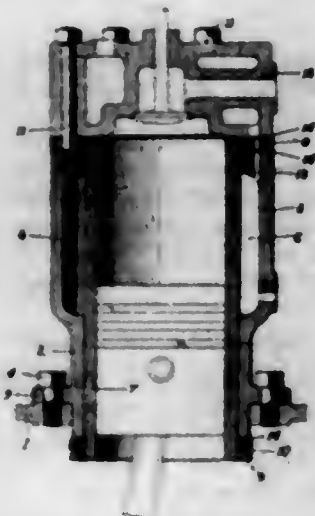
diagonal to the direction of movement of the fish, the ends of said ribs which are toward the apex of the device being advanced to first engage the fish.

1,306,842. WHEAT-STACKER. OLIVER P. WENTWORTH, Forgan, Okla. Filed Mar. 23, 1918. Serial No. 224,271. 10 Claims. (Cl. 214-113.)



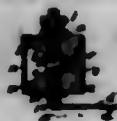
1. A stacker including a vertically movable and rotatably mounted rack, means for applying power to the rack to hoist it to a predetermined elevation, a stop limiting the bodily upward movement of the rack, and means then causing the rotation of the rack to discharge its contents.

1,306,843. ENGINE-CYLINDER. SAMUEL B. WOLGA-MOTT, Stockton, Calif., assignor of one-half to L. F. Grimsley, Stockton, Calif. Filed Sept. 28, 1918. Serial No. 256,134. 1 Claim. (Cl. 123-173.)



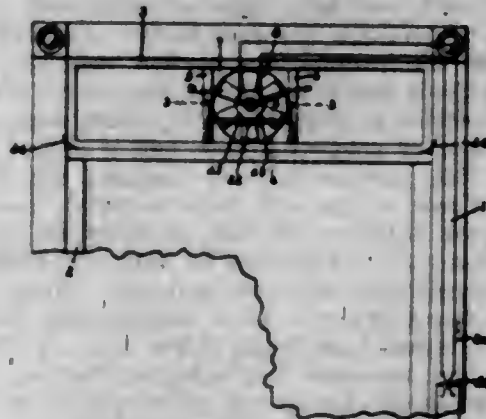
A gas engine cylinder comprising in combination with a valve retaining head, an outer member adapted to be secured to the engine base and extending below the same and having its interior enlarged excepting at the ends thereof, a piston sleeve removably seated in the outer member and projecting below the same, an outwardly projecting flange on the sleeve adapted to seat on the upper surface of the outer member between the same and the head, packing rings above and below the flange, the flange being provided with an orifice giving communication between the water jacket formed by the outer member and the sleeve and the head, and a lock nut threaded onto the lower end of the sleeve and adapted to bear against the lower face of the outer member, there being a packing ring between the lock nut and said lower end.

1,306,844. SPARK-INDICATOR. HOMER ANDERSON, Peekskill, N. Y. Filed Aug. 9, 1915. Serial No. 44,434. 2 Claims. (Cl. 175-183.)



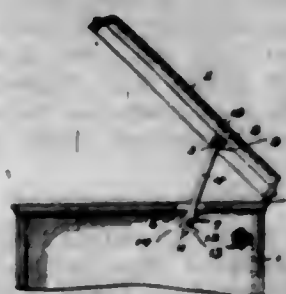
1. In a spark indicator the combination of an insulating body, a conical cavity in one end of the body, electrodes extending through said body and terminating in said cavity to form a spark gap, and means for making electrical connections to said electrodes.

1,306,845. VENTILATOR. BERNARD R. ANDREWS, Newton, Mass. Filed July 2, 1917. Serial No. 178,006. 2 Claims. (Cl. 98-27.)



1. A ventilating device comprising a panel member having a thickness substantially equal to that of a window sash and a shape to fit into a window frame in the plane of the sash, said panel being provided with a ventilating opening, a vibration-absorbing shelf secured to the inner side of the panel and extending from one side to the other of the opening, a reversible motor sustained on said shelf, a fan connected to the motor and operating in said opening, and means for controlling the direction of rotation of the motor whereby air may be either drawn into the room or forced from the room through said opening, depending in the direction in which said motor is operating.

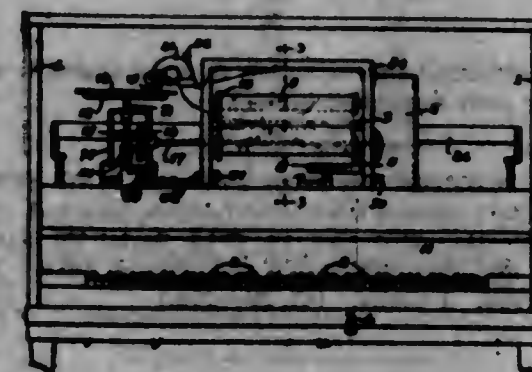
1,306,846. LID-SUPPORTING MEMBER. FRANCESCO CIARELLI, Philadelphia, Pa. Filed Aug. 27, 1917. Serial No. 188,539. 2 Claims. (Cl. 217-60.)



1. The combination of a supporting structure; a lid hinged to said supporting structure; a pin fixed on said supporting structure; and a supporting member pivoted to said lid, said supporting member having an entrance or mouth and two recesses formed in one of its edges, said recesses being oppositely disposed and leading inwardly from said mouth whereby the mouth is common to both recesses and so that said pin can be positioned in either of said recesses after said mouth has moved over said pin, one of said recesses having, at its end nearest said pivotal connection of the supporting member with the lid,

a pocket into which said pin can fit, said pocket including two parallel side walls spaced apart a distance substantially equal to the thickness of said pin, whereby the pin when said supporting member is in its supporting position for the lid, will prevent accidental movement of said member on its pivot, substantially as described.

1,306,847. COMBINED PLAYER-PIANO AND PHONOGRAPH. MELVILLE CLARK, Chicago, Ill., assignor to Melville Clark Piano Company, a Corporation of Illinois. Filed Oct. 28, 1915. Serial No. 58,364. 1 Claim. (Cl. 84-193.)



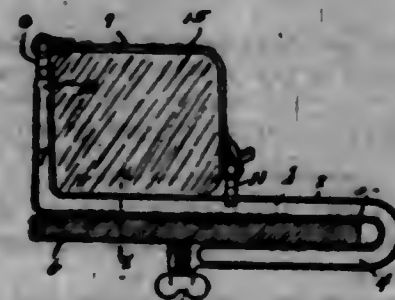
In combination with a player piano comprising a case having an opening, a tracker bar, a take-up roll for propelling the note sheet over such tracker bar, and a phonograph mechanism mounted within the piano case and including a sound amplifier arranged to project the sound waves through the opening of said case, together with a driving motor within the case, and operating connections therefrom both to the take-up roll and to the phonograph mechanism, the parts co-operating at one of said connections being relatively adjustable for varying the speed transmitted independently of the speed transmitted through the other connection.

1,306,848. CORK OR STOPPER EXTRACTOR. WILLIAM A. DE HART and JAMES A. WATT, New York, N. Y. Filed Apr. 21, 1914. Serial No. 833,477. 10 Claims. (Cl. 215-53.)



1. The combination of a stopper, with an extractor ball, and a spiral wire anchoring device embedded in the stopper and having its convolutions interlocking with the stopper and ball to fasten them together.

1,306,849. PACKAGE-CARRIER. PERRY J. GARRISON, Oxford, Mich., assignor of one-half to William Reed, Oxford, Mich. Filed May 9, 1918. Serial No. 233,456. 3 Claims. (Cl. 224-29.)



1. A package carrier for use on a running board of a vehicle comprising a standard, I shaped in cross section and having an eyed terminal portion extending at an angle to the body, the opposite end of the body being turned substantially parallel therewith in the form of a U spaced from the body to fit the running board of an automobile, a binding screw for securing the standard to the running board, the upper flange of the said body narrowing as it approaches the terminal eye of the angular portion and terminating short thereof, an eye having a notch in one side adapted to engage over the said upper flange, being insertible thereon at the said eyed end of the body and being freely movable longitudinally of the body, and a strap secured to the said eyed end of the body adapted to be passed through the movable eye.

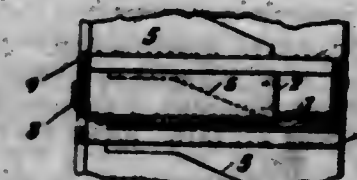
turned substantially parallel therewith in the form of a U spaced from the body to fit the running board of an automobile, a binding screw for securing the standard to the running board, the upper flange of the said body narrowing as it approaches the terminal eye of the angular portion and terminating short thereof, an eye having a notch in one side adapted to engage over the said upper flange, being insertible thereon at the said eyed end of the body and being freely movable longitudinally of the body, and a strap secured to the said eyed end of the body adapted to be passed through the movable eye.

1,306,850. COLLAR-BUTTON. MICHAEL KARABIN and JOHN SKOCIOCK, New Britain, Conn. Filed Dec. 16, 1918. Serial No. 267,038. 2 Claims. (Cl. 24-101.)



1. A collar button made of glass, having a base at one end, a head at the other end, and a shank connecting the said ends, the said head being of ball-like or substantially cylindrical form and having a uniformly rounded outer end surface and the said head being hollow.

1,306,851. DRAWER FOR FILING DRAWINGS, SHEETS OF PAPER, LINEN, OR THE LIKE. ROBERT KIRK, Belfast, Ireland. Filed June 29, 1918. Serial No. 242,610. 2 Claims. (Cl. 129-26.)



1. A drawer for filing sheets of paper, linen, etc., inclined planes mounted in a fixed position in the cabinet at the sides of the drawer, a weighted lath extending across the drawer and capable of applying pressure to the contents of the drawer while having free vertical movement therein and of being acted on, during the opening of the drawer by the inclined plane so that the weighted lath is lifted to free the sheets in the drawer and when the drawer is being closed the inclined planes allow the weighted lath to again press on and hold the sheets so that they are prevented from curling.

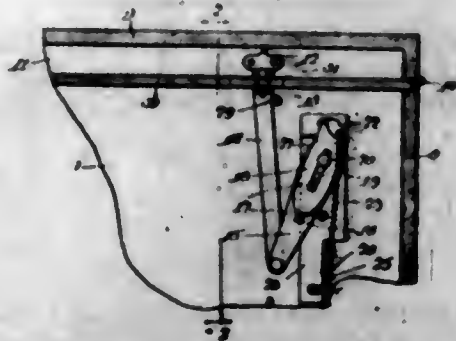
1,306,852. ELECTRIC SWITCH. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutter-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 8, 1911. Serial No. 631,921. 9 Claims. (Cl. 175-284.)



2. A switch for concealed mounting, comprising, in combination, a metallic front plate having projecting guides, an insulating base, means detachably securing said base and plate together, an open-ended casing between said base and said plate and spacing the same apart, a switch mech-

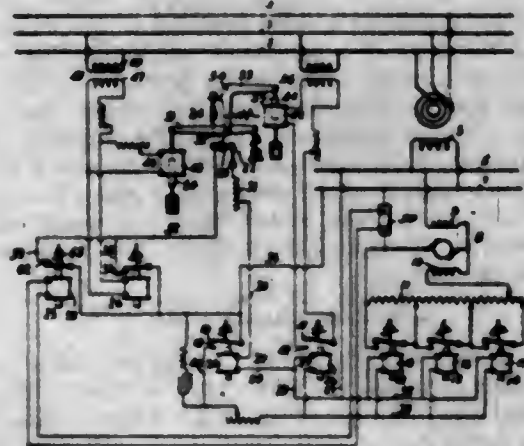
anism arranged within said casing and including stationary contacts on said base and a push and pull operating member carried by said plate and limited in movement thereby.

1,306,853. SUPPORT FOR HINGED MEMBERS. JACOB F. LARSEN, Chicago, Ill., assignor of one-half to James Dziadoszek, Chicago, Ill. Filed Apr. 2, 1919. Serial No. 286,934. 4 Claims. (Cl. 217-60.)



1. The combination with a hinged member, of a link pivotally connected at one of its ends thereto at a suitable distance from the hinged portion thereof, a compound lever consisting of a plurality of pieces having a common fulcrum on a support, at least one of said pieces being adjustably movable longitudinally on the other, and a spring to actuate said piece in one direction, the other of said pieces being pivotally connected at one of its ends to said link.

1,306,854. ELECTRICAL REGULATOR. CHARLES E. MARKE, New York, N. Y., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 27, 1916. Serial No. 122,389. 10 Claims. (Cl. 171-229.)



6. The combination with a dynamo-electric machine having a field winding, and an exciter therefor, of an electrical regulator for controlling the voltage impressed on said field winding by the exciter, and means jointly controlled by exciter and machine-circuit conditions for decreasing the generated voltage of said exciter when the dynamo-electric machine is subjected to short-circuit conditions.

1,306,855. CUTTER OR HOB FOR MILLING SCREW-THREADS. GEORGE RICHARDS, Westminster, London, England. Filed Aug. 14, 1918. Serial No. 249,891. 1 Claim. (Cl. 29-108.)

In milling screw-threads with the aid of a rotary cutter of the hob type, the herein described means whereby the teeth of the cutter are advanced to the full depth of the thread to be cut, and the formation of facets upon the

surface of the work is at the same time prevented; same consisting in imparting to the work a relative lateral movement in a direction approximately at right angles to a line connecting their respective centers.



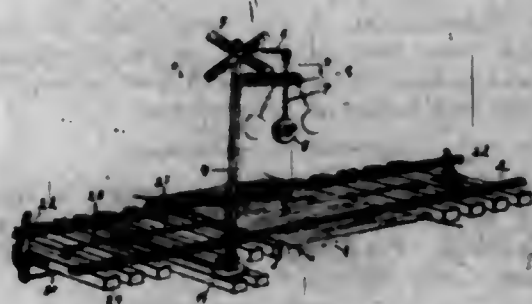
ment in a direction approximately at right angles to a line connecting their respective centers.

1,306,856. CUTTER OR HOB FOR MILLING SCREW-THREADS. GEORGE RICHARDS, London, England. Original application filed Aug. 14, 1918. Serial No. 249,891. Divided and this application filed Feb. 4, 1919. Serial No. 274,963. 1 Claim. (Cl. 29-108.)



For milling screw-threads, a multiple thread cutter of the hob type formed with numerous spiral chases of normal width and having in each of the several segments of its surface, corresponding with the number of threads in the multiple thread, a chase of abnormal width thereby giving the cutting teeth comprised in that segment a different starting point.

1,306,857. RAILROAD-SIGNAL. JOHN F. SALCHLI, Frankfort, Ky., assignor to Dominico Marcuccilli, Louisville, Ky. Filed Nov. 12, 1917. Serial No. 201,419. 5 Claims. (Cl. 246-294.)

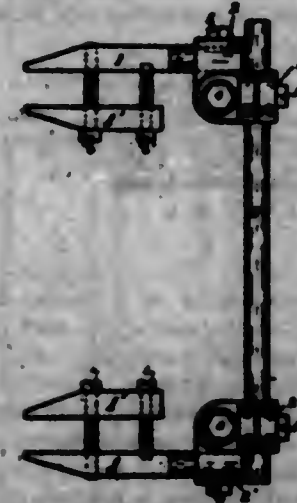


1. In a signal as characterized, a pendulate member, and means adapted to be actuated by an approaching train to impart motion to said member, said member being permitted to oscillate freely until stopped by friction.

1,306,858. CLAMP. WILLIAM A. SALTER, Kansas City, Mo. Filed Dec. 30, 1918. Serial No. 269,002. 3 Claims. (Cl. 113-104.)

1. In an oxy-acetylene welders clamp, the combination of a number of clamping devices, each having a gripping jaw and a mounting jaw with a cylindrical end parallel to the axial line of the jaws, a supporting shaft, and a number of swiveling locking joints comprised of two parts, each part having a sleeved portion and a circular plane

surface that is offset from and parallel to the sleeved portion, one part of these sleeved portions engaging



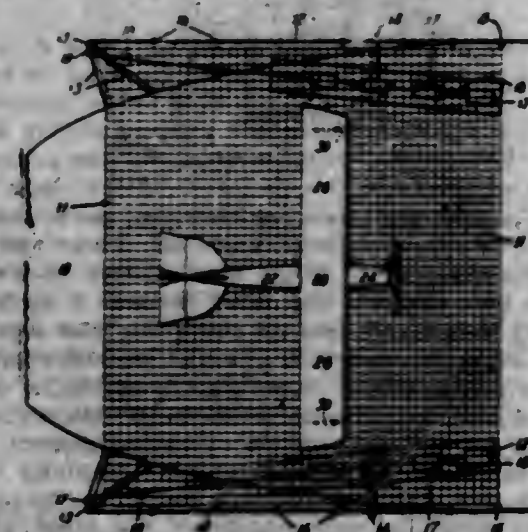
with the supporting shaft, and the other part of the swiveling joints engaging with the cylindrical ends of the mounting jaws of the clamping devices.

1,306,859. APPARATUS FOR MAKING WOVEN-WIRE FABRICS. WILLIAM SCHNEIDER, Rockville, Conn., assignor to Alfred Schneider, Rockville, Conn. Filed May 31, 1917. Serial No. 171,834. 1 Claim. (Cl. 140-8.)



A die for use in the manufacture of woven wire fabric comprising a pair of helically formed strips interlaced with their edges spaced apart to form a pair of disconnected helical spaces therebetween, a cylindrical sleeve against the inner face of which said strips are closely fitted to and within which said strips are rigidly secured, and a flat rotatable mandrel of a width to closely fit within said strips.

1,306,860. AIRPLANE LANDING AND LAUNCHING EQUIPMENT. FLOYD SMITH, San Diego, Calif. Filed Oct. 9, 1917. Serial No. 195,637. 14 Claims. (Cl. 244-2.)



11. In a device of the character described, a flexible landing net adapted to receive an airplane, mounting means for the net for supporting it above a foundation, said means embodying means to stretch the net and to allow it longitudinal movement, and means to retard longitudinal movement of the net.

1,306,861. DRAWING APPARATUS. JOHN GOSNOLD, Sparks, Birmingham, Ala. Filed Dec. 17, 1917. Serial No. 207,597. 13 Claims. (Cl. 88-24.)



1. A drawing apparatus comprising an optical system, a drafting surface disposed on one side thereof, an object plane on the other side, centering lines intersecting at the optical axis of the said system, and disposed between said optical system and said object plane and adapted to be projected with the object onto said drafting surface.

1,306,862. METHOD OF PRODUCING CYANOGEN AND AMMONIA. PAUL A. STARKER, Berkeley, Calif., assignor to The Balfour-Guthrie Investment Company, San Francisco, Calif., a Corporation of California. Filed July 26, 1917. Serial No. 182,930. 2 Claims. (Cl. 22-21.)

1. The method of producing cyanogen and ammonia which consists in first subjecting a catalytic mass comprising a metal of the iron group, an alkaline earth, and an alkali, to a gaseous mixture of nitrogen and a substance capable of reacting to form ammonia or cyanogen or both, at a temperature ranging between 1500 and 1900 degrees Fahr., and then subjecting said catalyst to said gaseous mixture at a temperature ranging between 600 and 1200 degrees Fahr.

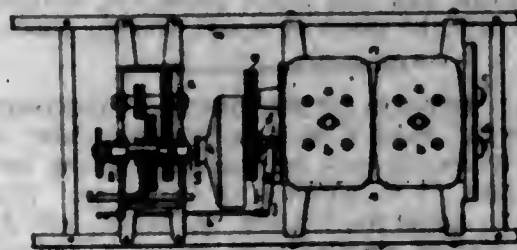
1,306,863. OSCILLATORY WATER-MOTOR. FREDERICK BRICKER, Chicago, Ill. Filed Dec. 5, 1916. Serial No. 186,197. 1 Claim. (Cl. 139-1.)



In an oscillatory fluid pressure motor, a cylindrical chamber, a rock-shaft journaled in bearings disposed axially thereof, a radially disposed partition member extending from the shaft to the circumferential wall, ports on opposite sides of said partition member each constituting alternately an inlet and exhaust port, a radially disposed piston mounted on said shaft, a valve-casing common to both said ports, said casing having a central chamber connected to a fluid pressure supply pipe, the casing having two chambers at each side of the central chamber, each of the chambers nearest adjacent to the

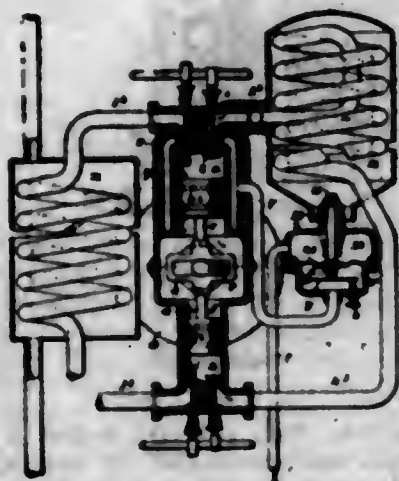
central chamber communicating with one of said ports, an exhaust pipe, each of the farther chambers communicating with the exhaust pipe, a tubular lining in said casing having openings in its wall connecting the interior thereof with the several chambers, a piston slide valve in said tubular lining for alternately connecting one of said ports with the central chamber while connecting the other port with its adjacent outer chamber, a cylinder beyond one end of said valve casing, a piston rod for said slide valve, a piston thereon reciprocable in said cylinder, a slide valve housing parallel with said cylinder and having two ports communicating with said cylinder on opposite sides of said piston, a slide valve in said housing, connection between the same and said source of fluid under pressure, a valve rod for said slide valve, and valve actuating means including a member rigid with the piston, and valve-rod shifting means disposed in the path of and adapted to be engaged alternately by the member as same approaches the respective limits of its movement whereby to shift the valve to reverse the flow as the piston approaches the respective limits of its movement.

1,306,804. DRIVING MECHANISM FOR AUTOMOBILES. ELLIOTT J. STODDARD, Detroit, Mich. Filed Nov. 30, 1914. Serial No. 874,749. 4 Claims. (Cl. 74-7.)



1. The combination with an automobile, of an engine having two sets of cylinders and co-acting parts including a crank shaft for each of said sets of cylinders, means for connecting and disconnecting said crank shafts independent of the main transmission shaft, a main transmission shaft for said automobile and a clutch mechanism for directly connecting one of said crank shafts to said main transmission shaft, for the purpose described.

1,306,805. PRIME MOVER. ELLIOTT J. STODDARD, Detroit, Mich. Filed Feb. 28, 1910. Serial No. 80,802. 7 Claims. (Cl. 60-50.)



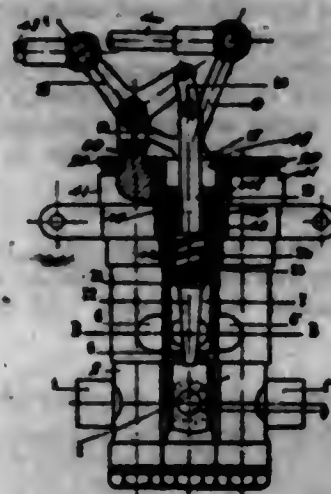
1. In a caloric engine, a closed system, air under compression in said system, a working cylinder and a compression cylinder in said system, and automatically regulated means for raising the temperature of the air as it passes from the compression cylinder to the working cylinder so that it shall not have risen beyond a predetermined temperature when it passes to the working cylinder.

1,306,806. VENTILATOR. JOSEPH SYLVAN, Chicago, Ill. Filed Mar. 15, 1919. Serial No. 282,908. 4 Claims. (Cl. 98-22.)



4. A ventilator consisting of a casing having upright side, front and rear walls, and a top wall, said front and rear walls being inclined forwardly, and said top and rear walls being formed to present an outlet opening which is faced upwardly and rearwardly, an intermediate wall between said front and rear walls defining with said front wall a flue, which opens through the bottom of the casing, said intermediate wall having a rearwardly curved lip at its top edge, a bottom wall connecting the bottom ends of said rear and intermediate walls, said rear, bottom and intermediate walls defining a precipitation chamber which drains through openings in the side walls, a deflector plate extending forwardly and downwardly from the top edge of the front wall to form a lip, and extending rearwardly so as to overhang said intermediate wall and defining with said rear wall, a staggered passageway connecting said flue with said outlet opening, and said deflector plate with said top wall, defining a second passageway leading from the space in front of said front wall, to said outlet opening.

1,306,807. VALVE MECHANISM. RENE JEAN CAMILLE TAMPIER, Boulogne-sur-Mer, France. Filed Nov. 22, 1918. Serial No. 263,718. 4 Claims. (Cl. 277-18.)



1. In a system of the character described, the combination of a pair of supply pipes each having an inlet and an outlet for the passage of liquid therethrough; a valve seat in each pipe adjacent the outlet thereof; a movable case mounted in each pipe directly above the valve seat; a valve mounted in the lower end of each case and adapted to fit in the corresponding valve seat; a spring in each case to force the respective valve outwardly therefrom and press it into its seat; a common operating element for both valve cases; and a separate member pivotally connecting each case with the operating element so as to simultaneously raise one case and lower the other when said operating element is actuated.

1,306,808. MECHANISM FOR OPERATING WINDOW-SASH. URSO E. TROUT, St. Louis, Mo. Filed Nov. 2, 1918. Serial No. 280,702. 3 Claims. (Cl. 300-18.)

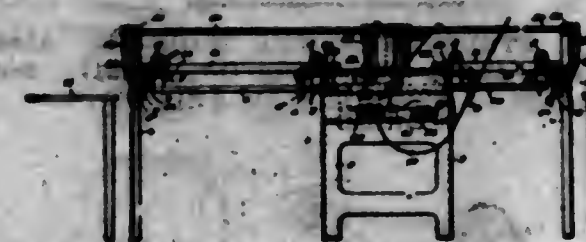
1. A window of the character described in combination with a window frame, a plurality of window sashes,

screw threaded shafts located in the frame, an operating mechanism for rotating the screw-threaded shafts, nuts located on the screw threaded shafts and in close proximity with each of the sashes, a box operating in conjunction with the nuts, an arm pivotally connected to the box and to the side of the window sash and a means for placing



the box in operative connection with the nut when desiring to open the window and to release the same therefrom for keeping the window closed, and a means for indicating the position of the mechanism, substantially as specified.

1,306,809. BARK-ROSSING MACHINE. JEWELL W. VANDEVERRE and WILLIAM L. LYNCH, Liverpool, N. Y. Filed Oct. 14, 1916. Serial No. 125,574. 5 Claims. (Cl. 144-207.)

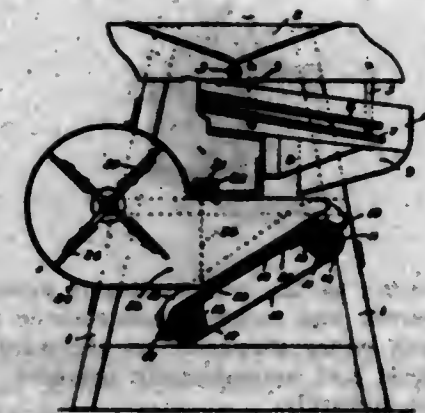


1. A bark roasting machine comprising branch gripping means, bark stripping means, a carriage movable horizontally, one of said means being carried by the carriage, the gripping means and the stripping means having an opening and closing movement in horizontal directions at an angle to the traveling movement of the carriage, the jaws being arranged so that when open, unobstructed space is provided below the jaws, and means supporting the jaws arranged out of the vertical plane in which the branch is located when held by the jaws whereby the branch and bark when released fall by gravity, mechanism for opening and closing said means, and driving means for the movable parts of the machine, substantially as and for the purpose specified.

1,306,870. GRAIN-SEPARATOR. TIMOTHY C. VAUGHN, Morris, Minn., assignor to Vaughn Manufacturing Company, Morris, Minn., a Corporation of Minnesota. Filed Aug. 20, 1916. Serial No. 117,234. 3 Claims. (Cl. 120-18.)

2. In a grain separator, the combination with a frame having an upwardly inclined deck, of an apron passing

over said deck and a fan having a discharge spout, said spout having an open end, inclined to correspond with the degree of inclination of the apron and deck, disposed



closely adjacent thereto and extending substantially the length of the deck.

1,306,871. PROCESS FOR REGENERATING CATALYZERS CONTAINING NICKEL AND ITS COMPOUNDS WHICH HAVE BEEN EMPLOYED FOR THE HYDROGENATION OF FATTY BODIES OR OTHER ORGANIC PRODUCTS. GERHARD NICOLAAS VIA, Paris, France. Filed Nov. 21, 1917. Serial No. 202,189. 1 Claim. (Cl. 22-23.)

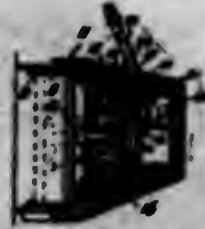
The process for regenerating nickel catalyzers employed for hydrogenation of fatty bodies, consisting in treating the spent catalyzer with a solvent to remove fatty bodies, heating the residue in presence of an excess of air to destroy any organic matter remaining, washing the roasted product in water to free it from soluble impurities, and transforming the product into suboxide of nickel by heating the same in oil at about 300° C. through which hydrogen is passed.

1,306,872. HYDRAULIC CLUTCH AND TRACTION EQUALIZER. WILLIAM S. WESTON, Houston, Tex. Filed July 5, 1917. Serial No. 178,572. 5 Claims. (Cl. 192-18.)



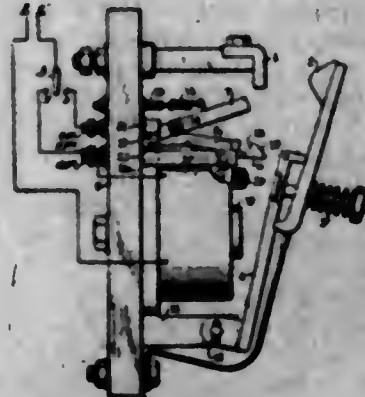
5. A hydraulic power transmission device comprising a rotatable power driven member, two shafts concentric therewith, two hydraulic clutch mechanisms of the liquid pump type adapted to lock said shafts to said member, said hydraulic clutch mechanisms having constricted passages respectively connecting the compression sides and the suction sides thereof and also having a return passage from the compression to the suction sides, a valve for controlling said return passage, and means, including a shifter concentric with said member and said shafts, for actuating said valve when said transmission device is in operation.

1,306,872. DRAG-BUCKET. WILLIAM G. WOOD, San Francisco, Calif., assignor of one-half to Frank R. McKevitt, Sacramento, Calif. Filed Mar. 23, 1918. Serial No. 156,944. 5 Claims. (Cl. 37-54.)



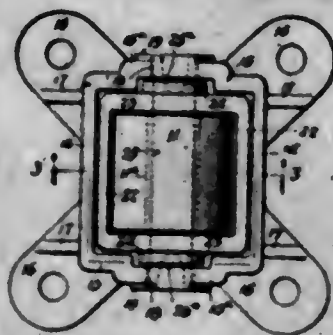
1. A drag bucket having a back slidable forwardly and backwardly therein, and manually controllable means for moving the back either forwardly or backwardly in the bucket as desired and automatically operated when the bucket is tilted upwardly.

1,306,874. ELECTROMAGNETIC SWITCH. PAUL H. ZIMMER, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Apr. 23, 1914. Serial No. 323,908. 7 Claims. (Cl. 175-281.)



5. In combination, an electromagnetic winding, a main armature therefor, mechanical means for latching said armature in attracted position, an auxiliary armature for said winding adapted when attracted to trip said latching means, said auxiliary armature having its magnetic circuit extending through said main armature to render its attraction dependent upon prior attraction of said main armature and means actuated by said armatures to effect deenergization of said winding substantially simultaneously with the completion of movement of each of said armatures.

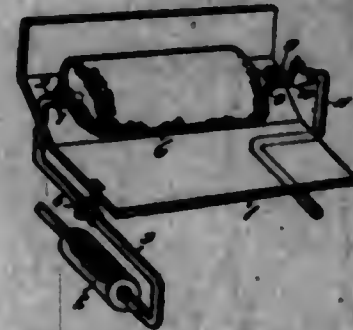
1,306,875. ANTIFRICTION SIDE BEARING. THOMAS H. ALPHEUS, Chicago, Ill., assignor to Albert G. Welch, trustee under the will of Edwin A. Woods, deceased. Filed Dec. 7, 1918. Serial No. 265,701. 5 Claims. (Cl. 64-64.)



1. An antifriction side bearing comprising a casting adapted for attachment to a bolster, a rocker having side

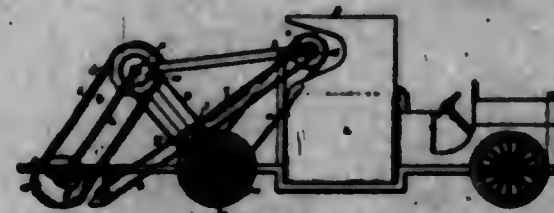
members, a shaft engaging with said side members, and a roller on said shaft, said roller being adapted to rock in said casting in a plane parallel with the axis of said shaft, said shaft locking said roller in said casting against displacement, but permitting said rocking movement.

1,306,876. MOTOR-VEHICLE HEATER. HENRY E. RABBITT, Leonard, Tex. Filed Jan. 5, 1918. Serial No. 210,448. 1 Claim. (Cl. 237-12.3.)



In a motor vehicle heater for passengers, the combination with the exhaust pipe from the engine, of a supply pipe leading from the exhaust pipe up through the floor of the vehicle, a flexible container adjacent the floor of the vehicle and connected at one end with the supply pipe, a controlling valve included in the supply pipe adapted to permit of the inflation or deflation of the container, said container being inflated by the gases from the exhaust pipe, an outlet connection on the opposite end of the container from the supply pipe, a discharge pipe leading from the outlet down through the floor of the vehicle, and a pressure regulator included in the outlet pipe set to withstand the pressure of the gases to a certain degree, whereby the container is inflated and to release the gases through the outlet when the pressure exceeds said degree.

1,306,877. STREET-SWEEPING MACHINE. ALBERT BLANCHER, Akron, Ohio. Filed Oct. 1, 1917. Serial No. 194,155. 3 Claims. (Cl. 15-17.)

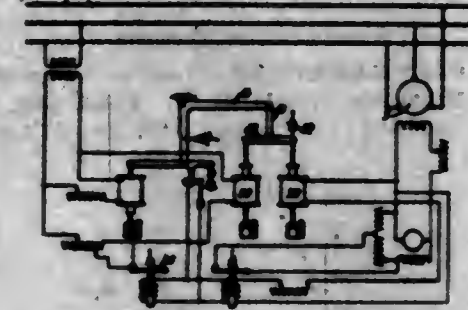


1. A street sweeping machine comprising a series of endless sweeping belts arranged side by side, a series of rollers on the machine having power connections and a corresponding series of rollers in trailing relation behind the machine carrying said belts, coupling members engaged with the middle of each trailing roller and guides in which said trailing rollers are adapted to rise and fall, and an endless carrier in front of said trailing rollers and belts.

1,306,878. ELECTRICAL REGULATOR. CLARENCE A. BOWEN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 5, 1916. Serial No. 89,057. 8 Claims. (Cl. 171-229.)

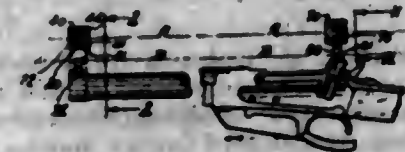
1. The combination with an electrical circuit, a dynamo-electric machine associated therewith, and an exciter for the dynamo-electric machine, of a regulator comprising a pair of cooperating contact members, three actuating electromagnets having core members for actuating the contact members, two of the electromagnets

receiving current from the circuit, and the third electromagnet receiving current from the exciter, and a plurality of levers for connecting said core members to one of said contact members, each of said core members being independently and pivotally connected to said levers.



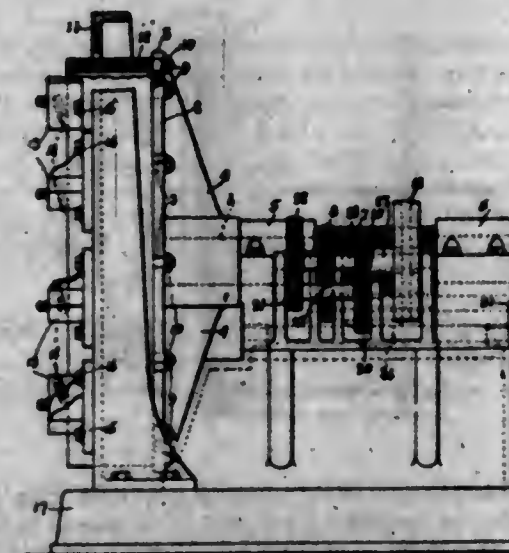
2. In combination with a firearm, a night sight having a member inclined rearwardly as it approaches the line of sight and a luminous substance on the rear of said member.

1,306,879. NIGHT-SIGHT FOR FIREARMS. ARTHUR L. BOONE, Denver, Colo. Filed Aug. 5, 1918. Serial No. 248,352. 21 Claims. (Cl. 33-52.)



2. In combination with a firearm, a night sight having a member inclined rearwardly as it approaches the line of sight and a luminous substance on the rear of said member.

1,306,880. MACHINE FOR MANUFACTURING METAL WOOL. JOHN G. BUCKENBROOK, Springfield, Ohio. Filed Dec. 9, 1916. Serial No. 136,065. 10 Claims. (Cl. 29-4.5.)



1. In a machine for making metal wool, the combination with a circular head to which a drum of metal may be attached, of a shaft on which said head is mounted, means for rotating said shaft and head, means for giving said shaft and head a slow axial movement, a circular stationary member, a plurality of cutters mounted thereon coaxial with said shaft, spaced and positioned to engage the edge of the drum of metal.

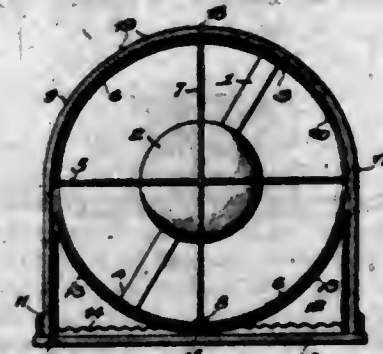
2. In a machine for making metal wool, a band of metal wound concentrically to form a drum, and belts attached to one edge of said drum.

1,306,881. PHOTOGRAPHIC-FILM SPOOL. BENJAMIN DAY CHAMBERLIN, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed June 15, 1917. Serial No. 175,029. 3 Claims. (Cl. 242-71.)



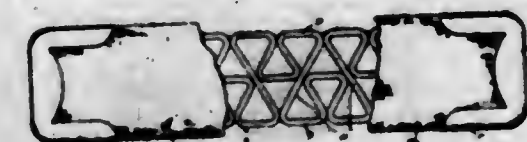
1. A photographic film spool comprising a tubular core having end flanges and relatively fixed disks disposed against the flanged ends of the core and provided with attaching ears struck out from the material of the disks and clenched against the flanges.

1,306,882. INSTRUMENT FOR INDICATING VERTICALITY OR ORIENTATION. JOSEPH THACHER CLARK, Harrow, England. Filed Aug. 1, 1918. Serial No. 247,824. 7 Claims. (Cl. 33-215.)



1. In an instrument for indicating verticality or orientation the combination of a dip-magnet, a frame or casing relatively to which the dip-magnet is free to swing in all directions, means for preventing the independent rotation of the dip-magnet about its own axis and means whereby the relative displacement of the frame or casing and the dip-magnet may be observed for the purpose set forth.

1,306,883. GARMENT-STAY. ADNIRAM J. COOK, Westerlo, N. Y. Filed Sept. 26, 1917. Serial No. 193,235. 4 Claims. (Cl. 267-33.5.)



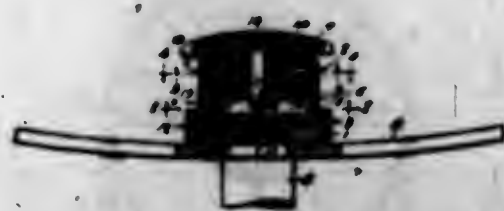
4. A garment stay formed with a plurality of convolutions, certain of said convolutions including straight portions aligning longitudinally of the stay between the side edges thereof, certain others of said convolutions including straight portions aligning longitudinally of the stay at one side edge thereof, and certain others of said convolutions including straight portions aligning longitudinally of the stay at the opposite side edge thereof, said straight portions of the adjacent convolutions, longitudinally of the stay, being connected by diagonal portions forming part of the convolutions.

1,306,884. TRACTION-VEHICLE. WILLIAM F. DREXLER and EMIL BRASLER, Morton, Ill. Filed Aug. 13, 1917. Serial No. 185,858. 7 Claims. (Cl. 188-9.)



1. A traction-vehicle, comprising a frame including side rails adapted to be extended, whereby the vehicle may be used as a truck, and retracted, whereby the vehicle may be used as a tractor, a traction mechanism including traction wheels and broad endless-tracks, and an operating means for said traction mechanism, said operating means including changeable speed gearing adapted for giving a greater speed to the traction mechanism when the vehicle is used as a truck, than when used as a tractor.

1,306,885. ELECTRIC MULTIPLE SWITCH. ARTHUR E. FRANCIS, Cleveland, Ohio, assignor, by mesne assignments, to The Caskey-Dupree Company, Marietta, Ohio. Filed Oct. 10, 1917, Serial No. 195,693. Renewed Apr. 28, 1919. Serial No. 293,374. 3 Claims. (Cl. 200-27.)



2. In a selective switch, the combination of a tubular casing, an insulating block inclosed in the casing, a pivot pin extending through the block and slidable axially therein, a set of contacts mounted at the inner end of the block in axial alignment with the pin and adapted to be closed when the pin is pushed in, a push button rotatably mounted in the casing on the outer end of said pivot pin, and another set of contacts located between the push button and the outer end of the block and adapted to be closed by turning the push button.

1,306,886. BOW-PAD FOR VEHICLE-TOPS. FRANK D. FRAZER, Springfield, Ill., assignor of one-half to Fred A. Manning, Springfield, Ill. Filed Jan. 16, 1919. Serial No. 271,463. 3 Claims. (Cl. 21-62.)

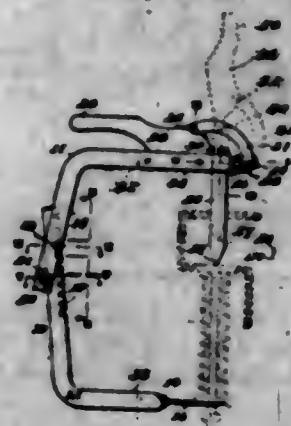


1. A pad comprising a flexible tube of substantially equal cross section at all points of its length, a flexible filling therein, and a strip of flexible material of substantially equal width throughout its length, said strip having its longitudinal central portion stitched to that of the tube by means of stitching that extends from end to end of the tube, the lateral edges of the said strip being free from the tube and adapted to engage with fastening means whereby it is attachable to a vehicle bow or other object.

2. The combination with a vehicle bow, of a flexible strip extending longitudinally along the top of the bow

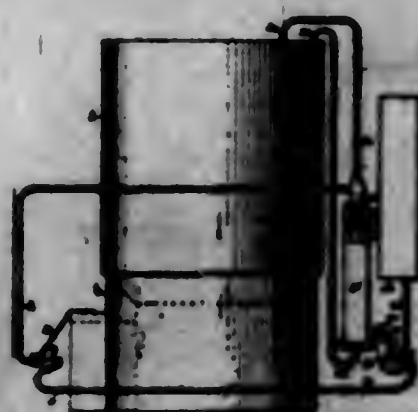
and having its edge portions secured thereto and its longitudinal center free therefrom, a flexible tubular member secured to the free central part of the said strip, and a filling of flexible material in said tubular member.

1,306,887. VALVE-REMOVER. LEE A. GALENTINE and HUGH N. GILLETTE, Nunda, N. Y. Filed Aug. 2, 1918. Serial No. 247,979. 3 Claims. (Cl. 29-87.1.)



1. In combination, an L-shaped frame section formed of spaced sides, an L-shaped twisted section adapted for positioning therebetween, clamping connections between the said sections, the twisted section having a terminal foot portion substantially parallel with the free end portion of the first named frame section and provided with sharpened toes adapted to fit beneath a valve spring when the device is in use, a reciprocating plunger carried by said free end portion of the frame section having movement toward and away from the said foot, and operating means for the said plunger.

1,306,888. STEAM-GENERATING APPARATUS. FRED H. GERTNER, Newton, Mass. Filed Oct. 30, 1918. Serial No. 259,748. 2 Claims. (Cl. 236-6.)

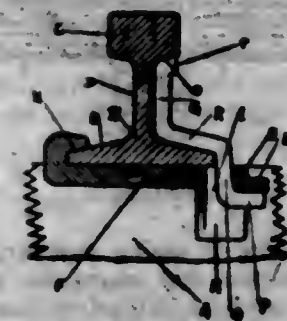


1. The combination with a casing provided with a fluid inlet, a piston in the casing adapted to be moved in one direction by the fluid, a spring within the casing and arranged to move the piston in the opposite direction, a valve without the casing having a valve stem extended into the casing to be moved by the said piston, a lever actuated by the piston, a second valve actuated by the lever, and means to move the second valve in a direction opposite to that in which it is moved by the lever.

1,306,889. RAIL-ANCHOR. MONATTI G. GILLARD, Washington, D. C. Filed Jan. 24, 1916. Serial No. 73,604. 34 Claims. (Cl. 288-4.)

3. A rail anchor, comprising a transverse element engaging the rail base at one side of the rail, a vertical element

engaging a seat upon the under side of said transverse element at the other side of the rail and fulcrumed upon the



corner of the rail base flange, means for straining said vertical element, and means for locking said vertical element in position.

1,306,890. BOTTLE-FILLING DEVICE. JOSEPH H. GODFERT, Chicago, Ill., assignor to The Godfrey Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1916. Serial No. 95,482. 11 Claims. (Cl. 226-12.)



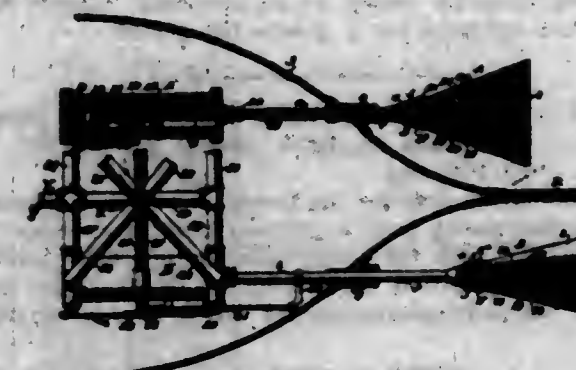
3. In a bottle-filling device, the combination of a vertically reciprocable filling-head, electromagnetic coils carried thereby, a pair of stationary contact members normally disposed above said head, a pair of contacts connected to said coil and adapted to engage with said contact members to close the circuit when the head is raised, and means for opening said circuit when the liquid in the bottle being filled reaches a predetermined level.

1,306,891. TENSIOMETER. WILLIAM FREDERICK GRAPTON, Glasgow, Scotland. Filed May 27, 1918. Serial No. 236,601. 11 Claims. (Cl. 365-1.)



1. A tensiometer comprising a base bar, terminal and central contact devices carried by said base bar and adapted to bear against a wire being tested, a spring device supported at one end by said base bar, its other end constituting a freely movable carrier, a device rotatably mounted on said carrier and constituting said central contact, tension-indicating means supported by said base bar, and means connecting said spring carrier for said contact device with said indicating means.

1,306,892. PROPELLER FOR SHIPS. WILLIAM C. GIBSON, Summerville, S. C. Filed Mar. 30, 1918. Serial No. 225,778. 8 Claims. (Cl. 115-31.)



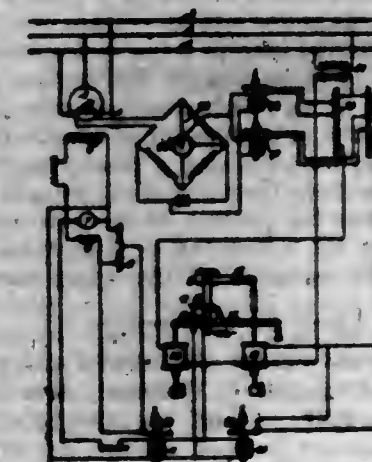
1. A reciprocatory propeller comprising a cone-shaped shell made up of a plurality of sections and interposed ribs to which said sections are pivotally connected.

1,306,893. IRONING-BOARD. STEPHEN R. HAINES, North Lewisburg, Ohio. Filed May 13, 1917. Serial No. 169,559. 1 Claim. (Cl. 68-10.)



In a device of the class described, the combination of an ironing board, a primary supporting means connected to said ironing board, a secondary supporting means pivotally connected to the primary supporting means and consisting of a pair of legs, an elongated block pivotally connected to the upper ends of said legs, said block being rectangular in cross section to provide an even bearing surface, pegs extending from one side of said block, a cleat fixed upon the under surface of said board, said cleat having a plurality of sockets formed therein, and said block being adapted to bear upon the under surface of said board when the device is being set up whereby the even surface of the block will ride along the surface of the board as the legs are swung while the legs will hold the block centrally, thus causing the pegs to be positively directed very quickly and easily into the sockets of said cleat whereby the board will be supported.

1,306,894. SYSTEM OF REGULATION. FREDERIC C. HANKS, Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 4, 1916. Serial No. 95,821. 5 Claims. (Cl. 171-229.)



1. The combination with a dynamo-electric machine, and means for regulating its field strength comprising an actuator

ating winding and a resistor in series therewith, of means for modifying the effectiveness of the resistor when the temperature of the dynamo-electric machine exceeds a predetermined value by reason of an abnormal current flow through the machine for a protracted period.

1,306,895. DETONATING-FUSE. JEAN HARLÉ, Rouen, France. Filed June 29, 1914. Serial No. 848,071. 3 Claims. (Cl. 102-8.)

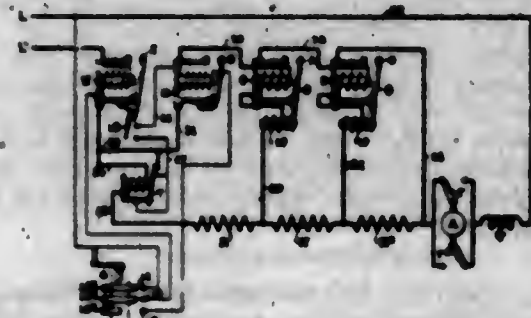
1. A detonating fuse for the instantaneous transmission of detonation waves from a primary detonator to an explosive charge, such fuse comprising a tube filled with a detonating composition comprising as its essential constituent, tetranitropentaerythrite in a highly purified state.

1,306,896. COMBINATION-TOOL. ROYAL C. HATDEN, Oakes, N. D. Filed Nov. 7, 1918. Serial No. 261,526. 1 Claim. (Cl. 7-1.)



A tool comprising a stem having a cross-head, jaws slidably mounted upon end portions of the cross-head, each of the jaws comprising a shank embracing the cross-head and formed with a longitudinal slot and an internally threaded projection, the cross-head having a projection extending into the slot of the shank, and a right-and-left threaded member engaging the threaded projections of the jaws.

1,306,897. MOTOR-CONTROLLER. CLARK T. HENDERSON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 4, 1916. Serial No. 76,171. 6 Claims. (Cl. 172-179.)



1. In a motor controller, in combination, a plurality of electro-responsive switches including a switch to control the continuity of the motor circuit, certain of said switches being shunt wound and certain being series wound and the latter being subject to control by the former, means controlled by certain of said switches to enable operation of the motor at any one of a plurality of speeds according to the setting of said switches and a master switch controlling all of said switches through the medium of those having shunt windings for control of the continuity of the motor circuit and for increasing or decreasing the speed of operation of the motor at will for speed selection.

1,306,898. COMBINATION EXHAUST AND INTAKE MANIFOLD. CHARLES C. HERRERT, San Jose, Calif. Filed Sept. 4, 1917. Serial No. 189,525. 3 Claims. (Cl. 257-241.)

3. The combination with an internal combustion engine having a plurality of inlet ports formed therein and a carburetor, of a connection between each inlet port and

the carburetor, each of said connections comprising a plurality of separated tubes, means for heating said tubes,



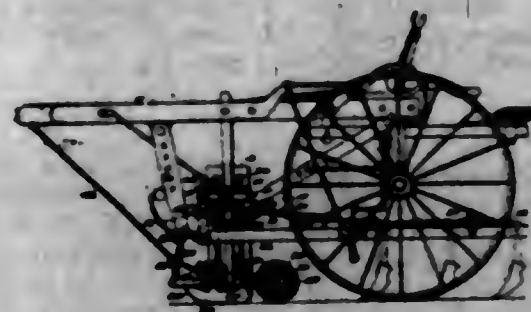
said means comprising a casing surrounding the tubes forming each connection, and means for passing exhaust gases through said casing and between the tubes.

1,306,899. BRAKE-BAND CARRIER. ALEXANDER GRISWOLD HARRIS, New York, N. Y., assignor to International Motor Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 7, 1919. Serial No. 288,408. 6 Claims. (Cl. 74-37.)



5. In combination with a brake drum, external band and operating devices therefor, means to support the band which comprise carrier arms, cups secured to the band at diametrically opposite sides of the axis and mounted in the arms, a shaft, a bracket in which the shaft is rotatively journaled, eccentric arms on the ends of the shaft having their axes coincident, the carrier arms being supported on said eccentrics, and a spring operatively interposed between the shaft and the carrier arms to permit lateral movement thereof upon application and release of the band.

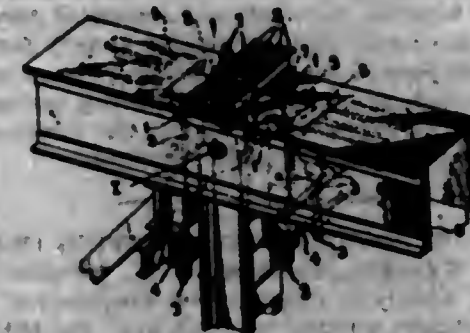
1,306,900. PLANTING ATTACHMENT FOR CULTIVATORS. ROY A. HINNE, Columbia, Mo. Filed July 31, 1917. Serial No. 183,745. 2 Claims. (Cl. 111-63.)



1. In combination with a wheeled frame, a horizontally elongated open frame mounted transversely on said wheeled frame and having parallel side bars, vertical guide bars passing between said side bars and rigidly secured thereto, a rectangular hopper mounted for vertical sliding between said side bars and said vertical guide bars, said hopper having yokes straddling said guide bars, a rock shaft mounted on one of said side bars and having crank arms connected to said yokes for raising and low-

ering said hopper, seed planting means at the lower end of said hopper, and an earth engaging wheel carried by said lower end of the hopper for driving said seed planting means when said hopper is lowered to position said wheel upon the earth.

1,306,901. APPARATUS FOR REPAIRING WORN PIN-BEARINGS OF PIN-CONNECTED TRUSSES. WILLIAM HOWES, Woodhaven, and LOREN E. MANVILLE, Yonkers, N. Y. Filed July 31, 1917. Serial No. 183,777. 4 Claims. (Cl. 82-4.)



3. In apparatus for the repair of the pin bearings of pin connected trusses, supports adapted to be fastened to the truss members, hanger bars adjustable in relation to said supports, a plurality of inclined pin holding bars adapted to be arranged in pairs equidistantly from the center or at the center of said pin, each of said pin holding bars being formed at one end to fit against said pin and being held at the opposite end by the adjustable hanger bars, yoke supporting means, and a plurality of U-shaped yokes adapted to embrace said pin at points in spaced relation to each other and having an adjustable connection with said supporting means.

1,306,902. MECHANICALLY-CAST TYPE-BAR. JOHN GANNON HOLMSTROM, London, England, assignor to Linotype and Machinery Limited, London, England, a Limited Liability Company of Great Britain. Filed Feb. 28, 1919. Serial No. 279,834. 4 Claims. (Cl. 101-394.)



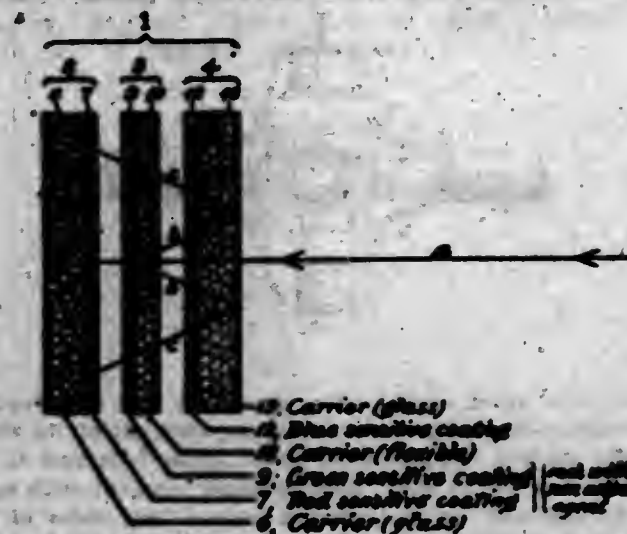
1. As a new article of manufacture a cast type bar provided with means cast integral therewith and by which it can be locked to an adjacent type bar.

1,306,903. PENCIL-SHARPENER. TATSUJIRO IMASUMI, Seattle, Wash. Filed Nov. 6, 1918. Serial No. 261,358. 1 Claim. (Cl. 120-83.)



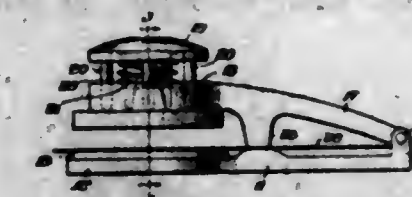
A pencil sharpener having ribs converging to form elements of the surface of a cone and a cutting blade in the form of a conical helix secured to and within said ribs, by means which space it away from said ribs.

1,306,904. COLOR PHOTOGRAPHY. FREDERIC BUCHANAN IVES, Philadelphia, Pa. Filed Aug. 9, 1917. Serial No. 185,284. 11 Claims. (Cl. 95-2.)



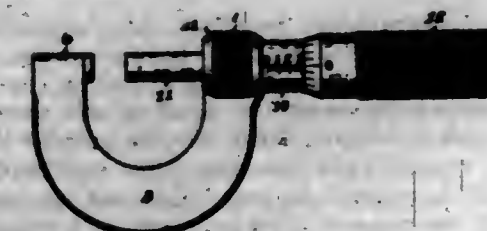
1. In color photography, the method of making a plurality of color representing negatives from a plurality of differently color-sensitized members, comprising screening one of said sensitive members by a non-actinic agent, assembling the members with said screened member behind another of said members, and exposing the assemblage so arranged.

1,306,905. SEAL. MARSHALL H. JACKSON, Chicago, Ill. Filed Jan. 2, 1919. Serial No. 269,257. 9 Claims. (Cl. 101-8.)



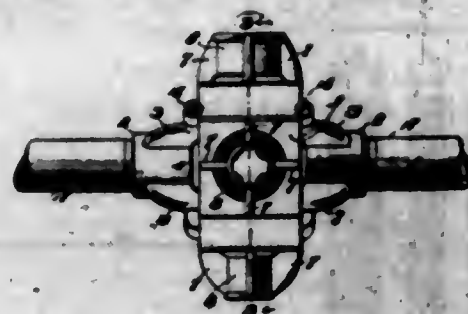
1. A notarial seal or the like comprising two arms connected at one end and one overhanging the other, a counter carried by one arm and a die carried by the other, the counter and die mounted for relative movement toward and from each other, in combination with rigid means mounted on the arm carrying the movable element for clamping the sheet of paper inserted between the counter and die to prevent shifting thereof.

1,306,906. MICROMETER-CALIPER-SPINDLE LOCK. FERNANDO OSCAR JAGURS, Sr., Providence, R. I., assignor of one-half to The Central Tool Company, Providence, R. I., a Corporation of Rhode Island. Filed Aug. 19, 1918. Serial No. 250,522. 3 Claims. (Cl. 83-164.)



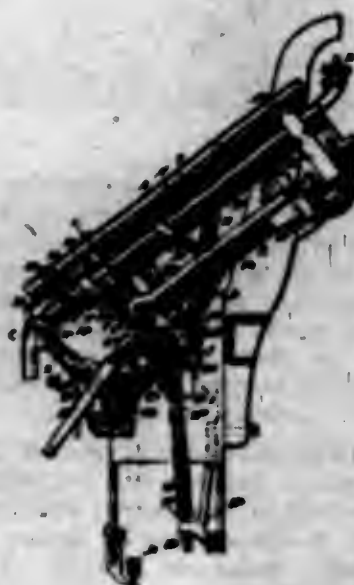
1. In combination with a frame, a spindle bearing formed integral with the frame, and a spindle of a micrometer caliper, a spindle lock comprising a spindle locking member surrounding the spindle and formed integral at one end with the spindle bearing, and having a free portion, a cam groove in the free portion, an operating member over the spindle locking member and means on the operating member engaging with the cam groove in the locking member to force the free portion of the locking member against the spindle, to lock the spindle.

1,306,907. DIE-STOCK. JAMES T. JOHNSON, Chicago, Ill. Filed Apr. 2, 1918. Serial No. 226,214. 1 Claim. (Cl. 10-114.)



In a die stock of the class described, the combination of a square body provided with legs upon all of its sides, handle holders integral with some of the legs and at opposite sides of the body, work holders integral with some of the legs and being arranged around four sides of the body and at right angles to the handle holders, said body provided with die receiving pockets formed under the work holders and at right angles to each other, some of said legs provided with feet having threaded sockets, a die retaining plate angular in cross section provided with apertured lugs adapted to engage said threaded feet, and detachable fastening means extending through the apertures of said lugs and normally threaded into said feet.

1,306,908. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed May 22, 1916. Serial No. 99,059. 58 Claims. (Cl. 199-45.)



1. In a typographical machine, the combination of a plurality of magazines suitably supported therein, and mechanism acting by its continued operation first to move the magazines transversely as a whole and thereafter to separate them from each other, for the purpose described.

2. In a typographical machine, the combination of a plurality of magazines suitably supported therein, means for moving the magazines transversely as a whole, means for separating the magazines from each other, and a common operating device to actuate the two said means at different times.

3. In a typographical machine, the combination of a plurality of magazines, independent base frames wherein the magazines are mounted, the said base frames being supported in the machine so as to be movable both conjointly and relatively to each other, and mechanism acting by its continued operation first to effect the conjoint movement of the base frames and thereafter the relative movement between them, for the purpose described.

19. In a typographical machine, the combination of an assembler entrance, a plurality of superposed magazines, and independent base frames wherein the magazines are mounted, the said base frames being supported in the machine so as to be movable upwardly to locate the magazines above the assembler entrance and to separate them from each other, with mechanism for effecting such movement, the said mechanism comprising the operating handle H, the rock shaft H' wherein the handle is mounted, the arm H" fast to the shaft and connected through the link H" to the lower base frame, the crank arm H' also fast to the rock shaft H', the spring actuated rod H' pivotally connected to the crank arm H', the members J' loose on the shaft and connected through the links J' to the upper base frame, the arms J' fast on the shaft and adapted to engage the members J' at one stage of the operation, and the counterbalancing spring J' connected to an extension J' of one of the members J', in the manner and for the purpose described.

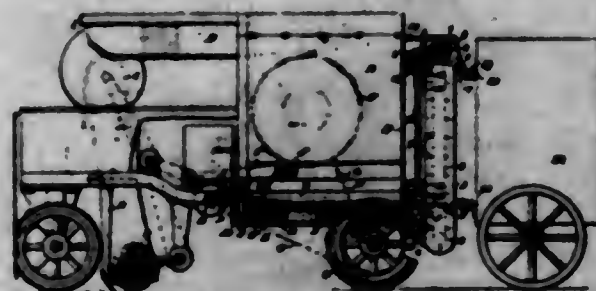
1,306,909. TYPOGRAPHICAL CASTING MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Original application filed Aug. 18, 1916, Serial No. 115,151. Divided and this application filed Mar. 19, 1919. Serial No. 282,521. 7 Claims. (Cl. 199-47.)



1. In a typographical casting machine, the combination of a slotted mold comprising a body portion formed with an aligning rib, and matrices having characters of increased size and form with projecting ears to engage the aligning rib, said aligning rib being of reduced thickness to permit the alignment of the matrix characters with the upper face of the mold body portion.

7. In a typographical casting machine, the combination of a slotted mold having a normally located datum line and formed with an aligning rib, and matrices formed with ears adapted to engage said aligning rib and having characters situated thereon with reference to an abnormally located datum line, the said aligning rib being of reduced thickness, so that in effecting the alignment of the matrices their abnormally located datum line will be caused to coincide with the normal datum line of the mold.

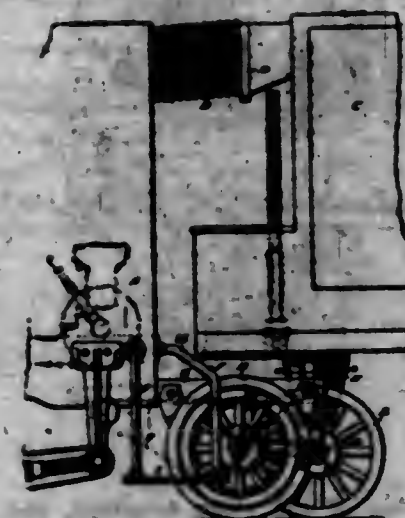
1,306,910. STREET-SWEEPING MACHINE. BERNARD KENN, Sandusky, Ohio. Filed Nov. 19, 1914. Serial No. 873,005. 2 Claims. (Cl. 183-38.)



1. In a street sweeping machine, the combination with a refuse collecting box, a dust separator therein discharging to a dead air chamber at the lower portion of the box, an air conveyor adapted to discharge the refuse into the box and within the influence of the dust separator, and a worm conveyor arranged within the lower portion of the box to discharge the collected material ex-

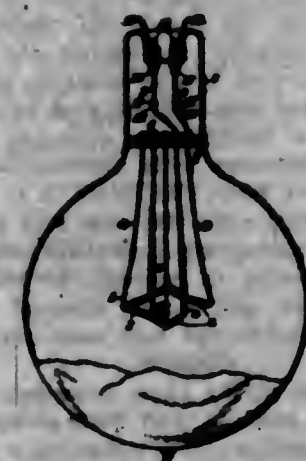
teriorly of the box, portions of the worm being interrupted at points intermediate the ends thereof where the worm shaft passes through the walls of the dead air chamber, substantially as and for the purpose described.

1,306,911. STREET-SWEEPING MACHINE. BERNARD KENN, Sandusky, Ohio. Filed Nov. 19, 1914. Serial No. 873,007. 7 Claims. (Cl. 21-137.)



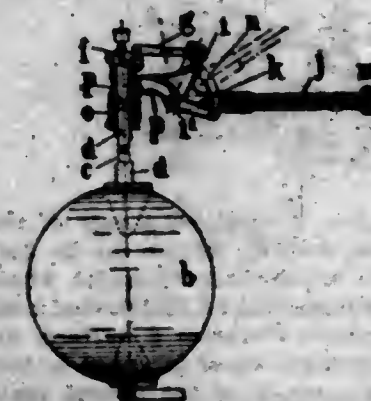
2. The combination with a forward vehicle, of a separate rear vehicle, trucks therefor, and detachable coupling means therebetween comprising a pivoted link member and a spring-held bolt member attached respectively to the forward vehicle and the rear vehicle, the bolt member passing through a tapered portion of the link member to permit relative lateral movement of these parts under a tendency of one truck to turn relative to the other.

1,306,912. ELECTRIC LAMP. FREDERICK G. KEYES, Hoboken, N. J., assignor to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Original application filed Jan. 8, 1914, Serial No. 811,008. Divided and this application filed Apr. 2, 1915. Serial No. 18,874. 6 Claims. (Cl. 176-30.)



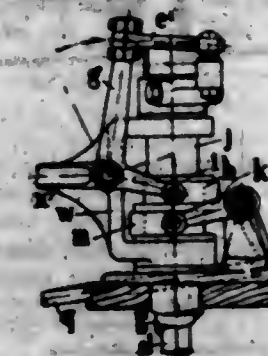
6. In a tungsten lamp, a container, a filament of tungsten located within the container, leads connected with the terminals of the filament and sealed in the wall of the container, and means for supporting the filament independently of the leads, said means consisting of a diaphragm mounted on the wall of the container and anchor rods extending therefrom and connected to the filament.

1,306,913. BOAT STEERING AND REVERSING GEAR. JOHN GEORGE AULANDER, KITCHEN, Scotland, Lancaster, England. Filed Feb. 20, 1919. Serial No. 278,290. 4 Claims. (Cl. 114-145.)



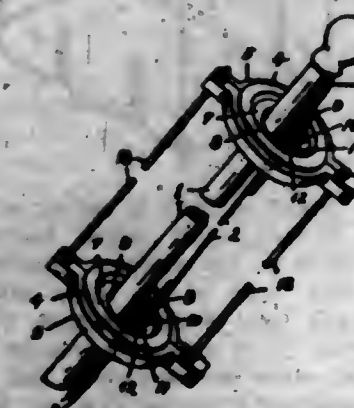
1. In boat steering and reversing gear of the type specified, the combination with the rudders, rudder stocks and a pivotally mounted tiller bar, of arms connected to said stocks and to the tiller bar, the latter being movable in a horizontal and in a vertical plane, as set forth.

1,306,914. BOAT STEERING AND REVERSING GEAR. JOHN GEORGE AULANDER, KITCHEN, Scotland, Lancaster, England. Filed Feb. 20, 1919. Serial No. 278,291. 3 Claims. (Cl. 114-145.)



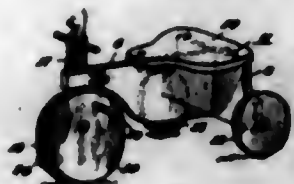
1. In boat steering and reversing gear, in combination, two rudders with rudder stocks, arms upon the rudder stocks, levers connected to said arms, a pivotally mounted frame carrying the pivots of said levers, means for moving said frame, and means for oscillating said levers, as set forth.

1,306,915. ANTIFOULING DEVICE FOR FLAGS AND THE LIKE. OTTO KLAMROTH, Liberty, N. Y., assignor to Albert Klamroth, New York, N. Y. Filed Nov. 29, 1918. Serial No. 264,008. 9 Claims. (Cl. 116-12.)



1. In an antifouling device, the combination with halyards, of a sheave fixed to said halyards, a strap rotatable on said sheave, and means for attachment to said strap of an object to be carried thereby.

1,306,916. CHILD'S VEHICLE. PIERCE W. KOONTE, Los Angeles, Calif. Filed Aug. 29, 1917. Serial No. 188,787. 1 Claim. (Cl. 208-42.)



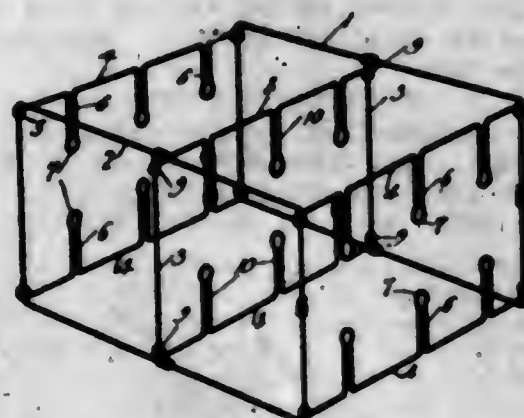
In a child's vehicle, a carriage, a pair of rear wheels thereon, a revolvable steering column on the forward end of the carriage, an eccentrically mounted wheel on said steering column for imparting an undulating motion to the carriage as the vehicle traverses a surface, and pedals mounted on said eccentric wheel arranged so that a pedal will pass over and forward of the pivotal center of the wheel as the large portion of the eccentric passes beneath and rearward of the pivotal center.

1,306,917. GAS-BURNER FOR COAL-OVENS. HARRY LANON, Quincy, Ill. Filed Mar. 19, 1919. Serial No. 283,482. 9 Claims. (Cl. 126-36.)



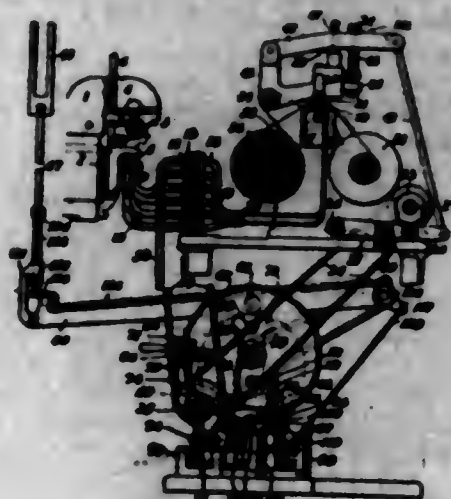
8. An oven bottom having an annular recess and an opening surrounded by said recess, an annular gas burner within said recess, a plate over said opening substantially flush with the oven bottom, and means for the entrance of air upwardly to and along the under side of said plate to said recess and burner.

1,306,918. EGG-HOLDER. PETER L. LASARUS, Wichita, Kans. Filed July 17, 1918. Serial No. 100,968. 1 Claim. (Cl. 217-28.)



An egg holder formed entirely of spring wire and comprising opposed frames, cross wires having terminal coils pivotally engaging the opposed frames, elongated loops extending from each of the cross wires, the free end portion of each loop being enlarged, the loops on opposed cross wires being extended toward each other, intermediate cross wires mounted upon the first named cross wires and mounted to swing thereon, loops extending from the intermediate cross wires, the said loops having enlarged free end portions, enlarged portions of the corresponding loops upon all of the wires being disposed in alignment, the wires and frames being foldable relative to each other.

1,306,919. APPARATUS FOR AUTOMATICALLY OPERATING TYPOGRAPHICAL AND OTHER SELECTIVELY-OPERATED MACHINES. JACQUES MATY, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed May 18, 1918. Serial No. 98,468. 48 Claims. (Cl. 100-31.)



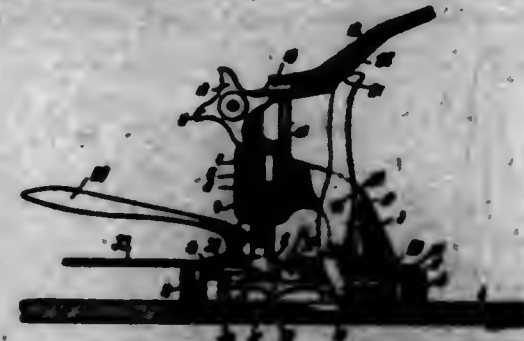
1. In a machine of the class described, the combination of a series of strikers, a perforated strip, a fluid pressure apparatus controlled by said strip for actuating the strikers, the said apparatus including a set of conductors, a second set of conductors of a number different from that in the first set and adapted selectively to communicate therewith, and a device interposed between the two sets and acting under the control of the strip to govern the connection of the desired conductors.

19. In apparatus for automatically operating typographical and other selectively operated machines, the combination with strikers and a driven perforated strip adapted to control the actuation thereof, of a shaft, a constantly rotated pulley loose thereon, a pulley adapted to operate the strip-driving mechanism also loose on the shaft, means adapted to maintain the two pulleys in driving connection, a clutch located between the two pulleys angularly fast to the shaft and adapted to be thrown into and out of operative connection with the constantly rotated pulley and to be moved axially on the shaft far enough to disconnect the two pulleys, means under the control of the perforated strip adapted to throw in the clutch, a spring-controlled lever constantly tending to throw out the clutch and disconnect the two pulleys, a latch normally preventing the operation of the lever, a cam rotated by the rotation of the shaft, a lever operated by the cam and adapted to effect the normal movement of a periodically operated organ of the machine which cooperates with another periodically operated organ thereof when the latter is in a given position, a lever rotating with the cam and adapted to effect the release of the spring-controlled lever, a normally inoperative rod adapted to prevent the releasing action of the rotating lever, and means adapted to render the said rod operative when the last mentioned organ is in the said position.

29. In a machine of the class described, the combination of a series of strikers, and fluid pressure apparatus for actuating the strikers and including a series of conductors divided into a plurality of groups, and a perforated strip having a pair of perforations for each striker to be actuated, one acting to select one of the groups of conductors, and the other acting to select one or another of the conductors in each group.

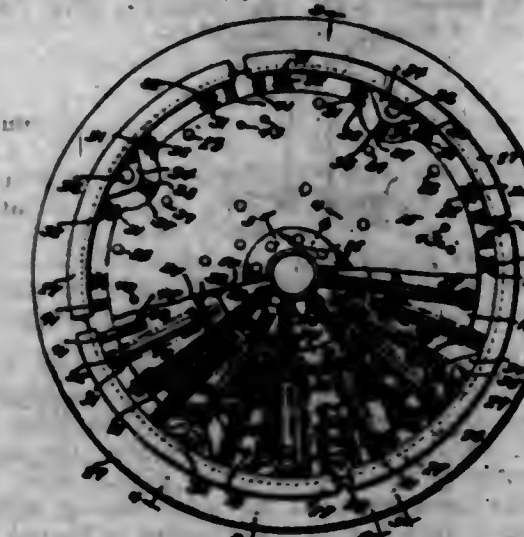
44. In a linotype machine, the combination of a movable assembler elevator, a delivery carriage to receive the line therefrom, power-driven mechanism for effecting the movement of the elevator, and means actuated by the abnormal operation of the line delivery carriage for arresting said power-driven mechanism.

1,306,920. PUNCH. EDGAR L. MILLER, Gunnison, Colo. Filed Mar. 14, 1917. Serial No. 154,825. Renewed Apr. 7, 1919. Serial No. 288,231. 6 Claims. (Cl. 98-1.)



5. A punch including a spring pressed plunger, rotatably mounted arms for contacting with and depressing the plunger, and means for rotating said arms.

1,306,921. VEHICLE-WHEEL. GEORGE MITRO, Darby, Pa. Filed Jan. 2, 1919. Serial No. 269,229. 4 Claims. (Cl. 183-31.)



4. A vehicle wheel including a hub and a sectional rim; side portions secured to said hub and having inwardly extending lugs, the inner surfaces of said lugs being spaced apart to provide a slideway; rods secured to the rim sections and extending into said slideway; cushion springs surrounding said rods and bearing upon said lugs and said rim sections; and means for anchoring said sections relatively to said hub but permitting movement of said rim sections against the cushioning action of said springs; said lugs having recesses in which the inner ends of said springs fit to hold said inner ends of the springs in position; substantially as described.

1,306,922. BUTTON. HARVEY C. MUMFERT, Floral Park, N. Y. Filed Mar. 29, 1919. Serial No. 285,959. 5 Claims. (Cl. 24-90.)

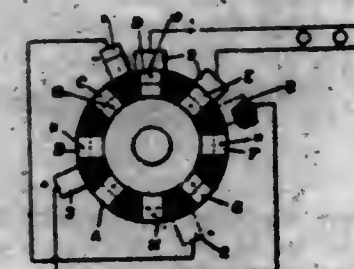


1. A button comprising a resilient head portion having means attached to it to reinforce it without impairing its resiliency.

1,306,923. ELECTRIC-CURRENT-CHANGING MEANS. CLYDE J. MYERS, Indianapolis, Ind., assignor to Swartz Electric Company, Indianapolis, Ind., a Corporation of Indiana. Filed Apr. 4, 1918. Serial No. 226,643. 2 Claims. (Cl. 175-364.)

1. In combination with a source of electrical energy, means associated with said source for converting the cur-

rent comprising revolving current charged elements, having two sets of pole changing members, the members of one set being alternately positive and negative, and a third element connected to the members of one polarity of the latter set and the members of the other polarity being con-

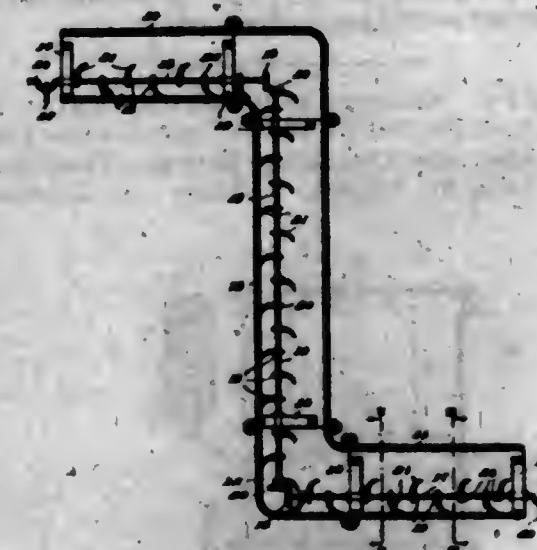


nected to the first set, and contact members having common connection with said source and said third element, and other contact members having common contact with the current source terminals and a set of pole changing elements.

1,306,924. MANUFACTURE OF AMMONIUM NITRATE. JAMES RIDDICK PARTINGTON, Lostock, Gralam, and GEORGE JOSEPH JONES, London, England. Filed Dec. 10, 1918. Serial No. 266,186. 5 Claims. (Cl. 28-21.)

1. The process of producing ammonium nitrate which comprises producing a suspension of finely divided ammonium nitrate in a gas, causing said suspension to contact with a dehydrating agent and separating the ammonium nitrate from the gas.

1,306,925. PIPE-CLEANER. STEPHEN POKOPAC and JACK POKOPAC, Greensburg, Pa. Filed Sept. 23, 1918. Serial No. 255,361. 2 Claims. (Cl. 137-70.)



1. In combination with a pipe having elbows, spiders secured in spaced relation within said pipe having bearings nearer one side of the pipe than the other side thereof, shafts journaled in said bearings, operative connections between the said shafts, operating means for the shafts at the opposite ends of the pipe, and resiliently curved knives adjustably mounted upon said shafts adapted for engaging the adjacent surface of the pipe during the operation of the shafts.

1,306,926. SPRING SUSPENSION MECHANISM OF MOTOR AND OTHER VEHICLES. GEORGE EDWARD DUNSTON HALL, Birmingham, England. Filed Apr. 30, 1918. Serial No. 231,686. 2 Claims. (Cl. 267-19.)

1. A spring suspension mechanism for a vehicle, including the axle and chassis of the vehicle, a laminated spring secured to the axle, a lever pivoted to the chassis, one end

of said lever being engaged by one end of the spring, resilient means secured to the chassis and engaging another



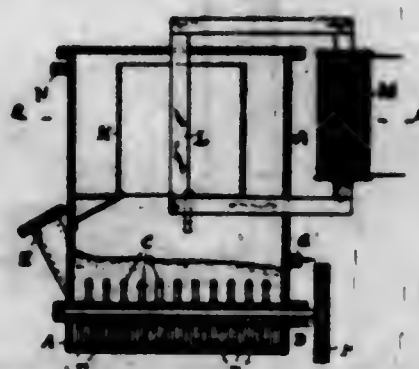
arm of the lever, a portion of the spring engaging a part appertaining to the chassis at a point prior to that to which the lever is secured.

1,306,927. TRAIN-HOSE COUPLING. ADAM RUMM and JOHN SYLVESTER TRIPP, Chicago, Ill. Filed Sept. 21, 1917. Serial No. 192,577. 1 Claim. (Cl. 238-58.)



A train pipe coupling comprising in combination a pair of identically formed coupling members, each of said members including a coupling head and a draw bar located centrally of and extending rearwardly from said head, said coupling head having an air passage entering at the side and extending through the end thereof, a gasket surrounding the end opening, a ring extending laterally from one side of the coupling head and flush with the face of the latter, a conical ended cylindrical guiding member extending forwardly in the front face and upon the opposite side of said coupling head and a spring surrounding the draw bar to urge the coupling members together.

1,306,928. PROCESS FOR TRANSFORMING IRON SPONGE INTO SOLID IRON. ALF SINDING-LARSEN, Vestre Aker, near Christiania, Norway. Filed Mar. 21, 1917. Serial No. 156,506. 8 Claims. (Cl. 75-14.)

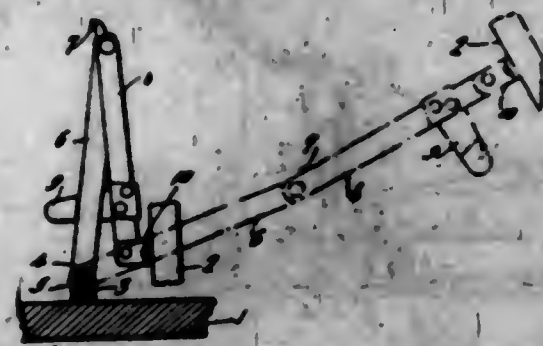


1. A step in the method of transforming iron-sponge into dense metal, which comprises reacting upon iron-sponge during the rubbing or disintegration thereof with carbon mon-oxide at a temperature of about 100° centigrade.

1,306,929. STORM-SASH BRACKET. IRA W. SIPPES, Wilmette, Ill. Filed Feb. 22, 1918. Serial No. 218,919. 1 Claim. (Cl. 16-22.)

In a device of the class described, a pair of arms having their inner ends connected; means for pivoting the outer ends of the arms, respectively, to a frame and to a sash; and a spring strip having one of its ends secured to the outer surface of one arm and extended in hook-shape

across the edge of said arm and along the opposite surface of said arm in spaced relation thereto to provide for the reception of the other arm when the arms are folded into alignment, the strip being provided with a lateral shoulder



cooperating with the said other arm and terminating in a guiding finger adapted to receive the said other arm and to direct the same into cooperating relation with respect to the seat.

1,306,930. INSECT-GUARD FOR CASTERS. JOHN T. TARVIN, El Dorado, Ark. Filed Dec. 17, 1914. Serial No. 877,768. 1 Claim. (Cl. 45-15.)



As an improved article of manufacture, an insect guard for a furniture caster, the same comprising a baffle having a top member and a depending skirt, said top member being dished toward the center and having a central orifice to receive the spindle of the caster with a surrounding concavity upon the under side of said top member, and a race-way member having a convex portion received in said concavity and receiving balls to surround the spindle.

1,306,931. COMBINATION SHOVEL AND ASH-SIFTER. CHARLES E. THOMAS, Wilmington, Del. Filed Mar. 21, 1919. Serial No. 283,963. 2 Claims. (Cl. 83-60.)



1. As an improved article of manufacture, a shovel having a screen pivotally mounted therein, the bottom of said screen having a lip extending from the forward end thereof down over the end of the shovel, said lip being bent backwardly and upwardly upon itself to form an inclined wall and thence downwardly to form a vertical wall, substantially as described.

1,306,932. HAND VALVE-GRINDER. CARL E. TIDEMAN, Worcester, Mass., assignor of one-half to Verner G. Anderson, Worcester, Mass. Filed July 17, 1918. Serial No. 245,328. 4 Claims. (Cl. 74-14.)

1. A valve grinder comprising a casing provided with a cap, a manually driven primary gear carried by said

cap, said casing provided with bearings, an auxiliary gear meshing with the primary gear and supported upon one of the bearings in the casing, a crank sleeve positioned contiguous to the other bearing, means supporting said crank sleeve upon said last-mentioned bearing,



said crank sleeve provided with an arm and an integral depending portion, means connecting the arm of the crank sleeve with the auxiliary gear, a tool-carrying shaft journaled upon said casing, and means connecting the integral depending portion of the crank sleeve and the tool-carrying shaft.

1,306,933. TOOTH-BRUSH HOLDER AND STERILIZER. ALBERT G. TILLMAN, Vicksburg, Miss. Filed May 8, 1916. Serial No. 90,090. 1 Claim. (Cl. 248-68.)

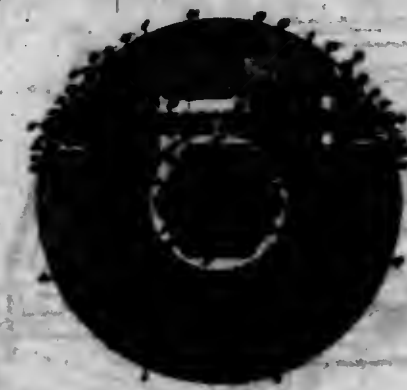


A toothbrush holder, comprising a receptacle for the brush, a ridge formed on the receptacle, a perforated partition formed with leaves extending from its sides, said leaves adapted to be sprung over the ridge of the receptacle to support the partition, a disk operating in conjunction with the partition to regulate the perforations, and a ring formed with an annular flange to support absorbent material and to rest upon the partition.

1,306,934. COUPLING DEVICE. JOSE L. VILLAMIL, Habana, Cuba. Filed Jan. 17, 1919. Serial No. 271,060. 5 Claims. (Cl. 64-80.)

1. A safety coupling device comprising a collar of prismatic or polygonal periphery fixed to one of the shafts, a casing or shell secured to the other shaft and sur-

rounding the collar on the first mentioned shaft, means slidably mounted within the casing on the second men-



tioned shaft for engaging one of the peripheral faces of the collar, and means for actuating these engaging means through the casing of the second mentioned shaft.

1,306,935. KNICKERBOCKERS. HARRY WALCOFF, New York, N. Y. Filed Jan. 31, 1918. Serial No. 214,891. 1 Claim. (Cl. 2-122.)



The combination of a pair of knickerbockers having the free end portions of its leg members turned inwardly to produce a bloomer effect, tabs carried by said leg sections at diametrically opposite points in registry with inseams and outseams respectively and provided with button-holes and buttons located at diametrically opposite points in registry with inseams and outseams, respectively in each leg section whereby said end portions are detachably held in their intumed positions.

1,306,936. CHAIN. LOIS WINTZ, Edgaston, Birmingham, England. Filed Feb. 19, 1918. Serial No. 218,074. 10 Claims. (Cl. 74-32.)

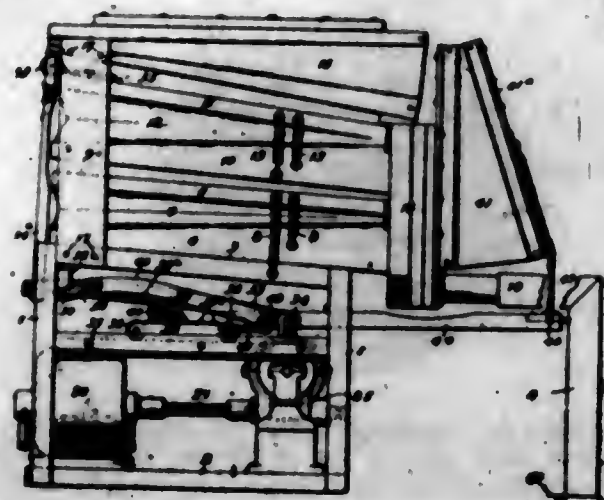


1. In a chain made up with alternate links of shank like character the combination of said shank links, separate means for engaging the ends of adjacent shank links, and jointed means connecting such separate means.

1,306,937. PUMPING APPARATUS FOR MUSICAL INSTRUMENTS. MORRIS S. WATSON, Worcester, Mass. Filed Apr. 8, 1915. Serial No. 20,062. 48 Claims. (Cl. 230-24.)

2. In combination with a vacuum chamber of a musical instrument, an exhausting bellows therefor having a

movable wall, and means for moving the same including a lever, and an independent movable fulcrum constituting



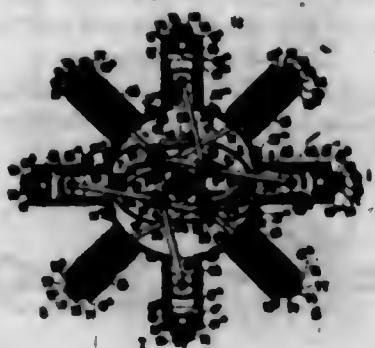
ing an adjustable bearing or support intermediate the ends of the lever.

1,306,938. MAT FOR STOPPING LEAKS IN VESSELS. TOMOKICHI ACHINA, Tokyo, Japan. Filed Apr. 3, 1917. Serial No. 159,500. 1 Claim. (Cl. 114-229.)



A device of the character described for stopping leaks in vessels, comprising in combination, a mat, a lining secured to said mat, an air pump for supplying the space between said lining and said mat with air under pressure, a plurality of dividing strips having openings of communication interposed in said mat, means for ascertaining the air pressure prevailing in the mat, and ropes, eyes and cables for attaching the mat to any desired part of a ship's hull, substantially as described.

1,306,939. INTERNAL-COMBUSTION ENGINE. CHARLES ISAAC ADAMS, London, England. Filed Nov. 9, 1917. Serial No. 201,022. 6 Claims. (Cl. 123-44.)

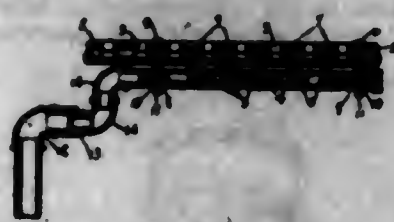


1. An internal combustion engine comprising a plurality of cylinders, pistons therein, cranks, connections between said cranks and said pistons and means for intermittently operating said cranks whereby the piston speed for certain strokes is accelerated.

1,306,940. GRATE ATTACHMENT. RALPH W. ANTHONY, Cedar Rapids, Iowa. Filed Apr. 7, 1919. Serial No. 288,064. 3 Claims. (Cl. 158-8.)

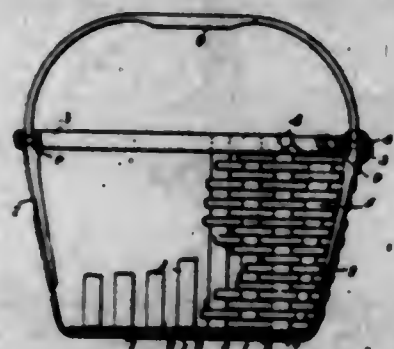
1. A gas supply attachment for grates, comprising a pipe having a plurality of radial perforations along op-

posite sides thereof, a plurality of tubular members secured in said perforations, said members projecting some



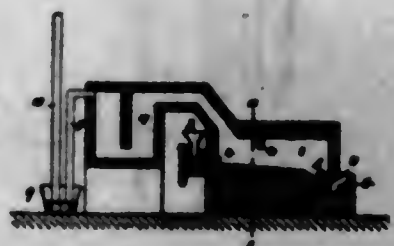
distance above said pipe and turned over at their upper ends, and means for securing the pipe to a grate bar.

1,306,941. BASKET. JAMES L. BARRS, St. Clair, Mo. Filed Feb. 21, 1919. Serial No. 278,454. 1 Claim. (Cl. 217-125.)



A basket including two sets of interwoven strips, an outer top band, an inner top band, the upper ends of said interwoven strips being held between said bands, a wrapping member winding about said upper bands, and a handle arranged to span across said basket having its ends sharpened and inserted between said interwoven strips said sharpened ends ending in a shoulder held against the lower edge of said inner top band said handle held between said upper ends (the intermediate portion of said handle being thickened) as and in the manner shown.

1,306,942. EXTRACTION OF LEAD. EDWARD SALOMON BRÄGLUND, Trollhättan, Sweden, assignor to Sven Haldt, Stockholm, Sweden. Filed Mar. 11, 1918. Serial No. 221,862. 5 Claims. (Cl. 204-62.)



3. The method of extracting lead, consisting in smelting a charge, containing lead, by means of an electric arc, excluding air from the furnace chamber, drawing off one part of the lead in liquid form through a liquid seal, and condensing the lead vapors from the gaseous products of the reaction.

1,306,943. FLEXIBLE COUPLING FOR SHAFTING. GEORGE EDWARD BENCH, Leeds, England. Filed Dec. 27, 1918. Serial No. 268,476. 4 Claims. (Cl. 64-61.)

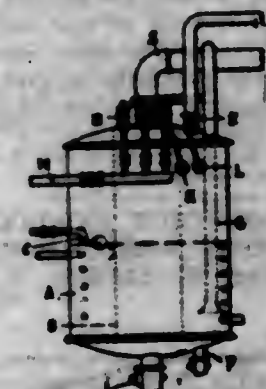
1. In a flexible coupling of the class described, the combination of an outer and an inner circular component, each provided with radial perforations, teeth projecting outwardly from the inner component and inwardly from the outer component and adapted to mesh with one

other, the said teeth being provided with shanks passing into the radial perforations in the respective components



and means for retaining the teeth in position while allowing for rotation about an axis radial with respect to the principal axis of the shaft, substantially as described.

1,306,944. APPARATUS FOR DISTILLING GLYCERIN. ROBERT BOUTRY, Paris, France, assignor to La Societe Francaise des Glycerines, Paris, France. Filed May 22, 1918. Serial No. 286,024. 1 Claim. (Cl. 87-4.)



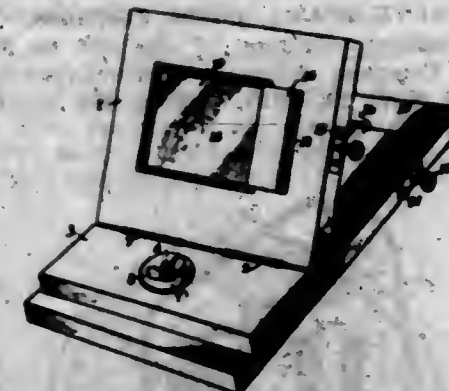
A distilling apparatus of the character specified, comprising, in combination, a vessel to contain the liquid to be distilled; a heating coil within said vessel; means for maintaining the liquid at a constant level in said vessel; an atomizing vessel; a plurality of atomizers mounted upon and projecting downwardly into the last-named vessel; a supply pipe to said atomizers from a point below the level of the liquid in the first-named vessel; means for maintaining both vessels under different degrees of vacuum, to feed the liquid through said pipe to said atomizers; and means for injecting a gaseous fluid under pressure into, and through said atomizers.

1,306,945. LETTER-OPENER. FRED A. BENT, Del Norte, Colo. Filed Mar. 31, 1919. Serial No. 286,361. 2 Claims. (Cl. 120-35.)



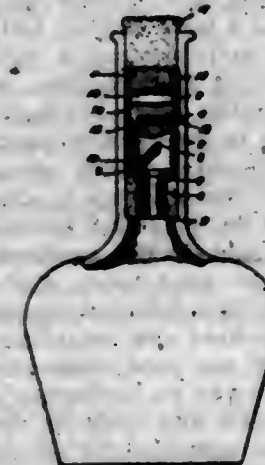
1. In a device of the class described, a body comprising a plate bent upon itself and providing divergent wings, blades carried by said wings and projecting toward each other and having their cutting edges substantially meeting equidistant between the said wings, the said cutting edges curved outwardly near one end, and means for holding the said blades upon said wings.

1,306,946. PHOTOGRAPHIC-PRINTING APPARATUS. JOHN G. CAPSTAFF, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 5, 1917. Serial No. 200,409. 11 Claims. (Cl. 95-77.)



1. In photographic printing apparatus, a set of plate-holding members arranged to move into and out of printing position, and a device for adjustably predetermining the relative location of said members when in said printing position.

1,306,947. NON-REFILLABLE BOTTLE. RICARDO GARIBAY CASTILLO, Mexico, Mexico. Filed Feb. 18, 1918. Serial No. 217,921. 1 Claim. (Cl. 215-65.)



A bottle having a neck which has a shoulder near its inner end, an apertured stopper mounted within the neck and contacting with the shoulder, a tube inserted within the aperture of the stopper and having its upper end projecting above the same and provided at its upper end with an annular flange, a vertically swinging valve arranged above the annular flange to contact therewith, a hinge connecting the valve and annular flange and positively preventing the valve being swung upwardly beyond substantially forty-five degrees, a plug in the neck above the valve and having a tortuous passage, means to lock the plug in the neck, and a stopper within the neck above the plug.

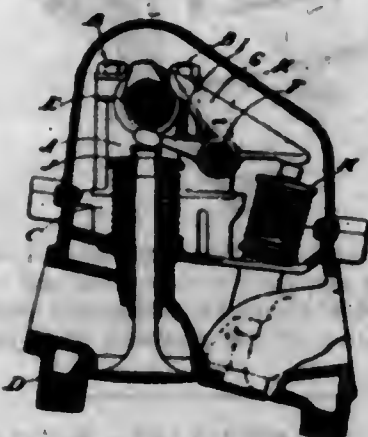
1,306,948. ELECTRIC FURNACE. MONROE S. CLAWSON, Weehawken, N. J. Filed Feb. 21, 1917. Serial No. 150,130. 11 Claims. (Cl. 219-36.)



1. An electric furnace comprising a main supporting member, side portions pivotally mounted on said support-

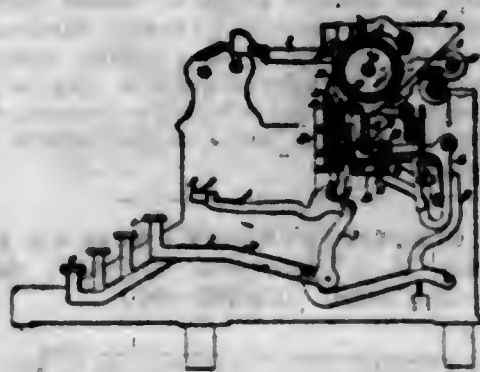
ing member, revoluble heads mounted in said side portions, a resistance member secured between said heads adapted to hold the material to be heated, and means for adjusting said portions.

1,306,949. VALVE-GEAR. LOUIS COATALAN, Wolverhampton, England, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Filed Nov. 20, 1917. Serial No. 203,033. 1 Claim. (Cl. 123-90.)



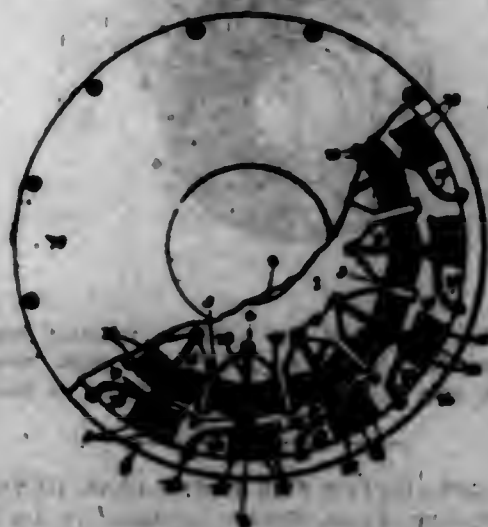
In a valve gear having one inlet and two exhaust valves the combination of a cylinder head, brackets connected thereto having a main portion and an extension of less height than the main portion, a cam shaft mounted in the main portion of the brackets, a rocker spindle mounted in the extension of the brackets, bolts for holding the main portion to the cylinder head, bolts for holding the rocker spindle fixed in the extension, said bolts also serving to hold the brackets to the cylinder head, two rockers mounted on the rocker spindle to operate the exhaust valves and one rocker mounted on the rocker spindle to operate the inlet valve, said last mentioned rocker being arranged in a different angular position from the exhaust valve rockers and extending to a point between the cam shaft and said inlet valve, the exhaust valve rockers extending at an inclination and terminating alongside the cam shaft and cams on the cam shaft for operating the rockers, substantially as described.

1,306,950. TYPE-WRITING MACHINE. FRANK A. COOK, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 5, 1916. Serial No. 135,180. 9 Claims. (Cl. 197-187.)



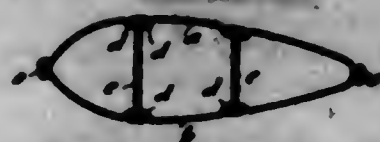
1. The combination of a carriage, a platen and a shiftable platen frame on said carriage, a shift-frame pivoted upon the framework of the machine, a combined line-gage and work-holder for said platen, means whereby said work-holder is pivotally supported upon said shift-frame below said platen, and a spring tending to turn said work-holder about its pivot, for maintaining said work-holder in close juxtaposition to said platen in both positions to which it is shifted.

1,306,951. YIELDABLE BEARING AND SUPPORT THEREFOR. HENRY M. CARTMAN, Longmont, Colo., assignor of one-third to Charles F. Andrew and one-third to F. M. Dewner. Filed Sept. 20, 1916. Serial No. 121,290. Renewed Nov. 12, 1918. Serial No. 262,222. 16 Claims. (Cl. 64-22.)



1. In a yielding bearing, an inner bearing member having radial abutments, an outer member concentric therewith, and intermediate yieldable means connecting said annular members, said means comprising radially disposed arms pivotally connected at one end to the inner of said members and arranged between said radial abutments, and lever devices pivotally secured to the other end of said radially disposed arms, one end of said lever devices engaging said outer member.

1,306,952. TUBE, STAY, STRUT, AND LIKE ELEMENT. HENRY CHARLES DICKSON, Birmingham, England. Filed Sept. 12, 1918. Serial No. 258,818. 2 Claims. (Cl. 244-31.)



1. A frame element provided with one or more internal webs spanning the interior of the tube, said web or webs being composed of sheet metal and being flanged at its or their edges, and in which the sheet metal of which the wall of the tube is composed is formed with ribs or the equivalent which overlap the flanges of the internal web or webs.

1,306,953. VIOLIN-INSPECTING DEVICE. HENRY F. FISHER, Vancouver, British Columbia, Canada. Filed Jan. 23, 1918. Serial No. 212,563. 1 Claim. (Cl. 240-1.)



Means for viewing the interior of a shallow inclined space through a small aperture in one of the larger sides, said means comprising a curved tubular member having an incandescent lamp removably connected to one end, wires leading through said tubular member to said lamp, and a source of energy connected to said wires, said tubular

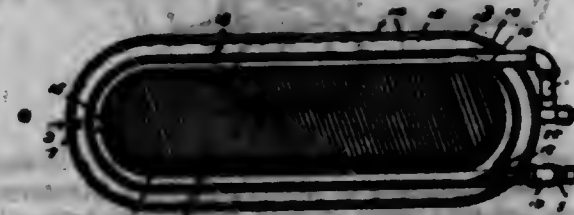
member having also a correspondingly curved tubular socket at the end adjacent the lamp, a stem curved to correspond with the tube and endwise slidable in the socket, the outer end of said stem being turned to the inner side of the curve at a slight angle and tapered, a small mirror having a socket to receive the tapered end of said stem.

1,306,954. OIL-BURNER STOVE. WALTER T. FLING, Savannah, Mo. Filed Apr. 22, 1918. Serial No. 220,953. 7 Claims. (Cl. 126-92.)



1. A stove of the character described comprising a body having top, bottom and a middle horizontal partition having a central opening, a ring shaped tank on the partition over said opening, a burner body open at top and bottom and supported on said tank, a burner tip in the body, and means for supplying oil to the burner tip.

1,306,955. OIL-BURNER. WALTER T. FLING, Savannah, Mo. Filed Nov. 23, 1918. Serial No. 264,620. 4 Claims. (Cl. 156-64.)



4. A burner embodying a bowl-shaped body, a mixing tube for delivering vapor into said body, a top having a raised portion with vapor outlets and a surrounding marginal priming-fuel trough fitting within the rim of the body, a shield supported on the edge of said rim and overhanging said trough, and a generating coil supported by and within the shield over said trough and having an outlet nozzle to direct the vapor into the mixing tube.

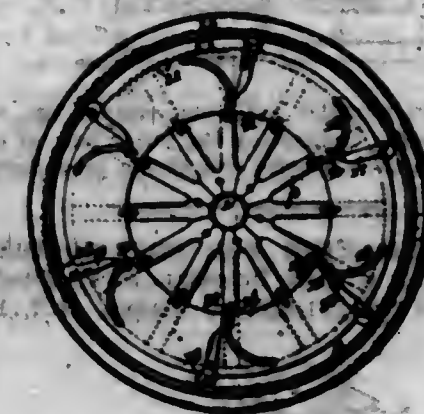
1,306,956. JOINT OR COUPLING FOR RODS OR THE LIKE. ALGERNON FRANK FENN and HENRY JOHN MITCHELL, London, England. Filed Nov. 16, 1917. Serial No. 262,225. 2 Claims. (Cl. 379-66.)



1. A joint or coupling for rods or the like comprising in combination, two coupling halves, a socket on one coupling half, an integral projection of reduced size on said socket, a neck on said projection of rectangular cross-section and less size than said projection, an enlargement at the end of said member, a sleeve sliding on said projection and said neck, an inwardly projecting flange on said sleeve, a

spring member inside said sleeve, said spring member abutting against said projection and said flange surrounding said neck, a slot in the end of the second coupling half corresponding to said enlargement, an internal shoulder on said second coupling half adapted to be engaged by said enlargement, and projections and slots on the opposing faces of said sleeve and said second coupling half for the hereinbefore specified purpose.

1,306,957. DEMOUNTABLE RIM. JOHN N. FOSTER, El Paso, Tex., assignor of one-sixth to Henry Becker and one-sixth to Otto Nordwald, El Paso, Tex. Filed Nov. 26, 1918. Serial No. 264,174. 3 Claims. (Cl. 152-21.)



1. In a wheel, a demountable rim, said rim having at one edge of its inner face a ring adapted to seat upon the felly band of the wheel at one side of the band, means in connection with the wheel and movable outwardly with respect thereto for engaging the opposite edge of the rim to support the same, means for locking the rim from lateral movement away from said supporting means, and a common means for moving the first named means into operative and release positions and for controlling the locking means for the rim, said first named means comprising levers pivoted to the felly and having cam heads for engaging the demountable rim, the moving means for the levers comprising a cam ring mounted to rotate on the wheel.

1,306,958. PHOTOGRAPHIC OBJECTIVE. CHARLES W. FREDERICK and FRANK E. ROSS, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Dec. 2, 1916. Serial No. 124,734. 7 Claims. (Cl. 88-57.)

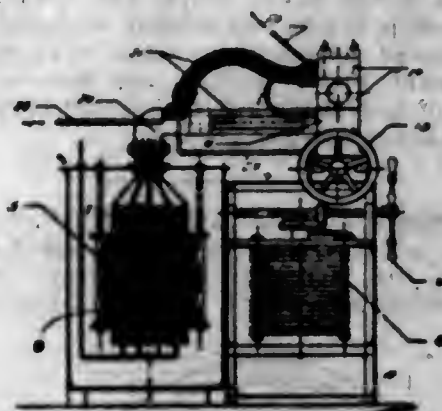


1. A photographic objective comprising two biconcave lenses in which all radii of curvature are equal and two positive lenses unsymmetrical with respect to each other, the constants of the objective being so chosen that the objective is especially corrected for coma.

1,306,959. ELECTRIC WELDING-MACHINE. GIULIO GANDOLFO, Sampierdarena, Italy. Filed Feb. 28, 1918. Serial No. 219,653. 2 Claims. (Cl. 219-4.)

1. In a machine of the character described, a frame, slides arranged thereon for movement toward and away from each other, electrodes carried by the slides, heads arranged near and above the slides, electrodes carried by the heads, jaws arranged between the electrodes to receive

and hold the work, a transformer having primary and secondary coils, means for electrically connecting one pair



of electrodes in parallel with one end of the secondary coil, and means for connecting the other pair of electrodes in parallel with the opposite end of the secondary coil.

1,306,960. LINE-GUIDE FOR COPY-HOLDERS. HOWARD TINKHAM GIBSON, Brooklyn, N. Y. Filed Apr. 22, 1919. Serial No. 291,836. 2 Claims. (Cl. 120-33.)



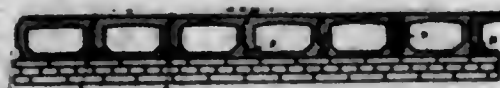
1. A line guide for copy holders having a shelf for holding copy; said line guide comprising a bar portion adapted to extend across the front surface of said shelf transversely thereof, rearwardly projecting arms at the ends of said bar portion, one at each end, and spring members, one on each arm; said spring members adapted to co-act with each other to slidably and resiliently engage the lateral edges of said shelf; said spring members having off-sets, one from the rearward edge of each spring member, projecting toward each other and adapted to engage the under surface of said shelf when the said bar portion of the guide is moved forwardly away from the front surface of the said shelf a predetermined distance.

1,306,961. DERAIL. STANLEY W. HAYES, Richmond, Ind. Filed Jan. 2, 1918. Serial No. 209,841. 12 Claims. (Cl. 246-103.)



2. A derail comprising a derailing member formed with a central single upstanding longitudinal rib structure constituting a bearing on which it is supported to slide toward and from the rail.

1,306,962. BUILDING-BLOCK. KARL ERIK WILHELM JAGDMANN, Stockholm, Sweden. Filed Sept. 25, 1918. Serial No. 255,712. 1 Claim. (Cl. 72-68.)



A floor construction including a number of blocks provided with male and female ends so that such blocks

may interengage, said blocks being provided with a groove below each of their interengaging portions and above their lower edges, reinforcing rods passing through the grooves of a number of blocks and plates encircling the rods and being positioned in a recess formed in each of the blocks.

1,306,963. PROCESS FOR THE PRODUCTION OF ACETIC ANHYDRID AND POLYMERIZED OR NON-POLYMERIZED ACETIC ALDEHYDE OR ACETIC ACID. JOSEPH KOSTSCHER and MAURICE BRUNET, Lyon, France, assignors to Societe Chimique Des Usines Du Rhone, anciennement Gillard, F. Monnet et Cartier, Paris, France. Filed Aug. 26, 1917. Serial No. 186,566. 1 Claim. (Cl. 23-24.)

A process of treating ethylidene diacetate, which consists in heating the same under reduced pressure and in the presence of a catalyst which facilitates formation of acetic anhydrid and polymerized acetaldehyde, to such a temperature that a mixture of acetic anhydrid and polymerized acetaldehyde is produced.

1,306,964. MANUFACTURE OF ETHYLIDENE DIACETATE. JOSEPH KOSTSCHER and MAURICE BRUNET, Lyon, France, assignors to Societe Chimique Des Usines Du Rhone, anciennement Gillard, F. Monnet et Cartier, Paris, France. Filed Dec. 7, 1917. Serial No. 206,124. 3 Claims. (Cl. 23-24.)

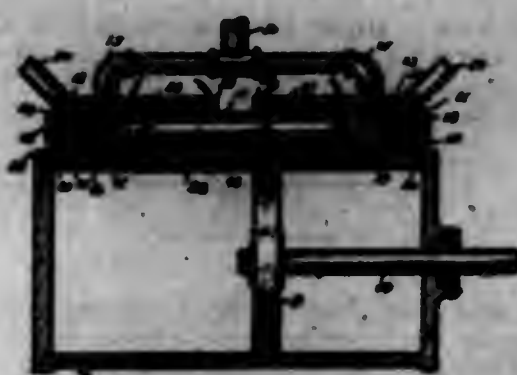
1. A process of producing ethylidene diacetate by the action of acetylene on acetic acid, characterized in that the treatment takes place in presence of a sulfonic acid and acetate of mercury.

1,306,965. SAFETY DEVICE FOR FIREARMS. HOWARD LARSON, Lerdala, Sweden. Filed Jan. 20, 1918. Serial No. 214,890. 3 Claims. (Cl. 42-70.)



3. A safety device for fire arms including a frame, a pair of locking members of bell-crank shape pivotally arranged on opposite sides of said frame, the arm of one bell crank being divided into two parts, a trigger, said locking members holding said trigger independently of each other, and means for releasing said locking members from said trigger.

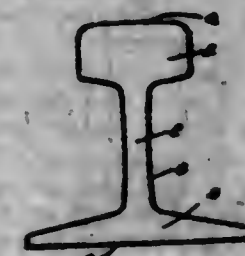
1,306,966. VENTILATOR. ALEXANDER J. MARCOUX and REGINALD G. BRAY, Sherbrooke, Quebec, Canada. Filed Oct. 22, 1917. Serial No. 197,800. 1 Claim. (Cl. 136-12.)



A reversing valve for reciprocal motors including, a tubular member disposed adjacent the motor cylinder

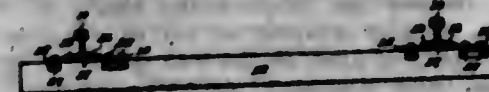
having inlet and exhaust ways in its opposite ends communicating with the ends of said cylinder, the opposite portions of the way in said member being enlarged and screw-threaded, plugs having ways therein engaged in the enlarged portions and communicating with the inlet ways in the tubular member, the inner ends of the ways in the plugs forming seats, valves slidable in the end portions of the tubular member, washers detachably engaged with said valves and receivable in said seats, at times, solenoid windings arranged about portions of the tubular member, a reciprocal core in said tubular member detachably connected at its ends to said valves and adapted to be influenced by the windings, and temperature controlled circuit closing means connected to said windings for selectively energizing the same to cause reversing of the valves.

1,306,967. RAIL. THOMAS HERBERT MATHIAS, Buffalo, N. Y., assignor to Lackawanna Steel Company, Lackawanna, N. Y., a Corporation of New York. Filed Dec. 12, 1914. Serial No. 876,786. Renewed Dec. 12, 1918. Serial No. 206,652. 5 Claims. (Cl. 238-125.)



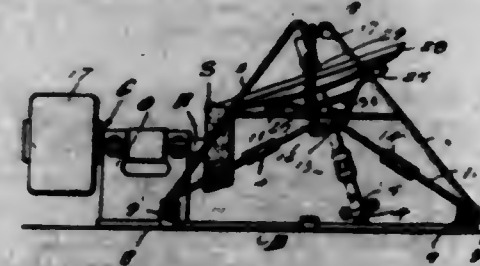
1. A steel rail having the partially decarburized and seamy surface removed from end to end of the bearing surface of the head and the higher carbon steel of the interior there exposed on the surface.

1,306,968. RAIL-TIE. WINCENTY P. MCKLEMBURG, Adena, Ohio. Filed Mar. 30, 1919. Serial No. 283,732. 4 Claims. (Cl. 238-375.)



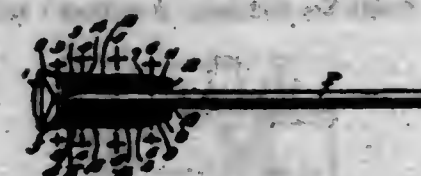
1. A device of the class described comprising a tie adapted for mounting rails thereon, securing plates upon the tie adapted for overlying the base flanges of a rail mounted upon the tie, bolts extending through said plates and threaded into the tie and locking means extending through side portions of the tie adapted for ratcheting engagement with the adjacent portions of the bolts.

1,306,969. DISK-HOLDER. ORVIS A. MESSESMITH, Farnam, Nebr. Filed Aug. 27, 1918. Serial No. 251,628. 5 Claims. (Cl. 51-7.)



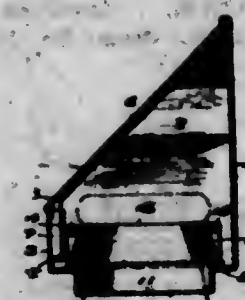
1. In a disk holding machine, a base plate, a shaft connected thereto by a ball and socket connection, means for securing said shaft in adjustment and for adjusting the shaft, and means for holding a disk loosely mounted on the shaft against movement axially thereof while permitting rotation of the disk, said means being adapted to retard free rotation of the disk when brought into engagement with a grinding or sharpening element.

1,306,970. HAT-PIN HEAD. WILLIAM H. MOHR, West Philadelphia, Pa. Filed Feb. 16, 1918. Serial No. 217,671. 1 Claim. (Cl. 24-185.)



In a hat pin head, the combination with a tubular body having an external enlarged head at its inner end conical on its exterior and provided with transverse aligned openings, its bore at the outer end being tapered to form a conical socket, and blocks slidably mounted in said openings; of a sleeve loosely surrounding the body and having its inner end conical on its interior to closely surround said head, its outer end having an inward turned flange, a nut on the outer end of the body against which said flange bears, and a coiled expansive spring surrounding said body between said flange and the shoulder at the back of the head.

1,306,971. MILK-RECEPTACLE. PASQUALE NAST, New Kensington, Pa. Filed Feb. 2, 1918. Serial No. 215,064. 1 Claim. (Cl. 232-41.)



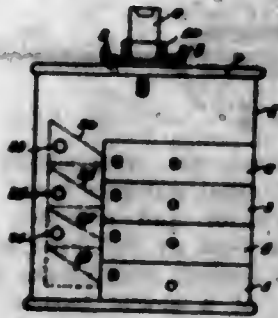
A milk receptacle comprising side, end, bottom, and top sections joined together, one of said sections being provided with an opening therein; upstanding supporting members hingedly secured to one of the sections in proximity to the opening; spaced-apart arms secured to the upstanding members and extending outwardly in angular relation thereto, said arms having an inward convergence from their bases; neck engaging and confining members associated with the arms and supporting members and having an inward convergence from their bases, said members being arranged in proximity to the opening; and spring members arranged to hold the confining members in engagement with a bottle neck when inserted through the opening.

1,306,972. CARTRIDGE-MAGAZINE FOR FIREARMS. CHARLES A. NELSON, Utica, N. Y., assignor to Savage Arms Corporation, a Corporation of Delaware. Filed Aug. 22, 1916. Serial No. 116,231. 4 Claims. (Cl. 42-50.)



4. In a magazine firearm, a magazine casing provided with opposite shoulder ribs adapted to engage with the shoulders of the cartridges and prevent forward displacement of the cartridges in the casing and the engagement of the noses thereof with the front end of the casing, said ribs being tapered off at the top of the casing to permit the free forward movement of the uppermost cartridge in the casing.

1,806,973. CASH-CONTROL APPARATUS. SORHUS FARMER, Copenhagen, Denmark, assignor to Frederik Oscar Bloch, Copenhagen, Denmark. Filed May 3, 1918. Serial No. 232,265. 6 Claims. (Cl. 232-1.)



1. An apparatus of the character described, comprising a receptacle, a money receiver and a check receiver thereon adapted to communicate therewith, a check compartment and a plurality of money compartments in the receptacle, means to conduct checks from the receiver to the check compartment, a shaft in the receptacle common to all the money compartments, means to conduct money from the receiver to the shaft, and a plurality of inclined planes adapted to selectively connect any one of the money compartments with the shaft.

1,806,974. WAVE-MOTOR. ALPHONSE ROOS, Chicago, Ill. Filed Sept. 4, 1918. Serial No. 252,581. 1 Claim. (Cl. 61-20.)

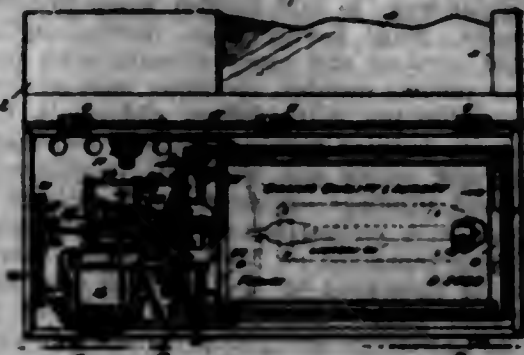


A device of the character described comprising a rigidly supported reservoir tank, a substantially vertical pipe communicating with said tank and extending downwardly below the latter, the lower end of said pipe being curved and flared to provide an enlarged entrance opening, a plurality of branches laterally curved and flared to be similar in size and shape to the flared end of said pipe, said branches being arranged in substantially vertical alignment with one another and with the end of said pipe, and a downwardly opening check valve disposed above each branch.

1,806,975. ADVERTISING-MACHINE. PAUL C. SCOTT, Omaha, Nebr. Filed May 12, 1916, Serial No. 97,605. Renewed Apr. 29, 1919. Serial No. 293,584. 4 Claims. (Cl. 40-31.)

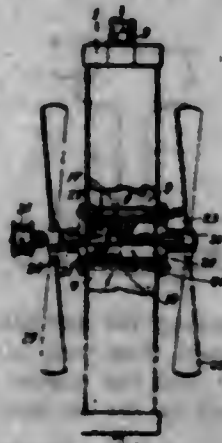
1. In a machine of the character specified, the combination with a band, and winding rollers upon which the band winds at its ends, of a continuously rotating driving shaft, means for alternately connecting said shaft with one winding roller to cause it to rotate in the same direction as the shaft and with the other roller to cause it to rotate in the reverse direction, means operated by the band near the end of its travel in each direction for controlling the said means, means operated by the driving shaft at predetermined intervals for connecting the said connecting means to the driving shaft, a normally operative means for releasing the driving shaft from the said connecting means, trip mechanism for restraining the operation of the releasing means, and means controlled by the movement of the band for tripping the trip mechanism at a predetermined interval, said mechanism comprising a lever consisting

of pivotally connected sections, one of the sections being pivoted intermediate its ends to a fixed support, a spring



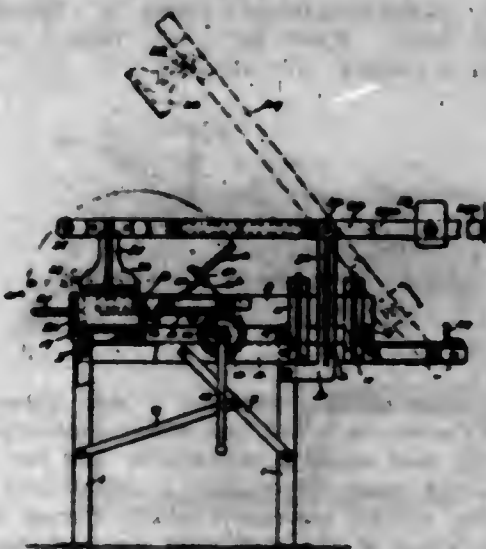
normally acting to hold the parts in alignment, and stops on the band for swinging the pivotally mounted sections.

1,806,976. RADIATOR. HERBERT N. SHARLES, New York, N. Y. Filed Mar. 28, 1918. Serial No. 236,163. 3 Claims. (Cl. 257-127.)



1. A radiator having a series of connecting circulatory chambers, a fan shaft located at about its medial part which projects through the radiator, a fan fast on the shaft on one side of the radiator adapted to act as a blower, another fan fast on the shaft on the other side of the radiator adapted to act as a suction fan, a pump embodying a fixed cylindrical casing, a spiral suction section and a bladed discharge section, both of which sections are fast on the fan shaft, an intake water passage adapted to convey water to the pump, a discharge water passage adapted to convey water from the pump, and means to rotate the shaft.

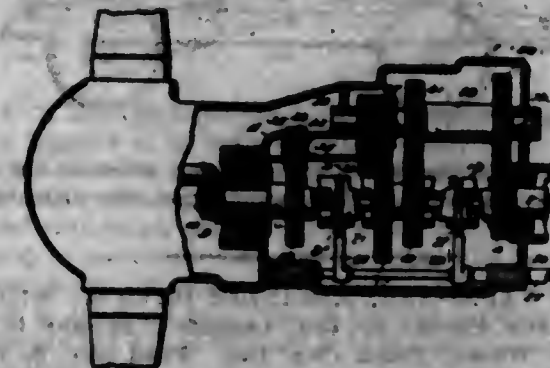
1,806,977. BRICKMAKING-MACHINE. DAVID F. SMORN, Portland, Oreg., assignor to The Shupe Brick Co., Portland, Oreg. Filed June 13, 1917. Serial No. 174,511. 2 Claims. (Cl. 23-41.)



1. In a brick making machine, in combination, a pallet, side plates spaced apart, a back plate, a removable front

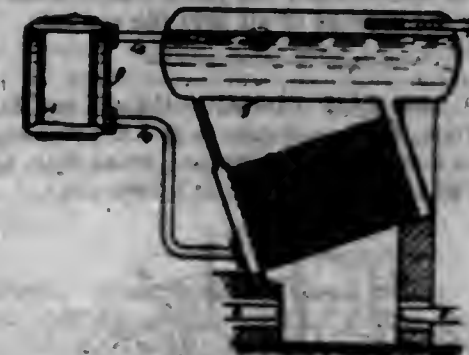
plate mounted against the front ends of said side plates, and a guard plate adapted to be moved to a position above the ends of said side plates when said front plate is removed, for the purpose described.

1,806,978. TRANSMISSION. ARVID EMANUEL STENSON, Reed City, Mich. Filed May 20, 1918. Serial No. 235,707. 3 Claims. (Cl. 74-50.)



1. A transmission comprising aligned driving and driven shafts, a countershaft parallel with the said shafts, a gear wheel secured to the driving shaft, a gear wheel journaled loosely on the driven shaft adjacent thereto, the countershaft having gear wheels meshing with the said first named gear wheels, clutch mechanism splined to the driven shaft and movable into engagement with either of the first named gear wheels to alternately connect the said wheels to the driven shaft, a pair of gear wheels journaled loosely on the driven shaft, a clutch section splined to the driven shaft between the gear wheels and having means for connecting either to the driven shaft, a gear wheel on the countershaft meshing with one of the said pair of gear wheels, a reverse shaft, and gear wheels on the said reverse shaft meshing with the last named gear wheel of the countershaft and with the other of the said pair of gear wheels of the driven shaft, respectively, all of the gear wheels on the countershaft being rigidly connected, and means for independently moving either clutch section, said gear wheels being of various sizes to provide varying speeds.

1,806,979. INTERNAL-COMBUSTION ENGINE. WILLIAM JOSEPH BRILL, London, England. Filed July 17, 1914. Serial No. 351,594. 1 Claim. (Cl. 40-14.)



A method of working Diesel engines consisting in initially raising the temperature of the water in the cylinder jackets to the temperature of evaporation of an adjacent boiler with which said jackets are in continuous circulation by extraneous heat whereby the compression pressure at which spontaneous combustion occurs within the engine cylinders is considerably reduced, and subsequently utilizing the heat of combustion for maintaining the boiler at evaporating temperature.

1,806,980. FILLER-CAP FOR TIRE-RIM CLAMPS. JOHN BALL SMITH, Pass Christian, Miss. Filed Dec. 19, 1918. Serial No. 287,541. 1 Claim. (Cl. 153-31.)

The combination with a tire rim clamp having a laterally projecting wedge shape portion for engagement be-

tween the felly and tire rim of a wheel, of a device attachable to the wedge shape portion and comprising a body portion lying on top of a wedge shaped portion, and a bolt-



ten portion lying against the underface of the wedge shaped portion and uniting at its ends and one longitudinal edge with the body portion, the device as a whole being wedge shaped for the useful purpose specified.

1,806,981. RAIL-JOINT. WILLIAM PATON THOMSON, New York, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed June 13, 1918. Serial No. 239,781. 17 Claims. (Cl. 233-187.)



3. A rail joint bar provided with a base member having a primary and a secondary tie bearing face.

1,806,982. TUBE-EXPANDER. EMMETT WALSH, San Antonio, Tex. Filed Apr. 14, 1919. Serial No. 289,862. 3 Claims. (Cl. 153-80.)



1. In a tube expander, the combination with a tapered pin, of a plurality of expanding segments grouped around said pin and having portions to enter the end of a tube to be expanded, and portions extending radially outward to engage the end of the tube, and means to be arranged between said radially extending portions and a tube-sheet to which the tube is to be set, for determining the width of the bend to be formed on the tube, said segments being capable of being moved radially while said spacing means remain stationary.

1,806,983. GRINDING-MACHINE FOR SICKLE-BARS. EMERY W. WATLS, Kallispell, Mont. Filed Dec. 27, 1918. Serial No. 286,577. 1 Claim. (Cl. 56-310.)

In a sickle bar structure, the combination with a finger whose flat upper face is provided with a recess, the bottom of the recess having a forwardly inclined channel

and a groove rising from the front end of the channel to the top of the finger, a fixed blade secured in said recess and having a slot overlying the channel, and a sickle bar having blades whereof one reciprocates across said fixed blade; of a guard strip secured upon said finger and hav-



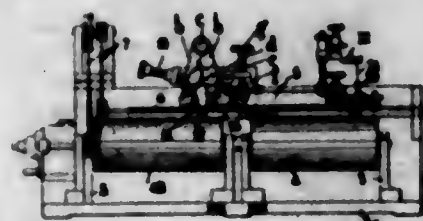
ing a bearing at its rear end, a file having a T-head mounted in said bearing with its body lying normally in the slot in the fixed blade and a tongue at its front end movable in said upright groove, and a spring on the guard strip bearing said body normally downward into contact with the sickle blade.

1,306,984. MEANS FOR SPACING REINFORCING-BARS. WILLIAM E. WHITE, Springfield, Mass. Filed Sept. 23, 1918. Serial No. 256,223. 5 Claims. (Cl. 72-122.)



1. In the art of concrete reinforcement, a device for combination with a reinforcing bar to hold the same located during pouring, said device comprising a length of wire and a clip combined for pocketing and detaining the bar in position on the wire, the clip presenting two looped ends and an intermediate portion therebetween, the wire of said length having physical characteristics permitting its easy bending into an open pocket to receive the bar and locate it on the wire and its self-retention of such pocket, and the looped ends of the clip being adapted to receive the length of wire therein with an end adjacent a respective side of said pocket in the wire and said intermediate portion bridging and closing the opening of the pocket whereby said pocket and clip form, in themselves, a closed bar receptacle; substantially as described.

1,306,985. ELECTRICALLY-OPERATED INK-RE-CORDER. LLOYD WILLIAMS, Cadishead, near Manchester, England. Filed Apr. 15, 1919. Serial No. 290,339. 4 Claims. (Cl. 234-1.5.)



2. An electrically operated recording and reproducing instrument, comprising, in combination, a liquid well or holder having a very fine outlet duct, an electrical terminal supported in the liquid in said holder and adjacent the said duct, an electric circuit containing said holder and terminal, means causing current to pass momentarily through the said circuit, a receiving surface for the record, and means traversing the liquid well or holder over said receiving surface, as set forth.

1,306,986. CONDENSER FOR MOTOR-DRIVEN RAIL-WAY SECTION-CARS. GEORGE WILSON, Albert Lea, Minn. Filed May 13, 1918. Serial No. 234,759. 4 Claims. (Cl. 105-104.)

1. The combination with a motor mounted for bodily adjustment and equipped with a cooling jacket, of a con-

denser including a cooling chamber, means for supporting the condenser for bodily movement, and an operative con-



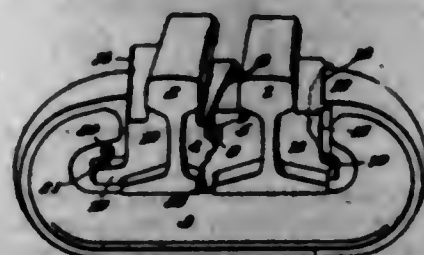
nection between the jacket and chamber whereby the condenser may move with the motor upon the adjustment thereof.

1,306,987. AUXILIARY AIR-INLET DEVICE. WILLIAM R. WILSON, Union City, Ind., assignor of one-half to Delbert T. Wilson, Union City, Ind. Filed Nov. 6, 1918. Serial No. 261,404. 1 Claim. (Cl. 48-180.)



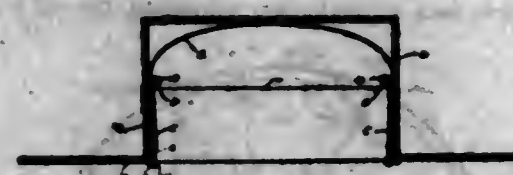
In a device of the class described, a plate having an opening therethrough; a hollow cup-shaped nozzle, the nozzle being closed at its outer end and being open at its inner end, and having a laterally discharging perforation in its side wall, the axis of the nozzle being disposed approximately parallel to the axis of the opening, the periphery of the nozzle being spaced from the periphery of the opening to permit the passage of fluid longitudinally of the nozzle between the periphery of the nozzle and the periphery of the opening, the nozzle projecting beyond one side face of the plate; a single conduit forming a communication between the outer edge of the plate and the interior of the nozzle and embodying a pipe projecting into the opening, the pipe being assembled at one end with the plate and being assembled at its other end with the nozzle to support the nozzle; and a valve subject to manipulation by an operator and movably mounted on the plate at the outer end of the conduit, the valve constituting means for controlling the passage of air into the conduit.

1,306,988. GUARD-RAIL CLAMP. EMIL CARL ZIMMERMAN, New York, N. Y., assignor to Q & C Company, New York, N. Y., a Corporation of Maine. Filed Mar. 4, 1918. Serial No. 220,118. 3 Claims. (Cl. 238-21.)



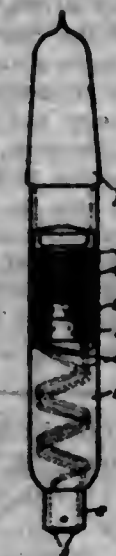
1. A rail clamp comprising a clamp bar or yoke member having inwardly directed end portions, a wedge member formed with a rail engaging portion and an inclined-wedging surface adapted to be interposed between one end of the yoke and the rail, said wedge member being formed at its base with a ledge flange outwardly extending to underlie the end portion of the yoke member and provide a bearing therefor and said ledge being provided with a series of longitudinally disposed apertures and shiftable securing means adapted to be positioned in said apertures and to engage with the yoke member at points both above and below the base of the rail.

1,306,989. HAT APPLIANCE. JAMES FRANKLIN ALLISON, Chicago, Ill. Filed Aug. 17, 1918. Serial No. 250,854. 3 Claims. (Cl. 183-35.)



2. A hat appliance consisting of a band of spring material adapted to lie within the hat crown in the form of an arch with the ends of the band adjacent the brim of the hat and behind its inner band, means for preventing the band ends from moving within the hat, and a plate secured to each band end and arranged to lie in front of the inner band, the plates being formed in a manner to present to the head two lines of contact, yielding in nature, whereby the hat is securely held in place, substantially as described.

1,306,990. ELECTRIC CANDLE. CARL AMMENTORF, Copenhagen, Denmark. Filed Mar. 31, 1917. Serial No. 158,883. 1 Claim. (Cl. 240-52.)



An electric candle comprising an opalescent tube having a socket member secured to its base, a bulb holder within the tube, slack wires connecting the holder and base, said holder including a base portion and a bulb plug, a nut on said plug and an expandable friction member on said plug and included between said nut and base portion.

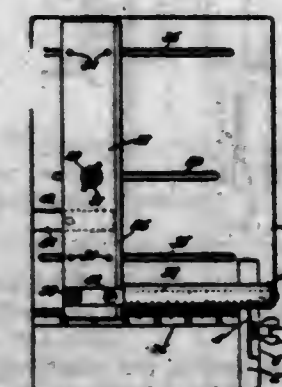
1,306,991. METHOD OF TREATING COTTON-SEED FOR SEPARATING MEATS FROM HULLS. EDWARD H. AULT, Springfield, Ohio, assignor to The Bauer Brothers Company, Springfield, Ohio, a Corporation of Ohio. Filed Aug. 15, 1916. Serial No. 114,983. 3 Claims. (Cl. 83-28.)



1. The method of treating cotton seed to separate the meats from the hulls, consisting of breaking and agitating the seeds to separate the meats from the hulls, subjecting the meats to a shaking action upon a flat screen to place the same in a substantially uniform layer

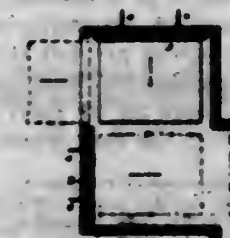
thereon, subjecting the meats to a suction of air to eliminate particles of hulls therefrom and putting such particles of hulls through a final separator to separate any adhering meats from the hulls.

1,306,992. SHEET-STRIPPING MACHINE. SALVADOR BARRILA, Boston, and ILDEFONSO L. MARANHAS, Somerville, Mass. Filed Jan. 17, 1919. Serial No. 271,681. 10 Claims. (Cl. 164-36.)



1. A machine for cutting sheet material into strips having a bed plate, a knife and a holder for the knife, said holder comprising a fixed member secured to one side of the bed plate, and a movable clamping block, the fixed member being formed with two sets of grooved guide slots having inclined seats for the knife, whereby the knife may be supported in either of said grooved slots at a fixed angle of inclination with relation to the face of the bed plate, one set of said guide slots holding the knife with the cutting edge inclined forwardly toward the sheet as the sheet is drawn toward the blade, and the other set of guide slots holding the knife with its cutting edge inclined backwardly from the sheet at an obtuse angle thereto.

1,306,993. GLASS-STOWING TOOL. JOHN A. BECHTEL, Tarentum, Pa. Filed June 21, 1918. Serial No. 241,278. 10 Claims. (Cl. 49-15.)

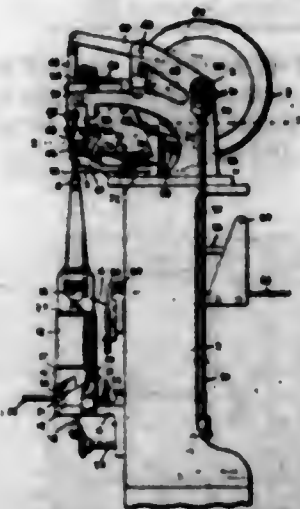


1. The combination with a glass leer chamber, of a glass-stowing tool movable therein having a blade of substantially the full width of the chamber with allowance for slight end movement of the blade, and a handle projecting through the chamber wall for moving the tool, whereby grooving of the floor within the lateral dimensions of the glass plates or sheets is avoided, substantially as described.

1,306,994. SEWING-MACHINE. PHILIP A. BOWEN, Lynn, Mass., assignor to Lillian A. Little, Lynn, Mass. Filed June 15, 1917. Serial No. 174,912. 18 Claims. (Cl. 112-36.)

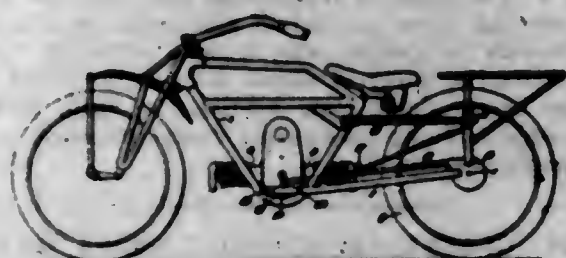
1. A lock stitch sewing machine having in combination a horn provided with a thread-delivery eye, a shuttle situated above the horn, a reciprocating needle to draw a loop of thread from the horn through the work, a movable loop-retainer adapted to enter the loop and take

it from the needle, and a loop to cast said loop about the shuttle while it is held on the loop-retainer, said



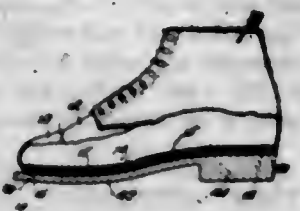
loop-retainer having means for positively removing from the path of the needle the portion of the loop engaged thereby.

1,306,995. MOTOR-CYCLE FRAME. GRANVILLE EASTWOOD BRADSHAW, Hersham, Walton-on-Thames, England, assignor of one-half to A. B. C. Motors Limited, Hersham, Walton-on-Thames, England. Filed Sept. 19, 1918. Serial No. 284,811. 2 Claims. (Cl. 180-23.)



1. In a motorcycle, a main frame, a sub-frame fulcrumed on the main frame and supporting the rear wheel of the motorcycle, a vertical extension on the rear end of the sub-frame, a leaf spring pivoted to the main frame and having a sliding connection with the extension, a motor fixed to the sub-frame at its fulcrum point, and a driving connection between the rear wheel and the motor.

1,306,996. SHOE. PERLEY H. BROWN, Hudson, Mass., assignor to Apsley Rubber Company, Hudson, Mass., a Corporation of Massachusetts. Filed Oct. 12, 1918. Serial No. 257,853. 4 Claims. (Cl. 36-14.)



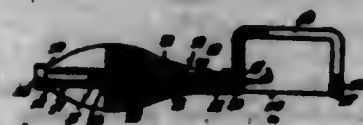
1. A shoe comprising an insole, an upper secured to the insole by permanent fastening devices, a middle sole of vulcanizable material secured to the under side of the insole and lapping over on to the turned in portion of the upper and vulcanized thereto, and an outer sole vulcanized to the said middle sole and having an exposed marginal portion which projects beyond the edge of the said middle sole.

1,306,997. RIM CONTRACTOR AND EXPANDER. CINCIO BULLIVANT, Spokane, Wash., assignor of one-half to Walter W. Hunt, Spokane, Wash. Filed Oct. 19, 1916. Serial No. 126,861. 3 Claims. (Cl. 137-1.)



1. Is a device for contracting and then expanding a split demountable rim, a pair of rim breaking rod devices engageable radially inwardly and outwardly of the rim at points on opposite sides of the split portion thereof, a turn buckle rod device engageable radially inwardly and outwardly of the rim substantially diametrically opposite the split portion thereof, said turn buckle rod device being pivotally connected with said rod breaking devices and one of said rod breaking devices being longer than the other, whereby actuation of the turn buckle device in one direction will draw said rod devices radially inwardly of the rim to first separate the ends and then telescope the rim ends and reduce the diameter of the rim, or, upon actuation of the turn buckle device in an opposite direction forcing said rod devices outwardly radially of the rim to expand the latter to a normal position, substantially as described.

1,306,998. DENTAL INSTRUMENT. VLADIMIR T. DIMITROFF, North Scituate, R. I. Filed Dec. 4, 1914. Serial No. 875,512. 1 Claim. (Cl. 122-12.)

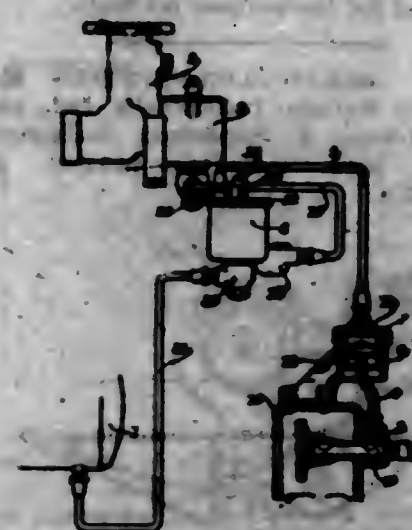


A thread dispensing device comprising a body, means carried by said body for dispensing thread, a U-shaped member formed with a disk on one of its branches and having the axis of the disk parallel with said branches, the other branch of said U-shaped member being provided with means for attaching a portion of the thread, and means for allowing said U-shaped member to be moved into different positions with relation to said body and for holding said U-shaped member in its different positions.

1,306,999. FUEL-SPEED SYSTEM. FRANCIS EDWIN EDWARDS, Crystal Lake, Ill., assignor to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 16, 1918. Serial No. 217,701. 7 Claims. (Cl. 158-34.)

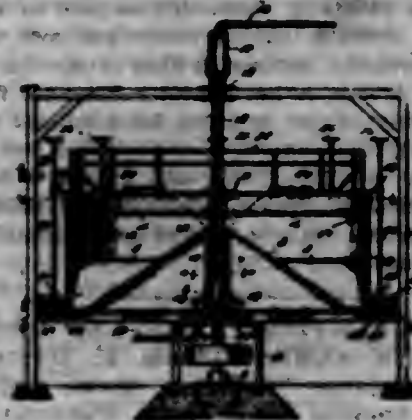
1. In combination, a pumping chamber having an inlet valve and an outlet valve for liquid to be pumped, a substantially closed air chamber inclosing a column of air and communicating with the top of said pumping chamber, one wall of said air chamber being movable to produce compressions and rarefactions in said column of air, a vent opening in the upper part of said pumping chamber, and a level controlled valve in said pumping chamber governing said vent.

7. In combination, a liquid pumping chamber having inlet and outlet valves, an air chamber communicating with the pumping chamber, said air chamber having a movable wall for producing compression and rarefactions



of air in said air chamber and a float in said chamber, said float having means for closing the inlet valve when the level in the pumping chamber rises above a predetermined level.

1,307,000. CENTRIFUGAL SEPARATOR. WALDON E. EHRER, Cleveland, Okla., assignor of one-half to Rufus V. Henry, Augusta, Kans. Filed Apr. 20, 1918. Serial No. 229,905. 10 Claims. (Cl. 252-28.)



1. In a centrifugal separating apparatus, the combination of a vessel mounted for rotation about its axis, means in the vessel for receiving oil from the upper inner portion of the vessel, means for delivering oil to the vessel at intervals and at points adjacent to the side wall of the vessel, means forming the bottom of the vessel and inclined outwardly and downwardly toward the said side wall, means on the said inclined bottom means for separating the oil in the vessel into portions; said separating means being arranged in staggered relation to the oil delivering means, and means carried by the vessel and arranged in substantial vertical coincidence with the oil delivering means for conducting foreign substance from the vessel.

1,307,001. AUTOMOBILE-LOCK. ARTHUR D. FENNO, Evid, Okla. Filed Oct. 21, 1918. Serial No. 258,968. 3 Claims. (Cl. 70-90.)

1. The combination with a steering post having a recess in one side wall, a block encircling said post and having another recess registering with the recess in the post, a bolt mounted in the recess of said block and adapted to enter the recess in the post, a rotary shaft carried by said block with an actuating member projecting through one side wall thereof, a link mounted in the

block recess and fixed to said shaft, said link having a slot and pin connection with said bolt, a coiled spring en-



gaging said link to normally retract the bolt, and means movable across the path of the bolt at the rear thereof to hold the bolt in projected position.

1,307,002. FUSELAGE. ROBERT G. FOWLER, San Francisco, Calif. Filed May 28, 1917. Serial No. 171,868. 1 Claim. (Cl. 244-30.)



A fuselage comprising a cloth envelop, a layer of contiguous wood strips arranged longitudinally on said envelop, a coating of glue between the envelop and layer, tacks driven through the strips and clenching the envelop, a second layer of wood strips arranged helically on said first layer, a coating of glue between said layers, tacks extending through said layers and clenching under the first layer, a third layer of wood strips arranged helically in the opposite direction, a coating of glue between said second and third layers, tacks driven through the three layers and clenching under the first layer and a cloth envelop inclosing the outer wooden layer and glued thereto.

1,307,003. CIGARETTE-MAKER. LOUIS FRIEDBERG, Philadelphia, Pa. Filed Oct. 26, 1915. Serial No. 57,973. 1 Claim. (Cl. 131-5.)

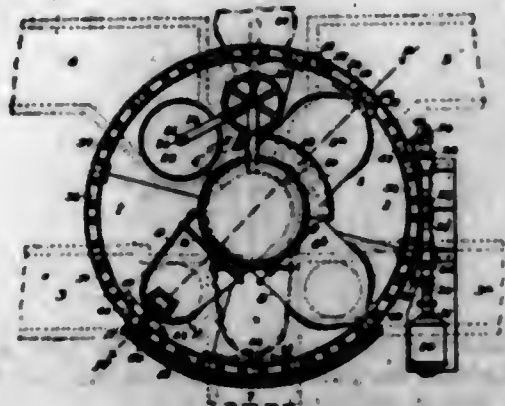


A cigarette maker comprising a body grooved to provide a recess having an arcuate bottom and straight sides, said member being adapted to receive and retain tobacco when in a horizontal position with the open side of the recess uppermost, a cover coextensive with said body, a projecting rib on said cover adapted to be disposed between the straight sides of said recess and having its lower edge concaved to coact with the arcuate bottom of the recess to form a substantially cylindrical bore, the sides of the cover laterally of said rib engaging the top edges of said body for limiting the projection of said rib thereinto, a tubular shell supporting member secured upon one end of said body coaxially with the bore therein, and a pusher disposed within said bore and movable to discharge tobacco compressed within said bore through said tubular member into a shell supported thereon.

1,307,004. REVERSING APPARATUS FOR REGENERATIVE REVERSING FURNACES. HARRY R. GERR, Johnstown, Pa. Filed June 22, 1918. Serial No. 241,418. 15 Claims. (Cl. 277-5.)

1. Reversing mechanism for reversing regenerative furnaces, comprising a rotary connector for reversing the gas

supply and another rotary connector for reversing the return connections of the furnace, the last named connector having two converging radial branches, substantially as described.



1,307,005. DISK-WHEEL. LOUIS B. HARVEY, San Francisco, Calif., assignor to Interlocking Rim and Wheel Company, San Francisco, Calif., a Corporation. Filed May 21, 1918. Serial No. 235,987. 1 Claim. (Cl. 21-69.)



A disk wheel including a hub, a felly, a pair of inwardly projecting annular flanges on the felly, a disk fixed to each end of the hub and extending adjacent each flange in parallel relation thereto, a third disk fixed to one end of the hub and inclined toward the flange which lies in the plane opposite the hub end to which such disk is secured, such disk then bending to extend parallel to such flange, and bolts projecting through all the disks and flanges and having nuts to bind the same together.

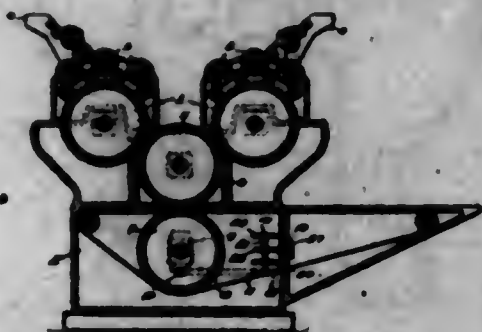
1,307,006. ELECTRIC SWITCH. HAROLD P. HASTINGS, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed Sept. 19, 1914. Serial No. 862,500. 3 Claims. (Cl. 175-282.)



1. An electric switch comprising a base formed with uprights rising therefrom, pairs of terminals each including a member mounted on the base at the lower end of one of the uprights and a member mounted on the upper end of one of the uprights, mechanism supported by the

base and extending between the uprights and having means co-acting with the pairs of terminals, and means for securing the base in position including fastening screws extending through the terminals and the underlying portions of the base and the uprights thereof, substantially as and for the purpose set forth.

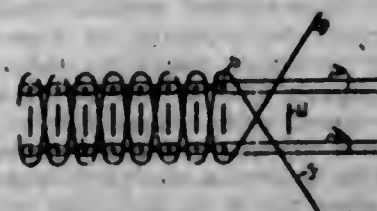
1,307,007. MULTICOLOR-PRINTING MACHINE. RICHARD JOHN HAUSER, Indianapolis, Ind., assignor of one-half to George K. Henderson, Indianapolis, Ind. Filed Feb. 1, 1918. Serial No. 214,946. 4 Claims. (Cl. 101-175.)



1. A printing machine comprising plate-carrying cylinders, a collecting cylinder, an impression cylinder, a vertically movable bearing for said impression cylinder, a pivoted lever connected to said bearing and having a slot in its free end, a rod having one end movable in said slot, rollers mounted on said rod and an adjusting screw adapted to move said rod.

4. The combination with a printing machine including an impression cylinder, of a vertically movable bearing at each end of said cylinder, pivotally mounted levers each having one end pivotally connected to one of said bearings, vertically movable spring controlled rods each having one end pivotally secured within a slot in the ends of one of said levers, a horizontally movable frame disposed transversely of the printing machine and connected to each of the spring controlled rods and a rod engaging the horizontally movable frame and having a bearing in the printing machine frame, whereby the said horizontally movable frame may be moved longitudinally of the impression cylinders.

1,307,008. DOUBLE-PILE FABRIC AND METHOD OF MAKING THE SAME. GEORGE F. HUTCHINS and GEORGE CHANDLER, Worcester, Mass., assignors to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Mar. 20, 1917. Serial No. 156,172. 8 Claims. (Cl. 189-71.)

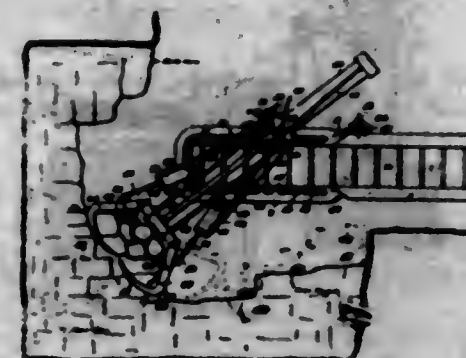


1. The method of weaving double pile fabrics having spaced parallel woven layers which consists in crossing the pile warps between said layers, inserting a pile wire outside of the crossing, beating up said pile wire, inserting a filling shot in each woven layer before again crossing the pile warps, and thereafter beating up the filling shots and pile wire and crossing the pile warps rearward of said wire.

1,307,009. GATHERING MECHANISM FOR COAL-LOADING MACHINES. JOSEPH F. JOY, Belle Vernon, Pa., assignor to Joy Machine Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Apr. 19, 1918. Serial No. 239,554. 27 Claims. (Cl. 37-11.)

3. The combination with a conveyor having a shoe portion at the forward end thereof, a gathering mechanism

and means carried by said shoe portion to support said gathering mechanism, of means to move said supporting means to any desired point along and adjacent to the margin of the shoe portion.



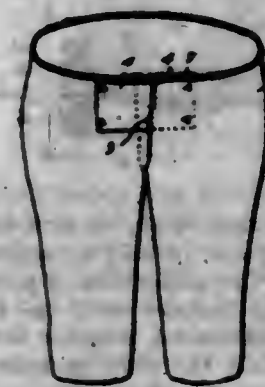
7. In combination, a conveyor having a gathering mechanism at the lower forward end thereof, means to support said gathering mechanism for horizontal movement, means to horizontally move said gathering mechanism, and means to move said supporting means to either side of said conveyor.

10. A device of the class described including a vertical supporting post having an axial-bearing socket open at the upper end thereof, a mounting member having a stem journaled in said socket, means associated with said post and said mounting member to rotate the latter, and an undermining coal gathering mechanism pivoted to said mounting member for vertical rocking movement.

15. In combination, an inclined conveyor, a gathering mechanism supported on the lower end of said conveyor for horizontal swinging movement and including a pair of spaced arms to engage material and move it onto the conveyor, means to move said arms toward each other in laterally extending paths, means to horizontally swing said gathering mechanism, and means to allow said gathering mechanism to swing horizontally when either of said arms encounters a relatively immovable object.

23. In combination with an inclined conveyor, a coal gathering mechanism mounted on the lower end thereof including a pair of spaced pivotally mounted undermining gathering arms, means to horizontally swing said arms toward and away from each other, and means to bodily horizontally move the arms in unison toward and away from the conveyor.

1,307,010. ELASTIC GARMENT-FASTENER. CLARENCE W. KINSMAN, New York, N. Y. Filed Nov. 16, 1917. Serial No. 202,376. 1 Claim. (Cl. 2-143.)



As a new article of manufacture, a garment comprising a body, said body provided with a placket, an outer elastic fastener strip secured to the under face of the outer portion of said placket, an inner elastic fastener strip secured to the outer face of the under portion of said placket, fasteners secured to the under face of said outer strip and engaging the outer face of said garment, and

fasteners secured to the outside face of said inner strip and engaging the inner face of said garment, and said strips extending in opposite directions across said garment.

1,307,011. UNIVERSAL HOLDING-BRACKET FOR POWER UNITS. MILTON M. KORN, New York, N. Y., assignor to The Ventilator Fan Co., Inc., New York, N. Y., a Corporation of New York. Filed Apr. 20, 1918. Serial No. 229,872. 10 Claims. (Cl. 248-30.)

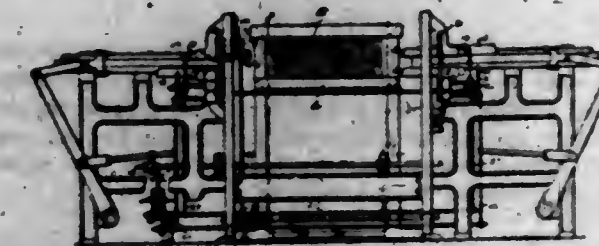


1. A holding bracket comprising, with a supported device, a supporting stem, a foot-step bearing for the supported device seated on said supporting stem, means for adjustably supporting the foot-step bearing on said stem, means pivotally connected to the supporting stem for grasping the supported device, and means for adjusting the tension of said grasping means.

7. A holding bracket comprising, with a supported motor having an inclosing case and an extended shaft, a supporting stem, an adjustable bracket on said supporting stem having a seat at its free end, a foot-step bearing disposed in said seat to receive the shaft of the motor, arms pivotally connected to said bracket for grasping the exterior of the case of the motor, and means for adjusting the tension of said arms on the exterior of said motor case.

10. A holding bracket comprising, with a motor having an inclosing case and an extended shaft, a supporting stem, an adjustable bracket on said supporting stem having an annular seat at its free end, a thrust-bearing disposed in said annular seat to receive the shaft of the motor, arms pivotally connected to said bracket for grasping the exterior of the case of the motor, and means for adjusting the tension of said arms on the exterior of the motor case.

1,307,012. STOP-MOTION FOR LOOMS. HASTON LA DOUX, Worcester, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Mar. 20, 1917. Serial No. 156,167. 5 Claims. (Cl. 189-51.)



1. In a double shuttle loom, in combination, a pair of shuttles, actuating means therefor, separate shuttle feelers for each shuttle at each side of the loom, said feelers being connected in pairs so that the two feelers for each shuttle operate together, normally operative loom stopping mechanism, and connections from said feelers to said

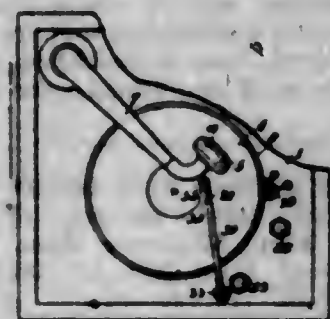
mechanism, each pair of feelers associated with the same shuttle being independently effective to maintain said loom stopping mechanism in operative position until a shuttle is boxed in one or the other of the shuttle boxes controlled by said pair of feelers.

1,307,013. BRAKE-BAND CLENCHER. HARRY J. McCaffrey and Edgar J. Rossner, Dallas, Tex. Filed Sept. 4, 1918. Serial No. 282,572. 1 Claim. (Cl. 81-3.)



A brake band clencher comprising complementary sections, each formed from a single piece of strap metal and pivoted together at points approximately medially of their ends and arranged in cross-like form, the portions to one side of the pivot point constituting handles, the portions to the other side of the pivot being curved transversely of their length outwardly in opposite directions and lying in a plane slightly inclined with respect to the longitudinal plane of the handle portions, the free portions continuing from the curved portions being twisted and extended at right angles from the curved portions and arranged in a plane at right angles to the longitudinal plane of the curved portions to provide relatively parallel jaws adapted to engage the lugs on a brake band, the side edges of the sections forming the contacting faces of the jaws thereby equally distributing the strain on the sections, and means for releasably holding the jaws in clamping relation.

1,307,014. CONTROLLING MECHANISM FOR TALKING-MACHINES. EDWARD S. MARSH, Rochester, N. Y. Filed Oct. 18, 1913. Serial No. 56,424. 2 Claims. (Cl. 74-46.)

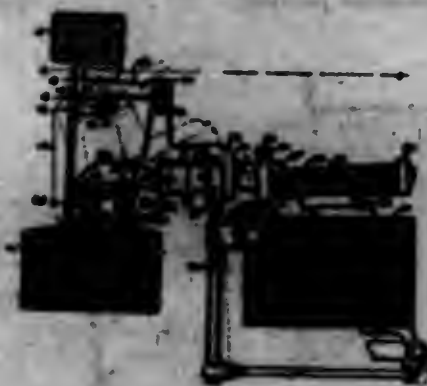


1. In a talking machine, the combination with a record support, and a reproducer, and an electrically operated means for controlling the stopping of the record support embodying a make and break device having its two contacts adjustable simultaneously relatively to the reproducer in the path of the reproducer.

1,307,015. THREAD PLACER AND CUTTER. ROBERT A. MARSHALL, Worcester, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed May 9, 1918. Serial No. 233,556. 5 Claims. (Cl. 139-85.)

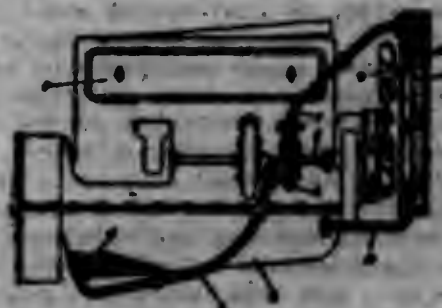
1. In a loom having a lay and a breast beam, a thread placer mounted on the lay, a thread cutter mounted on

the breast beam, transfer-controlled mechanism for operating said cutter, and means including a cam through which



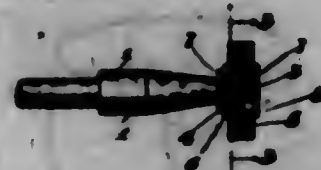
said placer is moved forward by said cutter during the downward operative movement of said cutter.

1,307,016. OIL-COOLING SYSTEM FOR EXPLOSIVE-ENGINES. IRVIN I. MATZSON, Stockton, Calif. Filed Apr. 4, 1919. Serial No. 287,006. 2 Claims. (Cl. 184-104.)



2. In combination with an explosive motor having a crank case thereon adapted to contain a supply of oil, a means for cooling the oil therein, such means comprising a pipe connected at one end to the bottom of the casing, a radiator at the other end of the pipe, a fan positioned to cool the radiator, a second pipe leading from the radiator to the casing, and a pump interposed in the first named pipe whereby a circulation of oil is maintained to cool the same, the pump and fan being driven by the motor.

1,307,017. TOOL-HOLDER. MAX MOVSEVITCH, New York, N. Y., assignor of one-half to Ruth Missy, New York, N. Y. Filed Aug. 4, 1917. Serial No. 184,437. 1 Claim. (Cl. 51-1.)

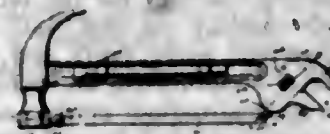


In a device for holding rotary tools, a holder, a pin running through the center of and at approximately right angles to the axis of the said holder, a plate provided with openings arranged to register with the ends of said pin and having a recessed portion adapted to receive the ends of the pin and to hold the plate in position, and means to secure the plate to a circular tool.

1,307,018. TOOL. SAMUEL K. NOLAN, Forter, Minn. Original application filed Mar. 5, 1912, Serial No. 229,890. Divided and this application filed Jan. 30, 1919. Serial No. 272,065. 3 Claims. (Cl. 7-1.)

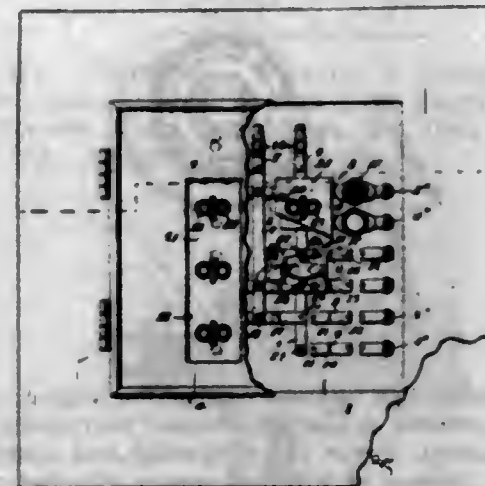
1. A combination tool including a shank having a wrench at one end including a movable jaw having a shank,

a projection at the other end of the first shank, and a removable saw blade detachably secured to the projection



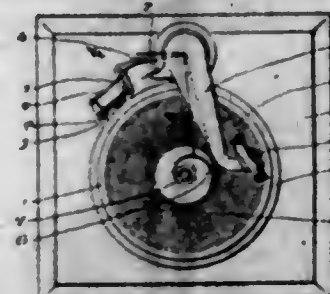
and to the jaw shank, whereby when said jaw shank is moved the tension of the saw blade will be changed.

1,307,019. PANEL-BOARD. EDWIN A. OLLEY, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed July 16, 1915. Serial No. 40,158. 7 Claims. (Cl. 247-13.)



1. A panel board comprising a base, conductors mounted on the base and having portions grouped together and switches mounted on and superposed above the said grouped portions and operable to electrically connect and disconnect the same, operating means for the switches, a top plate common to all of the switches, said operating means projecting over the top plate, in combination with the cabinet having a movable door formed with an opening arranged to be closed by the top plate when the door is closed, substantially as and for the purpose described.

1,307,020. PHONOGRAPH. MARSHALL H. PEAL, Brooklyn, N. Y. Filed Apr. 20, 1916. Serial No. 92,564. 2 Claims. (Cl. 274-42.)



1. A phonograph record disk having the usual convolute music groove therein for receiving the stylus, said disk being formed with an inwardly projecting extension groove continuing from the inner end of the music groove also for the travel of the stylus substantially for the purpose set forth, the extension groove being also convolute but being curved on a more rapidly reducing radii within the radii of successive portions of the music groove so as to accelerate the inward movement of the stylus, the portion of the length of the extension groove adjacent the inner end of the music groove being of abruptly increasing depth in a direction away from the inner end of the music groove, and the remaining portion of the length of the extension groove being of gradual decreasing depth inwardly to the inner end of the extension groove, for the purpose described.

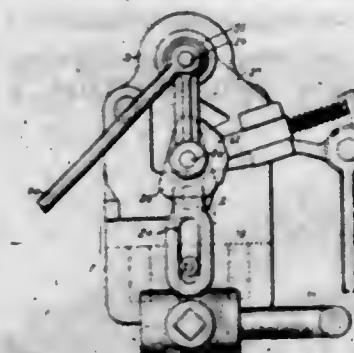
263 O. G.-27

1,307,021. FLYING-MACHINE. JOHN H. PETERS, Butte, Mont., and PAUL HARDIER, Seattle, Wash. Filed July 27, 1918. Serial No. 247,332. 4 Claims. (Cl. 244-25.)



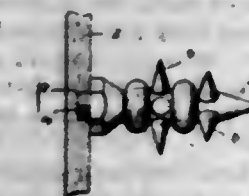
4. A flying machine of the class described comprising a body, guiding mechanism therefor, devices for propelling said body through the air, a plurality of helical elevating screws disposed above said body, a motor for driving said elevating screws, inverted V-shaped deflectors for deflecting the air that is directed downwardly by said elevating screws outwardly to the side of said body, and rigid air pockets formed on the upper surfaces of the blades of said elevating screws whereby when said machine is moving rapidly the air will enter said air pockets and tend to turn said elevating screws.

1,307,022. WARP STOP-MOTION. JOHN REGAN, New Bedford, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Sept. 21, 1917. Serial No. 192,426. 6 Claims. (Cl. 139-92.)



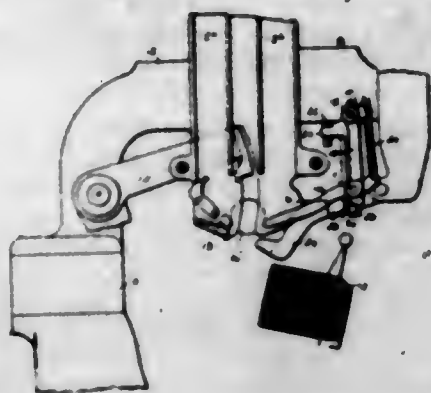
1. A warp stop motion comprising a plurality of elongated drop wires mounted for straight vertical indicating movement, loom stopping mechanism, a controller for said mechanism positioned adjacent but wholly outside of said drop wires, and means to move said controller about a longitudinal axis thereof, said drop wires each having a narrow portion adjacent said controller and permitting free movement thereby when the wire is supported by a warp thread and each having a wider portion effective to engage said controller and prevent such movement when the drop wire is released, whereby said loom stopping mechanism is rendered operative.

1,307,023. TORPEDO-GUARD. GUERRINO BINALDI, Wilmington, Del. Filed May 24, 1918. Serial No. 236,351. 1 Claim. (Cl. 114-240.)



A torpedo guard for marine vessels comprising in combination with the hull plates said plates being provided with threaded sockets, spike members having threaded shanks engaged within said socket and terminating at their end points, a plurality of radially extending points formed on each spike member in spaced relation to each other and to said first named points and an enlarged portion formed on each spike member adjacent the threaded shank and bearing against the hull plate.

1,307,024. WEFT-REPLENISHING MECHANISM. ERRA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Dec. 14, 1917. Serial No. 207,053. 7 Claims. (Cl. 139-85.)



1. In a loom, a stationary magazine comprising a normally inoperative weft carrier support, an arm to which said support is pivoted, said arm being mounted upon a fixed pivot, means to adjust the operative position of said arm, and means to move said arm and support to inoperative position after transfer and thereby release any weft carrier which remains supported in delivery position by said weft carrier support.

1,307,025. RUG-BEATER. PETER SCHNURR, Chicago, Ill. Filed Mar. 22, 1918. Serial No. 224,020. 4 Claims. (Cl. 15-8.)



1. A device of the character set forth comprising a rug supporting frame, a pair of guides, slide bars mounted in the guides, oscillating paddles, a main shaft, connections between the main shaft and one slide bar, whereby the latter is reciprocated, connections between the said slide bar and the other slide bar whereby that is reciprocated but oppositely as respects the first, and connections between the slide bars and the paddles.

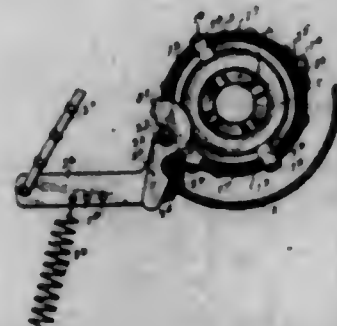
2. A device of the character set forth comprising a rug supporting frame, a pair of guides, slide bars mounted in the guides, rock shafts provided with longitudinal slots, supporting bearings for the shafts, paddles passing loosely through the said slots, a main shaft, connections between the main shaft and one slide bar whereby the latter is reciprocated, connections between the said slide bar and the other slide bar whereby that is reciprocated but oppositely as respects the first, and connections between the slide bars and the paddles.

3. A device of the kind set forth comprising a rug supporting frame, a pair of guides, slide bars mounted in the guides, oscillating paddles, a main shaft, connections between the main shaft and one slide bar whereby the latter is reciprocated, an oscillating bar pivotally mounted at its longitudinal center and formed with end slots, each of the slide bars having a pin playing in one of the said slots, and connections between the slide bars and the paddles.

4. A device of the character set forth comprising a platform, a rug supporting frame mounted on the platform, a

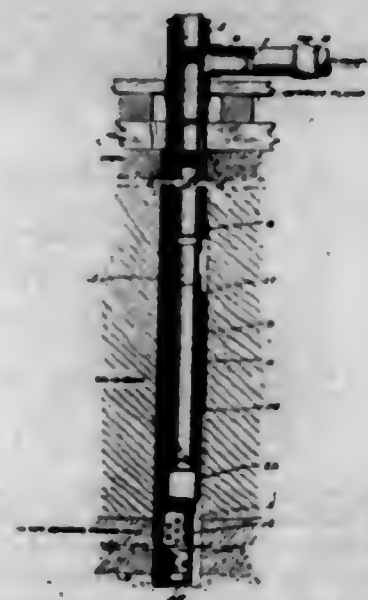
pair of guides also mounted on the platform, slide bars mounted in the guides, rock shafts provided with longitudinal slots, supporting bearings for the rock shafts, paddles passing loosely through the said slots, a main shaft, connections between the main shaft and one slide bar whereby the latter is reciprocated, an oscillating bar pivotally mounted at its longitudinal center and carried upon the platform, the said bar being formed with a longitudinal slot at each end, the slide bars having pins playing in said slots, and connections between the slide bars and the paddles.

1,307,026. STARTER FOR INTERNAL-COMBUSTION ENGINES. EDWARD P. SOMMER, Los Angeles, Calif. Filed May 14, 1918. Serial No. 234,793. 12 Claims. (Cl. 74-55.)



1. In a starter for internal combustion engines having a rotatable element, a friction element surrounding said rotatable element, means for expanding and contracting said friction element at will, and means attached to said friction element whereby said element will be automatically expanded and released from said rotatable element when a back-fire occurs in the engine.

1,307,027. METHOD OF EXCLUDING WATER FROM DRILLED WELLS FOR OIL. JOHN C. SWAN, Marietta, Ohio. Filed Sept. 7, 1918. Serial No. 253,082. 4 Claims. (Cl. 166-21.)



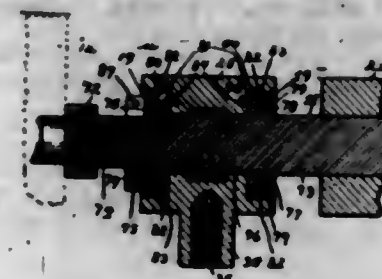
1. The method of preventing the flow of water from a water-bearing stratum into a drilled well without casing through the water-bearing stratum which consists in filling the interstices and crevices of such stratum by forcing therein a hot liquid material, insoluble in water, but capable of solidifying, when cooled to the natural temperature of such stratum, to form a seal against the further entrance of water.

1,307,028. BRUSH-HOLDER FOR DYNAMO-ELECTRIC MACHINES. BUNTON W. SWARTZ, Cleveland, Ohio, assignor to The Van Dorn Electric Tool Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 7, 1915. Serial No. 44,208. 6 Claims. (Cl. 200-24.)



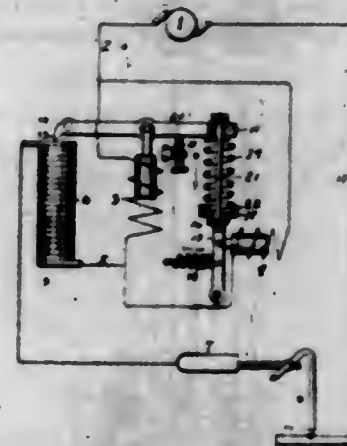
6. In a brush-holder device, the combination with a brush-receiving member, of a pivoted arm adapted normally to bear upon the brush, a tension spring therefor, and means for adjusting the spring tension from both of its extremities, substantially as set forth.

1,307,029. BEARING. WILLIAM S. THOMSON, Plantsville, Conn., assignor to The H. D. Smith & Company, Plantsville, Conn. Filed Apr. 26, 1917. Serial No. 164,602. 3 Claims. (Cl. 64-52.)



8. In a grinding machine, a shaft having a main body portion supporting a driving pulley, a reduced body portion positioned in a journal head, and a shoulder at the junction of the said portions, a screw threaded portion adjacent the said reduced body portion extending over an appreciable portion of the length thereof, ball bearing devices housed in the said journal head, a nut on the said screw threaded portion cooperating with the said shoulder for positioning the said ball bearing devices, and a grinding wheel mounted on the said shaft and backed on one side by a nut on the said threaded portion.

1,307,030. ELECTRIC WELDING SYSTEM. DAVID H. WILSON, Paterson, N. J. Filed Dec. 31, 1914. Serial No. 879,955. Renewed Feb. 24, 1916. Serial No. 80,125. 3 Claims. (Cl. 219-8.)

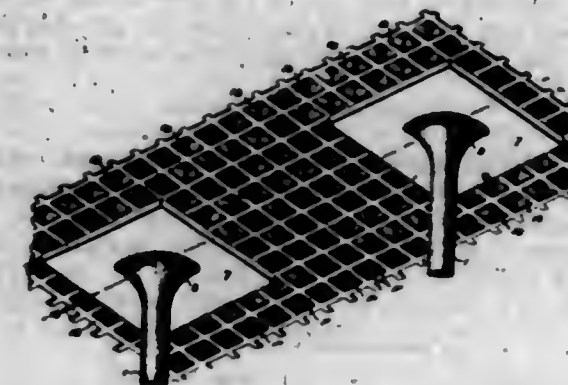


1. In a welding system, in combination, a source of welding current, two arc terminals in manually operable space relation, means in circuit therewith operating with a graduated inverse reaction to limit initial arc flow, and a coacting series controller gradually acting on said means to automatically vary the voltage across said terminals in compensating opposition to variations of arc resistance.

2. In a welding system, in combination, a source of welding current, two arc terminals in manually operable space relation, means in circuit therewith operating with a graduated inverse reaction to limit initial arc flow, and a coacting series controller gradually acting on said means to automatically vary the voltage across said terminals in compensating opposition to variations of arc resistance, and means responsive to cessation of welding current to automatically restore said apparatus to initial condition after rupture of the arc, said means comprising a spring actuated toggle and an electromagnet opposed to the spring effort thereon.

3. In a welding system, in combination, a source of welding current, two arc terminals in manually operable space relation, means in circuit therewith operating with a graduated inverse reaction to limit initial arc flow, and a coacting series controller gradually acting on said means to automatically vary the voltage across said terminals in compensating opposition to variations of arc resistance, and means responsive to cessation of welding current to automatically restore said apparatus to initial condition after rupture of the arc, said means comprising a spring actuated toggle and an electromagnet opposed to the spring effort thereon, and a lever interposed between the toggle and the current graduating means and comprising a floating solenoid core, and a solenoid coacting therewith in parallel with the aforesaid electromagnet.

1,307,031. CONCRETE CONSTRUCTION. EDWIN F. ALLSBRIGHT, Atlantic, Mass., assignor to Adams-Pond Company, Inc., Boston, Mass., a Corporation of Massachusetts. Filed Mar. 9, 1918. Serial No. 221,425. 1 Claim. (Cl. 72-66.)



In concrete construction, the combination of columns, solid panels resting on said columns and projecting substantial distances beyond said columns with cantilever effect, bays between said solid panels, each bay having a solid upper surface portion and series of transversely extending ribs depending therefrom with deep domes or recesses between said ribs open at the under side of the slab, said domes or recesses being distributed throughout the bays to all of the margins of the solid panels, and transversely extending tension reinforcing members inclosed in said concrete ribs, said solid panels and bays constituting an integral concrete slab extending continuously across said columns.

1,307,032. NITROGLYCOLS. JACOB BARAB, Dover, N. J., assignor to Hercules Powder Company, Wilmington, Del., a Corporation of Delaware. Filed July 24, 1918. Serial No. 246,452. 10 Claims. (Cl. 52-3.)

10. A new explosive containing trimethylene glycol dinitrate.

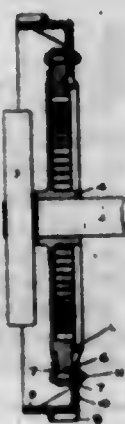
1,307,033. NITROGLYCOLS. JACOB BARAB, Dover, N. J., assignor to Hercules Powder Company, Wilmington, Del., a Corporation of Delaware. Filed July 24, 1918. Serial No. 246,453. 5 Claims. (Cl. 52-3.)

1. A nitroglycol explosive composed practically entirely of nitrated propylene and ethylene glycol.

1,307,034. NITROGLYCOLS. JACOB BARAD, Dover, N. J., assignor to Hercules Powder Company, Wilmington, Del., a Corporation of Delaware. Filed July 24, 1918. Serial No. 246,454. 4 Claims. (Cl. 52-3.)

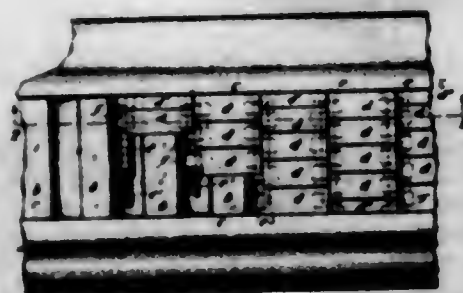
1. An explosive containing trimethylene glycol dinitrate and a nitrated glycol derivative from an olefin.

1,307,035. WHEEL. EDWIN R. HARMAN, Minneapolis, Minn. Filed Feb. 19, 1917. Serial No. 149,606. 3 Claims. (Cl. 21-217.)



1. A traction wheel comprising a hub having an internal gear ring formed thereon, a rim having peripheral traction ribs thereon and a series of inwardly projecting members mounted on said rim at one side of the vertical axis thereof and said ring having means for securing said members thereto upon either side of the vertical axis of said ring.

1,307,036. PNEUMATIC TIRE FOR VEHICLES. HANA BARTSCHER, New York, N. Y., assignor of thirty-five one-hundredths to Felix Spitzner, New York, N. Y. Filed Sept. 7, 1918. Serial No. 253,093. 4 Claims. (Cl. 152-17.)

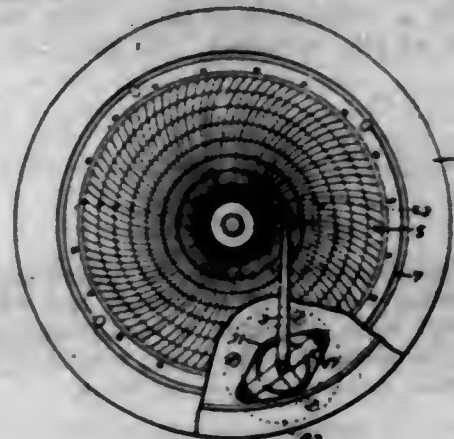


1. A pneumatic tire for vehicle wheels, comprising an inflatable tube, a casing of flexible material having an annular recess along the apex of its periphery with transverse ribs formed in the bottom of the recess, and a chain composed of rows of flexibly connected metallic links having lugs, extending underneath and beyond their ends, and shaped to engage the transverse ribs in the recess, applied in the recess of the casing; substantially as herein shown and described.

1,307,037. THERMOMETER. EDGAR H. BAIATOL, Foxboro, Mass., assignor to The Foxboro Company, Foxboro, Mass., a Corporation of Massachusetts. Filed Oct. 1, 1914. Serial No. 864,526. 7 Claims. (Cl. 73-52.)

1. An instrument of the class described comprising, in combination, an index, and governing means therefor including indicating and compensating coiled tubes, a frame, a shaft journaled in said frame, means for fixedly supporting one of said coiled tubes, means for connecting the

same to the shaft to communicate motion thereto, means to support the other tube on said shaft to receive motion



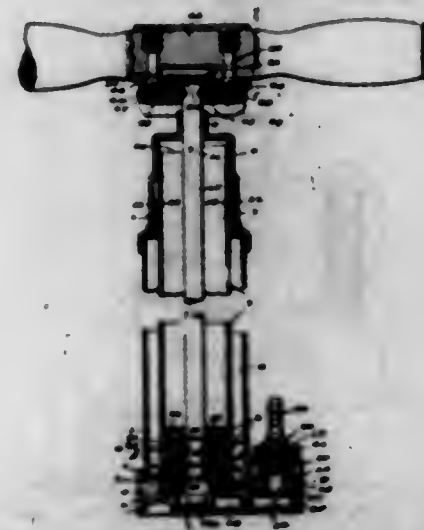
therefrom and means operatively connecting said second tube to the index.

1,307,038. AUTOMOBILE-SIGNAL. HAXTER H. BAUCH, U. S. Navy. Filed Jan. 17, 1916. Serial No. 72,610. 3 Claims. (Cl. 175-366.)



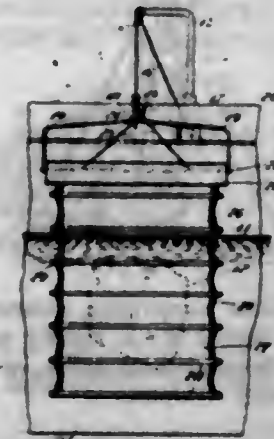
3. In combination with a steering wheel and column, a casing secured to the column, a plurality of pairs of oppositely extending arms mounted within the casing, a button carried by one arm of each pair, a contact carried by the first mentioned contact but normally out of engagement therewith, slidable blocks carried by the other arm of each pair, anti-friction means carried by each block, and a cam plate rotatable with the wheel to engage one or the other of the blocks as the case may be to restore the associated push button to normal position.

1,307,039. TIRE-PUMP. HERMAN CASLER, Canastota, N. Y. Filed May 28, 1914. Serial No. 841,479. 8 Claims. (Cl. 230-27.)



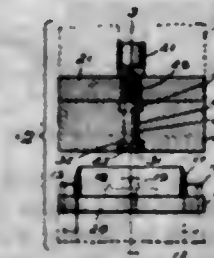
1. In a tire pump, a cylinder, and a piston movable in the cylinder including a rod, a head mounted on the rod and a cushion carried at the lower end of the head and movable therewith, the cushion having means at its lower end for striking the lower end of the cylinder, substantially as and for the purpose specified.

1,307,040. SAFETY DEVICE FOR SHIPS. MARTIN J. CHRISTENSEN, Chicago, Ill., assignor of one-half to Frank B. Sebott, Chicago, Ill. Filed Oct. 18, 1918. Serial No. 258,720. 4 Claims. (Cl. 114-229.)



1. The combination with a safety sheet comprising a flexible waterproof web, and a plurality of parallel struts all on the same side of the web and secured thereto by their ends only, of an elongated cradle to one side of which the sheet is secured by an edge paralleling said struts, said cradle being of a size to contain said sheet when it is rolled up, and hoisting and lowering apparatus arranged to carry and dump the cradle.

1,307,041. DIEING-OUT ATTACHMENT FOR PRESSES. HARVEY F. CRAWFORD, Brockton, Mass. Filed Oct. 28, 1918. Serial No. 259,972. 8 Claims. (Cl. 164-29.)



1. A dieing-out attachment for a press which includes a fixed bed and a reciprocating carrier movable in a predetermined path toward and from said bed, said attachment comprising an apertured bottom plate having means for attachment to said bed, a cutting die separably attached to said plate and coinciding with the aperture thereof, a top plate having an upwardly projecting shank attachable to said carrier, and a cutting block separably attached to and backed by said top plate and pivoted thereto to permit rotative adjustments presenting fresh portions of the acting face of the block to the die.

1,307,042. CONTAINER FOR STRING-NAILS. JOHN P. DUBOSH, Fall River, Mass. Filed Apr. 30, 1918. Serial No. 231,623. 6 Claims. (Cl. 242-103.)



1. A container for a package of string-nails, comprising a bellow cylinder with a bottom or base; a bearing in its longitudinal axis whereby the cylinder may be rotatably

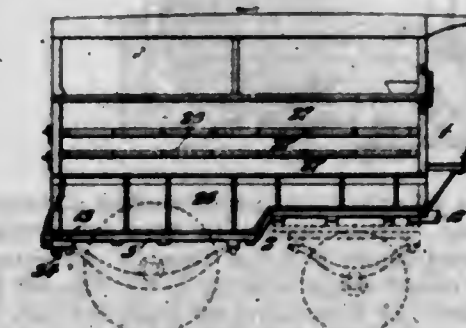
mounted; a ring-cover removably secured to the open end portion of said cylinder and provided with an inwardly extending guide flange, at its inner edge; a circular plate with an outwardly extending nail-guiding flange, at its outer edge; said flanges being separated to form a circular outlet from within said cylinder.

1,307,043. DEVICE FOR DRIVING OR POSITIONING NAILS OR THE LIKE WHERE DESIRED. JOHN P. DUBOSH, Fall River, Mass. Filed Apr. 30, 1918. Serial No. 231,624. 7 Claims. (Cl. 1-31.)



3. A nailing device having a channel through which a string of nails may be caused to pass; means in said channel to guide and control said nails in their movements in and through said channel; spring plates frictionally to restrain the movements of said string of nails; driving means to engage, forcibly eject from said device and drive a nail of said string; a cam member to open said plates; cutting means operatively connected to said driving means to sever the driven nail from the string; and means whereby the driving means may be so moved as to permit an upward withdrawal of the string of nails from the device.

1,307,044. WAGON FOR ICE, ICE-CREAM, AND THE LIKE. ADAM FRIEDRICH, Philadelphia, Pa. Filed Feb. 14, 1919. Serial No. 276,914. 7 Claims. (Cl. 21-7.)

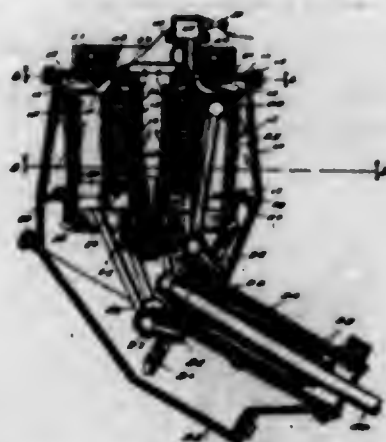


1. In a device of the character described, a wagon body having hollow non-conducting front and side walls, a bottom formed of a water proofed material impervious to moisture, the front and side end terminals of said water-proofed material being contained in the lower portions of the chambers formed between said front and side walls, and said bottom having a drop at about its middle portion whereby the rear of said bottom is lower than the forward portion thereof.

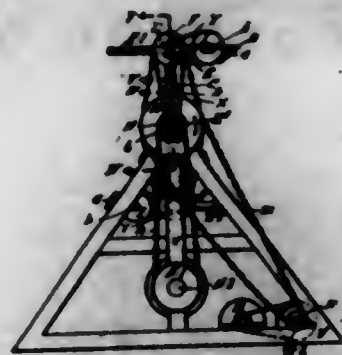
1,307,045. INTERNAL-COMBUSTION ENGINE. EDWIN B. GILBERT, Indianapolis, Ind. Filed June 10, 1918. Serial No. 239,091. 14 Claims. (Cl. 60-44.)

1. An internal combustion engine, comprising an annular series of power cylinders and an annular series of com-

pression cylinders with the power cylinders and the compression cylinders arranged alternately, all said cylinders forming part of a unitary rotor, pistons associated with the respective cylinders and reciprocable therein upon the rotation of said rotor, a stator having a firing chamber and intake and exhaust passages, said compression cylin-



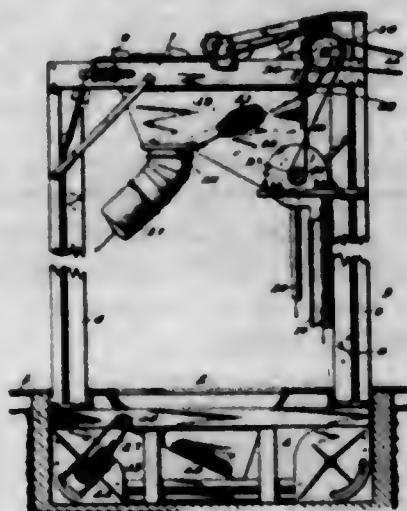
taining said wings in a predetermined position on the frames.



10. A flying machine comprising rotatable wing frames including a shaft, radial arms rigidly mounted thereon and wings secured between said arms, each of said wings having one of its edges flexible.

ders having ports by which during rotation of the rotor each such cylinder communicates alternately with said intake passage and with said firing chamber, and said power cylinders having ports by which during rotation of the rotor each such cylinder communicates alternately with said firing chamber and with said exhaust passage.

1,307,046. METHOD AND APPARATUS FOR PREPARING CORN FOR STORAGE. JOHN GETZ, Morton, Ill., and MARION SHIVES, Yates City, Ill.; said Shives assignor to said Getz. Filed Aug. 9, 1918. Serial No. 249,096. 5 Claims. (Cl. 130-5.)

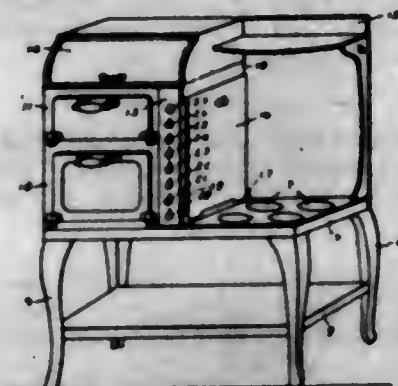


1. The herein described continuous method of preparing corn for storage, which resides in first subjecting the corn to an initial rough husking, then in conveying the ears after said initial rough husking to an elevated point, removing the silk and husk particles from the ears while elevated, discharging the cleaned ears by the force of gravity and directly storing same, discharging by gravity combined shelled corn grains, silk and husk particles, separating the combined silk and husk particles from the shelled corn grains and then conveying by gravity the combined silk and husk particles to one receiving point and the shelled corn grains to another receiving point.

1,307,047. FLYING-MACHINE. GUSTAF HEDÉN, Brooklyn, N. Y. Filed Sept. 26, 1917. Serial No. 193,298. 15 Claims. (Cl. 244-25.)

1. A flying machine comprising a body, rotatable arms mounted therein, rotatable frames on said arms, wings horizontally arranged on and rotatable in said frames, means for rotating the arms, means for rotating the frames in the arms, and means for automatically main-

1,307,049. ELECTRIC RANGE. FRANK W. HEWITT, Arlington, Mass., assignor to Simplex Electric Heating Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 30, 1918. Serial No. 268,783. 11 Claims. (Cl. 219-19.)



7. A distributing box for an electric range having the construction defined in claim 6 in which openings are provided in the fixed side wall to permit circuit connections to be made directly with heating units of an adjacent oven.

1,307,049. FACE-PLATE FOR VISE-JAWS. GEORGE H. HONKASU, Minneapolis, Minn., assignor of three-fifths to J. D. Brown, Minneapolis, Minn. Filed Jan. 4, 1918. Serial No. 210,244. 2 Claims. (Cl. 81-38.)

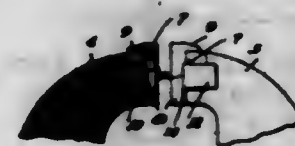


1. The combination with a vise jaw, of a detachable facing-plate, a supporting-plate to which the face-plate is separably attached, said supporting-plate being formed with a rearwardly extending flange to rest upon the vise jaw, and a spring-plate connected to the supporting-plate and spaced therefrom throughout a portion of its length and formed with rearwardly extending bent ends to clasp the ends of the vise-jaw.

1,307,050. FACE-PLATE FOR VISE-JAWS. GEORGE H. HONKASU, Minneapolis, Minn., assignor of three-fifths to J. D. Brown, Minneapolis, Minn. Filed Oct. 18, 1916. Serial No. 126,411. Renewed Apr. 19, 1918. Serial No. 229,661. 3 Claims. (Cl. 81-38.)

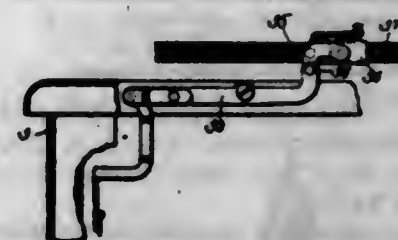
1. The combination, with the vise-jaws having flat opposing faces, of face plates having flat rear surfaces fitting

the faces of said jaws and provided at the top with outwardly projecting lips overhanging and seated on the tops of said jaws, the rear surfaces of said plates having longitudinal recesses therein extending from end to end of said plates, flat springs fitting within said recesses and secured at their middle portion therein, the end portions of said springs being bent outwardly and provided with



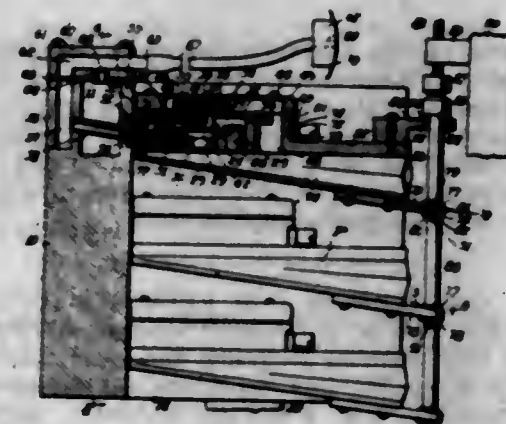
spaces between them and the bottoms of said recesses, said end portions having outwardly projecting parts substantially at right angles thereto, the distance between said outwardly projecting parts being less than the length of the faces of said jaws; whereby, when said outwardly projecting parts are separated to clamp the end faces of said jaws between them, the end portions of said springs will be pressed into said recesses and put under tension.

1,307,051. LINE-LOCK. OTTO A. HOKANSON, Woodstock, Ill., assignor to Woodstock Typewriter Company, Woodstock, Ill., a Corporation of Illinois. Filed June 8, 1918. Serial No. 287,933. 8 Claims. (Cl. 197-110.)



1. In a line lock, a plurality of pivoted key levers each having a substantially vertical portion intermediate the ends with aligned notches in the front edges of the vertical portions, a transverse rail pivoted below the key levers with a rear edge engageable in the notches, a movable link having a pin and slot connection with the rail, a spring tending to draw the link and rail forwardly, and means for raising the link when the rail engages the notches so that the rail will fall out of engagement with the levers.

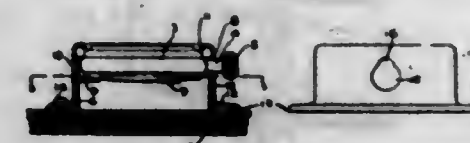
1,307,052. AUTOMATIC PLAYING ATTACHMENT FOR PIANOS. ALFRED JOHNSON, ARTHUR C. SWANSON, and ALFRED H. UTTERBERG, Chicago, Ill. Filed June 21, 1916. Serial No. 104,850. 7 Claims. (Cl. 84-178.)



7. In pneumatic playing mechanism for pianos, the combination of a vacuum chest having a vacuum com-

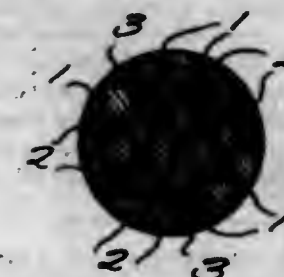
partment and an opening therefrom and having an atmosphere channel, a valve box having a vacuum duct and an atmosphere chamber, a tube extending from said valve box atmosphere chamber through the valve box vacuum duct, and means for securing said box to said chest with the vacuum duct of the box in communication with the vacuum chest opening and with said tube in communication with the atmosphere chamber.

1,307,053. AUTOMOBILE CLOCK-HOLDER. FREDERICK KASE and STANLEY M. COLBURN, Minneapolis, Minn. Filed Nov. 9, 1917. Serial No. 201,132. 4 Claims. (Cl. 58-56.)



1. A time piece holder comprising a band adapted to rest upon a suitable support and having lugs pressed inwardly therefrom to form supports for a time piece placed thereon, the wall of said band having an opening to receive a winding stem and a shell encircling said band and also having an opening for said stem and provided with an inwardly turned portion for bearing on said time piece, and said shell having means for mounting it on said support, said mounting means when tightened gripping the time piece between said lugs and said inwardly turned portion.

1,307,054. METAL BAR. CHARLES B. KING and RALPH A. YOUNG, Marion, Ohio, assignors to The Marion Steam Shovel Company, Marion, Ohio, a Corporation of Ohio. Filed July 30, 1917. Serial No. 183,472. 2 Claims. (Cl. 29-183.)

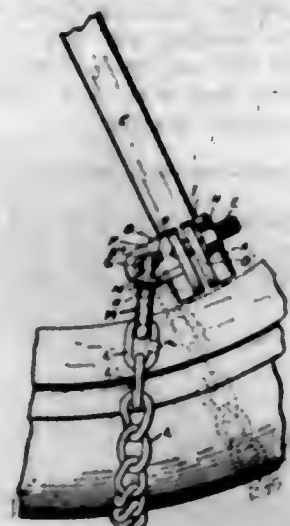


1. As an article of manufacture an integral bar of wrought metal comprising a plurality of longitudinally extending sections of pig iron muck and of scrap iron muck said sections being so arranged as to distribute the different kinds of metal throughout the cross sectional area of the pile.

1,307,055. COUPLING FOR ANTISKID ATTACHMENTS. WILLIAM H. KRUO, Oshkosh, Wis. Continuation in part of application Serial No. 163,562, filed Apr. 21, 1917. This application filed July 18, 1917, Serial No. 181,285. Renewed May 8, 1919. Serial No. 295,097. 7 Claims. (Cl. 152-14.)

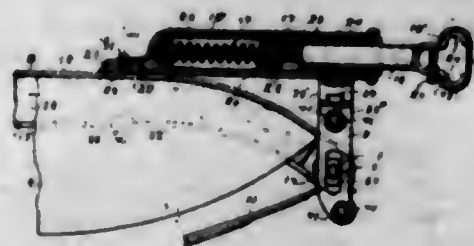
2. A coupling for anti-skid attachments for vehicle wheels comprising a pair of mutually engaging members, one having an aperture elongated in one direction, and the other being adapted to be manipulated through said aperture and having a lateral extension adapted, when in position for use, to span the aperture transversely to the axis

of the elongated portion thereof and prevent accidental disengagement of the members, and means for securing



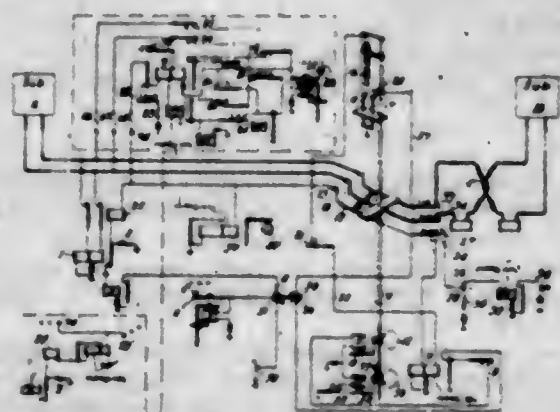
said first-named member to a spoke of a wheel with the axis of the elongated portion of said aperture extending substantially transversely of said spoke.

1,307,056. AUTOMOBILE-BUMPER. FRIEDRICH LEDERER and FREDERICK B. LEDERER, Milwaukee, Wis. Filed Apr. 19, 1917. Serial No. 163,200. 7 Claims. (Cl. 293-55.)



1. A vehicle bumper, comprising a transverse buffer bar, brackets having relatively non-movable rearwardly and downwardly extending portions, plungers having a yielding and slidable connection with the brackets and an adjustable connection with the buffer bar, means for adjustably connecting the rearwardly extending bracket portions to the vehicle side bars, and other means for adjustably connecting the downwardly extending portions of the brackets to the forward end portions of the side bars.

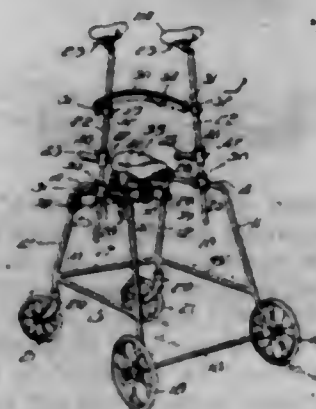
1,307,057. TELEPHONE-EXCHANGE SYSTEM. ALLEN E. LUNDALL, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 29, 1916. Serial No. 139,513. 3 Claims. (Cl. 179-27.)



1. In combination, a plurality of stationary contacts, a movable contact, means for operating said movable con-

tact to engage any one of said stationary contacts, means for rendering engaged stationary contacts busy, a test relay having two windings, a circuit for one of said windings including said movable contact, a circuit for the other winding of said relay, and means operable when the movable contact is centered on any one of said stationary contacts for closing said last mentioned circuit.

1,307,058. WALKING-CHAIR. JOHN THOS. McGRATH, Bloomington, Ill. Filed July 15, 1918. Serial No. 245,039. 17 Claims. (Cl. 155-45.)

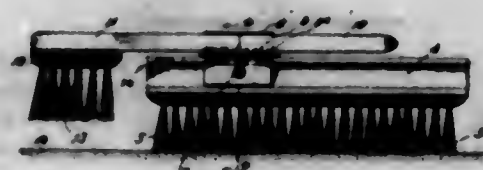


17. A walking chair comprising a wheeled frame, crutch staffs slidably supported on said frame, with means for locking the staffs to the frame in different positions of vertical adjustment, shoulder rests at the upper ends of said staffs, hand holds mounted on and vertically adjustable on said staffs, a seat supported on the frame, and a back supporting strap supported on said crutch staffs.

1,307,059. PRESERVATIVE FOR LEATHER AND LEATHER SUBSTITUTES. LILLIE A. MILNE, Fresno, Calif. Filed Sept. 25, 1918. Serial No. 255,710. 2 Claims. (Cl. 134-8.)

1. The herein described composition of matter consisting of seventy-five parts of crude mineral oil gas tar, and twenty-five parts of gum copal varnish, thoroughly mixed, substantially as described and for the purposes set forth.

1,307,060. SHOE-BRUSH SET. JOHN MORRISON, JR., Glens Falls, N. Y. Filed Dec. 21, 1917. Serial No. 208,212. 3 Claims. (Cl. 15-16.)

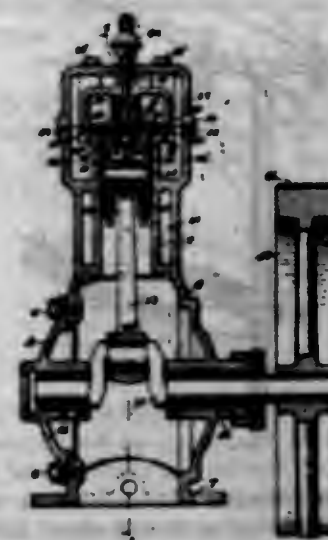


1. A device of the character described, comprising a brush provided with bristles and with a brush back, a cushion of resilient material mounted upon said brush back, a strap of flexible material extending over said cushion and secured to said brush back, and a dauber provided with a handle properly fitted to be thrust in between said cushion and the adjacent portion of said strap.

1,307,061. COMPRESSOR FOR REFRIGERATING APPARATUS. EDWIN O. OLSEN, Milwaukee, Wis., assignor of one-fourth to Frederick Margraff, one-fourth to Arthur Margraff, and one-fourth to Harvey Margraff, Milwaukee, Wis. Filed Dec. 26, 1917. Serial No. 208,546. 1 Claim. (Cl. 230-27.)

A compressor of the kind described, comprising a cylinder having a refrigerant chamber provided with an inlet

and an outlet communicating with the cylinder, a piston in said cylinder adapted to open and close said outlet, a head-section secured on the cylinder and formed with a cylinder-head provided with an outlet conduit, an outlet valve mounted in the head-section to control the flow of the refrigerant from the cylinder to the head outlet, said



outlet valve being provided with a stem slidably mounted in a bore formed in the head-section, and said stem being provided with a by-pass to establish communication between the space above the outlet valve and the space above the valve-stem, and a normally closed purge-cock connected to the valve-stem bore to draw off the refrigerant when desired.

1,307,062. TWINE-HOLDER. AXEL E. OSTERBERG and GUSTAF A. OBERG, Norway, Mich. Filed Apr. 29, 1918. Serial No. 231,343. 2 Claims. (Cl. 242-143.)

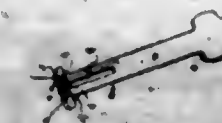


1. The combination of a pedestal or post having a longitudinally passing bore or opening therewithin, of a hollow core or hub portion at the upper end thereof adapted to support a twine package, an arm extending from said pedestal or post, a weight with an eye thereon in said bore or opening, and guides for a run of twine which guide a length of twine from a cone and the line of twine through said hollow core to the end of said arm.

1,307,063. LUMINOUS SIGHT FOR FIREARMS. ERIC S. PALMER, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Jan. 24, 1919. Serial No. 272,336. 4 Claims. (Cl. 33-52.)

1. A gun-sight formed with a vertical slot or recess for the reception and protection of luminous material and

adapted to have its upper edge filed away with the proper-tionate removal of the luminous material, whereby the



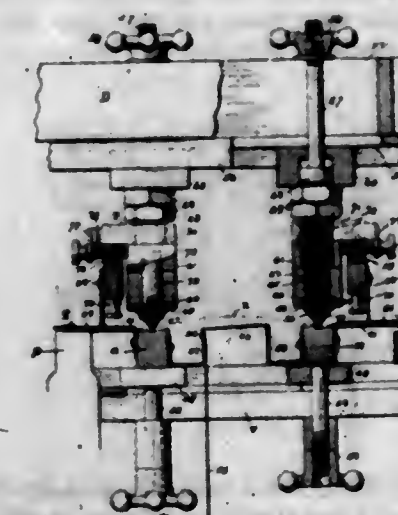
night-aiming point is changed by the same amount as the day-aiming point to adapt the sight to the individual gun.

1,307,064. OIL-BURNER. ROBERT PAULICK, Milwaukee, Wis. Filed Sept. 25, 1918. Serial No. 255,677. 9 Claims. (Cl. 158-42.)



1. A burner of the class described including a main supply pipe, a branch pipe upstanding therefrom, a burner trough, a depending tube carrying said trough, and slidable in the branch pipe, an angular bracket plate apertured in its intermediate portion to receive the supply pipe branch and having one end portion branched to embrace the supply pipe whereby to secure the bracket on the supply pipe, and means carried by said bracket for raising and lowering the burner trough.

1,307,065. MACHINE FOR CREASING CARDBOARD. JOHN H. STONZ, Philadelphia, Pa., assignor to Henry Schmidt & Bro. Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 27, 1918. Serial No. 247,001. 23 Claims. (Cl. 93-58.)



22. In a machine for creasing card board blanks or the like, the combination with means for making two creases in a piece of material, of means whereby a bulge is given the material between the creasing means, said bulging means being adapted to allow the creasing means to draw on the extra material in the bulge, to prevent rending of the material.

1,307,066. MEANS FOR LUBRICATING AMMUNITION. JOHN T. THOMPSON, Newport, Ky. Filed June 16, 1917. Serial No. 175,152. 26 Claims. (Cl. 42—1.)



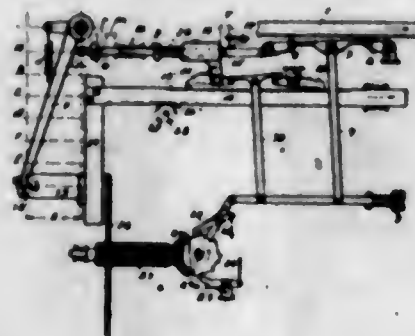
13. A gun comprising a firing chamber, and a lubricant-carrying body arranged to contact with the ammunition.

1,307,067. BOTTLE-CARRIER. HARRY L. VAUGHAN, Chicago, Ill. Filed Oct. 14, 1918. Serial No. 257,941. 8 Claims. (Cl. 215—1.)



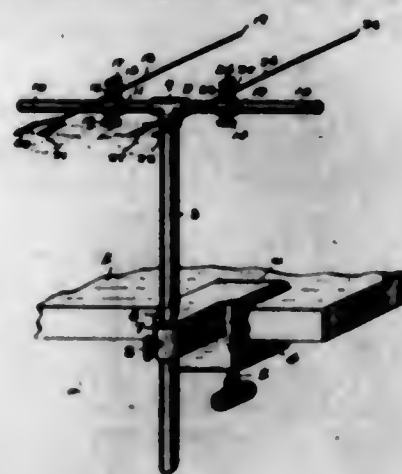
1. In a bottle carrier device, the combination of a frame for fitting over the mouth of a bottle and having tongues for engaging with the bottle sides, and a handle pivoted on said frame and having a tongue adapted to be moved circumferentially relative to the mouth of the bottle for cooperating with said frame tongues to hold the frame to the bottle.

1,307,068. METHOD OF JUSTIFYING LINES IN WRITING-MACHINES. EDUARD MARCK VON MARCHTHAL, Vienna, Austria, assignor to Siemens & Halske Aktiengesellschaft, Berlin, Germany, a Corporation of Germany. Original application filed Apr. 9, 1912, Serial No. 689,459. Divided and this application filed Nov. 2, 1915, Serial No. 59,232. Renewed Nov. 14, 1918. Serial No. 262,005. 1 Claim. (Cl. 197—84.)



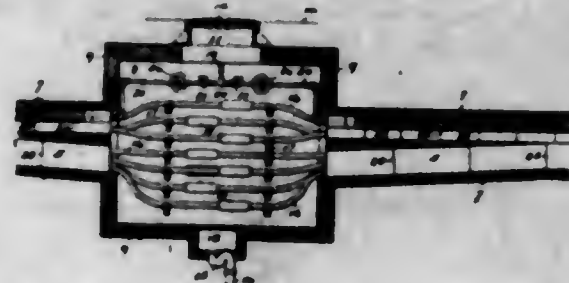
A method of justifying lines comprising characters separated by word-separating spaces, consisting in making the first space in the line as equal in size as possible to the requisite amount obtained by dividing the total shortage by the total number of spaces in the line, in then making the second space as equal in size as possible to the requisite amount obtained by dividing the remaining shortage by the total number of spaces less one, and so continuing until all spaces but one are exhausted, the shortage left after the last space but one has been adjusted being apportioned to the last space.

1,307,069. BOW OR TASSEL MAKING AND FORMING ATTACHMENT OR DEVICE. JOSEPH WEISMANTSEL and WILLIAM WEISMANTSEL, Newark, N. J. Filed Sept. 18, 1918. Serial No. 254,623. 14 Claims. (Cl. 223—52.)



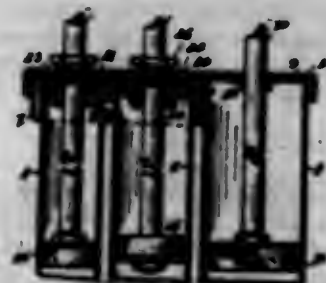
1. A bow or tassel-forming attachment or device, comprising a standard, an arm mounted upon said standard, said arm being disposed so as to extend laterally in front of the operator, bow-forming rods mounted upon and extending angularly across said arm, and fingers extending from said rods, upon which the bows or tassels are adapted to be formed.

1,307,070. DISSIPATING HEAT FROM UNDERGROUND CONDUITS. GEORGE F. WENNAEGL, Baltimore, Md. Filed Aug. 11, 1916, Serial No. 114,324. Renewed Apr. 2, 1919. Serial No. 287,098. 3 Claims. (Cl. 247—17.)



1. In an electric cable system, the combination with a structure forming a man-hole chamber, of conduits opening into the man-hole chamber said conduits having a series of ducts therein; cables extending through said ducts and into the man-hole chamber said cables being insulated with a material against the action of moisture but subject to variations in temperature; a pipe extending through a duct of said conduit and permanently carried therein said pipe having a series of outlets along its length, and means for supplying a cooling fluid to said permanent pipe to be discharged from said outlets into the duct through which the pipe extends.

1,307,071. PUMP. CARL WIRTH, Rochester, N. Y. Filed Sept. 25, 1918. Serial No. 255,067. 3 Claims. (Cl. 230—27.)



1. A pump comprising a sheet metal compression tube formed with a flared end providing a packing seat, a mem-

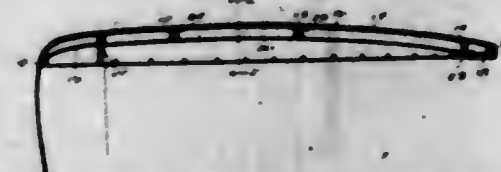
ber braced to the flared end of the tube and supporting said flared end externally, a cap detachably secured to said member and provided with a tapered projection fitting in said flared end, said cap having its top wall provided with a pocket extending into said projection, a piston rod extending through said projection and pocket, a packing in the pocket about the rod, and a packing between the tapered end of the compression tube and the tapered projection on the cap.

1,307,072. NECKTIE-FASTENER. JACOB ZAGEL, Chicago, Ill., assignor of one-half to John A. Soderstrom, Chicago, Ill. Filed Oct. 8, 1918. Serial No. 257,393. 2 Claims. (Cl. 2—82.)



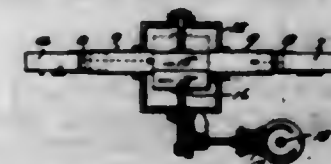
1. A necktie fastener comprising a metallic spring element, and a second element formed of an elongated flat piece of metal having tongues formed integrally with the material thereof on opposite sides intermediate its ends, the sides of said tongues adjacent the bases thereof being extended outwardly and into the material of the body of the metallic element whereby cut-away portions or notches are formed adjacent the bases of each of the said tongues and extending into the material of the body portion of the element.

1,307,073. AUTOMOBILE-TOP. BENJAMIN H. ALVEY, Louisville, Ky. Filed July 11, 1917. Serial No. 179,876. 2 Claims. (Cl. 21—62.)



1. In an automobile top, the combination with the frame having transverse roof members, and an outer covering therefor, of an inner lining having transverse listing strips projecting from its inner surface and adapted to lie against approximately vertical faces of the roof members, and means for detachably securing the inner lining to the frame members, comprising complementary portions which separably engage each other and are carried by the listing strips and contiguous surfaces of the roof members, respectively.

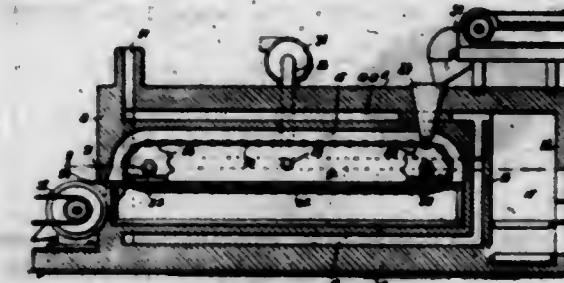
1,307,074. APPARATUS FOR TAKING PHOTOGRAPHS FOR THE STEREOSCOPIC PROJECTION OF MOTION-PICTURES. SIDNEY N. BARUCH, San Francisco, Calif. Filed Aug. 9, 1918. Serial No. 249,102. 5 Claims. (Cl. 88—16.6.)



1. An apparatus for taking photographs for the stereoscopic projection of motion pictures, comprising two adjacent reflecting prisms arranged to reflect images into a motion picture camera, two spaced prisms arranged to reflect images to said reflecting prisms and means for moving said reflecting prisms to reflect images from either and both of said spaced prisms simultaneously into said camera.

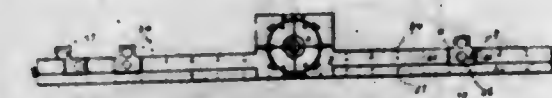
5. A motion picture film containing pictures of subjects alternating with pictures consisting of two partial views of the same subject taken from different view points.

1,307,075. APPARATUS FOR TREATING FOOD MATERIAL. JOHN D. BELTON, Crowley, La. Filed Aug. 20, 1917. Serial No. 187,297. 2 Claims. (Cl. 34—12.)



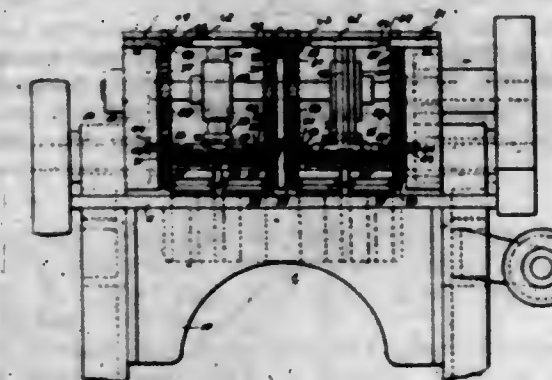
1. Apparatus for treating edible fibrous material to produce meal, the same consisting of a chamber having an inlet at one end and an outlet at the opposite end, means at the inlet end for comminuting the fibrous material, a conveyor within the chamber for receiving the material and moving it through the chamber in a thinly divided state, means for heating the chamber to desiccate and parch the material, means connected with the chamber for carrying off the moisture and chaff and creating a circulation of air, and a mill at the outlet for reducing the dried and parched material to pulverulent form.

1,307,076. COMBINATION DRAWING AND MEASURING INSTRUMENT. DAVID MEADE BERNARD, Jacksonville, Fla. Filed Sept. 10, 1917. Serial No. 190,574. 13 Claims. (Cl. 33—26.)



1. A drafting instrument composed of a body portion, having a graduated straight edge, and a disk, said disk being pivotally secured in said body portion, and said instrument having thereon in close proximity to the outer edge of said disk small polygonal figures which designate points corresponding to the vertices of regular polygons and said instrument also having thereon a definitely determined point which cooperates with the said designated points and the divisions of said graduated straight edge to determine the vertices of regular polygons.

1,307,077. DISK-CUTTING MACHINE. ALEXANDER BOGDANSKY, Brooklyn, N. Y. Filed Aug. 10, 1917. Serial No. 185,492. 11 Claims. (Cl. 144—23.)



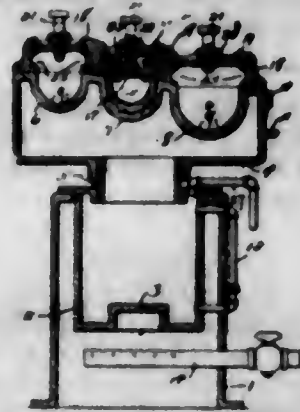
1. In a machine for cutting disks of cork strips or sheets: the combination with a frame and a rotary tubular cutter mounted therein; of a member to retain said material; and means to move said member in the axis of said cutter to cut the material, said member and moving mechanism being pivotally secured as a whole to said frame so as to be capable of being swung away to expose the cutter.

1,307,078. COOKING UTENSIL. ROBERT J. BOVEN, Goodlett, Tex. Filed Apr. 9, 1917. Serial No. 100,773. 3 Claims. (Cl. 53-5.)



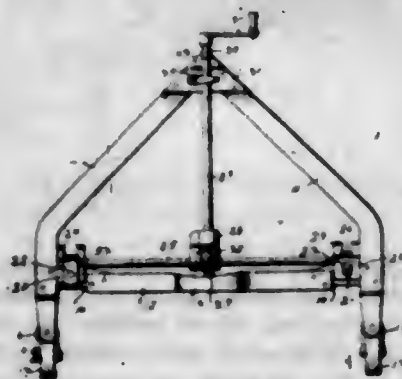
1. In a cooking utensil, the combination of an open mesh body adapted to be opened to receive material to be cooked, means for rotating the body, and a retainer arranged in the body and including a plurality of spring arms for engagement with the material to yieldingly hold it against the inner side of the body.

1,307,079. APPARATUS FOR CURING TIRE-CASINGS. PHILIP P. BONGIO, and ELONZO STEPHENSON, Fort Worth, Tex. Filed Feb. 11, 1919. Serial No. 276,255. 2 Claims. (Cl. 18-18.)



1. An apparatus for curing tire casings comprising a boiler, a curved curing form rectangular in cross-section and having a plurality of curved casing holding forms formed integral with the interior or concave side of said form and suspended within the space within said form, a nipple connecting said curing form to said boiler, clamping members attached to the concave edges of said casing holding forms provided with grooves in the sides thereof for pressure resisting plates and curved grooves for the beads of the tire casings, pressure resisting plates mounted in the first named grooves provided with bosses thereon, a sand bag and a curved channel plate for each casing holding form, and screw bolts projecting through said bosses and plates for exerting pressure on said channel plate.

1,307,080. AUTOMOBILE JACK. JOHN ELBERT CHURCHLEY, Nashville, Tenn. Filed Feb. 12, 1919. Serial No. 276,509. 7 Claims. (Cl. 254-6.)



1. A jack of the character described including a wheeled supporting frame, a pair of bars mounted on the frame, a

shaft, pinions on the shaft engaging the said bars, and unitary means for oscillating said shaft or for rotating the shaft.

6. A jack of the character described including a triangular frame, vertically disposed boxes mounted upon the frame at the base of said triangle, castor wheels supporting the corners of the frame, vertically disposed rack bars mounted in said boxes and carrying pinions engaging said rack bars, a medially disposed worm wheel mounted on the jack to rotate therewith, a yoke having arms pivoted on the shaft and embracing said worm wheel, a sleeve extending from the yoke toward the apex of the triangular frame, a worm shaft passing through said sleeve and yoke and carrying a worm engaging the worm wheel and at its opposite end carrying a crank, and a latch pivotally mounted on the apex of the frame shiftable into position into or out of engagement with the sleeve.

1,307,081. [WITHDRAWN.]

1,307,082. TURBINE-BUCKET BLADE AND METHOD OF MAKING THE SAME. JOSEF Y. DARLSTRAED, Wellsville, N. Y., assignor to Kerr Turbine Company, Wellsville, N. Y., a Corporation of New York. Filed Nov. 14, 1917. Serial No. 201,966. 3 Claims. (Cl. 29-23.5.)



1. The herein-described method of making turbine buckets which consists in forming an oblong blank comprising a right hand bucket and a left hand bucket having their similar and outer ends integrally united at the center section of the blank, and then cutting the blank in two normal to its length and through the integral buckets at their united ends.

1,307,083. YOKE FOR DRAFT-RIGGING AND PROCESS OF MAKING THE SAME. JOHN W. DALMAN, Chicago, Ill. Filed July 8, 1918. Serial No. 243,802. 5 Claims. (Cl. 29-164.)



1. A process of constructing an integral hooded coupler yoke from an elongated blank of forged steel comprising the operations of cutting said blank inwardly from each end upon the longitudinal center thereof to form hood sections, spreading said sections outwardly from the longitudinal axis of said blank, deflecting the end parts of said sections into substantial parallelism with said axis, bending said sections through substantially ninety degrees upon lines parallel to said axis and forming key openings near the ends of said sections.

1,307,084. RAIL-ANCHOR AND MANUFACTURE THEREOF. EMIL C. DANNER, Westmont borough, Pa. Filed Apr. 8, 1919. Serial No. 288,645. 9 Claims. (Cl. 238-330.)



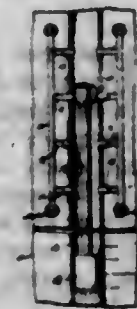
4. A rail anchor comprising a bar of metal having terminal jaws of unequal lengths, an intermediate portion bent toward said jaws, one or more of the bent portions being stiffened by integral deepening thereof.

1,307,085. RAIL-HOLDING MEANS. URIAH DIXIE, Bangor, Pa. Filed Feb. 26, 1919. Serial No. 279,209. 5 Claims. (Cl. 235-51.)



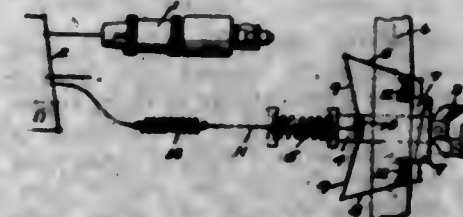
2. A device of the class described, comprising a pair of members provided with rail-engaging jaws and one slidable within the other, and means pivotally carried by one of said members and adapted to engage the other for locking the jaws in rail-holding position.

1,307,086. THERMAL CIRCUIT-CLOSER. RICHARD DIKSTRA, Chicago, Ill. Filed Nov. 9, 1918. Serial No. 261,887. 2 Claims. (Cl. 200-32.)



1. A circuit-closing thermostat including a thermometer, a float movable therethrough by the rise and fall of liquid within the thermometer and having a stem smaller in diameter than the interior diameter of the thermometer tube and carrying opposed connected contacts, a series of pairs of contacts extending through the wall of the tube and disposed in the path of movement of the float named contacts, conductors disposed on each side of the thermometer and extending parallel to the contacts on that side but spaced therefrom, and a connector having means for bridging the space between any pair of contacts and the corresponding conductors, the conductors being adapted to be connected in a circuit with a signal and a source of energy.

1,307,087. DRAW-BAR SLACK ADJUSTER. PATRICK H. DONOVAN, Pittsburgh, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Nov. 8, 1916. Serial No. 130,159. 4 Claims. (Cl. 213-42.)



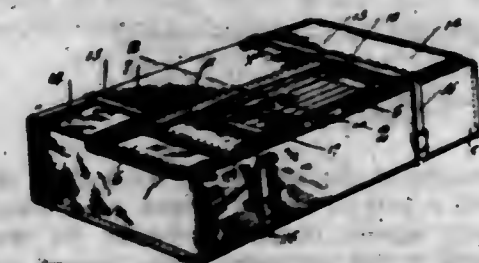
1. The combination with a draw-bar and means for applying the brakes, of mechanism operatively connected to said means and operating upon applying the brakes to take up draw-bar slack.

1,307,088. SPARK-PLUG. JOSEPH WALTER DRUMMOND, Chillicothe, Ohio. Filed Sept. 21, 1918. Serial No. 255,120. 2 Claims. (Cl. 123-169.)



1. A spark plug having a cylindrical shell, a main axial electrode insulated from the shell, and a frusto-conical electrode tapering inwardly from the inner end of the shell and having an opening at its smaller inner end through which the axial electrode passes, the larger end of the said frusto-conical electrode having a flange joining the same to the inner end of the shell and provided with openings therethrough for the purpose described.

1,307,089. SHIPPING CASE OR CONTAINER. CLARENCE S. DUDLEY, Ypsilanti, Mich. Filed Dec. 5, 1917. Serial No. 205,557. 1 Claim. (Cl. 150-52.)



A shipping case including a box having front, back and side closure flaps, a fabric covering removably mounted on the box and having front and back flaps connected to the front and back flaps of the box, side flaps upon the covering provided with casings along their ends, said front and back flaps of the covering being in position to lap the side closure flaps, the front flap of the covering constituting means for holding an address, an apron secured to the back flap of the covering and adapted to receive an address, said apron being movable to position over or under the address carrying flap, there being openings in the free corner portions of the apron, the side flaps of the covering being adapted to extend over the front and back flaps of said covering and to lap the ends of the apron, and straps extending around the case and through the casings, said straps being insertible through the openings in the apron when said apron is exposed upon the address carrying closure flap.

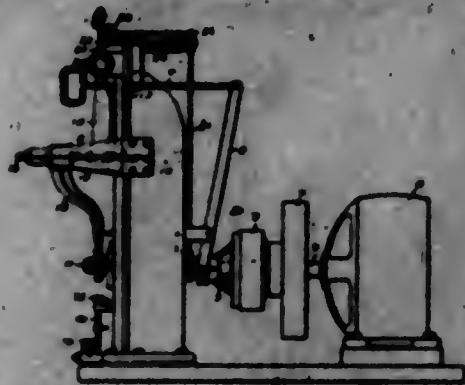
1,307,090. PROCESS OF TREATING NUTS AND PRODUCT THEREOF. HENRY V. DENHAM, Mount Vernon, N. Y. Filed Jan. 22, 1919. Serial No. 272,547. 4 Claims. (Cl. 99-11.)

4. Cooked shelled peanuts, the outer portions of which are impregnated with a sealing coat of paraffinum liquidum.

1,307,091. TESTING-MACHINE. LOUIS E. FOSTER, Annapolis, Md., assignor to Tinius Olsen Testing Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 8, 1916. Serial No. 71,047. 9 Claims. (Cl. 345-12.)

1. The combination in a testing machine of a supporting frame having a yoke; a shaft mounted in the frame; an arm on the shaft; resilient means for resisting oscillation of said arm; a trunnion carried by the yoke in position to

engage one end of a test piece whose second end is connected to said arm; a second arm formed to engage the



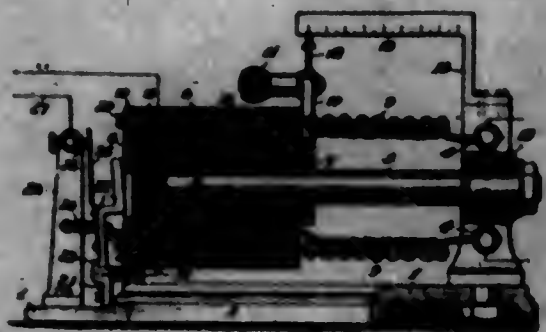
test piece adjacent its point of engagement with the trunnion; and means for oscillating said second arm about the axis of oscillation of said first arm.

1,307,002. VEHICLE OF THE SELF-LAYING-TRACK TYPE. BARNEY FUCHS, Paris, France, assignor to Louis Renault, Billancourt, France. Filed Apr. 26, 1918. Serial No. 230,820. 4 Claims. (Cl. 21-186.)



1. In a tractor of the self-laying track type, the combination with a pair of spaced drums, of a plurality of relatively wide wheels disposed between the same and having grooves in the peripheral faces thereof, and endless cables passing around the drums and over the wheels and located in the grooves of the latter.

1,307,003. ELECTRIC INDUCTANCE APPARATUS. BENJAMIN FULTON GARDNER, Chicago, Ill., assignor of one-half to Seymour Stedman, Chicago, Ill. Filed Aug. 26, 1918. Serial No. 281,702. 4 Claims. (Cl. 175-357.)

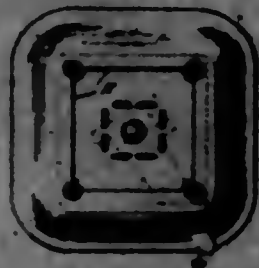


1. In an electric induction apparatus of the class described, an outer coil of the solenoid type, a secondary coil mounted upon a tubular core and adapted to move in and out of said outer coil, an immovable inner core supporting said secondary coil and said tubular core, said cores being of magnetic material.

1,307,004. ELECTRIC SWITCH. ALFRED C. GILBERT, New Haven, Conn., assignor to The A. C. Gilbert Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 28, 1918. Serial No. 214,130. 9 Claims. (Cl. 175-202.)

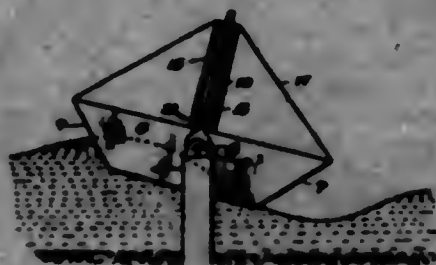
1. A reversing switch comprising a plate of insulating material having spaced conductors secured to one face

thereof and positioned to form the four sides of a quadrangle, said conductors comprising metal strips having



the ends thereof extending through said plate and bent into clamping engagement therewith, and means pivoted upon said plate to cooperate with said conductors.

1,307,005. SURF OR WAVE MOTOR. WILLIAM GUNDMAN, St. Andrews Parish, S. C. Filed June 26, 1918. Serial No. 241,267. 9 Claims. (Cl. 268-11.)



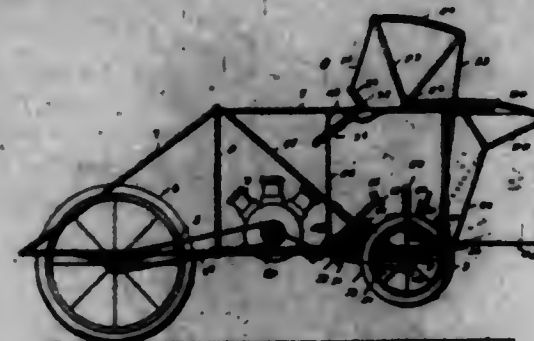
1. A motor of the class described comprising supports, a rotatable shaft journaled upon said supports, a rocking body mounted upon the shaft, uprights rising from the said body, ratchet wheels fixed to the shaft at opposite sides of the body, operating levers slidably engaging the uprights, said shaft loosely journaled in said operating lever, and pivoted spring held pawls mounted on the levers and engaging said ratchet for turning the same on the rocking of the body whereby motion will be imparted to the shaft.

1,307,006. TOY HOOP. MARIA E. HOLDSBY, Yonkers, N. Y. Filed Sept. 8, 1917. Serial No. 180,231. 3 Claims. (Cl. 46-48.)



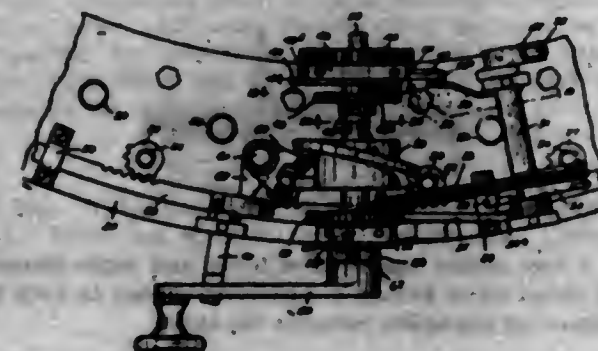
1. In a device of the character stated, a hoop, a hub block positioned centrally thereof and provided with spaced bores disposed substantially at right angles to each other and remote from the center of the block, said block being further provided with a central transverse bore, a pin extending loosely through the central bore of said block, spokes extending through the other bores of the block and having their ends secured to said hoop, said spokes being disposed radially of the hoop and positioned within the outline thereof, and figures loosely mounted on said pin adjacent each side of the block.

1,307,007. COMBINED MOTOR-CYCLE AND AIRCRAFT. CHARLES D. HUSTON, Newport News, Va. Filed Oct. 1, 1918. Serial No. 264,418. 7 Claims. (Cl. 180-21.)



1. A device of the character set forth comprising a frame, a fork pivoted to the forward end of said frame, a drive and ground wheel journaled to said fork, means rotating said wheel, ground wheels carried by the frame, and means carried by the frame for supporting the same in the air when the device is in motion.

1,307,008. VOTING-MACHINE. STYRE LOE, Minneapolis, Minn., assignor, by direct and mesne assignments, to Loe Multiplex Voting Machine Company, Minneapolis, Minn., a Corporation of Minnesota. Filed May 24, 1917. Serial No. 170,722. 18 Claims. (Cl. 235-54.)

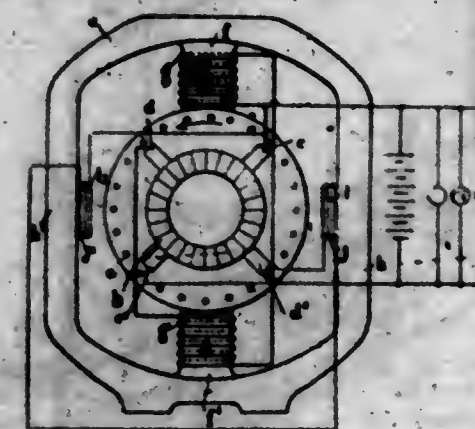


1. In a voting machine, the combination with a set of vote registers and a cooperating set of register actuators, of a movable voter's operating hand piece with connections whereby movement thereof from normal position will cause the set actuators to operate cooperating registers, a lock normally holding the said voter's hand piece in normal position, and a judge's lever having two movements and combined connections whereby movement in one direction will release said voter's hand piece and movement in the opposite direction will restore said voter's hand piece to normal position.

1,307,009. VARIABLE-SPEED DYNAMO-ELECTRIC MACHINE. ALBERT HENRY MISSELEY, Acton Vale, England, assignor of one-half to Charles Anthony Vandervell, Warple Way, Acton Vale, England. Filed Nov. 23, 1915. Serial No. 63,132. 1 Claim. (Cl. 171-222.)

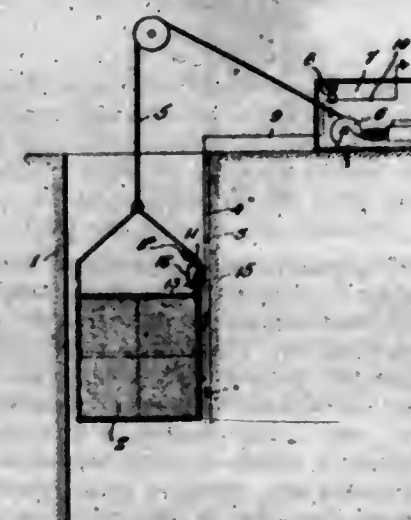
A dynamo electric machine comprising an armature, armature conductors thereon, a commutator, a field magnet having main poles, and auxiliary induced poles lying between the main poles and induced by the armature cross flux, main and auxiliary brushes on the commutator arranged alternately between the main and the auxiliary induced poles and an excitation winding on each main pole, and an excitation winding used in conjunction with each auxiliary induced pole, the excitation windings on the main poles being connected in series with one another and their free ends with a main and an auxiliary brush,

respectively, spanning the armature conductors under one main pole only, and the excitation windings used in conjunction with each auxiliary induced pole being wound to produce a flux in opposition to the armature



cross flux and being connected in series with one another and their free ends with a main and an auxiliary brush, respectively, spanning the armature conductors under one regulating pole only, as and for the purpose set forth.

1,307,100. CIRCUIT-CLOSER FOR SIGNAL DEVICES. PATRICK F. MORRIS, Butte, Mont. Filed May 12, 1917. Serial No. 168,135. 1 Claim. (Cl. 200-27.)

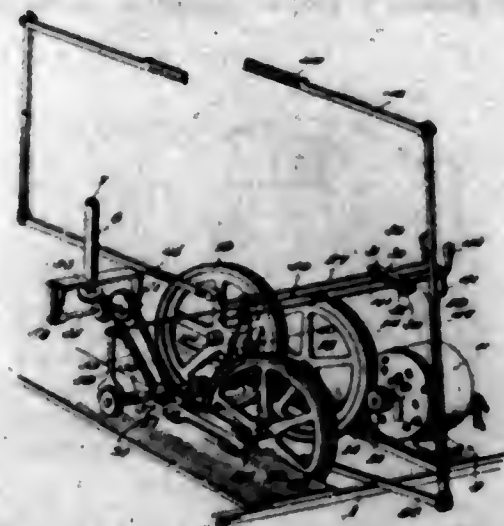


In a circuit closer, a casing provided with a depending tubular member positioned within the casing in spaced relation thereto, a rod slidable in said tubular member, the casing being provided with a boss forming an extension at the upper end of the tubular member, a cap threaded on said boss, a tension spring secured to said cap at one end and to the upper end of the rod at the other end, a rod secured to the lower end of the first mentioned rod and electrically insulated therefrom, a contact carried by the second mentioned rod, and a contact mounted on said casing for engagement thereby when said rod is moved into lowered position.

1,307,101. GEARING FOR WASHING-MACHINES. JOHN NALSON, Newton, Iowa. Filed Oct. 22, 1917. Serial No. 197,971. 4 Claims. (Cl. 74-7.)

1. In mechanism of the class described, a driven shaft, a plurality of clutch members on said shaft, rods extending parallel to the shaft and slidably mounted side by side, and arms extending from the rods and each engaging one of the clutch members, the said rods being provided with

handle portions located in relatively close proximity to each other, the handle portions being turned at angles to



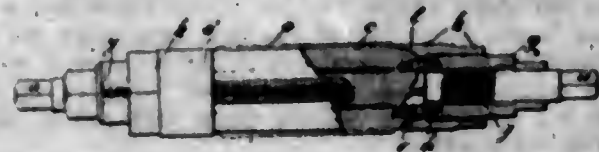
their respective rods and one handle portion extending in an opposite direction to another.

1,307,102. GALVANIC BATTERY. JOHN EDWARD PRESTON, London, England. Filed Dec. 30, 1916. Serial No. 139,824. 2 Claims. (Cl. 204-38.)



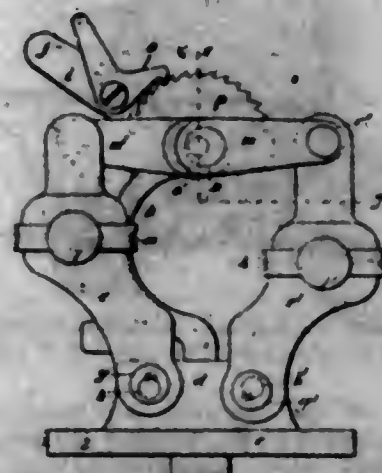
1. A removable stopper unit for a closed galvanic battery cell, including in combination a stem, insulated positive and negative elements mounted thereon one within the other and comprising one element of a clamp, insulated conductors connected to said electrodes one conductor within the other, an elastic ring fitted loosely over said conductors above said clamp element, a cover plate forming the complementary clamp element, means on the outer conductor for drawing the clamping parts toward one another, and a tapering member located between said clamping elements substantially as and for the purposes set forth.

1,307,103. TAP FOR CUTTING SCREW-THREADS. EDWARD MILTON WILDEY, Canonbury, London, England. Filed Dec. 4, 1917. Serial No. 205,445. 4 Claims. (Cl. 10-142.)



4. A tap having a core with a multiplicity of longitudinal grooves and smooth and threaded portions, a threaded cutter in each groove, chamfered ends to the cutters, inner and outer coned end-grips co-spiraling therewith, intermediate sleeve-nuts screwed on the aforesaid threaded portions of said core, a coarser pitch thread on the external diameter of the sleeve-nuts, said sleeve nuts co-spiraling and actuating the said coned end-grips, substantially as described.

1,307,104. DEVICE FOR CUTTING SCREW-THREADS BY CHASERS. EDWARD MILTON WILDEY, Canonbury, London, England. Filed Nov. 21, 1917. Serial No. 203,280. 6 Claims. (Cl. 10-100.)



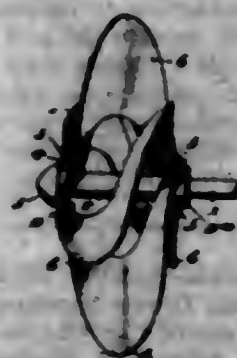
1. A supporting control device for chasers comprising two chaser holders each on a rocking upright, with means for the adjustment of height, and means for making the uprights to approach or recede.

1,307,105. BOW-SOCKET. EDGAR E. ADAMS, Cleveland, Ohio, assignor to The Cleveland Hardware Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 21, 1914. Serial No. 878,242. 3 Claims. (Cl. 21-61.)



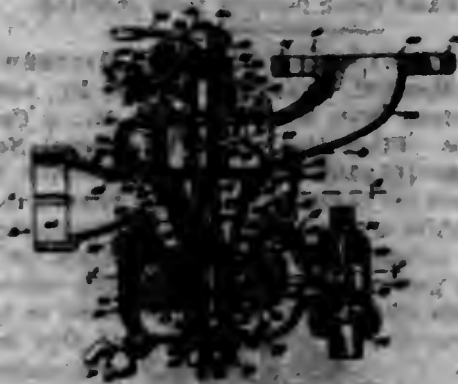
1. A bow socket composed of inner and outer concentric sheet metal tubes having a separator welded to both tubes and upset or expanded between the tubes.

1,307,106. PROPELLER. WILLIAM H. ARMSTRONG, Washington, D. C. Filed Sept. 24, 1917. Serial No. 193,302. 4 Claims. (Cl. 170-172.)



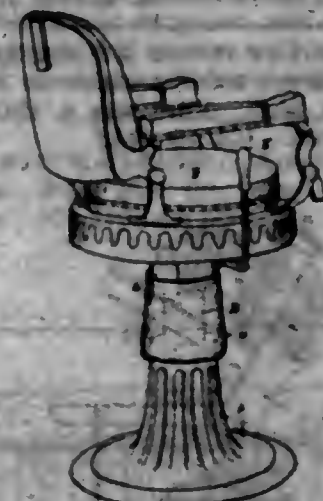
2. A screw propeller including a hub member adapted to be fitted upon a shaft and formed with a spacing sleeve and end caps which are provided with corresponding sets of laterally projecting arms, the ends of the arms being bent forwardly parallel to the sleeve and terminating in outwardly projecting bifurcated clips arranged at an angle to the axis of the sleeve, and looped propeller blades formed of flat plates and gradually decreasing in width from the middle portions to the extremities thereof, said extremities being secured within the bifurcated clips of the end caps.

1,307,107. CARBURETOR. FRED I. ARNOLD, New York, N. Y., assignor to Robert L. McIlroy, New York, N. Y. Filed Nov. 11, 1916. Serial No. 139,703. 3 Claims. (Cl. 261-45.)



3. A carburetor embracing four main castings, one of said castings forming a throttle outlet and a mixing chamber, the second casting forming the air intake and air passages, the third casting forming the Venturi tube and a cup shaped member, and the fourth casting forming the fuel reservoir, the third casting being secured to said first casting and anchoring between said first casting and said third casting the second casting, means for securing the fourth casting to the third casting, the cup shaped member forming the cover for said fuel reservoir, a cover for said first casting, a valve for controlling the throttle outlet anchored to said first casting, a second valve for controlling the supply of fuel from said reservoir to said Venturi tube, the second valve being operatively connected to said first valve, and means for securing the cover to said first casting, the removal of said securing means permitting the removal of the cover and with it the first valve and second valve for the purpose of cleaning.

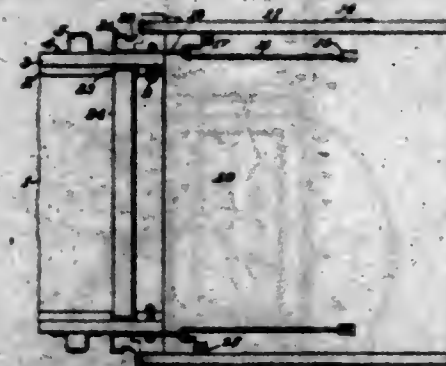
1,307,108. CHAIR. EUGENE BURNINGHAUS, Cincinnati, Ohio. Filed Dec. 8, 1916. Serial No. 135,904. 3 Claims. (Cl. 155-7.)



1. A chair comprising, a base having a vertically disposed cylindrical upper section and a horizontally extended lower section, a chair seat, a standard having an enlarged head section attached to the chair seat and a cylindrical section seated and vertically adjustable in a cylindrical recess in said base, a standard adjusting member projecting laterally from the enlarged head section of said standard close to said seat, and an angular apron carried rigidly relative to and exteriorly of said standard and movable telescopically over the exterior of the upper section of said base.

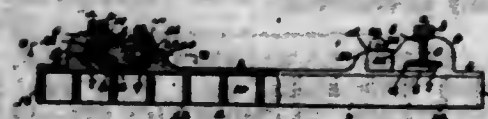
263 O. G.—28

1,307,109. WAGON. FRED A. BORT, Hopkins, Iowa. Filed Aug. 12, 1918. Serial No. 240,300. 3 Claims. (Cl. 21-21.)



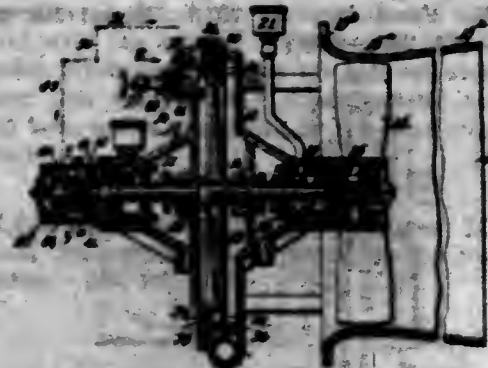
1. In combination, a wagon-box having an open end, a closure for the open end of said box, a resilient open clip thereon, and a resilient open clip on the wagon-box having engaging means, said clips coacting when engaged and held together by their engaging means to secure the closure removably upon the wagon-box.

1,307,110. RAILROAD-RAIL JOINT. JOHN J. BRANAGAN, McKees Rocks, Pa. Filed Mar. 1, 1919. Serial No. 280,109. 12 Claims. (Cl. 238-207.)



1. In a rail joint, the combination with the rails and a tie, of clamping bars on said tie for engaging with the rails and having slots within the same, keys having heads at one end for fitting within the slots in one bar and against the rails, and removable means on the other end of said keys for fitting within the slots in the other bar.

1,307,111. TURBINE-BLOWER. AXEL W. CARLSON, Worcester, Mass., assignor to Carling Turbine Blower Co., Worcester, Mass., a Corporation of Massachusetts. Filed May 27, 1918. Serial No. 236,810. 3 Claims. (Cl. 252-59.)

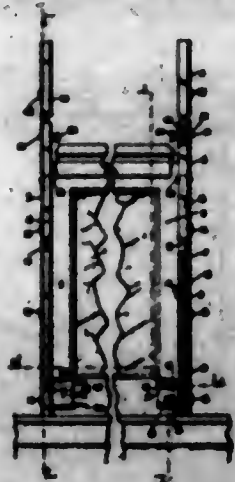


1. In a turbine blower, a rotary driving member, and an emergency stopping device effective to frictionally engage said member if the latter expands under centrifugal force at excessive speed.

1,307,112. WINDOW-FASTENER. GEARY E. CARSON, Albany, N. Y. Filed July 24, 1918. Serial No. 246,441. 11 Claims. (Cl. 16-18.)

1. An arrangement of the class described having in combination with the window frame and sash, a catch

member removably joined to the side of the window frame by a key and slot connection, and a latch carried by the



and positioned to cooperate with the catch member to hold the window in raised position.

1,307,113. DYE-SOAP. LELAND C. CATS, Chicago, Ill., assignor to Sunbeam Chemical Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 29, 1918. Serial No. 264,724. 7 Claims. (Cl. 8-4.)

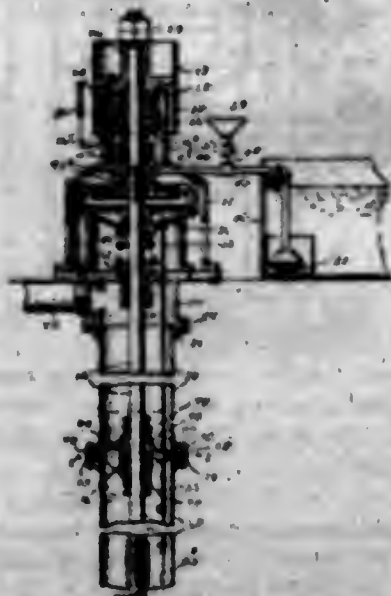
6. The method of making a dye soap which consists in preparing a saponified solution, heating the same to substantially 200° F., adding thereto a solution of dye and sulfonated oil at a temperature of approximately 300° F., then agitating the mass, and then molding the product, substantially as described.

1,307,114. THROTTLE-VALVE APPARATUS. JOHN S. CHAMBERS, Indianapolis, Ind. Filed Aug. 24, 1918. Serial No. 251,350. 21 Claims. (Cl. 277-12.)



1. A throttle valve apparatus including a balance-valve provided with operating means, and a lock to secure the balance-valve in closed position and controlled automatically by the operating means.

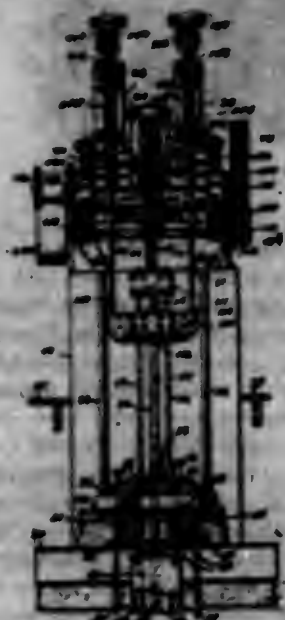
1,307,115. ROTARY PUMP. MATTHEW T. CHAPMAN, Aurora, Ill. Filed Apr. 19, 1915. Serial No. 22,861. 7 Claims. (Cl. 253-188.)



1. In a rotary pump, the combination of a sectional water discharge casing, a rotary pump shaft extending

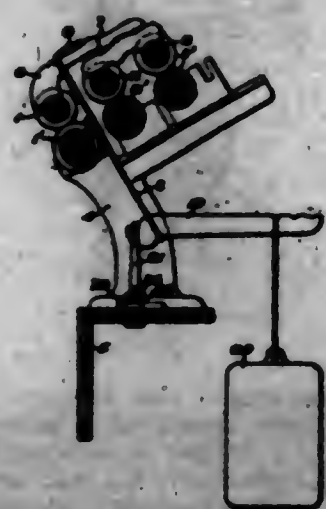
downward therein, a collar at each joint in the water discharge casing secured between the adjacent ends of the casing sections, a plurality of bearing sleeves for said shaft integrally connected with said collars respectively, and means for delivering clean water into each of said bearing sleeves for preventing any foreign substance carried by the water being pumped from entering.

1,307,116. PUMPING MACHINERY. MATTHEW T. CHAPMAN and MARK C. CHAPMAN, Aurora, Ill., assignors to The American Well Works, Aurora, Ill., a Corporation of Illinois. Filed May 26, 1916. Serial No. 90,730. 21 Claims. (Cl. 103-32.)



2. In a pump, the combination of a walking-beam, means for reciprocating said walking-beam up and down, a head on said walking-beam curved about the axis about which said walking-beam swings, a plunger in vertical alignment with the curved portion of said walking-beam, a spring mounted on the upper portion of said head, a cable wound about the curved portion of said head and connected with said spring and also with said plunger, and a yielding device adapted to be engaged by said walking-beam near the end of its downward stroke and to assist in starting the walking-beam upon its succeeding upward stroke.

1,307,117. TOP-ROLL-SADDLE MECHANISM. JOHN V. CONNORS, Fall River, Mass., assignor to James K. Lansing, Fall River, Mass. Filed May 6, 1916. Serial No. 95,962. 10 Claims. (Cl. 19-22.)



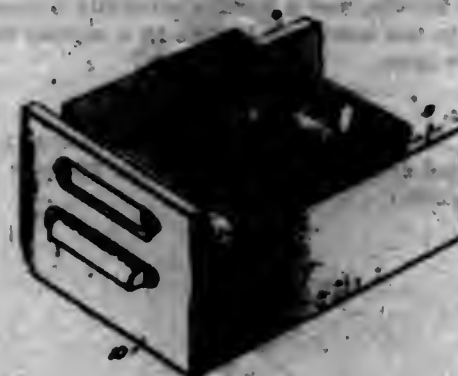
3. A top roll saddle mechanism comprising a saddle member, and a weight-supporting member having an integral formation which may be positioned so as to apply the weight thereof directly above the axis of either of a plurality of upper drawing rolls.

1,307,118. BRIDGE. GEORGE H. DAY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Voluntary Association of Massachusetts. Filed Dec. 26, 1917. Serial No. 264,935. 10 Claims. (Cl. 80-42.)



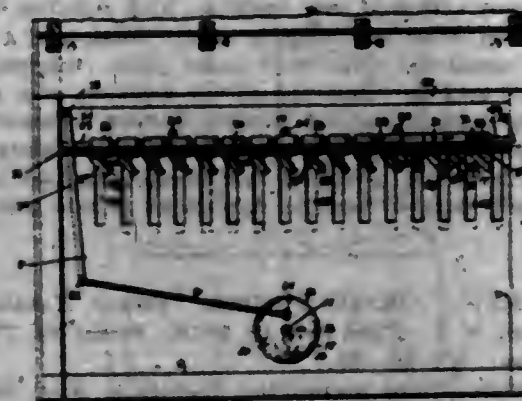
1. An adjustable crown, including spaced supporting plates, a movable member supported between the plates for longitudinal swinging movement, a bridge crown carried by the movable member, a plurality of teeth formed on the outer end of one of the supporting plates, and a plurality of teeth carried by the movable member for engagement with the teeth on the plate to retain the movable member in an adjusted position.

1,307,119. PRINTING DEVICE. JOSEPH B. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 31, 1915. Serial No. 69,870. 2 Claims. (Cl. 101-300.)



1. A printing device having printing characters stamped up thereon, a marginal spacing portion at its upper edge, and a flat integral lateral extension at the upper corner of each end of said device projecting beyond that portion of the end below said extension, said extension including the marginal spacing portion and having lower edges parallel with the upper and lower edges of the device.

1,307,120. STOCK-FEEDER. HARRY H. DUNHAM, New Salem, Ill. Filed Mar. 26, 1918. Serial No. 234,578. 10 Claims. (Cl. 119-84.)



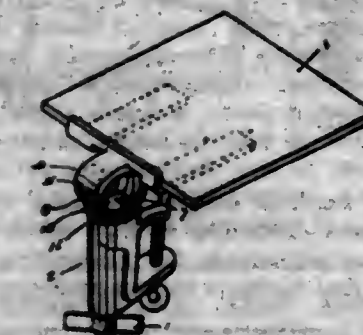
1. A stock feeder comprising a receptacle, a plurality of sections closing one side of the receptacle and supporting feed therein, and means for imparting a step by step opening movement to each of said sections successively.

1,307,121. DANCING FIGURE FOR PHONOGRAPHS. JOHN M. FOSTER, Fulton, N. Y. Filed Aug. 27, 1917. Serial No. 188,429. Renewed May 14, 1919. Serial No. 297,137. 9 Claims. (Cl. 46-40.)



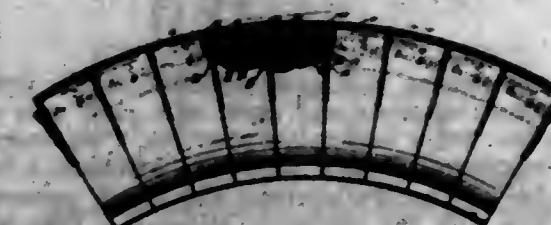
1. The combination with a talking machine and its rotating table, of a figure body, means for supporting the figure body above and in close proximity to the table and operating means connected to the table and adapted to engage a part of the figure to impart a dancing movement thereto.

1,307,122. JOINT. MILO D. GROSS, Walla Walla, Wash. Filed Oct. 28, 1918. Serial No. 259,979. 1 Claim. (Cl. 45-82.)



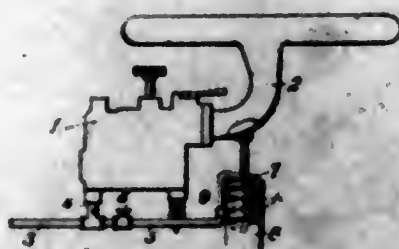
In a joint, a ring, arms extending from the ring, a peripheral slot in the ring, a recess in the outer portion of the ring adjacent to the slot, a corresponding recess in the inner portion of the ring adjacent to the slot, in diametrical line with the first mentioned recess, a bolt positioned in the peripheral slot, with the head of said bolt in frictional contact with the interior periphery of the ring, a support, a washer interposed between the support and the ring, said support and said washer encompassing the above mentioned bolt, and a thumbnut in threaded engagement with the bolt.

1,307,123. VEHICLE-TIRE. STEPHEN D. HARTOG, St. Louis, Mo. Filed Feb. 6, 1917. Serial No. 146,886. 17 Claims. (Cl. 183-18.)



3. A tire casing, comprising a series of tread segments, and connected frames for and in the treads of said segments.

1,307,124. FUEL-HEATER FOR EXPLOSIVE-ENGINES. GEORGE H. HAYES, Hazelton, Kans. Filed Aug. 13, 1917. Serial No. 186,068. 5 Claims. (Cl. 123-187.5.)



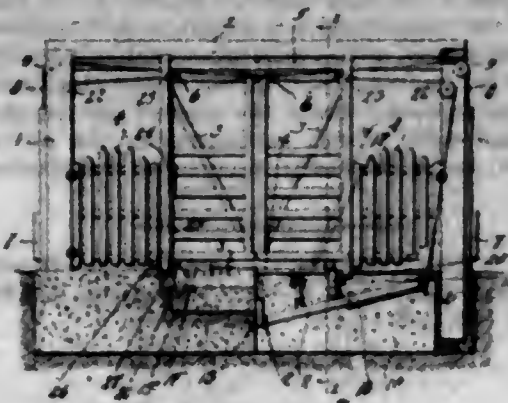
1. A carburetor, a manifold connected therewith, a liquid fuel conductor having two branches respectively discharging into the carburetor and into the manifold, a shut-off valve in the branch leading to the manifold, and means independent of an engine to which the carburetor may be connected for heating the branch which leads to the manifold.

1,307,125. SWITCH FOR ROLL-PASSES. THOMAS D. HOOD, Duluth, Minn. Filed Sept. 6, 1918. Serial No. 252,959. 5 Claims. (Cl. 80-51.)



1. A switch for roll passes including three pivotally mounted members connected to each other at a common point and being adjustable for controlling the path of movement of metal during a rolling operation.

1,307,126. GATE. GEORGE F. HOBSON, Thornton, Wash., assignor to Samuel Seidenfeld and Fannie Seidenfeld, Spokane, Wash. Filed Apr. 18, 1918. Serial No. 229,304. 3 Claims. (Cl. 39-18.)



1. The combination in a gate operating device, including the supporting posts and guide rail, of a gate suspended on the rail, a depressible platform, a transversely arranged depressible support under the platform, a lever arm fulcrumed under the platform and a link connecting the lever arm with the depressible support, a fixed beam below the platform, a cable attached at one end to the beam and at its other end attached to the gate, guide pulleys on the lever, and said cable passed around the pulleys whereby a pull is exerted on the cable as the lever arm is depressed.

1,307,127. ART OF RECOVERING POTASH. WILLIAM HOOKING, Chicago, Ill. Filed Jan. 12, 1917. Serial No. 142,080. 3 Claims. (Cl. 28-22.)

1. The method of obtaining potash, which consists in collecting the solid and condensable matter carried by the gases resulting from the combustion of coal in industrial furnaces, and extracting the potash from the said solid matter.

1,307,128. FLANGE-WRENCH. CHARLES F. HULE, Chicago, Ill. Filed Nov. 31, 1918. Serial No. 263,473. 9 Claims. (Cl. 81-60.)



8. A flange wrench comprising a handle, a head consisting of two members arranged on opposite sides of the handle and having serrated jaws, means for securing the members to the handle, and a hanger pivotally connected at its upper end to the head and handle in a medial line passing between the jaws.

1,307,129. HOSE-CLASP. EUGEN KARADAGHIL, Chatham, N. J. Filed Feb. 14, 1919. Serial No. 277,069. 3 Claims. (Cl. 24-260.)

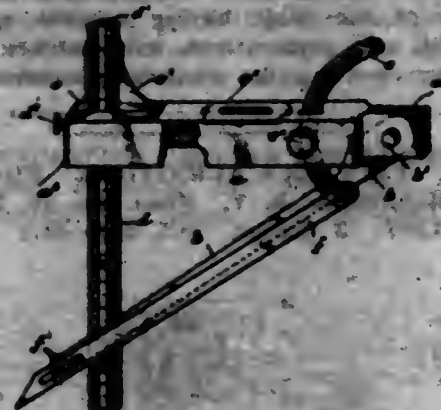


2. A hose clasp embodying therein an inner plate having a resilient cushion at one end thereof, a loop carried by said plate and spaced away from said cushion, an outer plate passing through said loop and slidably mounted therein with relation to said inner plate, said outer plate having at one end thereof a resilient cushion adapted to engage the cushion upon said inner plate, the co-acting surfaces of said cushions being oppositely inclined, whereby a wedging action of said cushions with relation to each other is secured as the clasp is being closed, and a frame pivotally connected with said outer plate, whereby said outer plate may be connected to the webbing of a garter, comprising a plate carried thereby having a downturned edge adapted to engage the end of said inner plate when the clasp is closed, whereby the stresses applied to said webbing will prevent relative movement of said plate.

1,307,130. GRADE-FINDER. EUGEN KARADAGHIL, Chatham, N. J. Filed Feb. 19, 1919. Serial No. 278,068. 4 Claims. (Cl. 33-38.)

1. A grade finder embodying therein a level body, a spirit level carried thereby, a slide member having graduations thereon adjustably mounted in and extending at right angles to the top surface of said level body, one end of said slide member being a predetermined distance from one end of said body, a supporting arm pivotally connected adjacent said end of said body, a segment slidably mounted in said body adjacent the point of pivotal support of said

arm, and a bar one end of which is pivotally connected with said segment, and the other end of which is connected



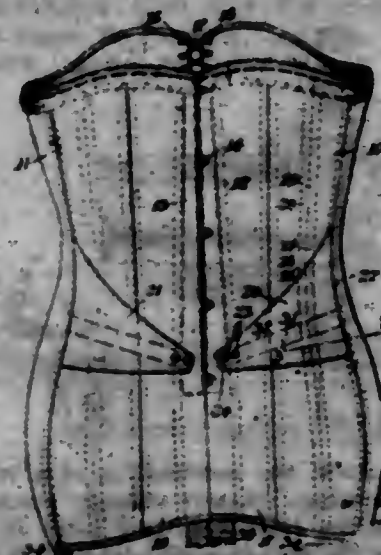
by a slot and a pin connection with said arm, said bar being of a length to extend across the plane of movement of said slide member.

1,307,131. TIRE-ADJUSTER. MARTIN KIMBLE, Auckland, New Zealand. Filed Feb. 9, 1918. Serial No. 215,080. 3 Claims. (Cl. 157-6.)



1. A tire jack having one end set at an angle to the body portion, beveled wheels mounted one on each side of said end, and a hooked arm pivoted to said body portion substantially as described and illustrated.

1,307,132. APPAREL-CORSET. DANIEL KORS, New York, N. Y. Filed Mar. 13, 1919. Serial No. 282,335. 6 Claims. (Cl. 2-73.)



1. In an apparel corset and in each corset body half thereof, a depending skirt member extending continuously from the back to the front medial line of the garment, and a self-reducing strap attached at one end to the cor-

set body half adjacent the hip section thereof and also to the corset body half forward of the hip section thereof whereby the self-reducing strap may be adjusted to position without interfering with the even continuity of the lower front portion of the depending skirt member.

1,307,133. AIRPLANE. CHRISTOPHER J. LAKE, Bridgeport, Conn. Filed Aug. 14, 1917. Serial No. 186,149. 3 Claims. (Cl. 244-29.)



1. In an airplane, an auxiliary aerofol presenting, for support, a normal angle of incidence in the line of flight, said aerofol turnable about a fixed lengthwise axis, in the central vertical plane of, and so inclined forwardly downward to the longitudinal axis of the airplane, that said aerofol, for control, presents varying angles of incidence to said longitudinal axis.

1,307,134. AIRPLANE. CHRISTOPHER J. LAKE, Bridgeport, Conn. Filed Aug. 26, 1917. Serial No. 186,683. 5 Claims. (Cl. 244-29.)



1. In an airplane, in combination, an auxiliary aerofol, and a bi-axial mount therefor, said aerofol having longitudinal pivotal movement and presenting, for vertical control, an angle of incidence in the line of flight, and said aerofol being turnable about a lengthwise axis, in the central vertical plane of, and so inclined forwardly downward to the longitudinal axis of the airplane, that said aerofol, for directional control, presents varying angles of incidence to said longitudinal axis.

1,307,135. HYDROPLANE, ALSO APPLICABLE TO HYDROAEROPLANES. CHRISTOPHER J. LAKE, Bridgeport, Conn. Filed Sept. 17, 1917. Serial No. 191,712. 15 Claims. (Cl. 244-2.)



1. A float comprising an inverted vessel having a series of longitudinally arranged transverse foils along its base, said foils separated by exteriorly communicating spaces, and said float presenting contained elastic fluid for compression, to provide buoyant support for said float.

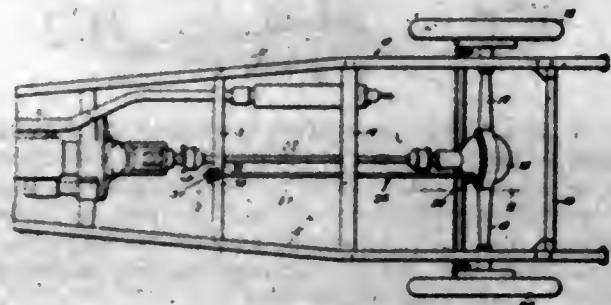
1,307,136. METHOD OF CASTING CHAINS. WILFRED LEWIS, Haverford, Pa. Filed Jan. 12, 1918. Serial No. 211,457. 6 Claims. (Cl. 22-103.)



6. The process of making chains which consists in making baked integral molds having spaced and locked

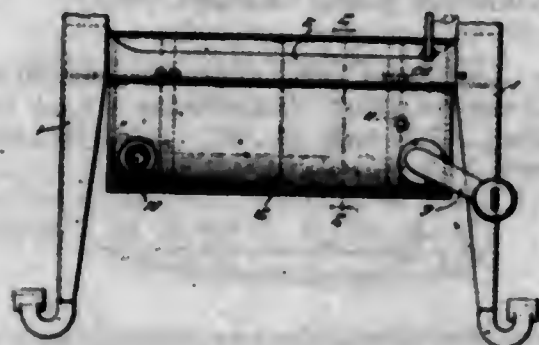
half-link matrices extending through two of their faces, arranging a series of such molds face to face to provide complete link matrices, pouring the complete matrices, and destroying the molds to remove the chain.

1,307,137. **TORSION-ROD FOR MOTOR-VEHICLES.** ADOLPH MONSEN, Chicago, Ill., assignor of one-half to Newton Van Zandt, Logansport, Ind. Filed Mar. 18, 1918. Serial No. 223,016. 1 Claim. (Cl. 180-85.)



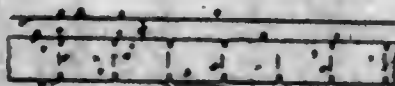
In combination with the frame of an automobile; a differential gear casing; a torsion rod connected thereto at one end and extending forwardly of the frame; a bracket fixed to a cross sill of said frame; a hanger pivoted to the bracket having an opening in its free end; a ball bearing comprising two concentric rings and balls therebetween, in said opening, one ring member whereof is secured to the end of said rod and the other member secured in said opening and a cap to close the outer end of the opening in the bracket.

1,307,138. **FUEL-TANK AND MEANS FOR SUPPORTING IT.** ADOLPH MONSEN, Logansport, Ind., assignor of one-half to Newton Van Zandt, Logansport, Ind. Filed July 5, 1918. Serial No. 243,379. 11 Claims. (Cl. 21-182.)



1. In combination with a frame, a tank to be supported therefrom, a bracket fitting within the tank and having a bearing and supporting surface conforming to the inside surface of the upper part of the tank, and means for connecting said bracket to said frame.

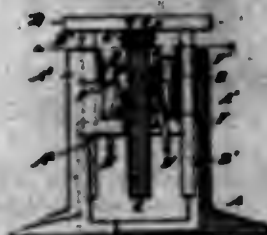
1,307,139. **CONSECUTIVE-SHEET PACKAGE OF REVERSELY-FOLDED MATERIAL.** CHARLES W. MORDEN, Portland, Oreg. Filed Apr. 26, 1917. Serial No. 164,720. 7 Claims. (Cl. 206-37.)



5. A package consisting of a continuous strip of material reversely folded into a plurality of folds and having perforations extending transversely and approximately midway between the creases of said folds, thereby dividing said strip into a plurality of consecutive folded sheets or units partially severed from each other and al-

ternately located at the opposite ends of the package, the creases of the folds being alternately spaced further apart and nearer together, for the purpose set forth, and the sides of the folds having notches approximately aligned with said perforations, said notches constituting grooves for receiving the supporting members of a wall fixture.

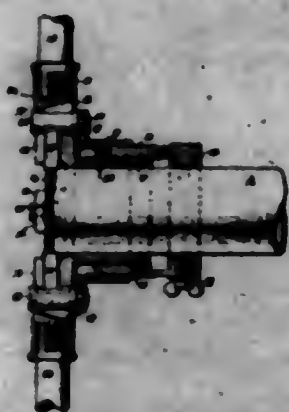
1,307,140. **PRINTER'S FURNITURE.** FLOYD W. MORGAN, Middletown, N. Y. Filed Jan. 29, 1919. Serial No. 273,807. 3 Claims. (Cl. 254-41.)



1. In a device of the character set forth, comprising two relatively movable members, hollow posts on one of said members, arms on the other of said members received in said posts, a screw rotatably mounted on one of said members between and parallel with said arms and engaged with the other of said members, and a head on said screw having three equally spaced radial cavities therein crossing at the center thereof and extending beyond such center and terminating within said head, each adapted to receive the end of a pin by which said screw may be turned, and adapted to limit the inward thrust of such pin.

2. A device of the character set forth, comprising relatively movable head and base members and guiding means therefor, a screw rotatably mounted in said head member and having angular conical threads adapted to serve as a ratchet, dogs having teeth matching to such threads and pivotally mounted in said base member, and flat springs of V form interposed between adjacent portions of said base member and said dogs, with one end bent at an angle and secured upon the upper face of each dog at the end of the latter, and the other ends of said springs slidably engaged with adjacent portions of the base member, the V-bends of said springs extended below the pivots of said dogs.

1,307,141. **DIE-STOCK.** IRA W. NONNEMAN, Warren, Ohio, assignor to The Norden Company, Warren, Ohio, a Corporation of Ohio. Filed June 28, 1917. Serial No. 177,435. 13 Claims. (Cl. 10-120.5.)



11. In a die stock, the combination of a rotary frame having radial housings, chasers slidably mounted in said housings and having tapered cutting teeth at their inner ends, recesses in the frame opposite the outer ends of the chasers, blocks mounted in the recesses and having beveled outer edges engaging beveled walls of the recesses, slotted barrels embracing said blocks and slidably occupying recesses in the chaser frame, a ring to which said barrels are connected, a sleeve on the chaser frame extending within

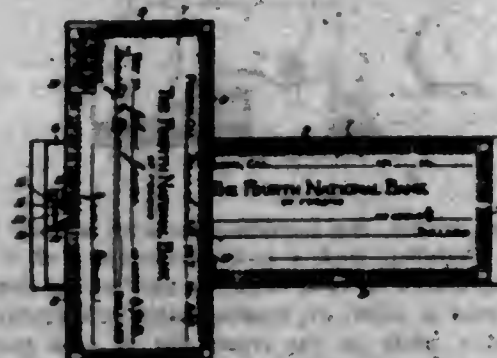
the ring, external threads on such sleeve and internal threads on the ring of different pitch, and a stationary member adapted to be clamped to the work to be threaded and having an extension projecting between the sleeve and ring and internally threaded to engage the sleeve and externally threaded to engage the ring.

1,307,142. **LOCOMOTIVE DRIVING MECHANISM.** ALFRED A. OLSON, Riverside, Ill. Filed Apr. 1, 1918. Serial No. 225,927. 11 Claims. (Cl. 105-84.)



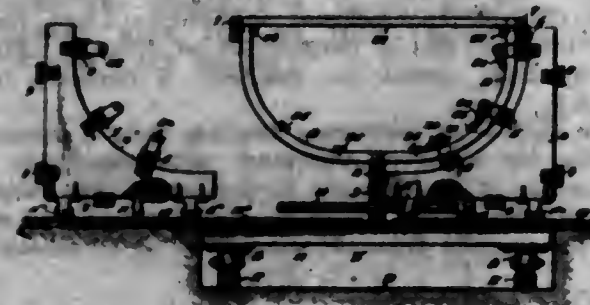
1. A locomotive driving rod mechanism comprising side rods, a non-revolving intermediate crank pin connected therewith, and a main rod connected with said intermediate crank pin.

1,307,143. **CHECK-BOOK.** WILLIAM B. PALMER, Conejo, Calif. Filed Apr. 18, 1917. Serial No. 102,870. 3 Claims. (Cl. 283-12.)



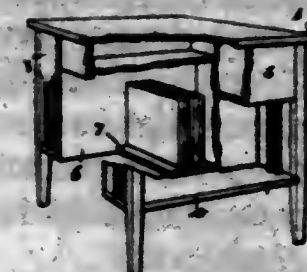
3. The combination with a check-book including a plurality of checks and stubs therefor permanently bound in said book, of a check notching device comprising a plate having an integral raised tongue and stop lugs on either side of said tongue respectively, and means for fixedly securing said plate to, and in a position overlying, the stubs of the check-book.

1,307,144. **METHOD AND SYSTEM FOR BUILDING BOATS.** ROBERT B. PATRICK, Jamaica, N. Y. Filed Feb. 20, 1919. Serial No. 278,279. 11 Claims. (Cl. 9-6.5.)



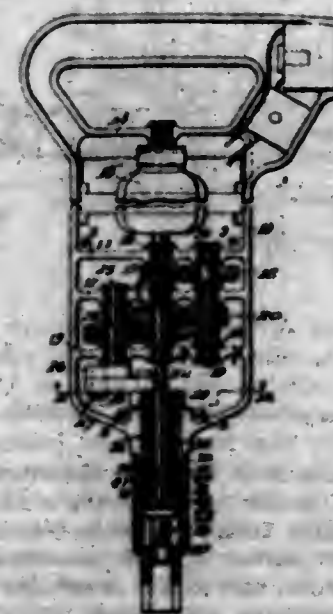
1. Apparatus for the construction of the frames of boats of the type having bent ribs, comprising a plurality of mold sections complementary to the exterior of the frame and having means for clamping the bendable ribs in situ against the forming surfaces, said sections being severally bodily laterally removable from the frame when the clamping means has been released from the ribs.

1,307,145. **TABLE-LEAF COMBINATION.** LAWIS W. PANWOCK, Cleveland, Ohio. Filed Nov. 17, 1917. Serial No. 302,518. Renewed Feb. 24, 1919. Serial No. 278,939. 1 Claim. (Cl. 45-112.)



A table leaf combination comprising folding table leaves hinged at their center edges and adapted to be closed shut and placed at rest within the body of a table and adapted to be opened and attached to table top for use; angle plates attached to under sides of folding leaves, the angle projections of which point away from leaf bodies at an angle of approximately forty-five degrees; sliding table leaf rests which operate in cross direction from beneath table top, provided with mortised angle notches adapted to receive and lock angle plate projections from extended table leaves; notched plate catches operating on pivots from and beneath table top and adapted to swing outward and engage set screws in under part of attached table leaves.

1,307,146. **POWER-OPERATED TOOL-CASING.** ARTHUR R. PETERSON and ANDREW P. WEAVER, Worcester, Mass. Filed Dec. 2, 1918. Serial No. 205,046. 11 Claims. (Cl. 20-26.)



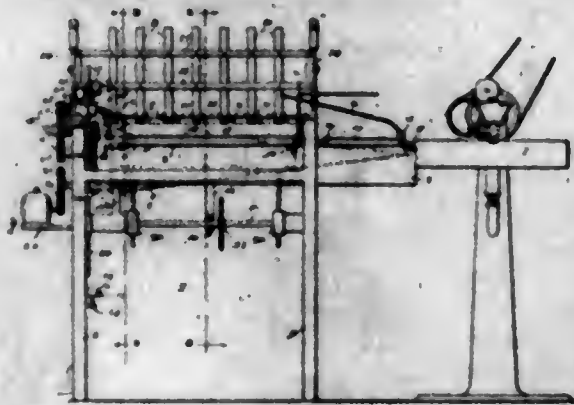
7. The combination with a portable frame for the purpose described constructed in the form of a hollow casing, of a motor centrally located therein at one end and having a central longitudinal driving shaft, a second central shaft in alignment with the motor shaft, said casing having rigid central bearings for said shafts in alignment with each other, gearing in the frame for driving the second shaft from the motor shaft at a reduced speed, said gearing being located on one side of said shafts, gearing located on the other side of said shafts opposite the first named gearing and connected with the first named gearing for producing an oscillatory motion, and a sleeve supported by said casing at the end opposite the motor, and connected with the oscillating gearing to be oscillated thereby and constituting a bearing for said second shaft.

1,307,147. **MUSICAL SETTING OR SCORE.** JOSEPH QUINTILE, Toronto, Ontario, and CECIL BAUGH MERRILL, Guelph, Ontario, Canada. Filed Aug. 30, 1918. Serial No. 252,052. 1 Claim. (Cl. 283-47.)



A musical setting or score comprising a plurality of musical composition enharmonically arranged but differing in tone, time and character one below the other upon the same sheet and so printed that the bars shall correspond at certain places from the top to the bottom of the sheet so that the performers may change immediately from one melody to another of different character and that the different tunes, enharmonically arranged may be played at the same time by several performers as may be required to accompany moving pictures.

1,307,148. **FOLDING AND STACKING MACHINE.** DANIEL REISER, Cleveland, Ohio. Filed July 9, 1917. Serial No. 179,353. 16 Claims. (Cl. 270-85.)



1. In an apparatus of the type described the combination of a saddle, means for conveying a folder along said saddle, reciprocating knives underneath said saddle, means for locking said knives against movement, means for receiving said folder, and means controlled by the arrival of a folder for unlocking said knives.

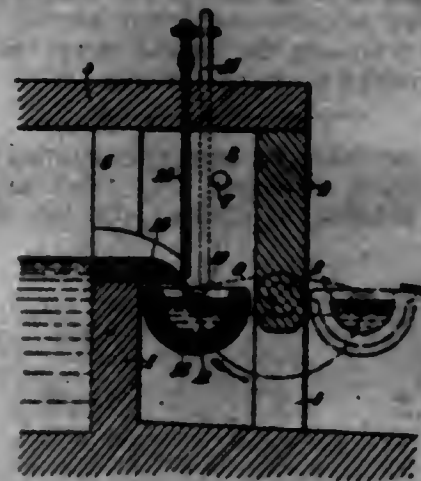
1,307,149. **CLEANING AND POLISHING COMPOSITION.** CLARENCE P. ROBINSON, Swarthmore, Pa., assignor to E. I. du Pont de Nemours & Company, Wilmington, Del., a Corporation of Delaware. Filed July 3, 1918. Serial No. 243,113. 4 Claims. (Cl. 87-5.)

1. A cleaning and polishing composition comprising a soap powder and a finely divided prepared wood having had oils and resins removed therefrom.

1,307,150. **GLASS DELIVERING AND MELTING APPARATUS.** EMILE ROIRANT, St. Ouen, France, assignor to Arthur Wilkin, St. Ouen, France. Filed Aug. 13, 1918. Serial No. 249,706. 9 Claims. (Cl. 49-55.)

7. The combination with a container for molten glass, of a glass receiving receptacle of elongated form, and

means to reciprocate said receptacle toward and away from said glass container, and for maintaining the



various positions of said receptacle parallel with one another.

1,307,151. **PAPER-CUTTER.** ALBERT ROWDEN and ROBERT A. HARTMAN, Groveton, N. H. Filed Nov. 24, 1918. Serial No. 264,360. 1 Claim. (Cl. 164-88.)



In a paper cutter, the combination with a body having an upright chamber, and a handle thereon; of a cutter adjustably mounted in said chamber and whose lower end is formed into a plow of substantially triangular cross section, and a knife at the front end of said plow also of triangular cross section and with its flat lower face pointed at the front end and its cutting edge extending rearward and upward from said point.

1,307,152. **TREATMENT OF THORIUM FLUORIDE.** LONNIE W. RYAN, Chicago, Ill., assignor to Lindsay Light Company, Chicago, Ill., a Corporation of Illinois. Filed May 29, 1918. Serial No. 237,330. 6 Claims. (Cl. 23-12.)

1. The method of treating thorium fluoride, which consists in digesting the fluoride with sulfuric acid at an elevated temperature.

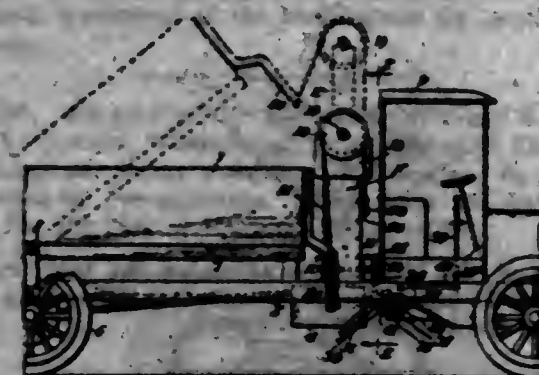
1,307,153. **RECOVERY OF THORIUM.** LONNIE W. RYAN, Chicago, Ill., assignor to Lindsay Light Company, Chicago, Ill., a Corporation of Illinois. Filed July 8, 1918. Serial No. 243,862. 8 Claims. (Cl. 23-13.)

1. The method of recovering thorium from a solution containing the same in admixture with impurities of the character of those found in monazite sands, which consists in precipitating the thorium as a fluoride, and dissolving the thorium from the precipitate as a carbonate.

1,307,154. **MECHANICAL HOIST FOR MOTOR VEHICLES.** ALBERT T. SCANNELL, Chicago, Ill. Filed July 30, 1917. Serial No. 183,481. 6 Claims. (Cl. 21-36.)

1. A body hoist for vehicles comprising a transverse member adapted to be mounted across the side members of the frame of a vehicle in advance of the body thereof, spaced apart uprights secured to said transverse member, a beam slidably mounted between said uprights, an op-

erating shaft disposed adjacent the lower end of said slidable beam, means for transmitting power from said



shaft to said beam to thereby raise the same, and means for transmitting such movement of said beam to said body.

1,307,155. **ANTENNA CONSTRUCTION FOR AERIAL VESSELS.** ADOLPH W. SCHRAMM, Riverton, N. J. Filed Apr. 9, 1918. Serial No. 227,529. 4 Claims. (Cl. 250-1.)

1. In a meter, a casing, a plurality of rows of odometers disposed within said casing, the odometers of one row being staggered with respect to the odometers of the adjacent row, the ends of the odometer shafts being in alignment, means connected with the ends of the odometer shafts for driving all of the said odometers simultaneously, and means shiftable from one odometer shaft to another for disconnecting any odometer from its driving train.

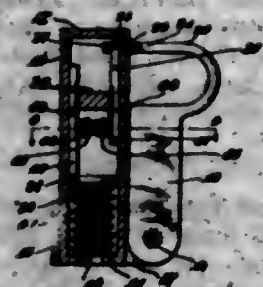
erating shaft disposed adjacent the lower end of said slidable beam, means for transmitting power from said

1,307,157. **METER.** MARVIN SMITH, Lawrenceville, Va. Filed July 15, 1916. Serial No. 109,440. Renewed Apr. 25, 1919. Serial No. 292,684. 21 Claims. (Cl. 235-144.)



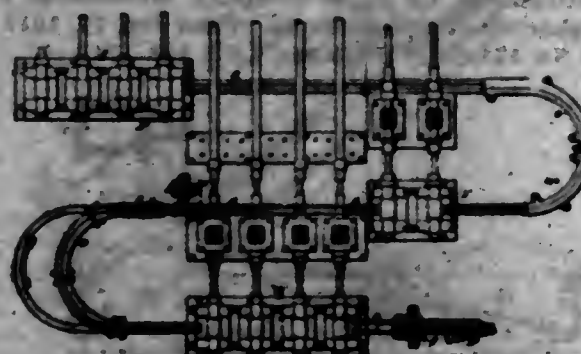
5. In a meter, a casing, a plurality of rows of odometers disposed within said casing, the odometers of one row being staggered with respect to the odometers of the adjacent row, the ends of the odometer shafts being in alignment, means connected with the ends of the odometer shafts for driving all of the said odometers simultaneously, and means shiftable from one odometer shaft to another for disconnecting any odometer from its driving train.

1,307,158. **PADLOCK.** STANISLAW SVIDER and JOSEPH LEACINSKI, Fort Hill, Okla. Filed Nov. 16, 1918. Serial No. 262,783. 1 Claim. (Cl. 70-105.)



1. The combination of an aerial vessel; a reel mounted thereon; a scribble member having one end connected to the reel; a weight on the other end of said member; and means for automatically limiting the speed of delivery of the scribble member from the reel to an amount insufficient to cause breakage of said member when it has all been paid out while said vessel is moving in a generally horizontal direction.

1,307,159. **RETARDER FOR ROAD-MILLS.** JOHN L. SMITH and SHERIDAN A. SMITH, Hamilton, Ontario, Canada. Filed July 30, 1918. Serial No. 247,397. 7 Claims. (Cl. 90-87.)



1. In a rolling mill wherein is provided first and second sets of rolls and a repeater located between said sets of

In a lock of the class described, the combination with a hollow cylinder having fixed walls at its ends, and shackle pivotally secured to the exterior of said cylinder, of a disk slidably engaged within said cylinder, a bolt slidably engaged internally of said cylinder having a part adapted to engage with the end of said shackle, a bar movable within said cylinder, said bar being attached to said disk, a pair of intermeshing pinions engageable within said cylinder, teeth on the adjacent sides of said bar and bolt, said teeth being engaged by said pinions respectively, resilient means for pressing said bar and bolt oppositely to lock said shackle when within said cylinder, and means for retracting said disk, and said locking bolt.

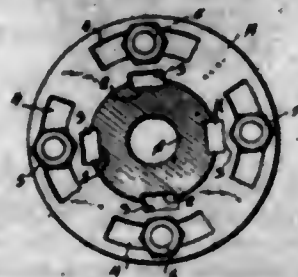
1,307,160. **WRITING INSTRUMENT.** VICTOR STEEL-BEATH, Basic, Va. Filed Mar. 20, 1919. Serial No. 283,799. 2 Claims. (Cl. 120-19.)



1. In a non-sharpening metal pencil the combination of a pair of barrel members each provided with a longi-

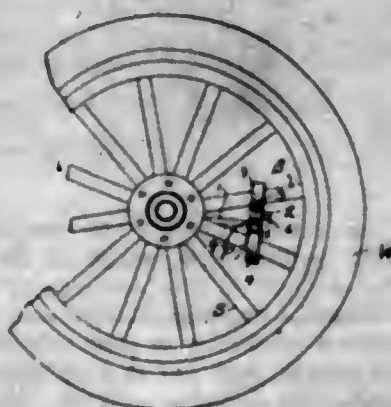
tudinal groove, forming a bore extending substantially the entire length of said members; means for spacing said barrel members apart at one end; screw threaded means for securing said members together at said end; adapted to prevent relative longitudinal movement of said members to each other a marking member adapted to slidably engage said bore; and means engaging the other end of said members adapted to cause them to grip said marking member, substantially as described.

1,307,160. COUPLING. FREMONT STOKES, Clarksville, Ark. Filed Feb. 10, 1919. Serial No. 275,952. 2 Claims. (Cl. 64-90.)



1. In combination with aligned members, a coupling therefor comprising annular members surrounding the adjacent ends of said first named members, each of said first named members and an annular member being provided with a plurality of coacting key-ways, and a key insertible within a registering pair of key-ways the remaining key-ways of the member being offset relative to the key-ways of the annular member.

1,307,161. LOCKING DEVICE. JAMES LEVI STUBBLEFIELD, Angiola, Calif., assignor of one-half to Archie T. Parker, Stockton, Calif. Filed Nov. 6, 1918. Serial No. 261,343. 1 Claim. (Cl. 70-90.)



A locking device for automobiles comprising a member having its opposite end portions provided with hooks, said hooks being adapted for engagement with adjacent spokes of a wheel, a rod loosely disposed through the member at a point between the hooks, one end portion of the rod being provided with an inwardly facing hook adapted to receive a spindle arm, and a holding member detachably engaged with the rod and coacting with the first named member.

1,307,162. SANITARY SHIELD. JOHN W. TAYLOR, Philadelphia, Pa. Filed May 29, 1918. Serial No. 237,244. 1 Claim. (Cl. 4-18.)

A sanitary seat cover consisting of a sheet of flexible material having at its central portion a group of weakened lines, certain of which lines are parallel to one another in spaced relation, and one of which lines crosses said parallel lines at one side of the center thereof, the material of said sheet when broken along said lines form-

ing a frontal primary flap between the parallel lines, of the same width throughout its length, and a plurality of



flaps, each of the latter flaps adjoining the said frontal flap and bordering in part the opening formed by the dropping of the frontal flap.

1,307,163. ATTACHMENT FOR STOVES. MALVINA F. TREMAIN, Westfield, Pa. Filed Feb. 3, 1919. Serial No. 274,651. 1 Claim. (Cl. 126-192.)



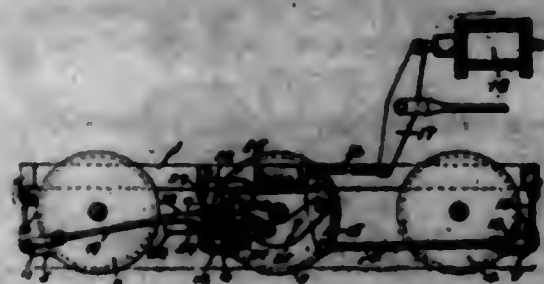
The combination with a stove and an oven door, of a guard rail extending along the front edge of the stove and a catch mounted to slide and swing on said guard rail to hold the door open to different degrees and for displacement from in front of the door when not in use, said catch having a plurality of door engaging parts for the purpose specified.

1,307,164. RESILIENT WHEEL-TIRE AND ADJUSTABLE RIM. FRANK B. TURNER, Ocala, Fla., assignor of one-half to Louis W. Duval, Ocala, Fla. Filed Dec. 10, 1917. Serial No. 206,494. 1 Claim. (Cl. 152-7.)



The combination with a tire casing, of a resilient core disposed within the casing and means for compressing the walls of the tire casing against the core, said means comprising a rim including coacting annular sections having their inner edges overlapped, one of the rim sections being provided with a plurality of transverse rows of spaced apertures and the other with tongues adapted to enter the apertures.

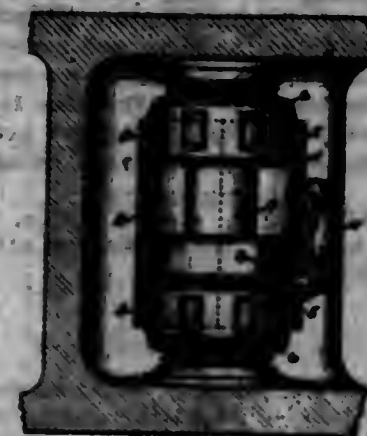
1,307,165. BRAKE-RIGGING RELEASE DEVICE. WALTER V. TURNER, Wilkesburg, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Feb. 27, 1917. Serial No. 151,333. 12 Claims. (Cl. 188-24.)



1. In a brake rigging for a plurality of pairs of wheels, the combination with operatively connected brake shoes

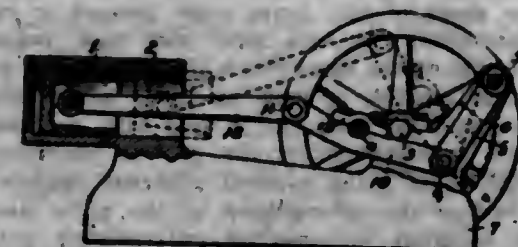
applied to each pair of wheels, of a single stop for limiting the release movement of the brake shoes for two pairs of wheels and for defining a fulcrum point for effecting the release movement of the brake shoes for another pair of wheels.

1,307,166. SWAB-PROTECTOR AND NUT-LOCK. WALTER V. TURNER, Wilkesburg, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed June 29, 1917. Serial No. 177,764. 1 Claim. (Cl. 64-12.)



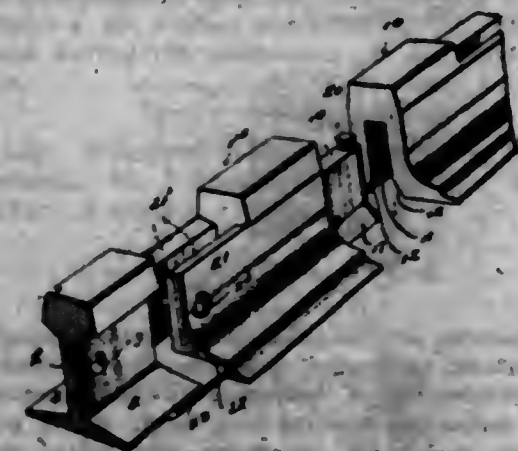
The combination with a pump stuffing box nut, of a swab protector comprising semi-cylindrical segments and an arm pivoted to one segment and adapted to engage said nut for maintaining the protector in position vertically.

1,307,167. VARIABLE-STROKE OPERATING MECHANISM FOR ENGINES. THOMAS H. VAN DYKE, Kansas City, Mo. Filed Mar. 18, 1919. Serial No. 233,365. 6 Claims. (Cl. 74-5.)



1. In an explosive engine, the combination with a piston, connecting rod and crank shaft, of a lever pivoted at a fixed point, and a connecting member pivoted to the connecting rod and lever at two points fixed relatively to each other, and pivoted to the crank shaft.

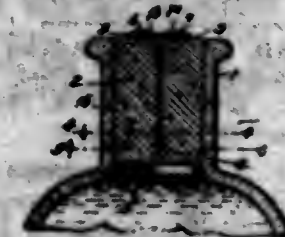
1,307,168. RAIL-JOINT. THEODORE DE LAKE VIGOR, Port Chester, N. Y. Filed Dec. 8, 1918. Serial No. 285,571. 2 Claims. (Cl. 238-231.)



1. A rail joint comprising two meeting rail ends, one having a longitudinally extending tongue of a height corresponding to that of its web, and the other end having a

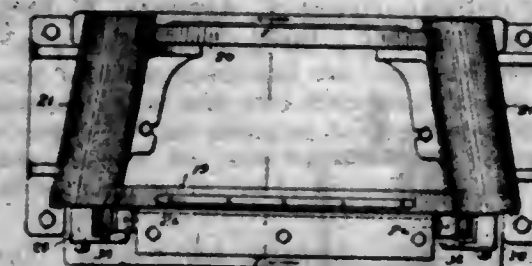
recess to receive said tongue opening through the base of said rail, said tongue having a cocket in its upper face, a coiled spring in said cocket and projecting above the upper face of said tongue, and a cap on said projecting spring end to yieldably engage the top wall of said recess.

1,307,169. RECEPTACLE-CLOSURE. JAMES A. WATT, New York, N. Y. Filed June 22, 1916. Serial No. 105,094. 11 Claims. (Cl. 215-53.)



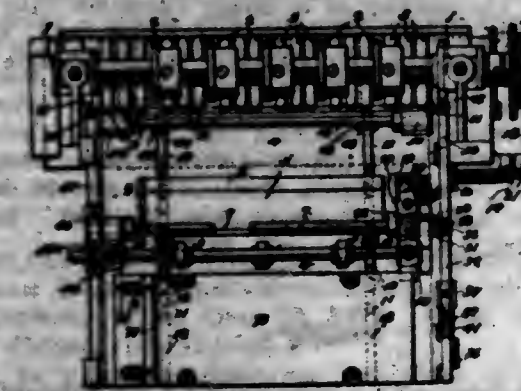
1. A closure having a body-part, a centrally disposed pull member in the form of a loop extending into the central portion of and inclosed by the body-part, an anchor therefor extending transversely of and inclosed by the body-part and passing through the loop of said pull member, and a separate grip member to which the upper separated ends of the pull member are secured.

1,307,170. APPARATUS FOR MAKING IRREGULARLY-SHAPED STAMPINGS. CLAYTON B. WEAVER, Philadelphia, Pa., assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 25, 1915. Serial No. 10,455. 14 Claims. (Cl. 113-38.)



1. In an apparatus for producing large sheet metal stampings of irregular shape, a work holder to receive the blank to be stamped, means for clamping the blank along and throughout the edges thereof, and a conformed stretching die adapted to operate against the unclamped area of the blank to stretch the same throughout such area into the desired shape, the shaping of the sheet metal being accomplished solely by the action of the stretching die.

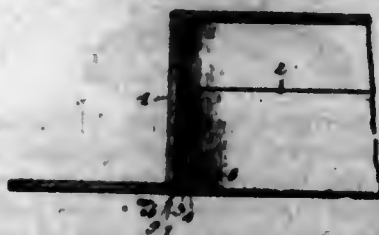
1,307,171. SHEET-METAL-FEEDING MECHANISM. JAMES E. ABRAMS, Canonsburg, Pa., and GEORGE E. D. PARKER, Syracuse, N. Y., assignors to Continental Can Company, Inc., Syracuse, N. Y., a Corporation of New York. Filed Dec. 1, 1917. Serial No. 204,826. 7 Claims. (Cl. 271-55.)



5. A sheet feeding mechanism comprising a reciprocating pusher having rear and side gages, a swinging rock lever, a pivoted bumper carried by one arm of said

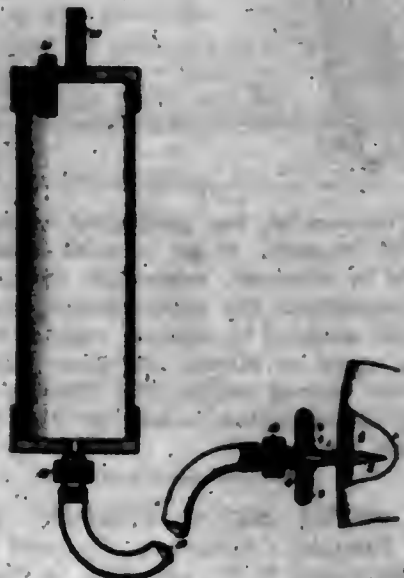
rock lever, a spring normally forcing said bumper outwardly, a stop limiting the outward movement of the bumper, means for oscillating said rock lever, said bumper being disposed so as to engage the side edges of the sheet and move the same laterally to cause the sheet to contact with the side gage on the pusher, yielding fingers located in front of the sheet and in the path of movement thereof for engaging the front edge of the sheet to retard the movement of the same and cause the rear edge of the sheet to contact with the rear gage.

1,307,172. HATBAND. ARON M. ADAMS and MAXWELL W. LANDAU, Philadelphia, Pa. Filed Oct. 6, 1917. Serial No. 195,101. Renewed Dec. 4, 1918. Serial No. 205,258. 3 Claims. (Cl. 2-114.)



3. In a combined head grip and ventilating hat band, a hat band having the outer edge perforated, a tape secured to the side of said band next adjacent to the hat and covering said perforations to absorb the perspiration, and an elastic band secured to said tape and acting to contract the tape and hat band to fit the latter to the head of the wearer.

1,307,173. METHOD OF AND MEANS FOR INFLATING AND INTRODUCING SEALING LIQUID INTO PNEUMATIC TIRES. DANIEL L. ANTHONY, El Paso, Tex. Filed Oct. 11, 1916. Serial No. 124,972. 6 Claims. (Cl. 154-9.)



1. The method of inflating, and introducing sealing liquid into, a pneumatic tire, which consists in puncturing the pneumatic tire, and then, through the opening thus made, introducing in a single operation into the pneumatic tire, first, a tire sealing liquid, and, then, compressed air in quantity sufficient to fully inflate the tire.

1,307,174. WELT FOR BOOTS AND SHOES. WILLIAM B. ARNOLD, North Abington, Mass. Filed Dec. 26, 1916. Serial No. 128,719. Renewed Nov. 15, 1917. Serial No. 202,243. 3 Claims. (Cl. 36-78.)



3. A welt comprising a body having a dip adjacent the inner edge thereof turned over toward said edge and forming a stitch receiving groove and a stitch resisting shoulder.

1,307,175. COLLAPSIBLE CLOTH-BEEL. FREDERICK T. BAILLET, Dudley, Mass., assignor to Henry Merritt, Dudley, Mass. Filed Jan. 26, 1918. Serial No. 213,817. 2 Claims. (Cl. 242-72.)



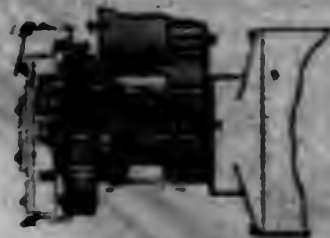
1. A cloth holding reel of the character described comprising a pair of parallel holding members forming blades, links connecting the same, and projections on opposite ends of said links, certain of the projections engaging with the blades to lock the same in their outermost position and the other projections acting to limit inward movement of the blades when collapsed.

1,307,176. SPARK-PLUG. LEO R. BENN, Tama, Iowa. Filed July 11, 1918. Serial No. 244,419. 1 Claim. (Cl. 123-108.)



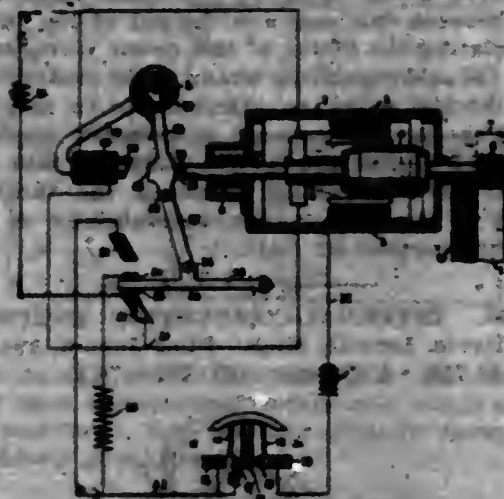
A spark plug comprising a casing, an insulated core terminating short of the lower edge thereof, a central electrode extending through said core and projecting from the bottom of the same below the edge of the casing, the projecting portion of said electrode being enlarged to provide a shoulder adjacent to said core, an insulator between said enlargement of the central electrode and the core, said core being tapered adjacent thereto, and the lower end of the enlargement of the main electrode having an inverted cone-shaped enlargement provided with opposed beveled notches conforming to the enlargement and disposed at right angles to the beveled faces first mentioned, and a branch electrode projecting from the lower edge of the casing to a point adjacent the extremity of the main electrode.

1,307,177. ENGINE STARTING APPARATUS. JOSEPH BAJAR, New York, N. Y., assignor, by mesne assignments, to Bijar Motor Appliance Company, a Corporation of Delaware. Filed June 25, 1918. Serial No. 775,670. Renewed Nov. 23, 1918. Serial No. 243,947. 25 Claims. (Cl. 290-36.)



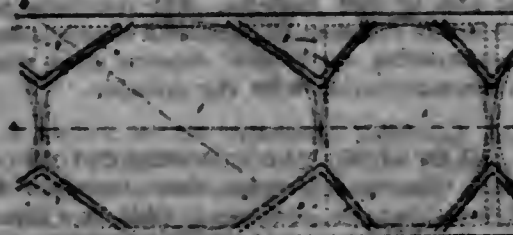
34. Apparatus of the character described comprising, in combination, an engine, a member driven thereby, a motor, a member driven thereby, means for engaging said members, means for rotating said motor slowly prior to engagement, means for energizing said motor strongly as soon as engagement has been effected, centrifugal means adapted to disengage said members when the engine has started, and means adapted to prevent engagement between said members when said engine is rotated.

1,307,178. ENGINE STARTING APPARATUS. JOSEPH BAJAR, New York, N. Y., assignor, by mesne assignments, to Bijar Motor Appliance Company, a Corporation of Delaware. Filed May 5, 1918. Serial No. 765,422. Renewed Jan. 24, 1919. Serial No. 273,308. 25 Claims. (Cl. 290-36.)



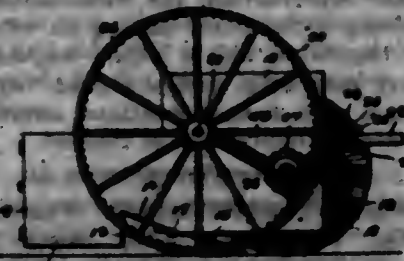
1. In apparatus of the character described, in combination, a rotary motor comprising a relatively reciprocable field and armature, a switch affecting the operation of said motor and adapted to be operated by the relative rectilinear movement of said field and armature, and means adapted to prevent return movement of said switch.

1,307,179. FERROCONCRETE FLOOR CONSTRUCTION. KARL PAULI BRILNER, Malmo, Sweden. Filed Jan. 21, 1918. Serial No. 213,644. 1 Claim. (Cl. 72-70.)



A floor construction, comprising a plate having its central portion spherically formed the convex side thereof being arranged uppermost, and substantially flat triangular corners disposed outwardly of the spherical portion; a reinforcing rib formed upon the upper surface of the plate and surrounding the central spherical portion at the edge thereof; diagonal reinforcing bars extending over the reinforcing ribs and the flat triangular corners and projecting above the same for a substantial distance; and a filler disposed upon the upper surface of the plate to provide a flat surface and covering the spherical portion and having the reinforcing rib and bars embedded therein.

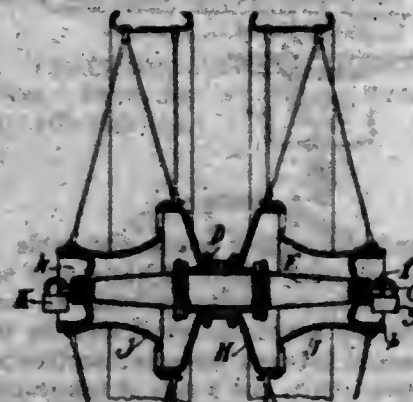
1,307,180. STREET-SWEEPER. ARTHUR O. BISHOP, Pottsville, Pa. Filed June 7, 1918. Serial No. 236,764. 1 Claim. (Cl. 15-17.)



A street sweeper including a casing, a shaft passing transversely therethrough, ground wheels having inner

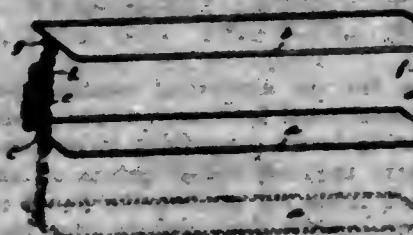
toothed peripheries journaled on said shaft, a rotary brush in the casing having trunnions passing through slots in the sides of the casing, and toothed wheels on said trunnions meshing with the teeth of the wheels, a block loosely mounted on the shaft at the opposite sides of the casing, a bar passing through each of said blocks and loosely connected with the trunnions of the brush, binding means between the locks and bars, other bars also loosely arranged upon the trunnions, brackets through which said last mentioned bars pass, and adjustable supporting means on said last mentioned bars contacting with the brackets to lock said bars thereon and hold said brush adjusted with respect to the frame.

1,307,181. WHEEL AND TIRE CARRIER. LEO A. BIXBY, Kalamazoo, Mich. Filed Feb. 15, 1919. Serial No. 277,124. 6 Claims. (Cl. 224-29.)



1. In a wheel carrier, the combination with a vehicle frame, of a single swinging bar having one end pivotally connected with the frame and the other end having a releasable connection with said frame, and means attached to the middle of the swinging bar and projecting upon both sides thereof for securing wheels on either side of the said bar.

1,307,182. BUNDLING DEVICE. WILLIAM BRAMMER, Haverhill, Mass. Filed Feb. 6, 1919. Serial No. 275,327. 1 Claim. (Cl. 24-17.)

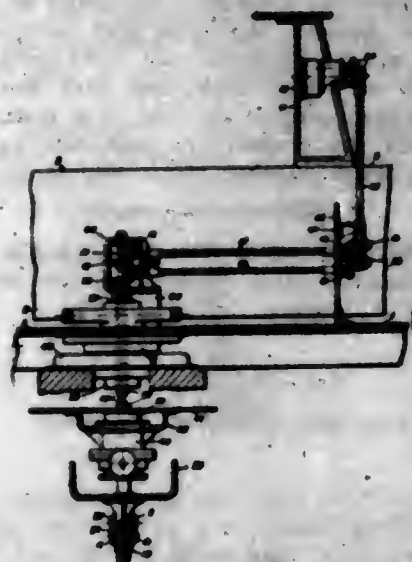


A bundling device of the character described comprising a pair of oblong frames of stiff wire, a chain section permanently connected at one end to one frame and at the opposite end to the other frame at corresponding ends of said frames, a hook connected to one of said frames at the point at which said chain section is connected thereto, said hook being arranged to be engaged with different links of said chain section, a chain section permanently connected to one of said frames at the opposite end, and a projection correspondingly arranged on the other frame and adapted to be engaged with the links of said last named chain section.

1,307,183. SHIP'S TELEGRAPHIC APPARATUS. WILLIAM CHADBURN and WILLIAM ROY CHADBURN, Bootle, England. Filed Dec. 10, 1918. Serial No. 266,090. 2 Claims. (Cl. 116-31.)

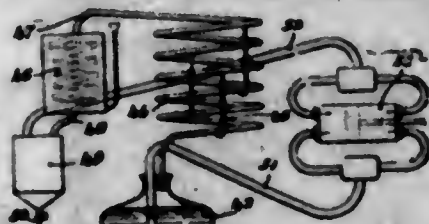
1. In a ship's telegraphic apparatus, a horizontally rotatable table having a vertical hollow pivot, a vertical tubular shaft rotatable in the vertical hollow pivot, a vertical inner shaft extending within the tubular shaft and projecting above the upper end thereof, means con-

ected with the lower end of the tubular shaft to turn it, means connected with the lower end of the inner shaft to turn it, an open frame secured to the table and provided with a lower vertical bearing receiving the upper end of the tubular shaft and an upper vertical bearing receiving the upper end of the inner shaft, a pair of substantially



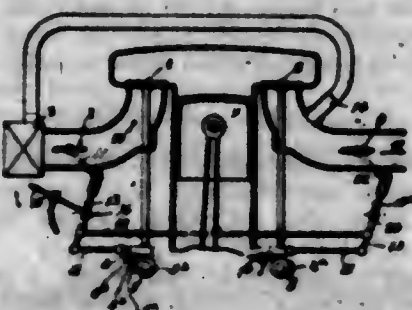
horizontal shafts arranged above the table in substantially parallel relation, a pair of horizontal bearings carried by the frame to receive the horizontal shafts, driving means between one horizontal shaft and the tubular bearing, driving means between the other horizontal shaft and the inner vertical shaft, and a pair of telegraphic receiving instruments having connection with the horizontal shafts.

1,307,184. DISTILLING APPARATUS. EMILS ANDRE CHENARD, Cognac, France. Filed May 8, 1918. Serial No. 705,644. 2 Claims. (Cl. 190-5.)



1. A device for the analytical condensation of mixed vapors to be interposed between a vapor producing device and a condensing device comprising in combination a long conduit slightly inclined at all points of uniform cross section, branch tubes for leading the liquid condensed in portions of the conduit more remote from the vapor producing device to portions of the conduit relatively close thereto and in the same order for subjecting said condensed liquid to the action of ascending vapors of higher temperature.

1,307,185. EXPLOSION-MOTOR. CHARLES HENRI CLAUDEL, Levallois Perret, France. Filed Nov. 14, 1917. Serial No. 202,921. 4 Claims. (Cl. 123-98.)



2. In an explosion motor, the combination of: a cylinder, a suction pipe, a throttle valve mounted in this suc-

tion pipe, an admission valve, a cam operating this admission valve, means controlling the aforementioned throttle valve, means arranged between the said cam and the rod of the admission valve and regulating the lifting of this admission valve, means connecting the said regulating means to the controlling means of the throttle valve, an outlet valve, a cam operating this outlet valve, means arranged between this cam and the rod of the outlet valve and regulating the lifting of this outlet valve, means connecting the said regulating means to the controlling means of the throttle valve, an exhaust pipe, a throttle valve mounted in the said exhaust pipe, means operating this throttle valve, and means connecting the said operating means to the controlling means of the throttle valve mounted in the suction pipe, substantially as described and for the purpose set forth.

1,307,186. INTERNAL-COMBUSTION ENGINE. MERRILL DAVIS, Detroit, Mich. Filed June 5, 1916. Serial No. 101,758. 4 Claims. (Cl. 123-78.)



2. In an engine, the combination with a cylinder and a piston moving therein, of a rotatable member forming a part of the end of said cylinder, said rotatable member having alternately disposed concave and convex sides, and means for exhausting one of said concave sides while the other is in communication with the cylinder.

1,307,187. ELEVATOR-CAR CONSTRUCTION. ROBERT W. DIAMMO, Cleveland Heights, Ohio, assignor to The W. S. Tyler Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 13, 1918. Serial No. 232,350. 8 Claims. (Cl. 180-2.)

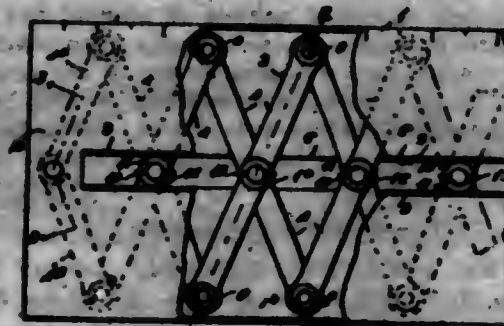


1. In elevator construction, the combination of a wall section comprising a flat panel having an off-set angular plate integral therewith, and a hollow angular post also formed integral therewith, and a second adjoining wall section provided with flanged portions abutting against said post and fitting about one edge thereof.

1,307,188. SPACING INSTRUMENT. FRANK L. DORRIS, Superior, Wis. Filed Nov. 1, 1918. Serial No. 200,000. 5 Claims. (Cl. 23-102.)

1. In an instrument of the character described, a long structure including a plurality of arms disposed in

pairs in superposed relation, the arms of each pair being pivotally secured together at their point of intersection and the arms of the succeeding pairs being pivotally connected at their outer ends, and a plurality of marking elements carried by the pairs of arms of said structure and



movable axially of the pivotal connection thereof for marking upon a supporting surface over which said structure is positioned, said marking elements being movable independently of said arms.

1,307,189. FLOAT-CONTROLLED SWITCH. LOUIS W. DOWNES and WALTER S. MATHE, Providence, R. I., assignors to D & W Fuse Company, Providence, R. I., a Corporation of Rhode Island. Filed June 23, 1918. Serial No. 25,673. 9 Claims. (Cl. 175-284.)



2. A switch of the character described comprising an actuating rod, and a tubular guide therefor, a contact member slidable upon said guide, said contact member and said rod having complementary means for imparting sudden independent movement to the contact member when the rod is moved a predetermined distance.

1,307,190. TIRE-REPAIRING DEVICE. FREDERICK B. DUNLAP, Tulsa, Okla., assignor of one-half to Marie C. Stricker, Tulsa, Okla. Filed Feb. 8, 1918. Serial No. 210,653. 1 Claim. (Cl. 152-27.)

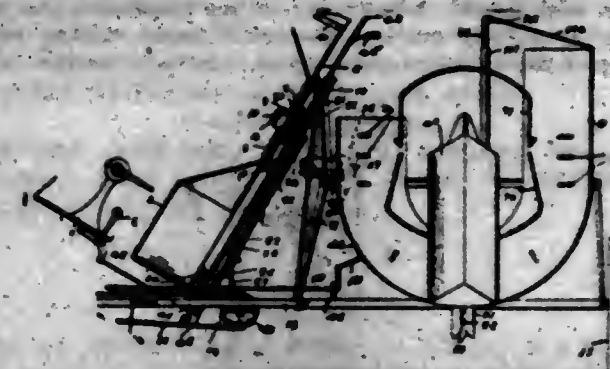


A tire repairing device comprising a base, a supporting block upon said base for engagement with a tire, straps hinged to said base, clamping bars adjustably connected to the straps and adapted to overlap the tire, and clamping plates secured to the base and adapted to receive the clamping bars.

1,307,191. GRAIN-SHOCKER. GEORGE A. DUNAW, Saskatchewan, Saskatchewan, Canada. Filed June 8, 1917. Serial No. 173,882. 5 Claims. (Cl. 56-121.)

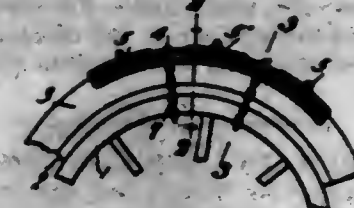
1. In a grain shocker, the combination, with a shaft carrying and shock-forming pan, of a rotatably mounted plate, a pair of shaft receiving hoppers carried by said

plate, the bottoms of said hoppers being hingedly connected to the hoppers, and means for normally holding said



hinged bottoms in closed position, said means being constructed to allow said bottoms to open when said hoppers are in a delivering position over said pans.

1,307,192. TRACTION DEVICE. ROBERT FAGAN, Meacham, Oreg. Filed Apr. 16, 1918. Serial No. 228,895. 1 Claim. (Cl. 152-14.)



A traction device comprising a plate including a body and end portions, the plate being bent upon itself transversely to dispose the end portions parallel to the body and in contact therewith, the end portions conforming to the shape of the body, both longitudinally and transversely; a second plate superposed upon the body between said end portions and spaced therefrom, the second plate and the end portions being bent upon themselves transversely to form traction ribs constituting reinforcements for the end portions and for the second plate; and means for securing said end portions and the second plate to the body, thereby to afford reinforcements for the body.

1,307,193. WRENCH ATTACHMENT. CHARLES DELOS FINEMAN, Akron, Ohio. Filed Oct. 30, 1918. Serial No. 200,327. 1 Claim. (Cl. 81-184.)



A pipe wrench jaw adapted for attachment to a monkey wrench, comprising a gripping member adapted to lie in contact with the face of either of the wrench jaws and provided with transverse inclined teeth on two opposite faces, the teeth of one face being inclined in a reverse direction to those of the other face, and means to operatively connect said gripping member to the wrench against the face of either jaw of the latter.

1,307,194. COMBINATION-LOCK. GEORGE W. FOLLICK, Buffalo, N. Y. Filed Dec. 12, 1917. Serial No. 206,801. 2 Claims. (Cl. 277-60.)

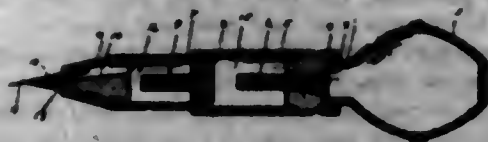
1. A device of the character described comprising a casing having aligning openings in opposite sides thereof, a

body portion having a passage extending therethrough, brackets secured to said casing and supporting said body portion within said casing, valve plugs traversing the passage of said body portion, the outer faces of said valve plugs and the adjacent portions of said body portion hav-



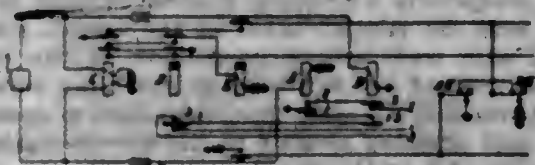
ing characters thereon, winged handles secured to the outer faces of the valve plugs, one end portion of said body portion extending through one of the openings of said casing, and L-shaped inlet and outlet pipes connected to said body portion.

1,307,195. PNEUMATIC FOUNTAIN-PEN. JOSEPH F. GARDNER, Kansas City, Mo. Filed Apr. 29, 1918, Serial No. 231,305. Renewed May 1, 1919. Serial No. 294,095. 1 Claim. (Cl. 120-42.)



A pneumatic fountain pen, consisting of a fountain having a body of fluid therein, a ventless chamber associated with said fountain and having a fluid body therein and provided with a duct communicating with the fountain, the lower end of said duct being normally immersed in the fluid in the chamber to subject the air in the chamber to the pressure of the fluid, a ventless chamber associated with said first mentioned chamber and having a fluid body therein and provided with a duct communicating with the first mentioned chamber, the lower end of said duct being normally immersed in the fluid in the chamber to subject the air in the chamber to the pressure of the fluid in the first mentioned chamber, a nipple associated with said last mentioned chamber and having a channel communicating with said last mentioned chamber, and a pen point supportingly engaged by said nipple and adapted to yield to waste the fluid in the fountain pen.

1,307,196. AUTOMATIC AND SEMI-AUTOMATIC TELEPHONE SYSTEM. OSCAR GRAHN, London, England, assignor to The Relay Automatic Telephone Company, Limited, London, England. Filed Mar. 20, 1917. Serial No. 156,047. 11 Claims. (Cl. 179-27.)

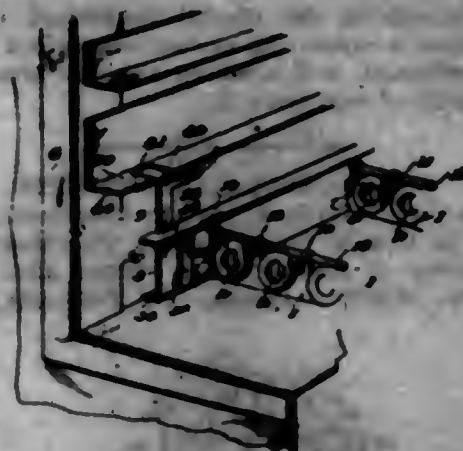


1. In a telephone system, two relays each connected to a different line branch of a talking connection, means associated with a called junction for operating either of said relays over the talking connection and means for completing a loop-circuit through said relays over the called subscriber's talking connection.

1,307,197. MAGNESIA BRICK AND METHOD OF MAKING THE SAME. HOWE HENRY HANSON, Boston, Mass., and HUGH KILGUS HANSON, Berlin, N. H., assignors to Berlin Mills Company, Berlin, N. H., a Corporation of Maine. Filed May 11, 1918. Serial No. 27,417. 8 Claims. (Cl. 106-6.)

1. The herein described method of making fire bricks, which consists in mixing magnesia and a silica-bearing material and a temporary adhesive binder in the proportion of about 17% of silica-bearing material to 83% of magnesia, forming the mixture into bricks, and heating the bricks to a temperature of approximately 1800° C. to cause a slagging action to occur.

1,307,198. ELECTRIC HEATER. AUGUST HARTH, Chatham, N. J. Filed June 4, 1918. Serial No. 236,114. 11 Claims. (Cl. 219-19.)



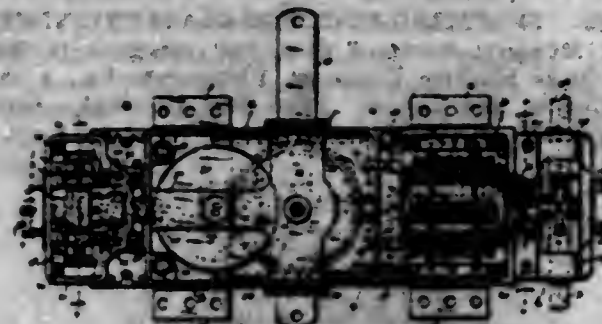
9. An electric heater unit comprising a frame embodying opposite spaced side bars; insulator racks extending between and at their ends fitted to said bars and each composed of a plate having open-top insulator spool sockets and intervening upwardly projecting fingers at their upper extremities bent to form locking-red-supporting eyes, and a longitudinally-removable locking rod extending through said eyes and bridging the spaces between the upper ends of said fingers and uphold thereby, said rod being movable through a frame bar for application to and removal from said eyes; spool-like insulators loosely arranged in said sockets and below said rod; and electric resistor means threaded through said insulators.

1,307,199. ADJUSTABLE CHUTE CONSTRUCTION. CARL D. HEYER, Council Bluffs, Iowa. Filed May 11, 1918. Serial No. 233,923. 1 Claim. (Cl. 192-34.)



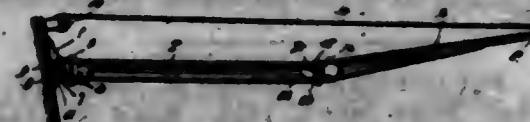
Supporting means for chutes of the class described comprising spaced gripping devices pivotally connected to the chute at one end, each having means for clamping the device to a suitable support, and springs between the devices and the chute tending to throw the chute into an elevated position when the other end thereof is free to move.

1,307,200. SWITCH-MACHINE. WINTHROP K. HOWE, WILLIAM S. HENRY, and FREDERICK N. HALL, Rochester, N. Y., assignors to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed Nov. 29, 1918. Serial No. 64,135. 14 Claims. (Cl. 246-158.)



1. A switch machine for operating movable switch points comprising a throw bar and a lock rod, a motor for locking and unlocking said lock rod and for moving said throw bar, circuit controlling means for selectively controlling the normal and reverse indication circuits of said switch machine, and means controlled jointly by said throw bar and said lock rod for operating said circuit controlling means.

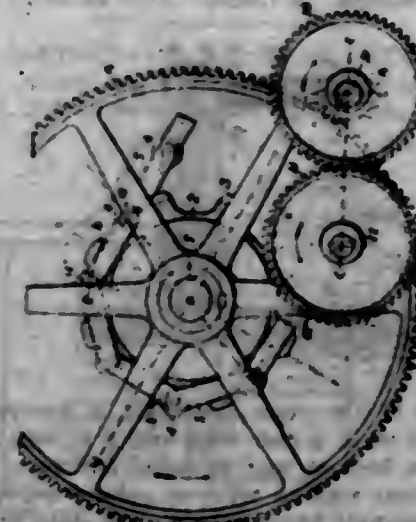
1,307,201. AWNING-ARM. ROBERT R. HUGHES, Portland, Oreg. Filed Aug. 26, 1918. Serial No. 251,420. 10 Claims. (Cl. 156-42.)



1. A folding awning arm of the class described, comprising pivoted sections, and a pivot for said sections movably mounted on one of said sections, said pivot being shiftable by movement of one of said sections preliminary to folding of the arm to permit the folding action.

10. An awning support of the class described comprising a wall bracket, an awning arm, a connector piece connecting said arm to the bracket, an adjusting member mounted in said connector piece and holding the arm in adjusted position by cooperation with the bracket, and a retainer attached to the bracket with which the adjusting member is interlocked to prevent the arm from being lifted by the wind when the awning is in extended position.

1,307,202. GEARING. CARL L. KENNEY, Pittsburgh, Pa., assignor to Pittsburgh Coal Washer Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 15, 1918. Serial No. 240,151. 8 Claims. (Cl. 74-31.)



1. In sprocket gearing, means for retarding the peripheral movement of each tooth of a wheel during one half of its pitch movement and for accelerating its peripheral movement during the other half of its pitch movement corresponding to the accelerated and retarded movement of a chain upon coming into engagement with the wheel, consisting in a sprocket wheel gear and a drive pinion therefor, and means for rotating the pinion at a variable speed conforming to the desired retardation and acceleration of the sprocket wheel.

1,307,203. PEN-NIB. GEORGE A. LOWDELL, San Diego, Calif. Filed Aug. 9, 1916. Serial No. 113,997. 1 Claim. (Cl. 120-109.)



As an article of manufacture, a writing pen nib having a curved shoulder of substantially U-shaped form in cross section pressed outwardly from its body without severing the body to provide an abutment for receiving the withdrawal force so as to permit of the withdrawal of the pen nib from a pen holder without danger of the collapsing of the shoulder.

1,307,204. LUBRICATING DEVICE FOR ENGINES. LEO W. MELCHER, La Crosse, Wis., assignor to La Crosse Tractor Co., La Crosse, Wis., a Corporation of Delaware. Filed Nov. 7, 1918. Serial No. 261,450. 7 Claims. (Cl. 184-6.)



5. The combination with a shaft provided with cranks, of an oil distributing ring centrally grooved to receive and conduct oil to the sides thereof, and comprising angular members eccentrically disposed around the axis of the shaft, means for supplying oil to the ring, and ducts for delivering oil from the outermost side-ports of the ring to the cranks.

1,307,205. TELEMETER. JOSEPH MINALTI, Rochester, N. Y., assignor to Crown Optical Company, Rochester, N. Y., a Corporation. Filed Apr. 17, 1916. Serial No. 91,686. 18 Claims. (Cl. 88-2.7.)



1. A base line coincidence telemeter having two view openings, and an objective associated with each opening.

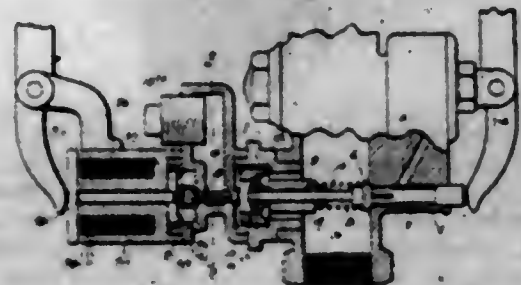
said telemeter also having provision for varying the horizontal distance between the two view openings without varying the actual distance between the view openings, and means for indicating the range of an object from such variation.

1,307,206. GAS-GENERATING OIL-BURNER. EDWIN L. MILLER, Kansas City, Mo. Filed Jan. 24, 1919. Serial No. 272,928. 3 Claims. (Cl. 158-65.)



1. In a gas generating oil burner, the combination of a base plate provided on its upper side with a vertical flange extending in the form of an ellipse and forming with the plate a basin and centrally of the basin with an up-set boss having its upper side formed convex, an inverted U-shaped pipe mounted on said boss and piercing its convex side, the arch in the pipe being provided transversely in vertical direction with oppositely disposed registering holes, a retort mounted on the arch of said pipe and having a cored extension penetrating the pipe, and a supply pipe connected with said retort.

1,307,207. FLUID-PRESSURE-ACTUATED VALVE. JAMES W. MITCHELL, Lubec, Me., assignor to Crosby Steam Gate & Valve Company, Boston, Mass., a Corporation. Filed Apr. 27, 1916. Serial No. 94,066. 6 Claims. (Cl. 137-139.)



5. In a device of the character described, an inlet chamber; a valve controlled outlet therefor normally closed; such controlling valve; mechanism subject at all times to the fluid pressure of the inlet chamber for opening said valve; a fluid chamber communicating with the inlet chamber by a valve controlled passage; such controlling valve; an outlet for the fluid chamber; and means for simultaneously opening the passage from the inlet chamber to the fluid chamber and closing the outlet passage from the fluid chamber.

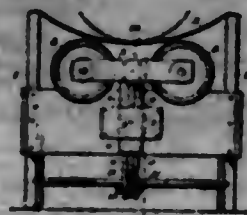
1,307,208. TIRE FOR VEHICLES. WILLIAM EDGAR MUNZ, London, England. Filed Apr. 6, 1914. Serial No. 829,897. 1 Claim. (Cl. 132-14.)



A vehicle tire provided with a relatively elastic tread permanently forming a part of the body of the tire, the tread being provided with a series of holes therethrough, eyelets countersunk at both their extremities and fixed rigidly in the said holes, and studs free to move endwise with a sliding fit within the eyelets, the said studs being of such length that they will, when the weight of the vehicle is superimposed on the compressible tread, pro-

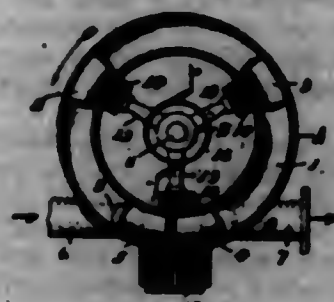
ject sufficiently to penetrate mud or other soft material covering the surface of the road but will be retracted within the tread when it is in contact with asphalt or other hard road material.

1,307,209. SPLITTING-BUCK FOR GLASS CYLINDERS. JOHN MURPHY, Hartford City, Ind., assignor to Window Glass Machine Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed May 10, 1918. Serial No. 233,667. 3 Claims. (Cl. 48-49.)



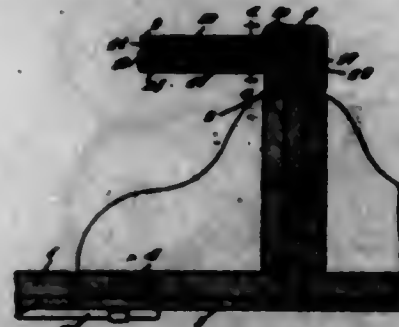
1. A splitting buck for glass cylinders, comprising flexible supporting means for the cylinders while being split, other vertically movable supporting means upon which the cylinders may be supported and freely rotated preliminary to splitting, said other supporting means terminating at substantially the points where they contact with the cylinder when in cylinder engaging position, and means located at one end portion of the buck whereby the last named supporting means may be moved into and out of cylinder-engaging position, substantially as described.

1,307,210. FLUID-PUMP. ROBERT E. NEWCOMB, Holyoke, Mass. Filed July 5, 1918. Serial No. 243,344. 11 Claims. (Cl. 102-44.)



1. In a fluid pump, a pumping chamber having inlet and discharge ports and confining pistons for movement in a substantially endless orbit, and means for producing a magnetic field for moving said pistons.

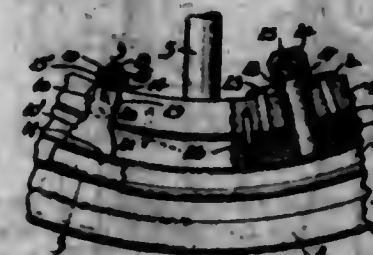
1,307,211. GARMENT-RECEPTACLE. WILLIAM P. NEWLON, Buchanan, W. Va. Filed Aug. 1, 1917. Serial No. 183,938. 1 Claim. (Cl. 45-75.)



In a device of the class described, a receptacle comprising a front wall, a rear wall and a bottom; channels secured to the bottom and extended between the front wall and the rear wall to serve as reinforcements for the bottom, the channels having their open sides downwardly disposed; and hangers, each including a base received in one channel, a finger at one end of the base and engaging the forward end of the channel, an upright at the other

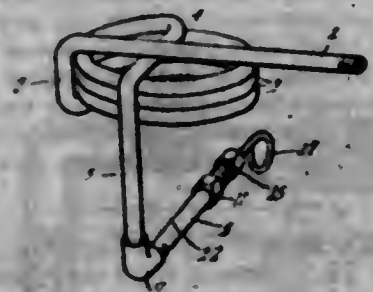
end of the base and engaging the rear end of the channel, and a hook at the upper end of the upright, the channels being detachably seated on the bases of the hangers, and cooperating with the side flanges of the hangers, to prevent the receptacle from moving endwise.

1,307,212. RESILIENT WHEEL. MICHAEL PHILIPP, Wausau, Wis., assignor to National Auto Wheels Corporation, Wausau, Wis., a Corporation of Wisconsin. Filed Sept. 6, 1918. Serial No. 232,848. 2 Claims. (Cl. 152-36.)



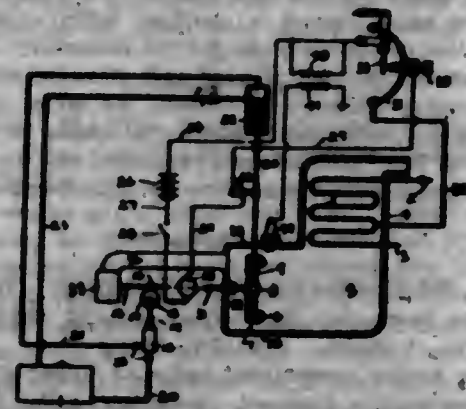
1. A vehicle wheel having a felly, a rim surrounding it, cushioning means between them, a band fitted on the felly, a plate fitting the inner periphery of the felly, securing means connecting said plate and band through the felly, a sleeve extending through the felly and threadedly engaging said band and plate, and a stud secured to the rim and slidable within the sleeve to transmit traction force.

1,307,213. FLUID-FUEL BURNER. CURTIS RUCKENST, Chicago, Ill. Filed Dec. 13, 1918. Serial No. 266,611. 2 Claims. (Cl. 158-79.)



1. A device of the class described including a vaporizing coil having an inlet arm, an outlet arm, a burner connected with the outlet arm, said burner having a combustion orifice coinciding with the axis of the said coil, means for controlling the flow of fuel from the burner, a transversely disposed arm connecting the coil and outlet arm and perpendicularly crossing the inlet arm at an axial point with respect to the coil.

1,307,214. METHOD OF IGNITING HYDROCARBONS. LEWIS L. SCOTT, St. Louis, Mo. Filed Feb. 14, 1918. Serial No. 217,363. 4 Claims. (Cl. 158-117.5.)



1. The method of causing combustion of a mixture of liquid hydro-carbon and air at normal temperature, which

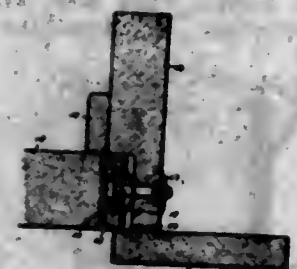
comprises mechanically finely dividing and projecting in the form of a spray the liquid hydro-carbon, maintaining all the sprayed fuel in an incompletely combustible state until ignition thereof, then electrically igniting said sprayed fuel, and then adding a sufficient amount of air to the ignited fuel to obtain complete combustion.

1,307,215. MOP. WILLIAM SUTHERS, Chicago, Ill. Filed Oct. 14, 1918. Serial No. 237,977. 2 Claims. (Cl. 15-13.)



1. A mop of the character described, comprising a head support including a pair of members provided upon their inner edges with recesses, a mop head carried by the co-acting members, means to lock the members together, a handle, and a transverse pivot element carried by the handle and extending into the recesses.

1,307,216. ADJUSTABLE DOOR-JAMB. CHARLES C. SMITH, Des Moines, Iowa. Filed Dec. 2, 1916. Serial No. 134,570. Renewed Feb. 17, 1919. Serial No. 277,655. 1 Claim. (Cl. 20-12.)



A device of the class described, comprising, in combination with a hinged door, and a fixed jamb member adjacent the free margin of said door when in closed position, said jamb member being formed with a vertical rabbet in alignment with said door, an adjustable strip mounted in said rabbet, leaf springs between said fixed jamb member and adjustable strip, said springs extending transversely of and engaging at their ends with said strip adjacent the margins thereof, and adjustable connecting devices passing through said strip, said springs and through said fixed jamb member, whereby said strip may be adjusted and held against oscillation relative to the door.

1,307,217. CLOTHES-WRINGER ATTACHMENT. FRANK B. SMITH, Maywood, Ill. Filed Nov. 27, 1917. Serial No. 204,182. 11 Claims. (Cl. 68-32.)



1. A clothes wringer attachment, embodying an endless flexible band, means for supporting said band from the wringer drain board and embodying spaced rollers over which the band travels, said rollers being adapted to be

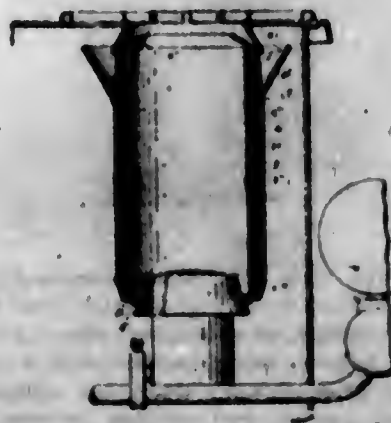
located on opposite sides of the wringer rolls, one of the runs of the said band passing between the wringer rolls whereby the band will be driven by the friction of the wringer rolls, and cooperating means on the band and the first recited rollers intermediate the ends of said rollers for maintaining the said band against twisting and wrinkling during the travel of the band.

1,307,218. DOLL. JOSEPHINE MCNEULTY BRANCH, Florence, Nebr. Filed Mar. 23, 1917. Serial No. 156,851. 1 Claim. (Cl. 46-40.)



In a doll, a body portion having a head, arms and legs, and a removable unitary cover for completely enveloping and conforming to the shape of said head, arms and legs, said cover being provided with markings in simulation of a human face, and equipped with a fastening means.

1,307,219. OIL-STOVE. JOHN STOLPS and ALBERT MATSON, McPherson, Kans. Filed Mar. 27, 1919. Serial No. 285,451. 2 Claims. (Cl. 126-214.)



1. In an oil cooking stove, the combination with a chimney having upper and lower inwardly extending flanges, of an inner annular lining of asbestos and an inner annular sleeve abutting at the ends against said flanges and resting upon the lower flange, an outer annular lining of asbestos and an outer annular sleeve the latter having an upper contracted upwardly-tapering end portion gripping the chimney and closing in the end of said outer lining and a lower downwardly-tapering contracted portion also gripping the chimney and concealing the lining, an upper upwardly-tapering heat-concentrating frusto-conical sleeve resting upon the upper end of the outer sleeve, and a lower downwardly-tapering heat-dissipating frusto-conical sleeve surrounding the outer sleeve and breaking joint with the upper frusto-conical sleeve.

1,307,220. PHOTOGRAPHER'S FLASH-LIGHT. ASA W. STRAIGHT, Chicago, Ill. Filed Feb. 8, 1918. Serial No. 6,675. Renewed Nov. 18, 1918. Serial No. 262,112. 23 Claims. (Cl. 67-29.)

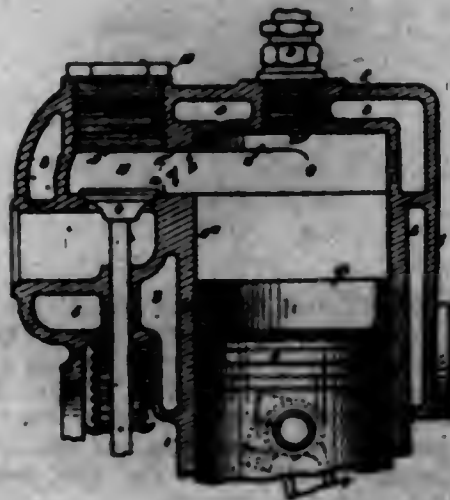
1. In a device of the class described, the combination with a camera having a shutter, of an element operated by air pressure, connections between said shutter and element so that as the air pressure on said element is changed the

shutter will be operated, a reciprocating element, connections between said reciprocating element and the connections to the shutter so that as the former is moved the latter will be operated, a flash pan, means for firing a charge



In said pan, and connections from said means to said air-pressure element and said reciprocating element whereby the pressure of the air of said air-pressure element will be varied or the reciprocating element will be moved as the charge is fired.

1,307,221. INTERNAL-COMBUSTION ENGINE. MAXIMILLIAN O. TRUBAU, Stamford, Conn. Filed Feb. 7, 1918. Serial No. 215,799. 1 Claim. (Cl. 123-87.)

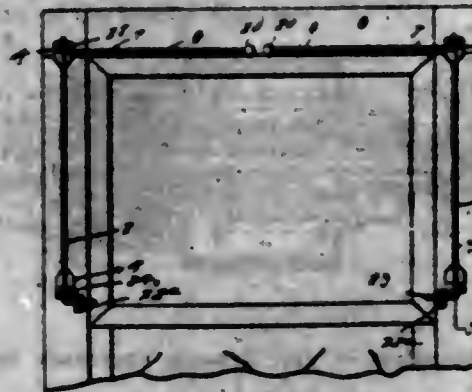


In an internal combustion engine, a cylinder having a lateral secondary combustion chamber in its head provided in the bottom wall with valved intake and exhaust ports whereby the upper wall of said chamber is uninterrupted, said cylinder head having a shallow initial combustion chamber of less depth than the lateral secondary chamber, a piston operable in the cylinder and movable across the lateral secondary chamber to isolate the latter from the former chamber, said piston having a recess in its head supplementing the cylinder head chamber, and an ignition means arranged within the shallow cylinder head chamber.

1,307,222. WINDOW-CURTAIN HOLDER. IRA EDW. WAGGONER, Lexington, Ky. Filed May 23, 1916. Serial No. 99,899. 1 Claim. (Cl. 156-19.)

A curtain holder comprising pairs of upper and lower brackets, vertically disposed operating rods journaled through the brackets, horizontal curtain rods connected to the operating rods and adapted to be positioned in front of a window, locking devices formed integral with said

lower brackets and including a strip having a central portion bent upon itself and its outer portion bent to provide



a spring clamp, and locking arms carried by the lower terminals of said vertical rods and adapted to be engaged by said locking devices.

1,307,223. EYE-PROTECTOR. JOHN R. WALKER, Providence, R. I. Filed Mar. 13, 1919. Serial No. 262,867. 4 Claims. (Cl. 88-41.)



2. An eye protector including lens rims, an arched member connecting the rims, a transverse loop in the arch, a connecting member upon the rims above the first member comprising horizontal portions, depending arms between the horizontal portions extending below the loop and adjacent thereto, and a loop connecting the ends of the arms, and a nose rest upon the second loop.

1,307,224. CONCRETE STRUCTURE AND METHOD OF CONSTRUCTING THE SAME. CARL WISSE, Chicago, Ill., assignor to Ticereto Shipbuilding Corporation, New York, N. Y., a Corporation of Delaware. Filed May 19, 1917. Serial No. 189,648. 8 Claims. (Cl. 73-59.)

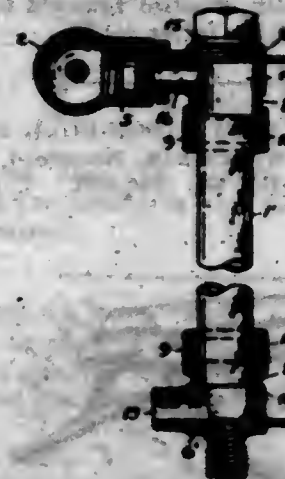


1. In a laminated wall, in combination, a frame-work, a plurality of successively applied layers of concrete applied to said frame-work, each layer being provided with metallic reinforcing each uniformly spaced from the preceding reinforcing, said layers of concrete being separated one from another by interposed layers of water-proofing material.

1,307,225. WATER-GAGE. JAMES R. WERT, Morenci, Ariz. Filed Oct. 5, 1918. Serial No. 267,008. 1 Claim. (Cl. 73-54.)

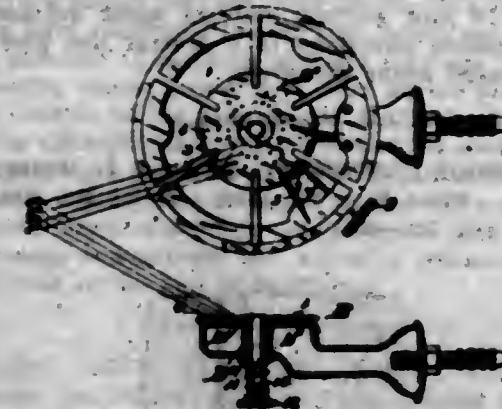
In a water gage, upper and lower valves spaced apart and having at their inner ends connection with the upper and lower portions of the water column of a boiler, the casing of each valve having a lateral tubular extension, upper and lower tubular heads having each a lateral extension communicating with the lateral extension of the respective valve casing, said heads having tubular projections extending toward each other, nuts threaded upon said extensions and bearing each a packing insert, the lower head having an annular shoulder located above the bore of the lateral extension thereof and the upper head having a vertical bore

of slightly larger diameter than the external diameter of a gage glass, a removable plug threaded into the upper end of the bore of the upper head and a gage glass engaging the packing inserts of the upper and lower nuts, the dis-



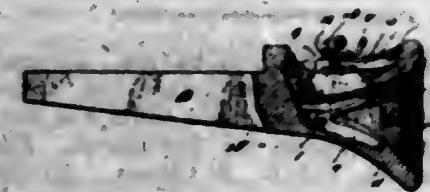
tance between the bore of the lateral extension of the upper head and the packing insert of the corresponding nut being sufficient to admit of the use of gage glasses of two succeeding standard sizes.

1,307,226. ADJUSTABLE GAS-BURNER. RICHARD V. WHITMAN, Fitchburg, Mass. Filed Jan. 11, 1919. Serial No. 270,898. 4 Claims. (Cl. 156-117.)



1. In a device of the character described, a burner having its flame surface disposed in a curvilinear plane and provided with perforations arranged in concentric and radial series for the escape of fuel; a curvilinear plate adapted to lie in flat engagement with the surface of the burner and to rotate thereon, and having perforations corresponding in number and relative position to those of the burner, whereby all the openings in the burner may be uncovered at one time; said plate also having additional perforations arranged to form additional radial rows of openings; the radial rows thus formed by said additional perforations having successively less openings than the number of perforations in the radial rows of perforations in the burner.

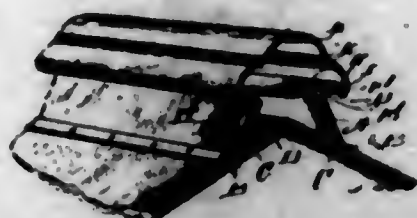
1,307,227. COUPLING. THOMAS WHITE, Talmage, Ky. Filed Oct. 5, 1918. Serial No. 267,075. 3 Claims. (Cl. 218-54.)



1. In a car coupler, the combination with a draw head having a longitudinal slot in its top, and a V-shaped de-

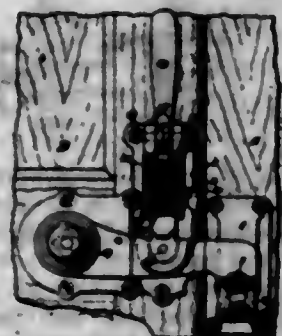
test pivoted at its angle within said head and adapted to swing upward into the slot; of a dog pivotally mounted in said slot with its rear end adapted to drop behind the detent when raised, means for lifting the dog manually, and a latch disposed in the path of the swinging detent and normally impelled forward to engage the tip of the dog and hold the latter raised.

1,307,228. VENTILATING RIDGE-ROLL FOR BUILDINGS. JOSEPH H. WICKSTROM, Beresford, S. D. Filed Apr. 1, 1919. Serial No. 284,636. 1 Claim. (Cl. 108-24.)



In combination with the ridge of a building, a sheet of metal bent to form a housing covering said ridge, and bent to form oppositely disposed gutters above the ridge, portions of the sheet below said gutters being bent at right angles, and the opposite edges of the sheet provided with flanges which are fastened to the roof, the upper part of said angled portion being provided with ventilating apertures, a plate having its opposite edges angled and resting in said gutters, and its upper surface inclined in opposite directions to a central line over the ridge and spaced apart therefrom.

1,307,229. DOOR-FASTENER. EDWARD J. WIRPS, St. Louis, Mo. Filed June 20, 1918. Serial No. 242,828. 1 Claim. (Cl. 70-49.)

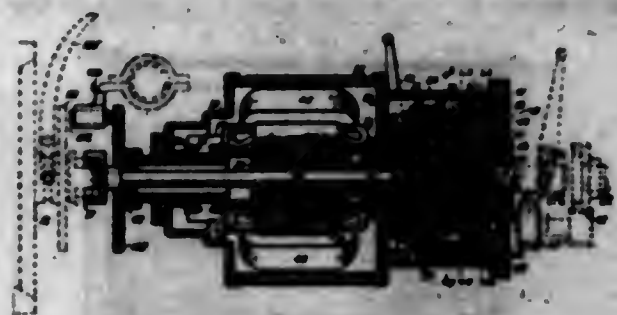


A door fastener comprising a keeper, a pivotal latch arm for engagement with said keeper, a bracket adjacent said latch arm provided with a spring pocket, a presser rod extending through said bracket and pivoted to said latch arm, a spring in said pocket surrounding said presser rod adapted to move said presser rod and latch arm in one direction, and a hand lever pivoted to said bracket having an arm pivoted to said presser rod whereby the presser rod and latch arm may be moved in a direction contrary to that in which they are moved by said spring.

1,307,280. CHANGE-SPEED GEARING. THORSTEN VON ZWETENBERG, Lancaster, and GILLIS VON ZWETENBERG, Fulwood, Preston, England; said Gillis von Zwetenberg assignor to said Thorsten von Zwetenberg. Filed Nov. 1, 1915. Serial No. 58,976. 20 Claims. (Cl. 290-22.)

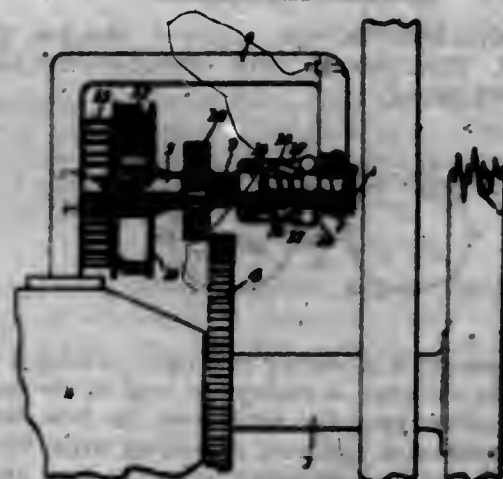
1. In a change speed gearing of the type described, the combination, with driving and driven members, of planetary gearing connecting them, an automatically applied ratchet control for said planetary gearing, and a dynamo

the armature of which is driven idly mechanically at the low speed and so connected with a part of the gearing



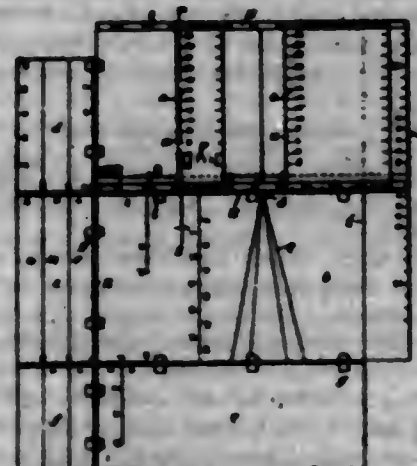
that the retarding of the dynamo increases the speed transmitted.

1,307,231. SELF-STARTER FOR AEROPLANE-MOTORS. ALBERT WESLEY BACKMAN, Lamar, Colo. Filed Aug. 7, 1918. Serial No. 248,810. 2 Claims. (Cl. 74-7.)



1. A starter for internal combustion engines, comprising in combination with the propeller shaft having a gear wheel secured thereto, a shaft arranged adjacent to the propeller shaft and having a threaded portion, a pinion on the threaded portion, a reel secured to the shaft, a flexible member winding on the reel and adapted to turn the reel and the shaft in a direction to move the pinion toward the gear wheel and to rotate the gear wheel to start the engine when the flexible member is unwound from the reel, a spring for rewinding the flexible member, and a governor driven by the shaft in both directions.

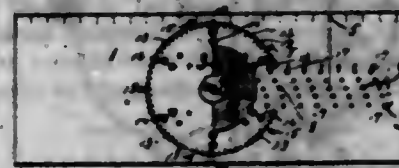
1,307,232. GUIDING AND CONTROLLING INSTRUMENT FOR CUTTING CLOTHES. JEAN BAROET, Constantine, Algeria. Filed July 3, 1915. Serial No. 27,914. 1 Claim. (Cl. 32-16.)



In a tailor's drafting instrument, a table comprising a plurality of transparent panels having graduations in-

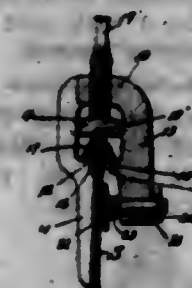
scribed thereon, guides on the marginal edges of one of the panels, slidable plates supported in the guides and movable across the surface of said panel, and hinges joining certain of the panels together.

1,307,233. COMBINATION DRAWING AND MEASURING INSTRUMENT. DAVID MEADE BERNARD, Jacksonville, Fla. Filed Nov. 2, 1917. Serial No. 199,856. 12 Claims. (Cl. 33-27.)



1. A drafting instrument containing a definitely determined point and a rectilinear row of perforations in alignment therewith, the successive perforations of said row being spaced an arbitrarily chosen unit's distance apart, and said instrument containing other rows of perforations parallel to said row, the successive perforations of each of which differ in distance from said point by said unit's distance, the last said rows and the first said row forming a system of parallel rows of perforations the corresponding perforations of the adjacent rows of which differ in distance from the said point by $1/N$ of said unit's distance, N representing the number of rows of said system, and furthermore each row, which lies between two other rows, having its perforations removed each $1/N$ of said unit's distance farther from said point than the corresponding perforations of one adjacent row and $1/N$ of unit's distance nearer said point than the corresponding perforations of the other adjacent row, and said instrument having perforations placed at the vertices of concentric regular polygons whose common center is coincident with said point.

1,307,234. SAW-JOINTER. FRANK MURRAY BOULT, Osterville, Mass. Filed July 25, 1918. Serial No. 246,755. 1 Claim. (Cl. 70-47.)

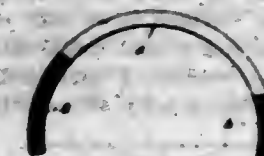


In a saw jointer, the combination of a yoke comprising a crown and a series of three legs formed integral therewith, two of the legs depending on one side of the saw while the third leg depends on the opposite side of the saw therefrom, all three of the legs being provided with flat topped shoulders on their inner faces, a file within the yoke, and means to detachably lock the file firmly in place therein with its active face against said shoulders, said locking means including a longitudinally extending follower having in its lower face a longitudinal central groove into which the apex of the file is projected whereby the center of the active face of the file will be caused to cooperate with the saw teeth irrespective of the size of the file.

1,307,235. PUTTEE AND METHOD OF MAKING THE SAME. JOSEPH BORN, Clonbur, Ireland. Filed Apr. 25, 1919. Serial No. 292,719. 6 Claims. (Cl. 96-2.)

1. A method of making puttees consisting of making a flat fabric blank in the form of a curve and then straight-

ening the two ends for a suitable distance for the knee and ankle portions by soap and water treatment, during



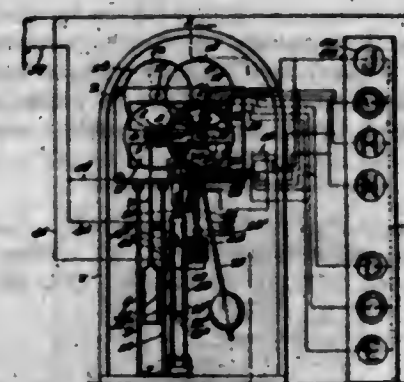
which the area near the concave edge is permanently stretched and the remaining area near the convex margin allowed to contract.

1,307,236. SOUND-BOX. JOSEF BRANDSTETTER, Rochester, Minn., assignor to Sears, Roebuck & Company, Chicago, Ill., a Corporation of New York. Filed Feb. 21, 1917. Serial No. 180,188. 5 Claims. (Cl. 274-35.)



1. In a sound box, the combination of a diaphragm, a stylus lever connected thereto and carried by a transverse yoke mounted to oscillate on knife bearings, and resilient tensioning means arranged to bear on the yoke at points lying outside of the axis of said bearings and in a plane passing through the stylus lever and its connection with the diaphragm and perpendicular to the said axis to tension said stylus lever in opposite directions, whereby the opposing forces exerted by the diaphragm and the tensioning means respectively will act in a common plane perpendicular to the axis of oscillation.

1,307,237. SIGN-FLASHER. LEE B. BROWN, Baton Rouge, La. Filed Sept. 10, 1917. Serial No. 192,142. 4 Claims. (Cl. 161-27.)



1. In an apparatus of the character described, the combination of an electric circuit, means for opening and closing said electric circuit, drive means adapted to actuate said last named means, said drive means including a descending weight, a switch also arranged in said circuit, an electromagnet having a movable armature, a connection between said armature and switch, a shiftable frame, a contact lever fulcrumed on said frame, a contact on said frame adapted to be engaged by said contact lever, a circuit for the electromagnet including said contact lever and contact, means for yieldingly holding said contact lever out of engagement with said contact, a part carried by said weight into engagement with said contact lever whereby the latter may be moved to engage said contact and

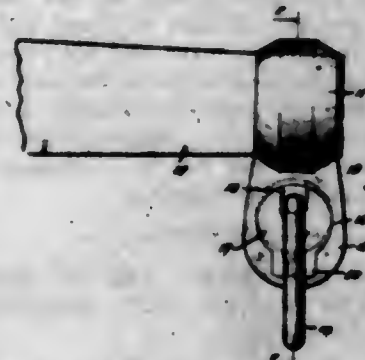
close the circuit through said electromagnet, and means arranged between the armature of said electromagnet and said shiftable frame for moving the latter when the electromagnet is energized to draw said contact lever past said part whereby the contact lever may escape from engagement with said contact and deenergize the electromagnet, and means for restoring said shiftable frame to the initial position, substantially as described.

1,307,238. WAR-CAR. ADRIANO CALISI, Waterbury, Conn. Filed Jan. 18, 1919. Serial No. 271,847. 3 Claims. (Cl. 89-36.)



1. In a war car, a car body, supporting and driving wheels on which said body is mounted, track rails, supporting arms for said track rails, extending forwardly from the car body, flexible chains connected with said rails for shifting the latter into position to support the car wheels and subsequently into carrying position, and a motor in the car for operating said chains, said track rails being flexibly connected together for movement toward and away from each other.

1,307,239. WHIFFLETREE-IRON. WILLIAM JONES Cass, Easton, Me. Filed Sept. 24, 1918. Serial No. 255,449. 4 Claims. (Cl. 21-78.)



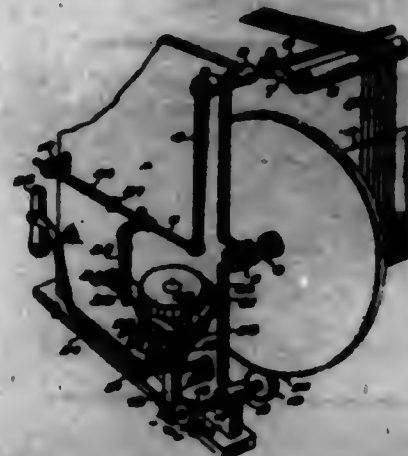
4. A whiffletree iron provided with an integral eye having the wall of its opening beveled, a wearing member fitting into the said eye and having a slot, fastening means fastening the said wearing member in place in the eye, and a ring-shaped trace attaching member engaging the said slot.

1,307,240. WIRE-FASTENING DEVICE. ANTHONY J. CHRISTOPHER, Baldwinville, N. Y. Filed Jan. 15, 1919. Serial No. 271,234. 1 Claim. (Cl. 24-115.)



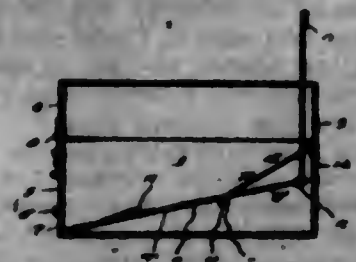
A wire clamping device comprising a fixed base, a post extending from said base and non-circular shape in cross section, a clamping jaw slidable on said post and having an opening through which said post extends, said opening being of corresponding shape with said post in cross section, a compression spring surrounding said post and interposed within said base and clamping member, and a thumb piece having a swivel connection with said post and adapted by a quarter turn to press said clamping member toward the base or release the same, said clamping member comprising curved portions at opposite sides of the center thereof which curved portions are adapted to partially embrace and hold a plurality of wires.

1,307,241. YARN-FEEDING MECHANISM FOR LOOM. BRADFORD A. CLARK, Bloom, R. I. Filed Dec. 23, 1918. Serial No. 268,620. 7 Claims. (Cl. 139-55.)



3. In combination with the sword-actuated, yarn letting-off mechanism of a loom, of means under the control of the whip element of the loom for operatively disconnecting the sword from said mechanism.

1,307,242. MAIL-BOX. MERRION O. COURTESY, Walter, Ohio. Filed Dec. 12, 1918. Serial No. 136,578. 1 Claim. (Cl. 232-34.)



A mail box comprising a housing, a tray pivotally mounted off-center in the housing to provide relatively long and short end portions for the tray, a signal extending from the shorter end portion of the tray through the housing and serving to yieldably hold the tray in a normal position, and a guard pivoted at one end to one wall of the housing above the shorter end portion of the tray and extending downwardly at an incline and having its free end loosely engaged with said tray at a point adjacent the pivotal mounting thereof.

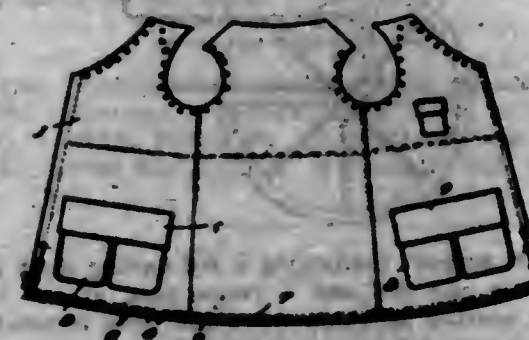
1,307,243. SHOCK-ABSORBER FOR THE POLISH OR SUCKER RODS OF OIL-PUMPS. BENJAMIN COCKINS, Eldorado, Kans. Filed Nov. 26, 1918. Serial No. 264,212. 3 Claims. (Cl. 108-62.)



3. The combination with the sucker rod of an oil pump, an operating member arranged above the rod and a cable

suspended from the rod, of a clamp rigidly connected to the rod near the upper end thereof, a block formed with vertical openings near its respective ends in which the terminals of the depending portion of the cable are anchored, the block being also provided with a vertical recess in one face for slidably engaging to block on the rod, a retaining washer engaged on the rod and covering the recess in the block to prevent accidental displacement of the rod, another washer disposed about the rod and positioned directly beneath the clamp, and a coiled expansion spring disposed about the rod and exerting its tension against the washers and consequently against the clamp and the block for normally holding the clamp and block in spaced relation and designed to absorb all shocks likely to be transmitted to the rod when the operating member starts on its upward or lifting stroke.

1,307,244. GAME-RETAINING GARMENT. BENJAMIN F. COX, Mercedes, Tex. Filed Nov. 30, 1917. Serial No. 204,630. 3 Claims. (Cl. 2-61.)



3. A garment of the character described including a body, a transversely disposed strip of fabric stitched adjacent one edge thereof to the intermediate portion of said body, said strip of fabric being of a length corresponding to the width of the body, removable fastening means engaged with the lower portions of said strip of fabric and the body and with portions of the ends of said strip and the adjacent portions of the sides of the body whereby to form a pocket in the lower portion of the garment extending entirely across the body and having hand openings in its opposite ends, the intermediate portion of the body having vertical hand receiving openings therein to provide further means of access to said pockets.

1,307,245. VALVELESS SYRINGE. FAIRLEIGH B. DICKINSON, Rutherford, N. J. Filed Feb. 20, 1919. Serial No. 278,137. 2 Claims. (Cl. 128-231.)



1. A syringe comprising a barrel provided at one end with a discharge nozzle, a compressible bulb having a neck fitting the other end of the said barrel and a diaphragm of resilient material, the said diaphragm located between the liquid-receiving portion of the barrel and the bulb, the diaphragm being provided with at least one puncture normally closed by the action of the resilient material of which the diaphragm is made, the diaphragm expanding on application of pressure on either side of the dia-

phragm to open the puncture to allow air to pass from the bulb into the barrel or vice versa, the diaphragm on the release of pressure returning to normal contracted position thereby closing the puncture.

1,307,246. HAND-TRIP FOR GRAIN-BINDERS. YOUNG STOKES ELLINGSWORTH, Geneseo, Ill. Filed Sept. 21, 1918. Serial No. 255,119. 3 Claims. (Cl. 56-447.)

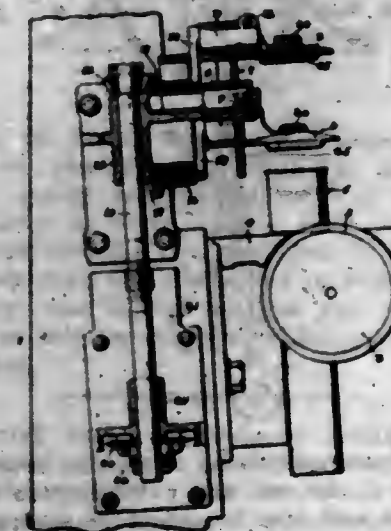


1. In a device as herein characterized, in combination, a grain binder including a trip dog, a hand lever extending over the deck of the binder and movably fulcrumed thereon, a tripping rod flexibly connected with said lever and angularly disposed relatively thereto, spring means engaging said rod for normally holding said rod in inactive position, and means carried by said rod for engaging said trip dog upon pivotal movement of the hand lever.

1,307,247. MOISTURE-PROOF ADHESIVE COMPOUND. SAMUEL B. FIELD, Holbrook, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a Corporation of Maine. Filed Dec. 20, 1917. Serial No. 208,074. 4 Claims. (Cl. 87-17.)

1. A moisture repellent adhesive compound consisting of a composition of pitch, paraffin and rosin oil characterized by being dry and non-sticky under normal atmospheric conditions and of becoming soft and sticky when heated to a high degree of temperature and capable of adhesively uniting two surfaces together and again becoming dry and non-sticky and capable of retaining two surfaces adhesively united when it is cooled again to normal temperature.

1,307,248. PACKING DEVICE FOR CAN-CLOSING MACHINES. GEORGE FLUCK, Syracuse, N. Y., assignor to Continental Can Company, Incorporated, Syracuse, N. Y., a Corporation of New York. Filed Nov. 2, 1917. Serial No. 199,888. 4 Claims. (Cl. 226-9.)



1. A packing device for can closing machines including in combination, a support rotating in a vertical plane, a

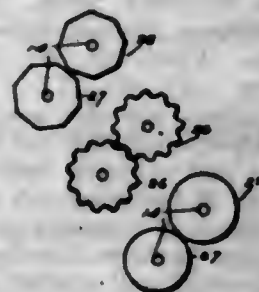
plurality of pads pivotally carried thereby and moving bodily therewith, and a rotating member with which each pad is pivotally connected, said rotating member being so disposed relative to the support as to maintain said pads in horizontal position during their entire travel.

1,307,249. STERILIZING APPARATUS FOR HYPODERMIC SYRINGES. HENRY RAYMOND FRANKLIN, New York, N. Y. Filed Sept. 15, 1917. Serial No. 191,507. 3 Claims. (Cl. 107-3.)



1. In a sterilizing apparatus for hypodermic syringes, a case body, a cover for the body having a rim, the cover serving as a container when it is inverted, and a syringe carrier having upwardly extending arms for embracing a syringe, one of the arms being cut to form a tongue which extends outwardly and upwardly to hold a needle against the body of said arm, the syringe carrier being normally disposed in the case body and being removable therefrom so that it may be disposed in the cover to support the case body thereabove.

1,307,250. PROCESS AND APPARATUS FOR TREATING FIBER-BEARING PLANTS. LILA N. GILLIS, Washington, D. C., assignor, by direct and mesne assignments, to Fibre Company of North America, a Corporation of Delaware. Filed Nov. 8, 1918. Serial No. 261,743. 4 Claims. (Cl. 13-21.)



2. A process for treating straw for the production of fiber and freeing the same from shives which consists in pinching the straw under treatment at spaced intervals, thereafter forming corrugation like bends in said straw and finally rubbing the pinched and bent straw.

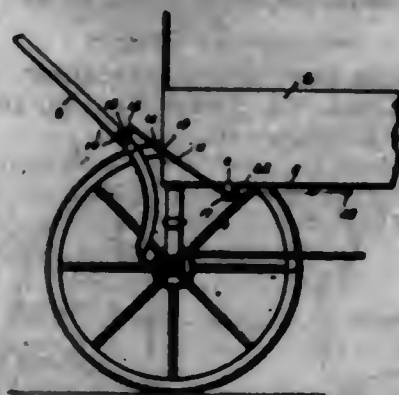
1,307,251. SAFETY-HOOK. MAX GORMAN, Stellacoom, Wash. Filed Nov. 9, 1918. Serial No. 261,805. 2 Claims. (Cl. 24-241.)



1. A safety hook comprising a tubular body having a lateral portion at one end and a bifurcation in the end of said portion and also having a transverse aperture near its opposite end and a longitudinal slot adjacent to said aperture, a longitudinal sleeve fixed at the outer side of the tubular body, a spring pressed latch movable

in the body and having a finger piece disposed and movable in the slot in the body wall, a hook proper adapted to enter the aperture of the body and having a notch and also having a shank reduced and pivoted in the bifurcation of the body and further having a reduced portion spaced from the first named reduced portion, and a bowed spring bifurcated and receiving the last named reduced portion of the shank and having a straight portion disposed and movable endwise in the sleeve on the body.

1,307,252. BUGGY-SHAFT SUPPORT. WINFIELD A. GRAYBELL, Lansing, N. C. Filed Mar. 22, 1919. Serial No. 284,353. 3 Claims. (Cl. 21-104.)



1. A shaft support comprising a rod having shaft holding means at one end and a crank bend at the other end, and a bearing in which the crank bend is rotatably and slidably mounted.

1,307,253. SWITCH AND COIL-BOX LOCK. DE WITT T. GRISWOLD, Memphis, Tenn. Filed July 17, 1918. Serial No. 245,364. 4 Claims. (Cl. 70-14.)



3. In combination with a coil box having a cover and a switch casing having a face plate held to the casing by screws, of a pair of straps passing about the coil box, cover and switch casing, said straps having interlocking parts at their meeting ends, a switch cover hinged to one of the straps and adapted to close against the switch face plate to conceal said screws, and the switch key, a catch having an opening therein extending from the free end of said switch cover and adapted to pass through one of said straps, a lock casing secured to one of said straps, and a locking bolt in said casing adapted to enter the opening in said catch whereby to hold the switch cover in the closed position substantially as described.

1,307,254. CAR-COUPLING. JAMES M. HOLLAND, Nashville, Tenn. Filed Jan. 10, 1919. Serial No. 270,501. 1 Claim. (Cl. 213-14.)

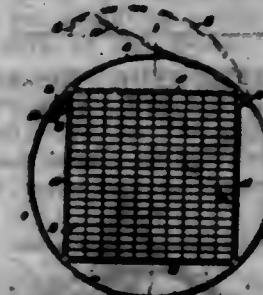
A car coupler including a head having the face thereof curved and a guide arm formed on one side thereof, bear-

ing means on the opposite side of said head, a knuckle pivoted in said bearing means having a reversely disposed hooked arm on its inner end movable into said head, a locking pin including spaced side members carrying a roller between their lower ends, a ring loosely en-



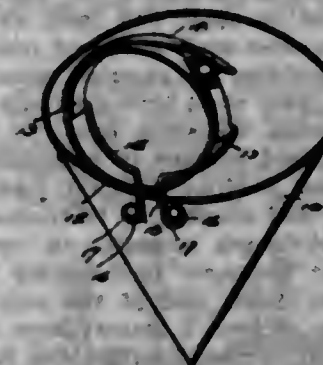
gaged between said side members and receivable on said roller, said pin being adapted to engage on the upper side of the reversely disposed hooked arm when in its open position but to engage forwardly of the same when in its closed position to lock the knuckle against movement with relation to the head.

1,307,255. PACKAGING BRICKS FOR TRANSPORTATION. WILLIAM T. HOOKER, New York, N. Y. Filed Mar. 6, 1916. Serial No. 62,449. Renewed Oct. 29, 1918. Serial No. 260,175. 6 Claims. (Cl. 206-46.)



1. In a package for the transportation of bricks, a carrier having a circular rim open at both ends and adapted for rolling, the width of the rim corresponding to the length of a brick, and interior means connected with the rim for supporting a predetermined number of bricks in closely packed relation one to the other, to hold the bricks against displacement while rolling the carrier along.

1,307,256. BERRY-PAIL. WILLIAM S. JACOBSON, Steel Head, British Columbia, Canada. Filed Oct. 11, 1918. Serial No. 257,812. 1 Claim. (Cl. 150-2.)



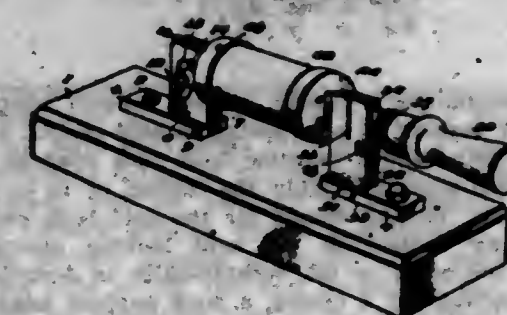
A berry pail comprising a conical receptacle, a handle attached to the same and comprising a section of wire bent to provide a depressed portion designed to fit beneath the wrist, said depressed portion having horizontal portions and depending shank portions parallel to said first named depressed portion, said shank portions being secured to the wall section of the pail, and connecting means between said horizontal portions to detachably connect the same to the wrist.

1,307,257. TAKE-UP SPOOL FOR MUSIC-SHEETS. CHARLES V. JAMISON, Chicago, Ill. Filed Aug. 22, 1917. Serial No. 187,882. 9 Claims. (Cl. 242-60.)



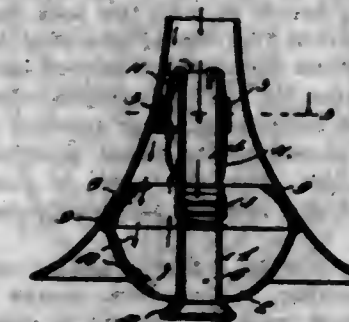
1. A spool for a music sheet having an end-flange composed of a plurality of yieldable portions.

1,307,258. ELECTRIC SWITCH. ANDREW LANCASTER JOHNSTON, Jr., Richmond, Va., assignor to Metropolitan Electric Manufacturing Company, Camden, N. J., a Corporation of New Jersey. Filed Apr. 2, 1918. Serial No. 226,335. 7 Claims. (Cl. 175-292.)



1. An electric switch including clips, a switch knife hinged in one of said clips and adapted to swing into and out of engagement with the other of said clips, said switch knife including a beam, a pair of blades with their ends separated and engaged with said beam, a fire guard for said beam, a fuse connected between the adjacent ends of said blades, and a housing for said fuse, substantially as described.

1,307,259. MUTE FOR WIND INSTRUMENTS. WILLIAM C. KIDDER, Buffalo, N. Y. Filed May 6, 1918. Serial No. 232,861. 8 Claims. (Cl. 84-125.)



1. A mute for wind instruments comprising an air escape tube for central reception in the bell of the instrument in spaced relation to the wall thereof, said tube being open at both ends, a bowl shaped barrier secured to said tube for snug reception in said bell, said tube extending from the closed end of said bowl shaped barrier through and beyond its open end, and a packing on the wall of said barrier for airtight contact with the instrument bell.

1,307,260. TOY BOAT. FREDERICK ADOLPHUS LAPPIN, Middleborough, England. Filed Feb. 4, 1919. Serial No. 274,849. 2 Claims. (Cl. 46-57.)

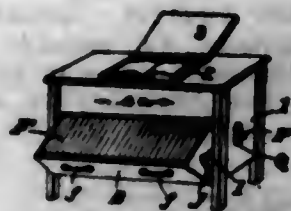
1. In a toy boat, propelling means comprising a single length of tube having an uninterrupted bore therethrough from end to end, said tube having two terminal portions or limbs extending longitudinally of the boat and an in-

intermediate bent portion integral with the limbs and bent to form a coil, the ends of both of said limbs being open



and projecting through the stern of the boat below the surface of the water, and means for applying heat to the said coil.

1,307,261. BOOKCASE. ULTRAMAS G. LEE, Chicago, Ill. Filed Apr. 11, 1918. Serial No. 227,955. 11 Claims. (Cl. 45-1.)



1. In combination a casing, a book support adapted to hold a book exposed at an opening in said casing, a cover for said opening and a movable book rack adapted to occupy a closed position within the casing, or to be drawn out therefrom, locking means for the said book rack and a controlling connection for said locking means controlled by the cover or lid, substantially as described.

2. In combination a casing, a book support adapted to hold a book exposed at an opening in said casing, a cover for said opening and a movable book rack adapted to occupy a closed position within the casing, or to be drawn out therefrom, locking means for the said book rack, and a controlling connection for said locking means controlled by the cover or lid, said connection placing the locking means in inoperative position when the cover is opened and said locking means assuming a position to lock the book rack, when the cover is closed, substantially as described.

3. In combination a casing having an opening in its top for exposing a book, a cover for said opening, a book rack, means for movably supporting the said book rack to assume a position within the casing or to permit the book rack to be drawn forward of said casing to be accessible, a locking device to hold the book rack in closed position, a connection for raising the said lock to inoperative position when the cover is opened and permitting said lock to assume its locking position when the cover is closed, the said connection being yielding to allow the book rack to be moved to its closed position and to be engaged by the lock after the cover is closed and the lock has assumed its locking position, substantially as described.

4. In combination with a casing having an opening, a cover for said opening, a book rack, means for movably supporting the book rack to assume a position in the casing or to be moved forward to present the books to the user, a lock for holding the book rack in its closed position, a connection extending from the lock to be borne upon by the cover to make the lock assume locking position, said connection including a spring to move the lock to inoperative position when the cover is raised, said spring yielding when the cover is closed and the lock assumes locking position, said lock being then capable of yielding independent of the spring to permit the book rack to assume a closed position and to be engaged by the lock, substantially as described.

5. In combination a casing, a book rack, means for movably supporting the book rack to enable it to be drawn forward, or to be moved into the casing, a lock for holding the book rack in its forward position with the books presented to the user, a lock for holding the rack in its closed position, said casing having an opening, a cover for said opening, a controlling connection for the

last mentioned lock controlled by the position of the cover, and manually operated means for manipulating the first mentioned lock, substantially as described.

1,307,262. CAGE FOR TUBULAR ROLLS. CHARLES R. LOCKWOOD, Newark, N. J., assignor to Hyatt Roller Bearing Division, United Motors Corporation, Harrison, N. J., a Corporation of New York. Filed Dec. 9, 1918. Serial No. 265,957. 3 Claims. (Cl. 64-62.)



1. The combination, with a cage having heads at opposite ends and a set of tubular rolls fitted movably between the heads, of pivots extended through the heads and the rolls and having their ends within the outer line of the heads, and the material of the heads around the pivot-holes crowded toward the said holes upon the outer sides of the heads to lock the pivots permanently in the heads.

1,307,263. FLOATABLE SAFE. GIUSEPPE MARZIO, Bari, Italy. Filed Nov. 6, 1918. Serial No. 261,395. 1 Claim. (Cl. 230-24.)



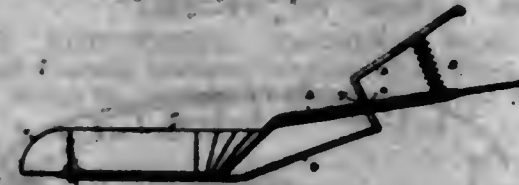
A floatable safe comprising an outer shell having its lower end closed and its upper end open, an inner shell arranged within the outer shell in spaced concentric relation thereto and providing an annular chamber between the two shells, said inner shell having an upwardly tapering top which diverges upwardly from the outer shell to form a funnel-shaped passage in communication with the annular chamber, a filling of light elastic material within the chamber and adapted to be conducted therein through the funnel-shaped passage, an approximately cup-shaped cover for the outer shell having its free end telescoping with the upper end of the outer shell and providing interiorly thereof a space above the top of the inner shell, books arranged within the funnel-shaped passage and secured to the interior of the outer shell near its upper end, a bolt extending through a central opening in the cup-shaped cover and rotatable therein and having its inner end screw threaded and its outer end provided with a head arranged exteriorly of the cover, a nut engaging the screw threaded end of the bolt, diagonal links arranged within the cover and having connection with the nut and extending downwardly into the funnel-shaped passage for engagement with the books, and a cap surrounding the head of the bolt.

1,307,264. SEWING MACHINE. JAMES R. MOWATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed June 24, 1918. Serial No. 241,543. 6 Claims. (Cl. 112-5.)



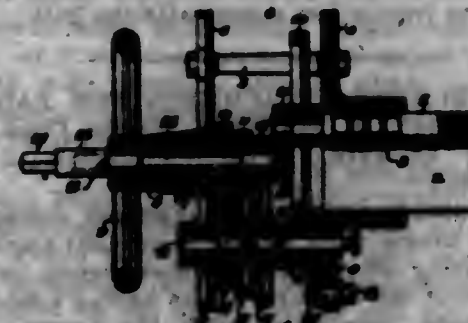
1. A single chain stitch machine including in combination a needle, a non-thread carrying looper cooperating with said needle and moving in the direction of the feed when entering the needle loop, means for operating the looper, a throat plate having a needle opening therein for the needle, a bar extending across said needle opening in rear of the path of the needle, whereby the needle thread loop on the looper extending to the previous needle puncture is drawn by the feed across said supporting bar and properly positioned for the entrance of the needle into said loop, and means for detachably supporting said bar, whereby the same may be removed and replaced at will.

1,307,265. FIRE-SHOVEL. LA ROY C. MONISMITH, Glenville, N.Y. Filed Sept. 13, 1918. Serial No. 254,023. 1 Claim. (Cl. 55-151.)



A shovel having a flap pivoted to its end and an opening in its handle, a lever having its end bent at right angles and passing through said opening, a pin pivoting the lever in said opening, a rod connecting the lower end of said lever to the flap and a spring located between the handle and upper part of the lever for holding the lever in raised position and with the flap in extended position.

1,307,266. TOOL-FEEDING MECHANISM. HOWARD A. PEDRICK, Bala, Pa., assignor to Pedrick Tool and Machine Company, Philadelphia, Pa., a firm consisting of Albert D. Pedrick and Howard A. Pedrick. Filed Dec. 21, 1917. Serial No. 268,306. 6 Claims. (Cl. 77-57.)



1. The combination of a boring bar; a tool-feeding screw journaled therein; two gears on said feed screw;

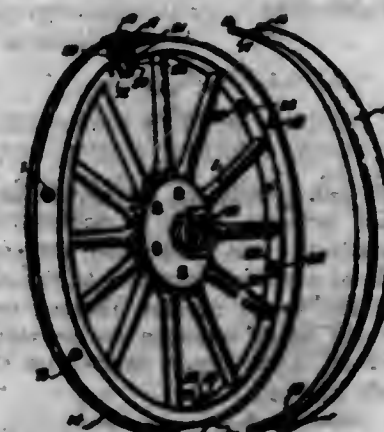
a train of gearing carried by the boring bar and operative on one of said gears for turning the feed screw at a relatively low speed and including a hollow shaft; a second shaft mounted within said hollow shaft; a gear on said inner shaft meshing with the second gear on the feed screw; and means for turning the inner shaft at will.

1,307,267. WHEEL. LOUIS H. PERLMAN, New York, N. Y. Filed Sept. 23, 1916. Serial No. 121,820. 1 Claim. (Cl. 152-21.)



A demountable rim comprising a substantially cylindrical main body and a tire bead retaining flange at one edge, the main body being formed with a seat for a tire bead retaining flange at the other edge, the said seat being shaped into an annular groove having relatively abrupt corners opening into a substantially axially extending portion curving gradually in a direction away from the axis of the rim and having its free edge of a diameter not exceeding that of the cylindrical portion of the main body, and a cross-cut detachable flange removably seated in said seat and having that portion engaging the seat conforming to the contour thereof.

1,307,268. WHEEL. LOUIS H. PERLMAN, New York, N. Y. Filed Feb. 23, 1917. Serial No. 150,467. 4 Claims. (Cl. 152-21.)



1. The combination with a wheel body, and a demountable rim therefor, having a flat inclined portion, of means for securing the rim on the wheel body comprising a radially movable element mounted on the wheel body and having an inclined flat face on its outer end for engagement with said flat inclined portion of the rim forming the sole rim-sustaining engagement of the radially movable element with the rim to hold the rim in operative position on the wheel body.

1,307,269. POWER ATTACHMENT FOR AUTOMOBILES. JOHN N. RICH, Ponca City, Okla. Filed Sept. 12, 1918. Serial No. 263,785. 3 Claims. (Cl. 74-106.)

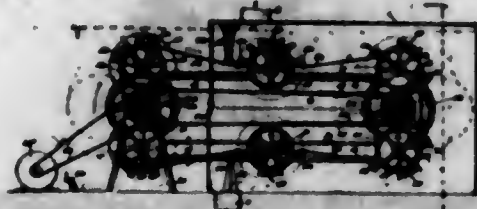
1. Means for utilizing a motor vehicle in the capacity of a power plant the same comprising a frame having a leg support intermediate of its ends for tiltingly support-

ing the frame, a shaft mounted transversely on the frame, and pulleys secured to the shaft and adapted to be en-



gaged by the drive wheels of a motor vehicle when the latter is supported in elevated position by means of the frame.

1,307,270. DRIER. FORDYCE T. RICHARDS, Portland, Oreg. Filed Sept. 27, 1917. Serial No. 193,485. 9 Claims. (Cl. 34-12.)



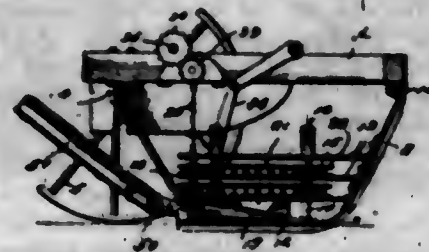
1. In a drier of the character referred to, in combination, a housing, means for supplying a heating and drying medium thereto, track members in said housing, a plurality of drier receptacles movably and revolvably mounted, means for moving said receptacles through said housing on said track members and a flexible driving means connecting all of said receptacles for revolving the same as they are moved bodily through said housing, said flexible driving means being adapted to travel bodily around the course of travel for said receptacles during its travel as a driving means for revolving said receptacles, substantially as described.

1,307,271. COLLAR-BUTTON. HARRY E. RISSINOW, Pittston, Pa. Filed Jan. 12, 1917. Serial No. 141,998. 1 Claim. (Cl. 24-101.)



A collar button comprising an elongated and substantially rectangular arcuate base, a vertically disposed shank rigidly positioned on said base intermediate its ends having its sides arranged parallel to the sides of the arcuate base and the upper portion thereof reduced and formed with beveled sides whereby to provide a button hole piercing element, and a head carried on the reduced end of said shank.

1,307,272. BEET-HARVESTER. SAMUEL B. ROBINSON, Lamar, Colo. Filed July 10, 1918. Serial No. 244,277. 5 Claims. (Cl. 55-9.)



4. In a topper of the class described, the combination with a frame work mounted on wheels, a pair of runners hingedly mounted at their front ends under said frame work, and means for adjusting their rear ends vertically;

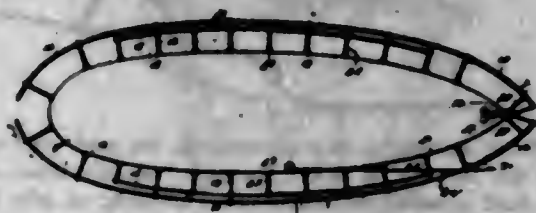
of knives connected at their front ends with said runners and converging toward their rear ends, one of said knives being fixed at its rear end, and mechanism for moving the rear end of the other knife transversely, as described.

1,307,273. HOSE-COUPLING. THOMAS P. GALLEY, Brooklyn, N. Y. Filed Oct. 13, 1917. Serial No. 196,490. 1 Claim. (Cl. 285-176.)



A hose coupling comprising male and female pipe sections each having an annular rabbeted portion and an annular gasket fitting said portion, said sections slidably fitting each other whereby the end of each section comes in flat contact with the gasket associated with the other section, cylindrical studs on one of said sections, the other section having slots therein disposed spirally of said section and opening at their outer ends directly onto the end of said section and closing against the next adjacent gasket when both sections are together, the slots and studs coacting with each other whereby when the sections are turned relatively they will be drawn toward each other to cause the ends of said sections to compressingly engage against said gaskets, each slot having a closed end which is deflected from the longitudinal line of the slot and toward the adjacent end of the section to define a retaining pocket, said studs lodging in said pockets when said sections are connected, and the gaskets serving under their inherent elasticity to hold the studs in said pockets.

1,307,274. TORPEDO-GUARD. CHRISTOPHER SHALT, Brooklyn, N. Y. Filed Aug. 3, 1918. Serial No. 248,150. 1 Claim. (Cl. 114-240.)



In a device of the class described, an inner guard unit and a plurality of frames for supporting the latter, each frame comprising a vertical bar adjacent to the guard, inwardly extending arms directly connected with the guard unit and having downwardly deflected ends, socket members carried by the side of the vessel for receiving the deflected ends, an outer guard unit and frames for supporting the latter, the frames last named including vertical bars adjacent to the hull and outwardly extending arms connected with the outer guard unit, and means pivotally connecting the frames last named with the hull.

1,307,275. RUNNER ATTACHMENT FOR BABY-CARRIAGES. ROY H. SPAULDING, Battle Creek, Mich. Filed Sept. 21, 1918. Serial No. 253,064. 1 Claim. (Cl. 21-94.)

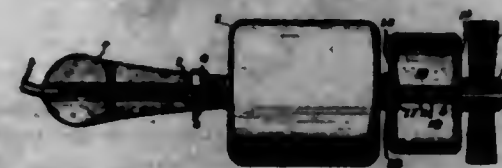
A runner attachment for baby carriages, comprising a pair of bars having their ends bent at right angles, said bent ends having semi-circular recesses therein for engaging the axles of the carriage, blocks having semi-circular recesses therein, co-operating with the recesses in the bars, means for connecting the blocks to the bent ends of the bars, depending legs having their upper ends secured

to said bars, said legs being formed in sections, means for hinging the sections of each leg together, runners con-



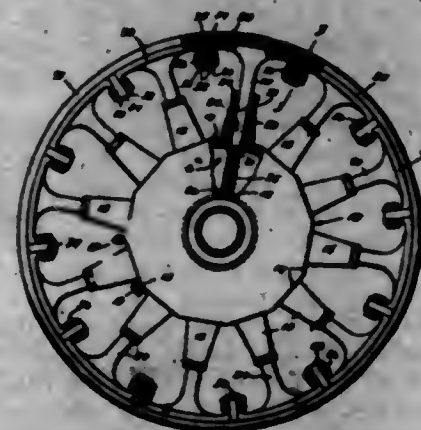
nected with the lower ends of said legs, an arm connected with each bar, a longitudinally movable member and a link connecting each arm to said member.

1,307,276. DEVICE FOR POLISHING SHOES. JOHN N. SPENKAS, Hamilton, Ohio, assignor of one-half to John L. Black, Hamilton, Ohio. Filed June 26, 1918. Serial No. 242,059. 2 Claims. (Cl. 15-37.)



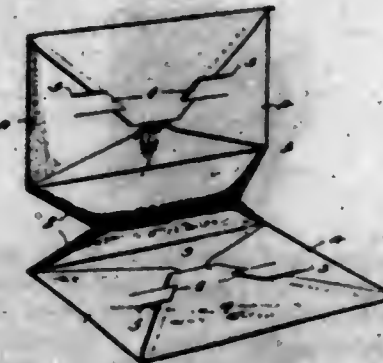
1. A device of the class described comprising a casing, a motor within the casing, a motor shaft projecting from the casing, a transverse pin in the end of said shaft, a slotted hollow shaft having the slot extending through its end for removably engaging the motor shaft, a member to be rotated connected to said slotted shaft and a cylindrical member forming a combined handle and shield rotatably carried by the slotted shaft whereby said shaft may be movably held on the motor shaft and removed therefrom.

1,307,277. AUTO-WHEEL. MATTHEW S. SPOTT, Scranton, and THOMAS JEFFREY, Dunmore, Pa. Filed Aug. 3, 1918. Serial No. 248,208. 1 Claim. (Cl. 152-31.)



A resilient wheel comprising a hollow central body, a plurality of tubular guide members extending radially from said body, plungers slidable within said tubular guide members and having closed inner ends, caps threaded into the outer ends of said tubular guide members for limiting the outward movement of said plungers, means within said hollow body for opposing inward movement of said plungers, spokes slidable through said caps and disposed within said plungers with their inner ends in abutting engagement with the closed ends thereof, arcuate plates formed on the outer ends of said spokes and arranged in circumferential alignment to form a rim and flexible connections between said plates.

1,307,278. DOUBLE SAFETY-ENVELOP. JOHN STANLEY, Barberton, Ohio. Filed Apr. 29, 1918. Serial No. 231,436. 1 Claim. (Cl. 229-94.)



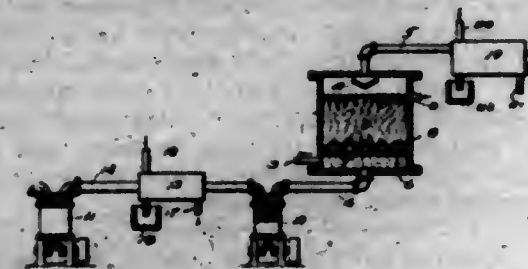
An envelop comprising a body portion, a lower flap adapted to be arranged upon said body portion, end flaps adapted to be interposed between said body portion and lower flap, said end flaps being slit transversely on spaced parallel lines to the outer edges thereof defining elongated tongues adapted to be arranged upon the outer side of the lower flap and a sealing flap carried by said body.

1,307,279. SHOE-FASTENING DEVICE. VIRGIL M. TAYLOR, Bemidji, Minn. Filed Apr. 20, 1918. Serial No. 229,761. 2 Claims. (Cl. 24-226.)



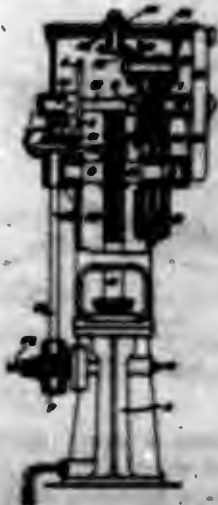
1. A separable fastener of the class described including an eye member provided with a substantially triangular attaching base, a hook member engageable therewith and disposed substantially in a single plane, attaching means carried by the hook and eye members, and bent portion adjacent the extremity of said hook to securely hold the fastener in position.

1,307,280. PROCESS FOR THE RECOVERY OF GASOLINE AND OTHER HYDROCARBONS. WILLIAM E. WALKER, Arkansas City, Kans. Filed Mar. 9, 1918. Serial No. 221,891. 2 Claims. (Cl. 196-27.)



1. The process for the treatment of complex hydrocarbons in liquid condition for the recovery of certain desired constituents therefrom, which consists in passing a current of such liquid hydrocarbons through a vat containing a substantial amount thereof in bulk, compressing a current of gaseous hydrocarbons for the purpose of condensing a portion thereof and raising the temperature of the gaseous portion, passing such gaseous portion through the body of liquid hydrocarbons contained in the vat while maintaining its temperature and pressure, to thereby distill a portion of the hydrocarbons from the liquid contained in the vat, and thereafter recovering desired constituents from the resulting gaseous mixture, substantially as described.

1,307,281. HYDRAULIC TELEMOTOR. WILLIAM WALLACE, Edinburgh, Scotland. Filed Feb. 25, 1919. Serial No. 279,139. 7 Claims. (Cl. 138-2.)



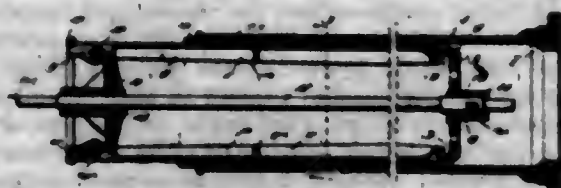
1. In a telemotor system having piston-and-cylinder transmitting and receiving instruments; means in the transmitting instrument for by-passing the system at successive points and means for bringing the receiving instrument when it is then relieved into correlation.

1,307,282. INTERNAL-COMBUSTION ENGINE. JOHN PAUCE WARD, McKinney, Tex. Filed Apr. 29, 1918. Serial No. 221,434. 6 Claims. (Cl. 123-14.)



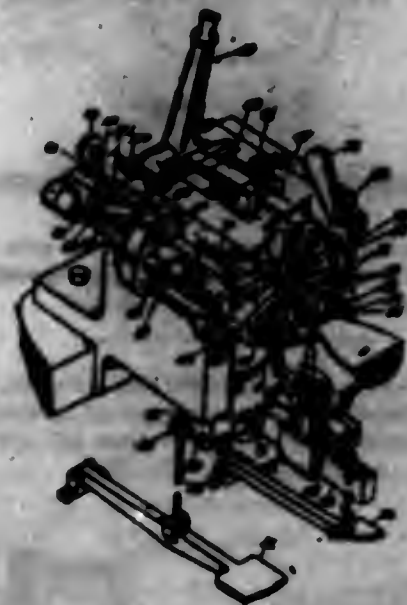
1. In a rotary internal combustion engine; a fluid transmitting device comprising a casing having a rotor-chamber, a fluid-compression chamber, and an abutment-seat; a rotor mounted in said rotor-chamber and operable to compress fluid in said fluid-compression chamber; an abutment in said abutment-seat and movable from an inner position to an outer position, said abutment being formed with a fluid-transmitting chamber which is in communication with said fluid-compression chamber and out of communication with said rotor-chamber when said abutment is in its outer position, said fluid-transmitting chamber being in communication with said rotor-chamber and out of communication with said compression chamber when said abutment is in its inner position, and means to drive the compressed fluid from said compression chamber into said fluid-transmitting chamber.

1,307,283. COLLAPSIBLE CORE. ROBIN MONROE WARR, Bessemer, Ala. Filed Oct. 14, 1918. Serial No. 258,006. 6 Claims. (Cl. 25-128.)



1. A hollow collapsible core comprising a plurality of longitudinal bars, heads at the ends of said bars for shifting them radially to expand and contract the core, and means for drawing said heads inwardly toward each other to expand the core and for limiting the movement of said heads away from each other.

1,307,284. HEEL-SEAT-FORMING MACHINE. SAMUEL J. WENTWORTH, Newport, Ky., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 4, 1914. Serial No. 875,468. Renewed Jan. 4, 1919. Serial No. 300,655. 43 Claims. (Cl. 12-17.)



1. A machine for forming upon the heel portion of a sole a seat to receive the upper portion of the heel which is to be attached, having, in combination, means for cutting around the margin of the heel portion on a bevel, means for cutting in a direction at an angle to the direction of the first cut, and means for operating said cutting means.

13. A machine for operating upon the sole of a shoe prior to the attaching of the heel, having, in combination, a support for the projecting heel portion of the sole, a presser arranged to act upon the middle portion of the heel of the sole, a trimming knife arranged to move with the presser during the trimming operation, means for moving said presser and knife along said support to form a tongue on said sole, and means for cutting off said tongue.

20. A machine for operating upon the sole of a shoe prior to the attaching of the heel, having, in combination, a pair of separable jaws arranged to enter the rand crease of the shoe to support the projecting margin of the heel portion of the sole, and means for cutting the margin of the heel portion of the sole so supported, on a bevel to provide a convex heel-seat to receive the concavity of the heel which is to be attached.

43. A machine for operating upon the attached sole of a shoe prior to the attachment of the heel, having, in combination, means for supporting the shoe, and means for removing stock in a horseshoe-shaped area from the margin of the tread face of the heel portion in such manner as to form a convex seat to receive the concavity of the heel which is to be attached.

51. A machine for operating upon the attached sole of a shoe prior to the attachment of the heel, having in combination, a cutter adapted to bevel the edge and tread face of the heel end of a sole by a cut which extends substantially from the line of junction of the upper with the sole to a distance sufficiently inside said line to provide a seat to receive the cavity formed in the top of the heel which is to be attached, and means for operating said cutter.

1,307,285. HEEL-SEAT-FITTING MACHINE. SAMUEL J. WENTWORTH, Newport, Ky., and FREDERICK H. PERRY, Beverly, Mass., assignors, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 14, 1915. Serial No. 50,622. 32 Claims. (Cl. 12-17.)

1. A machine for operating upon the sole of a shoe subsequent to its incorporation in the shoe but prior to the attaching of the heel having, in combination, a cutter,

means for positioning the shoe so as to cause the cutter to bevel the edge face and a portion of the tread face of the heel end of the sole by a cut which extends substantially from the junction of the upper with the sole to a line sufficiently inside said line of junction to provide a seat to receive the cavity formed in the top of the heel which is to be attached, and power actuated means for operating said cutter.



5. A machine for operating upon the sole of a shoe prior to the attaching of the heel having, in combination, a support for the projecting heel portion of the sole, a presser and a knife constructed and arranged together on said heel portion to form thereon a convexity to fit the concavity of the heel which is to be attached, means for reciprocating said knife, and lost motion connections between said knife and presser so arranged that said knife picks up said presser after the reciprocating movement begins and drops said presser before said reciprocation ends.

16. A machine for operating upon the sole of a shoe prior to the attaching of the heel, having, in combination, a support for a shoe, a knife for cutting from the heel portion of the sole a horseshoe-shaped tongue, and a knife for cutting off said tongue, said last-named knife being adjustable to vary the angle of its cut.

25. A machine for operating upon the heel portion of a sole to prepare it to receive a heel, having, in combination, means for cutting around the margin of the heel to provide a raised seat to receive the cavity in the top of the heel, and means for forming an undercut shoulder at the forward end of the seat against which the upper forward end of the heel may abut.

1,307,286. CIRCUIT-CLOSER. RICHARD A. WROBLEK, Toledo, Ohio. Filed Nov. 5, 1918. Serial No. 261,295. 3 Claims. (Cl. 175-306.)



1. A device of the class described comprising a pair of contacts, a movable member adapted to engage said contacts, means for actuating said member and means for disengaging said member from the actuating means and causing said member to permanently engage one contact.

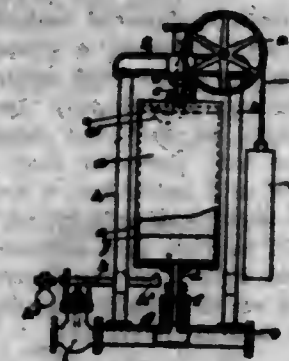
285 O. G.—30

1,307,287. VALVE. JOHN E. WHITTON, Conway, Ark. Filed Feb. 9, 1918. Serial No. 216,371. 3 Claims. (Cl. 281-42.)



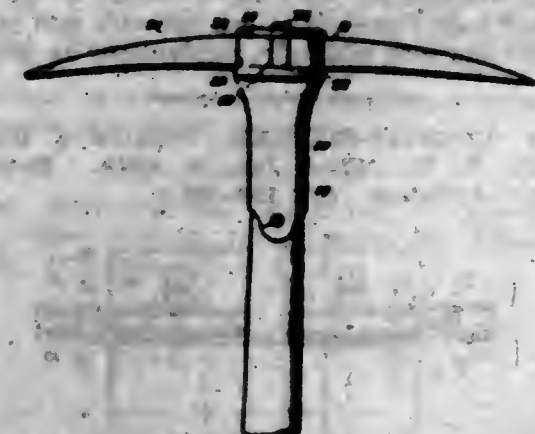
1. A device of the class described comprising a valve casing, a valve in said casing, a stationary housing depending from said valve, a removable plug in the valve above the housing, a removable housing in said stationary housing provided with interior screw threads, a shaft having its upper end screw threaded and engaging with said screw threads in the housing, and means for rotating said shaft.

1,307,288. STRAM-TRAP. WILLIAM WINSON, Milford, England. Filed Apr. 25, 1919. Serial No. 392,645. 2 Claims. (Cl. 137-108.)



1. In a steam trap, a weight balanced water vessel arranged for vertical movement and adapted to be placed in a steam line, a water inlet connected with the vessel at the bottom thereof, a valve controlling the discharge of water from said vessel, a lever normally holding the valve closed and extending beneath the vessel and adapted to be actuated by the same in the downward movement of the said vessel to open the valve, and a separate steam inlet at the top of the vessel to preserve the balance between the same and the system and adapted to cause a discharge of water from the vessel under pressure when the valve is opened.

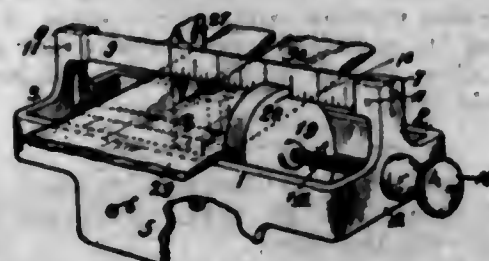
1,307,289. PICK. HOPKIN J. WILLIAMS, Nanticoke, Pa. Filed Jan. 22, 1919. Serial No. 272,469. 1 Claim. (Cl. 287-42.)



In a device for the purpose set forth, a metallic stock having a pocket on the inner end thereof and being slit centrally the length of the stock, a handle received in the pocket and projecting therethrough, a securing element.

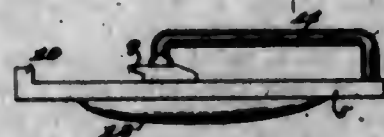
ment for retaining the handle in the socket, a head on the opposite end of the stock and provided with a pocket, the flange surrounding the pocket being notched, a pick having its central portion received in the pocket and the portions outward of the said center received in certain of the notches, lugs on the said center of the pick received in the remaining notches, and a cap plate inclosing the pick in the pocket and in the notches removably secured to the stock.

- 1,307,290. BELT-SPLITTING DEVICE. JACOB A. TAMMERS, Akron, Ohio. Filed Nov. 22, 1917, Serial No. 208,883. Renewed Feb. 26, 1919. Serial No. 279,417. 1 Claim. (Cl. 164—33.)



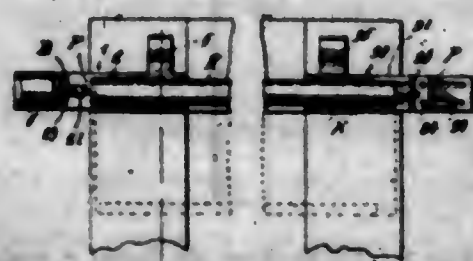
A device of the class designated embodying a frame comprising side and end members, a guide bar mounted on said end members, a lug on said guide bar provided with a notch extending transversely to said bar, a threaded shaft mounted in said end members, a guide shiftable mounted on said threaded shaft and provided with a slot to receive said guide bar, a tool-support connected with one side member of said frame, and a cutting tool mounted in said support and disposed at an angle to said guide bar, and with a portion thereof engaging in the notch in the lug on said guide bar for holding said cutting tool against lateral movement.

- 1,307,291. TIE-SPACER. WILLIAM L. BALLINGER, Bradford, Ohio. Filed Aug. 8, 1917, Serial No. 185,008. Renewed Apr. 18, 1919. Serial No. 291,172. 2 Claims. (Cl. 254—123.)



1. A device of the class described comprising a body adapted for arrangement at the under side of the base of a rail; an overhanging jaw at the upper side of said body adapted to engage over one edge of the base of a rail; a stop on the upper side of said body spaced from said jaw and adapted to register with the opposite edge of the rail base, said body being extended horizontally from said overhanging jaw; and a handle at the upper side of said body connected at one end with said jaw and at its other end with said body, substantially as described.

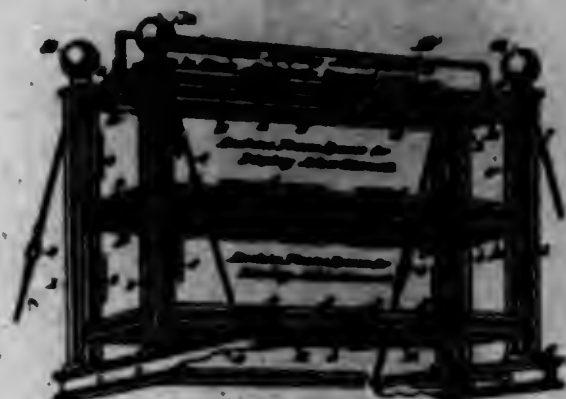
- 1,307,292. CURTAIN-FIXTURE. WILLIAM H. BRADLEY, Concord, N. H. Filed Jan. 9, 1919. Serial No. 270,411. 4 Claims. (Cl. 156—28.)



2. A fixture of the class described comprising a base plate, an attaching plate carried thereby, supports carried

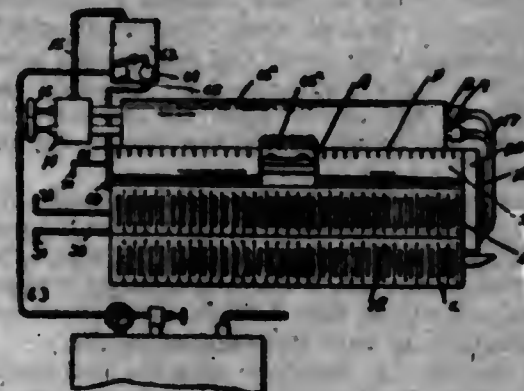
by said base plate, spring controlled gearing mounted on said supports, a shaft having pinion receiving means connected to be operated by said spring through said gears, and spring pressed means on said shaft to hold the pinion engaged therewith.

- 1,307,293. FRAMEWORK FOR DISPLAY PUBLICITY BY MACHINE. CLAYTON R. FISCH, Newark, N. J. Filed Sept. 15, 1916. Serial No. 120,808. 29 Claims. (Cl. 40—1.)



1. A framework for display comprising columns, means for connecting said columns extending horizontally between the same, rails extending longitudinally of said framework, and adjustable hangers for supporting said rails.

- 1,307,294. GAS-BURNER. IRVING J. FOLLE, San Francisco, Calif. Filed July 12, 1918. Serial No. 244,543. 10 Claims. (Cl. 186—65.)



1. A burner comprising a casing having a mixing chamber formed therein, a plurality of upper and lower burners connected with said chamber, means for by-passing gas from said chamber to any one of the burners or to all in unison and means adapted to direct the gas to one end or to the entire length of the upper and lower burners.

- 1,307,295. NEEDLE-GUARD ATTACHMENT FOR SEWING-MACHINES. FRANK P. GARDNER, Boston, Mass. Filed Aug. 9, 1918. Serial No. 249,201. 11 Claims. (Cl. 113—26.)



1. A needle guard attachment for a presser foot having a shank with a tapered flange shaped flange, said guard attachment having a guard portion which substantially

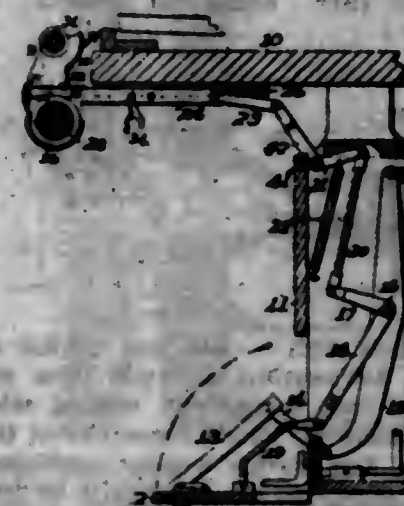
surrounds the path of movement of the needle and having wings integral with said guard portion for clamping the guard to the presser foot, one of said wings being bent to form a tapered passage to receive one of the flanges on the shank of the presser foot and another wing which is capable of being bent around against the back of the other flange of the shank of the presser foot.

- 1,307,296. VALVE-GRINDING TOOL. HERMAN F. GELBERMAN, Berkeley, Calif. Filed Aug. 29, 1916. Serial No. 117,419. 8 Claims. (Cl. 51—4.)



1. A tool of the character described comprising a casing, a shaft, a ring revolvably mounted on said shaft, a disk keyed to said shaft, said ring and disk being mounted in superposed rotation, means for holding said ring in frictional contact with said disk and means for oscillating said ring.

- 1,307,297. TRACKER AND PEDAL CONNECTIONS FOR PLAYER GRAND PIANO. OSCAR JOHNSON, New York, N. Y., assignor to The Auto Pneumatic Action Company, a Corporation of New York. Filed Nov. 18, 1914. Serial No. 872,674. Renewed Dec. 2, 1918. Serial No. 285,649. 4 Claims. (Cl. 84—252.)



1. In a piano the combination with a key-bed, of a tracker bar support movable under the key-bed, a bell crank connected with said support to be operated thereby, a shaft, an arm fixed to said shaft and connected with the bell crank, a spring connected with the bell crank at one end and arranged to pull down on it so as to pull said arm down directly, a second arm fixed to said shaft, a pivoted pedal support, and means connected with the second arm for swinging the pedal support from horizontal to vertical position when the tracker support is moved back under the key-bed.

- 1,307,298. CHAIN-LINK. EDWARD S. KING, Brookline, Mass. Filed Mar. 20, 1917. Serial No. 154,198. 12 Claims. (Cl. 86—63.)

1. A chain link comprising looped end portions angularly displaced from each other about the longitudinal

axis of the link and having an opening in one side thereof intermediate the ends, and means disposed wholly



on said side for attaching the two end portions together at said opening.

- 1,307,299. APPARATUS FOR CASTING HIGH-FUSING METALS. CLAYTON LAIRD, Chicago, Ill. Filed May 31, 1917. Serial No. 171,852. Renewed Oct. 28, 1918. Serial No. 280,064. 5 Claims. (Cl. 22—1.)



1. A mold having spruce, and a crucible on said mold having an opening of larger diameter than the diameter of the spruce used in the mold.

- 1,307,300. ALARM DEVICE. WILLIS E. LANGENHANS, Milwaukee, Wis. Filed May 27, 1918. Serial No. 286,830. 1 Claim. (Cl. 200—27.)



An electric circuit closer comprising a bowed member, a pair of links pivotally connected respectively to opposite ends of the bowed member, the other ends of said links being pivotally joined together, insulating elements carried respectively by said links, contact elements carried respectively by said insulating elements, and actuating means connected to said links where they are joined together, said actuating means being operable to move the joined ends of the links toward and from a plane that coincides with the axes of the pivotal connections that connect the links to the bowed member, said contacts being in position to meet one another when the links are thus moved.

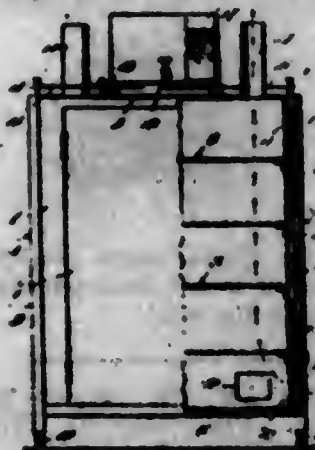
- 1,307,301. CAN-OPENER. MARK LEV, Jr., Los Angeles, Calif. Filed Nov. 1, 1917. Serial No. 199,619. 4 Claims. (Cl. 220—48.)



4. In combination with a can, a cutter carrier revolvable on the can and having a portion extending near the peripheral edge of the can, a cutter hinged to the carrier and adapted normally to lie against a surface of the can adjacent the peripheral edge thereof, and a handle

for the cutter joined thereto and swinging therewith on the cutter hinge, said handle being at right angles to the cutter and normally lying against the cam surface around the peripheral corner from the surface against which the cutter lies; the cutter and its handle adapted to be swung to a position where the cutter is at right angles to, and the handle is substantially in the plane of, the surface against which the cutter normally lies.

1,807,802. REFRIGERATOR. HOWARD I. LOSE, Mayor, Ariz. Filed Jan. 6, 1919. Serial No. 200,800. 2 Claims. (Cl. 45-122.)



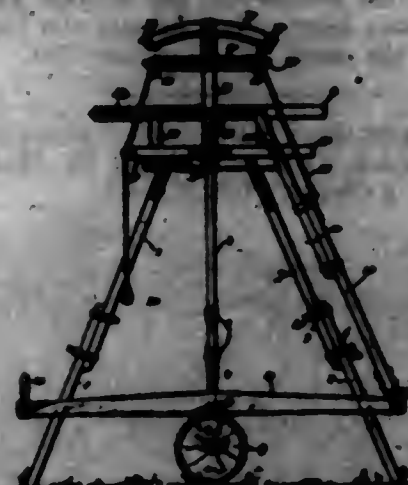
1. In a refrigerator, a casing having a hollow side wall, an absorbent slab in said wall spaced from the sides and upper end thereof, and means for moistening said slab, the lower end of the outer side of said wall having an air inlet, the lower end of the inner side of said wall having an air outlet into the casing, and said casing having a vent in its upper end, whereby air will enter said hollow wall, pass upwardly along the outer side of the moist slab, then over said slab, downwardly along the inner side of the latter, into the casing, and from the latter through said vent.

1,807,803. FRICTION-GEAR. WILLIAM H. MINER, Chas. N. Y. Filed Mar. 21, 1917. Serial No. 150,470. 1 Claim. (Cl. 213-64.)



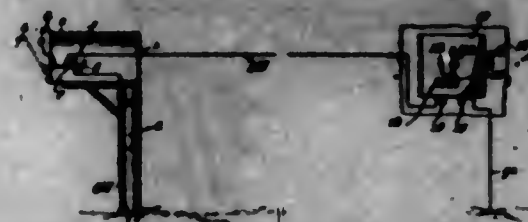
In a friction shock absorbing mechanism, the combination with a friction shell having an interior friction surface, of a plurality of friction shoes mounted within said shell and having outer friction surfaces co-spherical with the friction surface of the shell, spring means for resisting relative movement between the shoes and shell, a pressure transmitting member extended within the shoes, and a plurality of elements interposed between said member and the shoes, there being one element for each shoe, each of said elements having a pair of curved edges extending lengthwise of the elements, each element having a restricted section intermediate said curved edges, each shoe having a curved recess to accommodate one curved edge of one of said elements, said pressure-transmitting member being provided also with a series of recesses with curved bearing faces to accommodate the curved edges of said elements, each of the recesses in said member having a restricted throat providing shoulders adapted to cooperate with the restricted sections of said elements to limit the relative movement between said member and elements, each of said elements being inscribed within its corresponding recess of the pressure member by movement lengthwise of the recess therein.

1,807,804. SAWING-MACHINE. CHASMAN A. MOORE, Kinsey, Minn. Filed Nov. 8, 1918. Serial No. 261,000. 11 Claims. (Cl. 165-60.)



1. A machine of the character specified, comprising a tripod having one short leg provided with means for securing it to the log, an auxiliary frame mounted to swing on a vertical axis, an arm pivoted to the frame and having means for engaging one end of the saw, an oscillating bar pivoted to the auxiliary frame and extending above the same and having a yielding connection with the auxiliary frame normally acting to move the arm to draw the saw toward the arm, means for swinging the said arm away from the leg, and an arc shaped chisel secured to the top of the bar and adapted to be filled with liquid and to swing with the bar, the means for moving the arm being in part supported by the casing and moving therewith.

1,807,805. ELECTRICALLY-OPERATED SIGNAL FOR MAIL-BOXES. HARVEY R. NEWCOMER, Waukegan, Neb. Filed Apr. 20, 1917. Serial No. 100,512. 1 Claim. (Cl. 177-330.)



The combination with a mail box having a closure hinged to open downwardly, a switch lever pivoted at one end on said box, a connector uniting said closure with said lever above the hinged connection of the closure with the box, a fixed switch member positioned in the path of said movable member, a normally uncharged line wire connected at one end with said stationary switch member and a ground wire with the movable member, a magnet connected with the other end of said line wire, a ground wire leading from said magnet, an electric magnet interposed in said ground wire and having a core movable therein, a signal in the form of an armature pivoted intermediate of its ends and arranged to be attracted by said core when the magnet is energized, and means for operating said magnet to pass the current through said circuit when desired to ascertain whether the switch is open or closed, said switch being closed by the opening of said closure.

1,807,806. SASH-HOLDER FOR WINDOWS. CHARLES WYNNON, New York, N. Y. Filed Apr. 10, 1918. Serial No. 200,100. 2 Claims. (Cl. 10-10.)

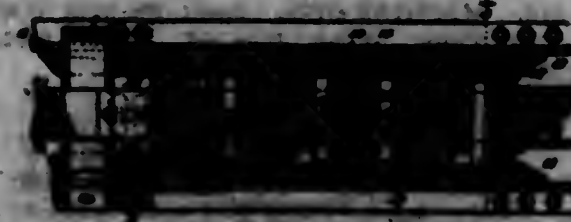
1. In a window, a sash holder for windows, comprising a face plate having an opening and adapted to be fastened to a window sash, a screw extending through the said

opening and having a head seated in the said opening, and a locking bar having a threaded hole in which screws



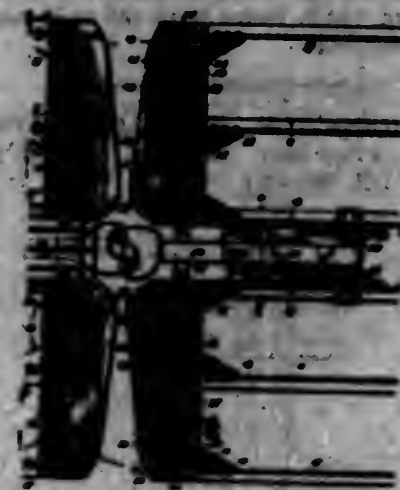
the said screw, the said locking bar having an offset outer end portion adapted to engage the top head of the window frame in which the sash is slidably mounted.

1,807,807. DRAFT-RIGGING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chas. N. Y. Filed Sept. 20, 1918. Serial No. 172,121. 9 Claims. (Cl. 213-62.)



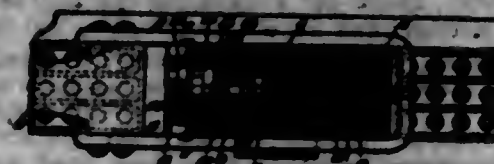
1. In a draft rigging, the combination with a draw bar, and cushioning mechanism including followers, of means connected with the draw bar for actuating said followers, said means having a series of shoulders thereon and limiting stops.

1,807,808. CAR CONSTRUCTION. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chas. N. Y. Filed Oct. 22, 1918. Serial No. 137,001. 7 Claims. (Cl. 213-64.)



1. In car construction, the combination with an end sill having a cushioned movable member adapted to be actuated upon contact with the end sill of an adjacent car, of a main draft gear carried by said movable member.

1,807,809. FRICTION-GEAR. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chas. N. Y. Filed Mar. 20, 1917. Serial No. 100,494. 1 Claim. (Cl. 213-64.)



In a friction gear, the combination with a friction shell and a spring resistance, of tandem arranged sets of friction elements co-spherical with the shell, each set includ-

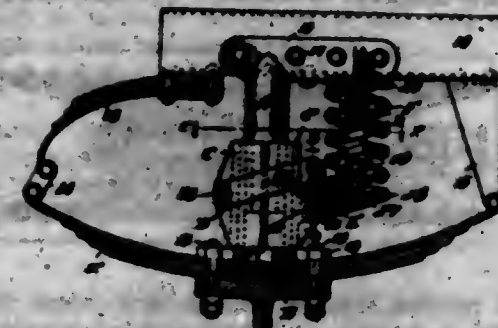
ing a series of friction shoes and a pair of opposed wedges co-acting therewith, one wedge of one set being rigid with respect to another wedge of the other set, the wedge faces of one set being angularly offset with respect to the wedge faces of the other set.

1,807,810. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chas. N. Y. Filed May 21, 1917. Serial No. 170,021. 1 Claim. (Cl. 213-64.)



In a friction shock absorbing mechanism, the combination with two end friction shells relatively movable toward and from each other, of a central collapsible shell, springs in each of said three shells, the springs in the end shells having their axes extending parallel to the axes of said end shells, said collapsible shell comprising a pair of friction elements extending in directions parallel to the axes of said end shells, the ends of said elements and the opposed inner ends of said end shells having co-operating friction wedge faces always in engagement with each other, the two elements of said collapsible shell approaching each other in directions at right angles to the line of relative approach of said end shells during compression of the mechanism, said two elements engaging each other upon full compression of the mechanism while the end shells are separated thus adapting the collapsible shell to act as an interposed column between said end shells, a wedge-shaped follower at the end of each end spring adjacent the collapsible shell, the ends of said friction elements forming the collapsible shell having also wedge faces directly engaging said wedge-shaped followers to thereby compress said end springs axially.

1,807,811. SHOCK-ABSORBER FOR VEHICLES. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chas. N. Y. Filed Mar. 4, 1918. Serial No. 200,203. 6 Claims. (Cl. 207-2.)



1. In a shock absorber for vehicles and the like and adapted to be interposed between the axle and chassis, the combination with slidably engageable elements arranged for relative movements in accordance with the relative movements of the axle and chassis; of clamping means associated with said elements, said clamping means including a link and friction blocks, said link being pivotally attached to one of said friction blocks; and means for varying the pressure of said clamping means on said elements and actuated upon relative movement between the chassis and axle from normal position.

1,807,812. FRICTION SHOCK-ABSORBING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chas. N. Y. Filed Sept. 23, 1918. Serial No. 255,241. 3 Claims. (Cl. 213-64.)

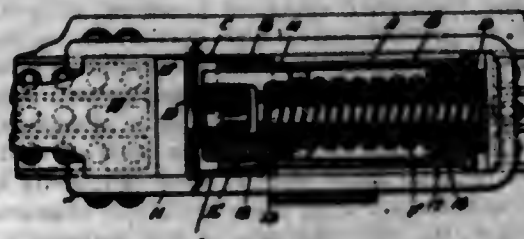
1. In a friction shock absorbing mechanism, the combination with a friction shell of polygonal cross section, of

a main spring resistance, and a friction unit of prismatic form coöperable with said shell, said prismatic unit including two elements relatively movable and having co-



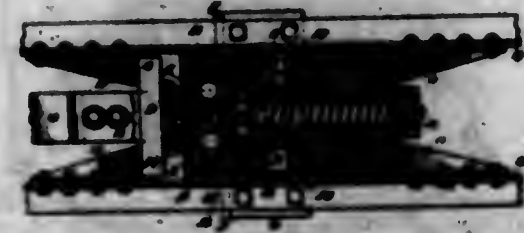
acting wedge faces, all of said faces being located in a common plane intersecting every face of the prismatic unit.

1,307,313. FRICTION SHOCK-ABSORBING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Sept. 23, 1918. Serial No. 255,242. 2 Claims. (Cl. 212-64.)



1. In a friction shock absorbing mechanism, the combination with a friction shell, friction elements coöperable therewith and extending partly beyond one end of said shell, and spring means adapted to resist relative movement between said elements and shell, of means for limiting the outward movement of said elements with respect to the shell, said means including a cap extending over the outer end of said elements, and coöperable shoulders on the shell and cap, said cap comprising a plurality of parts detachably interlocked with each other and held in operative condition by the friction elements.

1,307,314. FRICTION SHOCK-ABSORBING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Sept. 23, 1918. Serial No. 255,243. 3 Claims. (Cl. 212-64.)



1. In a friction shock absorbing mechanism, the combination with a friction shell having friction faces extending longitudinally thereof, of friction shoes coöperable with and slidable along said faces, spring means resisting relative movement between said shoes and shell, a movable pressure member, a bar relatively fixed with respect to said shell, and movable blocks interposed between said member and shoes, said blocks having sliding frictional contact with said member, bar and shoes, said bar being removable from the shell and said shoes having extensions at their inner ends interposed between said bar and the spring means.

1,307,315. FRICTION SHOCK-ABSORBING MECHANISM. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chazy, N. Y. Filed Sept. 30, 1918. Serial No. 256,172. 2 Claims. (Cl. 212-64.)

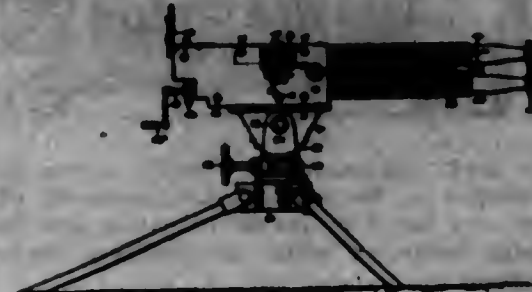
1. In a friction shock absorbing mechanism, the combination with a friction shell and a spring casing, of a spring within the casing, a plurality of friction shoes coöperable with the shell and disposed therein, means on

said shell to limit the outward movement of the shoes with respect thereto while the shoes are maintained in coöperative engagement with the shell, a wedge extending partly within the shoes, a retaining element extending through the wedge and rearwardly thereof, and means co-



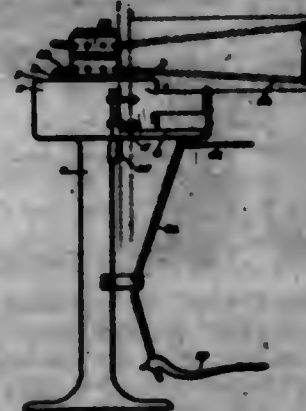
operable with said element and with said shoes to limit the outward movement of said element with respect to said shoes, said wedge being insertible after the shoes are in place within the shell and after said retaining element has been operatively associated with the shoes.

1,307,316. MACHINE-GUN. JOHN FRANCIS O'MALLEY, Meriden, Conn. Filed July 17, 1917. Serial No. 181,024. 23 Claims. (Cl. 50-12.)



2. In a machine gun, a gun body having an opening extending through its outer surface, means in the opening for moving a cartridge into firing position, a hammer having means for firing the cartridge after it has been moved to firing position by the said means, and a cap for covering the opening which forms with the said means a chamber for the cartridge.

1,307,317. TURNSTILE. FRANK JOSEPH PERRY, Brooklyn, N. Y. Filed Mar. 14, 1917. Serial No. 154,774. 7 Claims. (Cl. 20-2.)

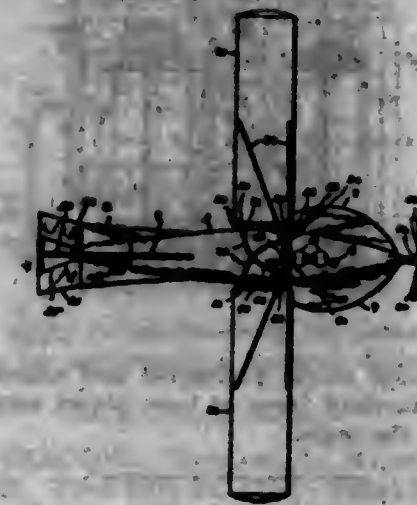


1. A turnstile comprising a single rotatable member, having the arms of the turnstile fixed to its upper end and provided with locking notches corresponding in number and spacing with the said arms, a spring actuating locking bolt adapted to automatically engage each successive notch, means for disengaging the bolt to free the rotating member, and an automatic check on the return of the locking bolt coöcting to prevent reengagement until the turnstile has performed a complete operation.

1,307,318. HYDROAEROPLANE. HANS CHRISTIAN PERSSON, Ludington, Mich. Filed Apr. 23, 1918. Serial No. 230,282. 6 Claims. (Cl. 244-2.)

1. A craft including a hull, vertical shafts at opposite sides of the hull, supporting planes rigid with the verti-

cal shafts, a transverse shaft extending through the hull, gearing between the transverse shaft and the vertical shafts for swinging the planes outwardly away from the hull or inwardly toward the hull, and guide means



for directing the planes in their swinging movements and bringing them into a superposed relation upon the hull when swung inwardly to the limit of their movement.

1,307,319. [WITHDRAWN.]

1,307,320. BURNER. ISAAC M. SHARP, San Francisco, Calif. Filed June 28, 1918. Serial No. 242,578. 8 Claims. (Cl. 110-104.)

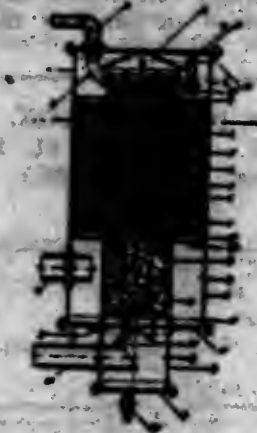


1. A burner comprising a rotary atomiser, means for simultaneously delivering liquid fuel and a pulverised fuel thereto, and means for atomising and injecting said fuels separately.

1,307,321. SCRUBBER, CLEANSER, AND COOLER FOR GAS. DAVID J. SMITH, London, England. Filed Nov. 29, 1918. Serial No. 264,712. 4 Claims. (Cl. 182-17.)

2. An apparatus of the character described comprising two concentrically and vertically arranged cylinders forming inner and outer chambers communicating with each other at the top, a filtering medium in the inner chamber, a plurality of disks centrally apertured to receive the inner cylinder and supported in the outer chamber one above the other, each disk being provided

with an opening and the disks being arranged so that the openings of adjacent disks will be at opposite sides, means



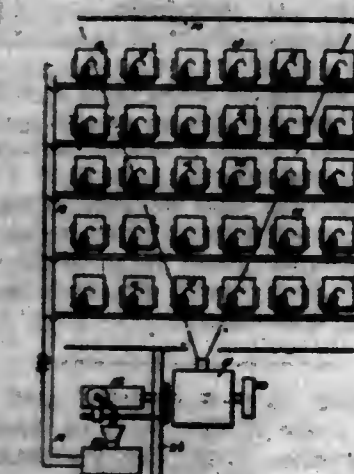
for delivering water in the form of spray into the outer chamber at the top thereof, and means for delivering the gas at the lower portion of the said chamber.

1,307,322. MACHINE FOR THRESHING OR SHELLING GRAIN. CHARLES LEONARD ST. CLAIR, Concordia, Kans. Filed July 24, 1918. Serial No. 246,554. 8 Claims. (Cl. 180-12.)



7. A threshing apparatus including a main horizontal frame, a threshing frame movable horizontally therein, a presser frame disposed upon the threshing frame and having a movable connection with the main frame to permit the same to yield vertically with respect to the threshing frame and upper and lower coöperating feed aprons at one side of the main frame, the upper apron of which is movably connected at one side to the adjacent side of the presser frame.

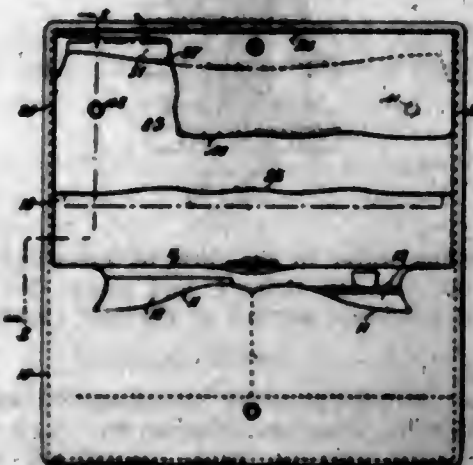
1,307,323. MOTION-PICTURE APPARATUS. SAMUEL F. STRIN, Williamsport, Pa. Filed July 17, 1918. Serial No. 245,283. 2 Claims. (Cl. 88-16.2.)



1. The combination of a picture projecting machine, a phonograph for producing sounds pertinent to the pictures projected by the projecting machine, a plurality of telephone receivers, seats with which the receivers are respectively associated for the individual use of seat occu-

pants, and means for transmitting sound from the phonograph to the receivers comprising a circuit acted upon by the phonograph with which circuit the telephone receivers are connected in parallel, the receivers being detachable.

1,307,324. LADY'S POCKET-BOOK. JOHN BRUNNER, New York, N. Y. Filed Dec. 31, 1918. Serial No. 209,075. 4 Claims. (Cl. 150-38.)



1. A lady's pocketbook, comprising a body having compartments and a main closing flap forming an extension of the back of the said body and adapted to close the said compartments and overlie the front of the said body, a bill pocket on the inner face of the said main closing flap, and said pocket being formed of two pieces, one of which is secured to the flap and the other to the inner end and sides of the first piece with its outer end terminating a distance from the outer end of the flap to form a mouth, the said bill pocket being of a depth and width corresponding approximately to that of a bill to accommodate a number of superimposed bills in flat condition, and an auxiliary closing flap attached to the free end of the said flap and adapted to close the mouth of the said bill pocket and overlie the front thereof.

1,307,325. PRINTING APPARATUS. DONALD ROBERT NAPIER TAYLOR, Sydney, New South Wales, Australia. Filed Sept. 26, 1918. Serial No. 206,060. 4 Claims. (Cl. 95-72.)

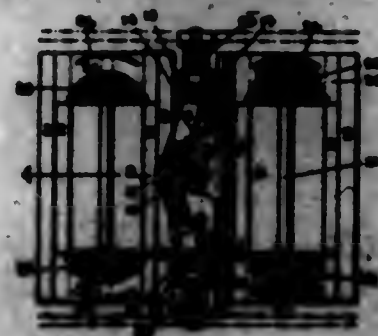


1. A printing apparatus comprising a table having an opening formed therein, a trough in said opening adapted to receive a negative plate, a source of light below said opening, a registering device hinged to the table and adapted to swing over said opening, a movable frame adapted to carry a sensitized plate, means for moving said frame longitudinally and transversely of said opening, and a presser foot pivoted at said table and adapted to be moved over said opening.

1,307,326. BOGIE FOR RAILWAY AND TRAMWAY VEHICLES. JOHN HENRY THOMAS, Modiale, South Australia, Australia. Filed Oct. 21, 1918. Serial No. 256,982. 6 Claims. (Cl. 106-108.)

1. A bogie for a railway or tramway vehicle made in two parts, each part carrying one of the axles and the two parts being held together by a vertical king pin passing through an eye in each of the two parts, each king pin being on one end of a link which has on its other end a second vertical pin that engages a beam rig-

idly secured to the frame of the vehicle body and holds thereby a horizontal V-shaped beam upon the ends of which are two governor pins that engage and operate



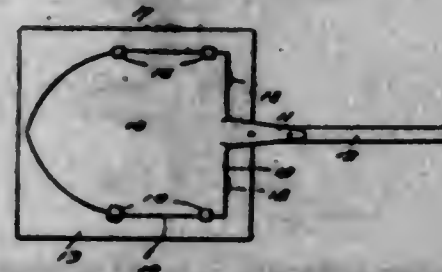
slidable governor blocks positioned and slidable between the opposed inclined faces of horn plates secured to the two parts of the bogie.

1,307,327. WHEEL-CULTIVATOR. JAMES L. VAN NORT, Los Angeles, Calif. Filed Nov. 24, 1917. Serial No. 206,818. 2 Claims. (Cl. 97-42.)



2. In a machine of the class described, a main frame having an axle at its front end, a wheel on said axle and constituting the support for the front end of the frame, a handle extending from the rear end of the main frame and enabling the same to be guided, an auxiliary frame pivotally connected to the rear end of the main frame and a handle attached to the front end of the auxiliary frame and enabling the latter to be turned to any desired angle with respect to the main frame.

1,307,328. SHOVEL ATTACHMENT. JOHN J. VAN VALKENBURG, Atlin, British Columbia, Canada. Filed Dec. 16, 1918. Serial No. 267,082. 2 Claims. (Cl. 55-115.)

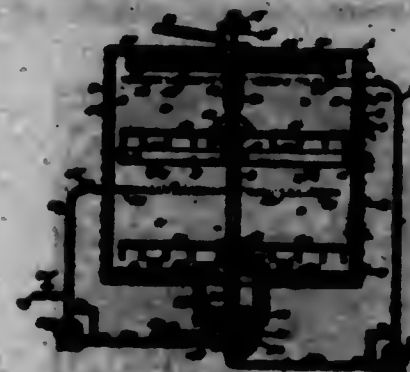


1. The combination with a shovel having a handle and a blade, an attachment, comprising a blade of different configuration having spaced lugs resiliently engaged with the edge portion of the first named blade.

1,307,329. APPARATUS FOR TREATING SOLID-BEARING SOLUTIONS. LAMARTINE C. TERRY, Los Angeles, Calif. Filed June 12, 1918. Serial No. 250,565. 16 Claims. (Cl. 23-31.)

2. A leaching apparatus comprising a receiving vessel provided with a discharge outlet, a horizontally disposed retaining pan arranged within the vessel for receiving and for retarding the downward movement of the material for treatment delivered within the vessel, said pan divid-

ing the material of the vessel into an upper and lower compartment, means for supplying material for treat-



ment to the upper compartment of the vessel, and associated means for agitating the material delivered within the vessel.

1,307,330. TRACTOR. RICHARD L. WILLIAMSON, Tiburon, Calif. Filed Dec. 13, 1917. Serial No. 204,860. 1 Claim. (Cl. 180-72.)



A four-wheel tractor comprising a rigid frame, an axle arranged at the front end of said frame, a motor mounted on the front end of the frame so that the weight thereof is principally supported by the front axle thereby concentrating the weight of the tractor at the front axle, a jack shaft supported directly from and arranged beneath the rear end of the frame, a propeller shaft connecting the motor and jack shaft, a rear axle attached to said frame and arranged below and in front of the jack shaft, wheels on said rear axle, sprockets on said wheels and on said jack shaft and chain connecting said sprockets, said parts constituting the entire driving means, whereby the weight of the engine is transferred from the front wheels to the driving wheels and the traction of the latter materially increased, while the steering of the vehicle is rendered easier by the lessening of the weight on the front wheels.

1,307,331. BUILDING-BLOCKS. EDWARD A. CHRISTOPH, Chicago, Ill., assignor to Jacob W. Eloy, Chicago, Ill. Filed Mar. 26, 1918. Serial No. 224,708. 4 Claims. (Cl. 46-41.)



1. A set of play blocks adapted to be associated to produce, among other designs, the simulation of the American flag in proper colors, the blocks being uniform as to size and shape and adapted to be associated in four horizontal rows in the flag, each block which forms the flag being either red and white or blue and white.

1,307,332. HEATING APPLIANCE. THOMAS A. ROSTROM, Chicago, Ill. Filed Oct. 24, 1917. Serial No. 196,196. 3 Claims. (Cl. 123-4.)

1. In a device of the class described, the combination of a casing having a closed lower end and a waste gas outlet in its upper end, a combustion space being provided

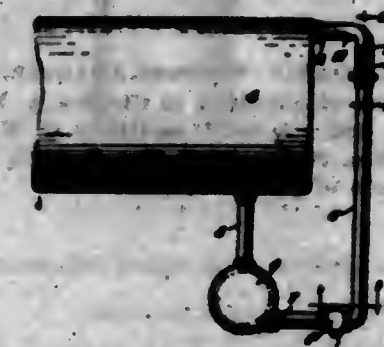
in the lower portion of the casing and a heat absorbing space in the upper portion, a water container in the heat absorbing space, a burner in the combustion space, all the air necessary for combustion being supplied through the burner, the casing being provided with a plurality of



side openings located at a point above the combustion space and below the heat absorbing space, and means for so restricting the waste gas outlet that the velocity of the waste gases is materially reduced, any abnormal excess of waste gas escaping through the side openings, thereby being prevented from restricting the flame, substantially as described.

REISSUES.

14,668. BITUMINOUS DISTRIBUTER. ANTHONY FRICKER, Lakewood, Ohio. Filed May 6, 1919. Serial No. 266,702. Original No. 1,297,136, dated Mar. 11, 1918. Serial No. 198,447, filed Sept. 27, 1917. 4 Claims. (Cl. 137-62.)



1. In a bituminous distributor, the combination, with the supply tank thereof, of a discharge manifold provided with outlets, piping connecting said tank with the central portion of the manifold, and a by-pass pipe communicating with the supply tank and having branches leading to the ends of the manifold.

14,669. CARBURETER. CALVIN E. SUMMERS, Kansas City, Mo., assignor to Laura A. Summers, Oaktown, Ind. Filed Mar. 2, 1917. Serial No. 152,143. Original No. 1,177,216, dated Mar. 28, 1916. Serial No. 802,256, filed Nov. 21, 1918. 20 Claims. (Cl. 123-128.)



1. The combination with a motor comprising a cylinder and a cam shaft, of measuring mechanism comprising

a disk having fuel pockets therein, a ratchet wheel operatively connected with the disk, a pawl carrying member revolvably mounted adjacent the ratchet, a shaft operatively connected with said pawl carrying member, and gears on said shaft and on the cam shaft for imparting continuous rotary movement to said pawl carrying member.

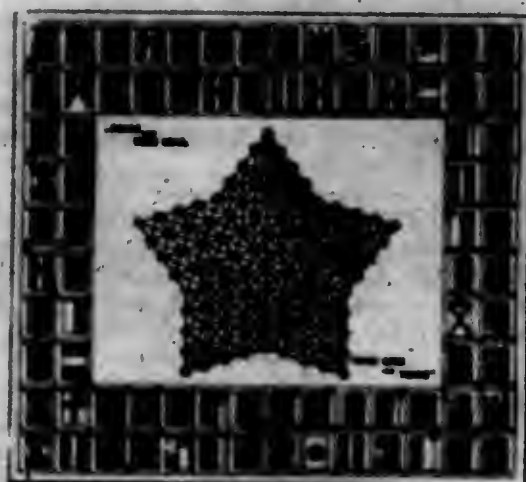
DESIGNS.

53,429. FLAG, PENNANT, CURTAIN, TABLE-COVER, PILLOW, POSTER, OR AN ARTICLE OF SIMILAR NATURE. MAURICE J. ACHON, Marion, Ind. Filed Mar. 28, 1919. Serial No. 285,936. Term of patent 7 years.



The ornamental design for a flag, pennant, curtain, table cover, pillow, poster, or an article of similar nature, as shown.

53,430. GAME-BOARD. WALDORE AHLGREN, New York, N. Y., assignor of one-third to Charles A. Bursell, New York, N. Y., and one-third to Henry C. Karlson, Hasbrouck Heights, N. J. Filed May 7, 1918. Serial No. 233,155. Term of patent 3½ years.



The ornamental design for a game board as shown.

53,431. COMBINED SETTEE AND PHOTOGRAPH-CABINET. JOHN STOCKTON BLANKINSHIP, Lynchburg, Va. Filed Feb. 21, 1919. Serial No. 276,546. Term of patent 14 years.



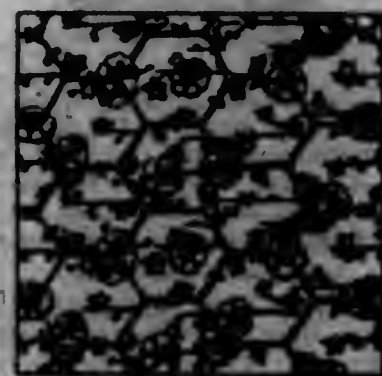
The ornamental design for a combined settee and photograph cabinet, as shown.

53,432. MACHINE-STANDARD. LOUIS BROSMER, Southington, Conn. Filed Mar. 1, 1917. Serial No. 151,867. Term of patent 14 years.



The ornamental design for a machine standard as shown.

53,433. PRINTED SILK. JAMES H. BUNTING, New York, N. Y., assignor to Sasquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Apr. 3, 1919. Serial No. 288,647. Term of patent 3½ years.



The ornamental design for printed silk, as shown.

53,434. PRINTED SILK. JAMES H. BUNTING, New York, N. Y., assignor to Sasquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Apr. 3, 1919. Serial No. 288,648. Term of patent 3½ years.



The ornamental design for printed silk, as shown.

53,435. STOCKING. WILLIAM E. CHIPMAN, Hoston, Pa. Filed July 22, 1915. Serial No. 41,404. Term of patent 14 years.



The ornamental design for a stocking as shown.

53,436. RING OR SIMILAR ARTICLE OF JEWELRY. CHRISTOPHER W. CLARK, Chicago, Ill. Filed June 3, 1918. Serial No. 298,056. Term of patent 3½ years.



The ornamental design for a ring or similar article of jewelry as shown.

53,437. UMBRELLA ATTACHMENT. GEORGE COMPTON, Newark, N. J. Filed Jan. 10, 1919. Serial No. 271,926. Term of patent 7 years.



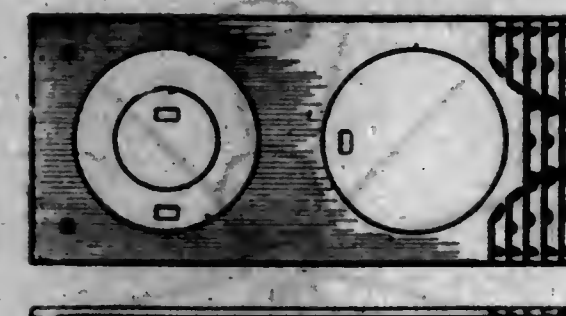
The ornamental design for an umbrella attachment, as shown.

53,438. BUCKET. EARL A. EDWARDS, Shelley, Idaho. Filed Jan. 22, 1919. Serial No. 272,595. Term of patent 3½ years.



The ornamental design for a bucket, as shown.

53,439. GAS-STOVE-TOP. GEORGE FINN, Newark, N. J. Filed Mar. 26, 1918. Serial No. 235,822. Term of patent 14 years.



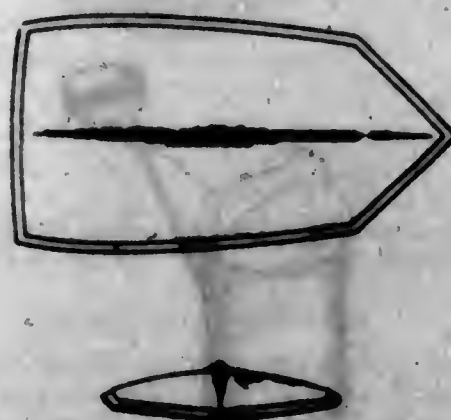
The ornamental design for a gas stove top, as shown.

53,440. NECKTIE-RACK. HARRY E. GARDNER, St. John, New Brunswick, Canada. Filed Mar. 17, 1919. Serial No. 233,374. Term of patent 34 years.



The ornamental design for a necktie rack as shown.

53,441. ROOF FOR AN AUTOMOBILE BODY. OTTO WILLIAM HEINRICH, Chicago, Ill., assignor to Chicago Coach & Carriage Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 14, 1919. Serial No. 277,108. Term of patent 7 years.



The ornamental design for a roof for an automobile body, as shown.

53,442. CAP OR COVER FOR TALCUM-POWDER BOXES. EDMUND HOFFMAN, Brooklyn, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 20, 1918. Serial No. 790,962. Term of patent 14 years.



The ornamental design for a cap or cover for talcum powder boxes, as shown.

53,443. BED-PAN. DANIEL HENRY, Hoboken, N. J., assignor to H. H. H. & Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 14, 1918. Serial No. 64,962. Term of patent 14 years.



The ornamental design for a bed pan as shown.

53,444. RADIATOR. ALBERT OWEN HOSKINS, New York, N. Y. Filed Oct. 24, 1917. Serial No. 238,784. Term of patent 14 years.



The ornamental design for a radiator as shown.

53,445. CONTAINER FOR TOILET AND OTHER POWDERS. CLAU S. HUMPHREY, Brooklyn, N. Y. Filed Jan. 27, 1919. Serial No. 272,464. Term of patent 14 years.



The ornamental design for a container for toilet and other powders, as shown.

53,446. SERVICE-BUTTON. HENRY HARRIS, Adelaide, West. Filed Jan. 28, 1919. Serial No. 273,692. Term of patent 34 years.



The ornamental design for a service button, as shown.

53,447. POWDER-BOX, CREAM-JAR, OR SIMILAR TOILET ARTICLE. KANICHINO KARAI, New York, N. Y. Filed Mar. 24, 1919. Serial No. 284,678. Term of patent 34 years.



The ornamental design for a powder box, cream jar or similar toilet article as shown.

53,448. MIRROR, HAIR-BRUSH, OR SIMILAR TOILET ARTICLE. KANICHINO KARAI, New York, N. Y. Filed Mar. 24, 1919. Serial No. 284,674. Term of patent 34 years.



The ornamental design for a mirror, hair brush, or similar toilet article as shown.

53,449. DOLL. HARRIET ETHEL KILMAN, Sydney, New South Wales, Australia, assignor to Wilhelm Hubert Paul Bell, Sydney, New South Wales, Australia, and Charles Cutback, Kalgoorlie, Western Australia, Australia. Filed July 9, 1918. Serial No. 244,115. Term of patent 7 years.



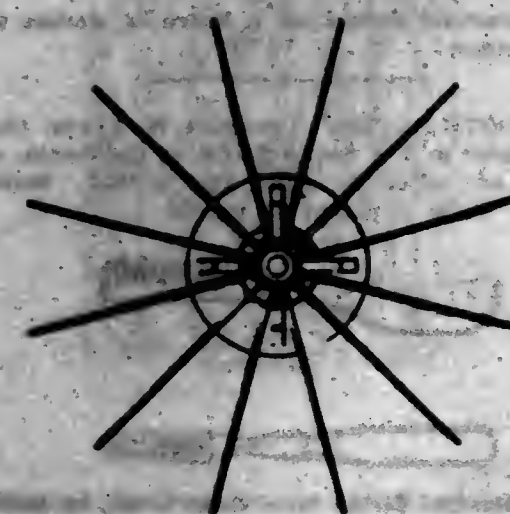
The ornamental design for a doll, as shown.

53,450. DOLL. HARRIET ETHEL KILMAN, Sydney, New South Wales, Australia, assignor to Wilhelm Hubert Paul Bell, Sydney, New South Wales, Australia, and Charles Cutback, Kalgoorlie, Western Australia, Australia. Filed July 10, 1918. Serial No. 244,331. Term of patent 7 years.



The ornamental design for a doll, as shown.

53,451. CLOTHES RACK AND STAND. AGNES KINDER, Seattle, Wash. Filed Feb. 28, 1919. Serial No. 279,898. Term of patent 14 years.



53,451.



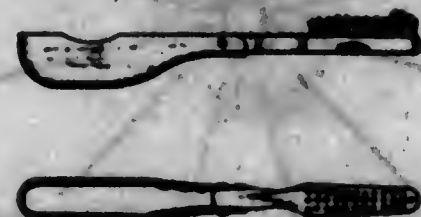
The ornamental design for a clothes rack and stand, as shown.

53,452. BADGE OR SIMILAR ARTICLE OF MANUFACTURE. ELMER A. KLAPP, New York, N. Y. Filed Mar. 4, 1918. Serial No. 220,403. Term of patent 3½ years.



The ornamental design for a badge or similar article of manufacture.

53,453. TOOTH-BRUSH. CONVERSE W. LLOYD, Chicago, Ill., assignor to The Sant-Fold Co. of California, a Corporation of California. Filed Apr. 2, 1917. Serial No. 159,346. Term of patent 14 years.



The ornamental design for a tooth brush, as shown.

53,454. BERLIN SAUCEPAN. WALTER LUTHEIMANN, Maywood, Ill. Filed Feb. 19, 1917. Serial No. 169,031. Term of patent 14 years.



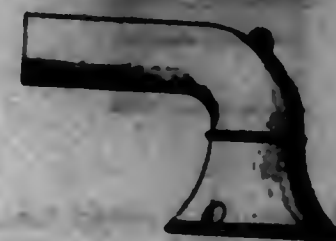
The ornamental design for a Berlin saucepan, as shown.

53,455. PORCELAIN TRANSMITTER-MOUTHPIECE. GEORGE E. MACQUIE, Trenton, N. J., assignor to Trenton Porcelain Company, Trenton, N. J., a Corporation of New Jersey. Filed Jan. 22, 1916. Serial No. 73,736. Term of patent 14 years.



The ornamental design for a porcelain transmitter mouthpiece as shown.

53,456. TONE-ARM. WILLIAM J. McNAMARA, Cleveland, Ohio, assignor to Empire Phone Parts Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 4, 1919. Serial No. 287,638. Term of patent 14 years.



The ornamental design for a tone arm, as shown.

53,457. BUFFET. SAM MOSKOWITZ, Brooklyn, N. Y. Filed Mar. 27, 1919. Serial No. 295,864. Term of patent 3½ years.



The ornamental design for a buffet as shown.

53,458. MILITARY-SERVICE BADGE. HARRY B. MYRNE, Cherokee, Kans. Filed Oct. 35, 1918. Serial No. 280,728. Term of patent 14 years.



The ornamental design for a military service badge, as shown.

53,459. PRINTED SILK. LEON F. OLCUTT, New York, N. Y., assignor to Sauguchanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Apr. 17, 1919. Serial No. 280,875. Term of patent 3½ years.



The ornamental design for printed silk, as shown.

53,460. TELEPHONE-EARPIECE OR SIMILAR PHONETIC DEVICE. HERMAN G. PAPP, New York, N. Y. Filed Feb. 26, 1918. Serial No. 219,819. Term of patent 14 years.



The ornamental design for a telephone earpiece or similar phonetic device, as shown.

53,461. TOY. JOHN A. PASHMACK, Chicago, Ill. Filed Feb. 5, 1918. Serial No. 215,541. Term of patent 3½ years.



The ornamental design for a toy, as shown.

53,462. TOKEN-COIN. WILLIAM PFLUM, Dayton, Ohio, assignor to The Insurance Credit Company, Dayton, Ohio, a Corporation of Ohio. Filed Mar. 8, 1919. Serial No. 281,540. Term of patent 14 years.



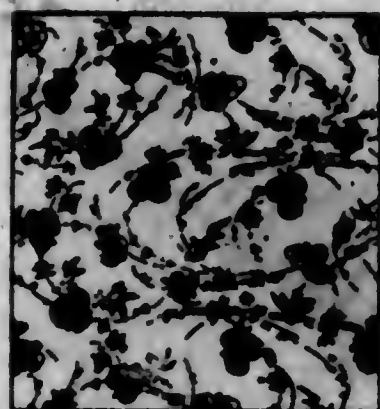
The ornamental design for a token coin, as shown.

53,463. PRINTED SILK. WILLIAM G. REITH, New York, N. Y., assignor to Sauguchanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Apr. 8, 1919. Serial No. 288,649. Term of patent 3½ years.



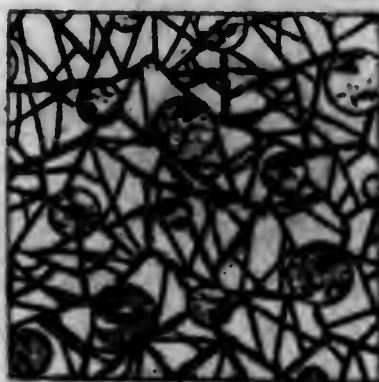
The ornamental design for printed silk, as shown.

53,464. PRINTED SILK. WILLIAM G. RUTH, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Apr. 8, 1919. Serial No. 288,850. Term of patent 3½ years.



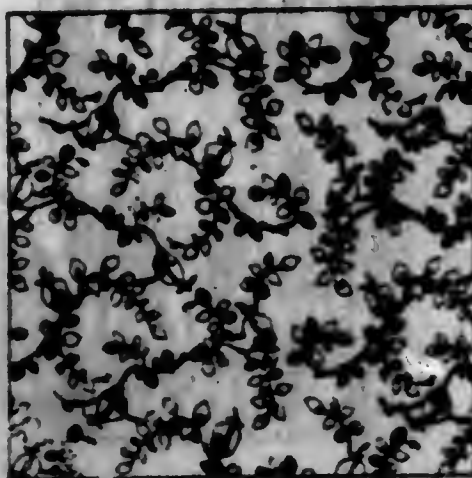
The ornamental design for printed silk, as shown.

53,465. PRINTED SILK. WILLIAM G. RUTH, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Apr. 17, 1919. Serial No. 290,876. Term of patent 3½ years.



The ornamental design for printed silk, as shown.

53,466. PRINTED SILK. WILLIAM G. RUTH, New York, N. Y., assignor to Susquehanna Silk Mills, New York, N. Y., a Corporation of New York. Filed Apr. 17, 1919. Serial No. 290,877. Term of patent 3½ years.



The ornamental design for printed silk, as shown.

53,467. BOTTLE-STOPPER. FERDINAND RUCHANT, Manila, P. I. Filed Feb. 4, 1919. Serial No. 293,499. Term of patent 14 years.



The ornamental design for a bottle stopper, as shown.

53,468. BOTTLE-STOPPER. FERDINAND RUCHANT, San Francisco, Calif. Filed Feb. 18, 1919. Serial No. 297,889. Term of patent 14 years.



The ornamental design for a bottle stopper, as shown.

53,469. WIND-WHEEL. THOMAS M. SAMOOR, Roxbury, Mass. Filed Apr. 1, 1919. Serial No. 298,774. Term of patent 7 years.



The ornamental design for a wind wheel as shown.

53,470. MUSICAL INSTRUMENT. ERIC G. DOSS, Dubuque, and HARRY E. RICHARDSON, Eden, N. Y. Filed Feb. 3, 1919. Serial No. 274,214. Term of patent 14 years.



The ornamental design for a musical instrument as shown.

53,471. FLAG, PENNANT, OR SIMILAR ARTICLE. WILLIAM J. SWENERT, East Orange, N. J. Filed Feb. 11, 1919. Serial No. 276,444. Term of patent 3½ years.



The ornamental design for a flag, pennant, or similar article, as shown.

53,472. ARM FOR LIGHTING-FIXTURES. GOTTFRIED WESTPHAL, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 30, 1918. Serial No. 231,752. Term of patent 3½ years.



The ornamental design for an arm for lighting fixtures, as shown.

263 O. G.—31

53,473. SPINDLE FOR LIGHTING-FIXTURES. GOTTFRIED WESTPHAL, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 30, 1918. Serial No. 231,754. Term of patent 3½ years.



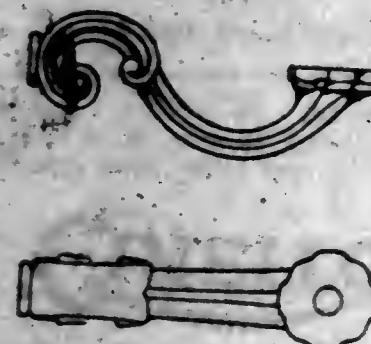
The ornamental design for a spindle for lighting fixtures, as shown.

53,474. CANOPY FOR LIGHTING-FIXTURES. GOTTFRIED WESTPHAL, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 30, 1918. Serial No. 231,756. Term of patent 3½ years.



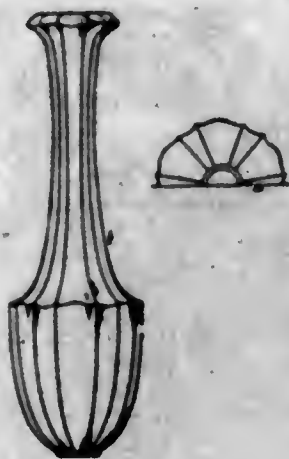
The ornamental design for a canopy for lighting fixtures, as shown.

53,475. ARM FOR LIGHTING-FIXTURES. GOTTFRIED WESTPHAL, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 30, 1918. Serial No. 231,757. Term of patent 3½ years.



The ornamental design for an arm for lighting fixtures, as shown.

53,476. SPINDLE FOR LIGHTING-FIXTURES. GOTTFRIED WESTPHAL, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 30, 1918. Serial No. 231,768. Term of patent 3½ years.



The ornamental design for a spindle for lighting fixtures, as shown.

53,477. PLATE FOR LIGHTING-FIXTURES. GOTTFRIED WESTPHAL, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y., a Corporation of New York. Filed May 13, 1918. Serial No. 234,336. Term of patent 3½ years.



The ornamental design for a plate for lighting fixtures, as shown.

53,478. RING FOR LIGHTING-FIXTURES. GOTTFRIED WESTPHAL, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y., a Corporation of New York. Filed May 13, 1918. Serial No. 234,337. Term of patent 3½ years.



The ornamental design for a ring for lighting fixtures, as shown.

53,479. VEHICLE TIRE OR CASING. CLARENCE WHISKEY, Racine, Wis., assignor to Racine Auto Tire Company, Racine, Wis., a Corporation of Wisconsin. Filed Mar. 25, 1919. Serial No. 285,164. Term of patent 14 years.



The ornamental design for a vehicle tire or casing, substantially as shown.

TRADE-MARKS

OFFICIAL GAZETTE, JUNE 17, 1919.

[PUBLISHED JUNE 21, 1919.]

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 91,000. (CLASS 39. CLOTHING.) THE WOLF COMPANY, New York, N. Y. Filed Dec. 1, 1915.



Particular description of goods.—Ladies' Nightgowns, Petticoats, Drawers, Corset-Covers, Chemises, and Combination-Suits.
Claims use since Jan. 15, 1902.

Ser. No. 91,267. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) WASH-EASY COMPANY, Chicago, Ill. Filed Dec. 7, 1915.



No claim is made to the words "Silent Wash Easy" apart from the form and arrangement of the words shown in the drawing.

Particular description of goods.—Laundry-Washing Machines.
Claims use since July 8, 1915.

Ser. No. 103,367. (CLASS 9. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) Resop Products Co. Ltd., Zurich, Switzerland. Filed Apr. 27, 1917.

RESOPHAN

Particular description of goods.—Antiseptic Solutions and Salves, Both for the Treatment of Wounds, Sores, Burns, Eczema, Angina, Vaginitis, Erysipelas, Fluor Albus, Decubitus, Inflammation of the Mucous Membrane of the Nose, Hay-Fever, Fistulae of All Kinds, Hemorrhoids, Bed-Sores, Infectious Diseases, Abscesses, Boils, and Rash from Röntgen Rays.

Claims use since Jan. 20, 1917.

Ser. No. 105,336. (CLASS 48. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA PACKING CORPORATION, San Francisco, Calif. Filed July 28, 1917.



Particular description of goods.—Dried Fruits and Raisins.
Claims use since the 15th day of September, 1899.

Ser. No. 106,084. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) F. H. AIEMAN, Toronto, Ontario, Canada, and Omaha, Nebr. Filed Sept. 6, 1917.

CINELLO

Particular description of goods.—Non-Alcoholic Malt-liquor Beverages Not of a Cereal Nature Sold as Soft Drinks.
Claims use since Aug. 8, 1917.

Ser. No. 106,293. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HENRY D. BODDINGTON, Los Angeles, Calif. Filed Sept. 18, 1917.



Particular description of goods.—A Substitute for Eggs and Baking-Powder in the Form of a Powder and a Preparation for Making Custards in the Form of a Powder Containing All the Ingredients Necessary to Make Custard on the Addition of Water.

Claims use since the 7th day of September, 1917.

Ser. No. 106,184. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PHILIP A. LADDON, Washington, D. C. Filed Dec. 27, 1917.



Particular description of goods.—A Prepared or Mustard Salad-Dressing.

Claims use since Dec. 22, 1917.

Ser. No. 106,191. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HENRY D. BODDINGTON, Los Angeles, Calif. Filed Dec. 28, 1917.



Particular description of goods.—A Preparation in the Form of a Powder for Making Custards.

Claims use since the 7th day of December, 1917.

Ser. No. 100,064. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE CELLULOID COMPANY, New York, N. Y. Filed Feb. 18, 1918.

VERNALEUR

The word "Vernaleur."
Particular description of goods.—Dental Inhalers, Artificial Human Teeth, Artificial Human Jaws, Nail-Files, Cuticle-Knives, Nailers for the Removal of Corns from the Human Foot, Toilet-Tissues, Nail-Cleaners, Nail-Polishers, Teething-Rings, Infant-Pacifiers, Ball-Like Coverings for Babies' Hands, Nail-Scissors, and Surgical-Instrument Trays.

Claims use since Jan. 5, 1918.

Ser. No. 100,067. (CLASS 2. RECEPTACLES.) THE CELLULOID COMPANY, New York, N. Y. Filed Feb. 18, 1918.

VERNALEUR

The word "Vernaleur."
Particular description of goods.—Boxes for Containing Candy, Decorated Boxes for Holiday Gifts, Comprising Articles Presumably for Personal Wear, Salve-Boxes, Sewing-Boxes, Holiday-Gift Boxes, Hat-Pin Boxes, Vanity-Boxes, Ornamental Boxes for Stationery, Jewelry-Boxes, Soap-Boxes, Sponge-Boxes, Tooth-Powder Boxes, Talcum-Powder Boxes, Hair-Pin Boxes, Powder-Boxes, Cold-Cream Boxes, Emery-Board Boxes, Glove-Powder Boxes, Puff-Boxes, Absorbent-Cotton Boxes, Hat-Pin Holders, Hair-Pin Stands, Hair-Recervers, Tooth-Brush Cylinders, Soap-Cylinders, Medicine-Cases, Drinking-Cups, Receptacles for Vacuum-Bottles, Finger-Bowls, Brush-Trays, Pin-Trays, Card-Trays, Bread-Trays, Crumb-Trays, Open Racks for Stationery, Racks for Bottles, Holders for Bottles, Cases for Toilet Articles, All of the Said Articles Being Made of Pyroxylin.

Claims use since Jan. 5, 1918.

Ser. No. 100,067. (CLASS 2. RECEPTACLES.) THE CELLULOID COMPANY, New York, N. Y. Filed Feb. 18, 1918.

AMBERLEUR

The word "Amberleur."
Particular description of goods.—Boxes for Containing Candy, Decorated Boxes for Holiday Gifts, Comprising Articles Presumably for Personal Wear, Salve-Boxes, Sewing-Boxes, Holiday-Gift Boxes, Hat-Pin Boxes, Vanity-Boxes, Ornamental Boxes for Stationery, Jewelry-Boxes, Soap-Boxes, Sponge-Boxes, Tooth-Powder Boxes, Talcum-Powder Boxes, Shaving-Powder Boxes, Hair-Pin Boxes, Powder-Boxes, Cold-Cream Boxes, Emery-Board Boxes, Glove-Powder Boxes, Puff-Boxes, Absorbent-Cotton Boxes, Hat-Pin Holders, Hair-Pin Stands, Hair-Recervers, Tooth-Brush Cylinders, Soap-Cylinders, Medicine-Cases, Drinking-Cups, Receptacles for Vacuum-Bottles, Finger-Bowls, Brush-Trays, Pin-Trays, Card-Trays, Bread-Trays, Crumb-Trays, Open Racks for Stationery, Racks for Bottles, Holders for Bottles, and Cases for Toilet Articles. The Products Enumerated are Made of Pyroxylin.

Claims use since Jan. 5, 1918.

Ser. No. 110,593. (CLASS 30. CLOTHING.) F. MATYR BOOT & SHOE CO., Milwaukee, Wis. Filed May 1, 1918.

CONSERVATION

Particular description of goods.—Leather Boots and Shoes.

Claims use since Mar. 18, 1918.

[Vol. 268. No. 3.]

Ser. No. 110,068. (CLASS 2. RECEPTACLES.) THE CELLULOID COMPANY, New York, N. Y. Filed May 6, 1918.

SHELLEUR

The word "Shelleur."
Particular description of goods.—Boxes for Containing Candy, Decorated Boxes for Holiday Gifts, Comprising Articles Presumably for Personal Wear, Salve-Boxes, Sewing-Boxes, Holiday-Gift Boxes, Hat-Pin Boxes, Vanity-Boxes, Ornamental Boxes for Stationery, Jewelry-Boxes, Soap-Boxes, Sponge-Boxes, Tooth-Powder Boxes, Talcum-Powder Boxes, Shaving-Powder Boxes, Hair-Pin Boxes, Powder-Boxes, Cold-Cream Boxes, Emery-Board Boxes, Glove-Powder Boxes, Puff-Boxes, Absorbent-Cotton Boxes, Hat-Pin Holders, Hair-Pin Stands, Hair-Recervers, Tooth-Brush Cylinders, Soap-Cylinders, Medicine-Cases, Drinking-Cups, Receptacles for Vacuum-Bottles, Finger-Bowls, Brush-Trays, Pin-Trays, Card-Trays, Bread-Trays, Crumb-Trays, Open Racks for Stationery, Racks for Bottles, Holders for Bottles, Cases for Toilet Articles. The Products Enumerated are Made of Pyroxylin.

Claims use since Jan. 5, 1918.

Ser. No. 110,061. (CLASS 2. RECEPTACLES.) THE CELLULOID COMPANY, New York, N. Y. Filed May 6, 1918.

EBONEUR

The word "Eboneur."
Particular description of goods.—Boxes for Containing Candy, Decorated Boxes for Holiday Gifts, Comprising Articles Presumably for Personal Wear, Salve-Boxes, Sewing-Boxes, Holiday-Gift Boxes, Hat-Pin Boxes, Vanity-Boxes, Ornamental Boxes for Stationery, Jewelry-Boxes, Soap-Boxes, Sponge-Boxes, Tooth-Powder Boxes, Talcum-Powder Boxes, Shaving-Powder Boxes, Hair-Pin Boxes, Powder-Boxes, Cold-Cream Boxes, Emery-Board Boxes, Glove-Powder Boxes, Puff-Boxes, Absorbent-Cotton Boxes, Hat-Pin Holders, Hair-Pin Stands, Hair-Recervers, Tooth-Brush Cylinders, Soap-Cylinders, Medicine-Cases, Drinking-Cups, Receptacles for Vacuum-Bottles, Finger-Bowls, Brush-Trays, Pin-Trays, Card-Trays, Bread-Trays, Crumb-Trays, Open Racks for Stationery, Racks for Bottles, Holders for Bottles, Cases for Toilet Articles. The Products Enumerated are Made of Pyroxylin.

Claims use since Jan. 5, 1918.

Ser. No. 110,067. (CLASS 2. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) THE CELLULOID COMPANY, New York, N. Y. Filed May 6, 1918.

EBONEUR

The word "Eboneur."
Particular description of goods.—Baskets, Ornaments, Monograms, and Initials for Maroon, and Luggage-Tags, All of Said Articles Being Made of Pyroxylin.

Claims use since Jan. 5, 1918.

[Vol. 268. No. 3.]

Ser. No. 110,671. (CLASS 2. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) THE CELLULOID COMPANY, New York, N. Y. Filed May 6, 1918.

EBONEUR

The word "Eboneur."
Particular description of goods.—Cigar-Cases, Pipe-Bits, Cigar-Holders, Cigarette-Cases, Tobacco-Boxes, and Snuff-Boxes, All of Said Articles Being Made of Pyroxylin.

Claims use since Jan. 5, 1918.

Ser. No. 110,678. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) THE CELLULOID COMPANY, New York, N. Y. Filed May 6, 1918.

SHELLEUR

The word "Shelleur."
Particular description of goods.—Tooth-Brushes, Hair-Brushes, Military Brushes, Cloth-Brushes, Whisk-Brooms, Lather-Brushes, Paint-Brushes, Hat-Brushes, Nail-Brushes, Flesh-Brushes, and Handles Therefor.

Claims use since Jan. 5, 1918.

Ser. No. 111,417. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SAMUEL AUGUSTUS PHILLIPS MUNN, Jr., Yonkers, N. Y. Filed June 1, 1918.



Particular description of goods.—Corn-Plasters.

Claims use since Sept. 1, 1918.

Ser. No. 111,741. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) WINS WHEEL CORPORATION OF AMERICA, Buffalo, N. Y. Filed June 21, 1918.



Particular description of goods.—Vehicle Road-Wheels and Parts Thereof.

Claims use since Oct. 24, 1917.

[Vol. 268. No. 3.]

Ser. No. 111,974. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed July 6, 1918.

BOOSTER

Particular description of goods.—Shoes Which are at the Present Time Made of Leather.
Claims use since January, 1918.

Ser. No. 111,975. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed July 6, 1918.

ROSCO

Particular description of goods.—Shoes Which are at the Present Time Made of Leather.
Claims use since April, 1910.

Ser. No. 111,979. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed July 6, 1918.

SPOT LIGHT

Particular description of goods.—Shoes Which are at the Present Time Made of Leather.
Claims use since June, 1918.

Ser. No. 111,980. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed July 6, 1918.

AUTOCRAT

Particular description of goods.—Shoes Which are at the Present Time Made of Leather.
Claims use since February, 1900.

Ser. No. 111,982. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed July 6, 1918.

ELSIE

Particular description of goods.—Shoes Which are at the Present Time Made of Leather and a Combination of Leather and Cloth.
Claims use since May, 1908.

Ser. No. 112,449. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LA GRANGE MILLS, Red Wing, Minn. Filed July 31, 1918.

CHIEFTAIN

Particular description of goods.—Wheat-Flour.
Claims use since Mar. 4, 1878.

Ser. No. 112,608. (CLASS 37. PAPER AND STATIONERY.) A. FLANAGAN COMPANY, Chicago, Ill. Filed Aug. 7, 1918.



Particular description of goods.—Writing-Paper, Drawing-Paper, Writing-Tablets, Blank Books, Note-Books, Chalk Crayon, Blackboard-Erasers, Rubber Erasers, Ink-Well, Steel Pens, Lead-Pencils, Penholders.
Claims use since Jan. 1, 1918.

Ser. No. 112,398. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OLD VIRGINIA ORCHARD CO., Inc., Front Royal, Va. Filed Sept. 21, 1918.



Particular description of goods.—Jellies and Conserve.
Claims use since about July, 1910.

Ser. No. 112,364. (CLASS 38. PRINTS AND PUBLICATIONS.) ARTHUR J. HILL, San Francisco, Calif. Filed Sept. 25, 1918.

"Young for LIFE"

Particular description of goods.—Life-Insurance Publication Issued Occasionally, with no Fixed Periodicity, but at Least Monthly.
Claims use since June 1, 1918.

[Vol. 363. No. 3.]

Ser. No. 112,368. (CLASS 39. CLOTHING.) HAYES & GROSS CO., Indianapolis, Ind. Filed Sept. 25, 1918. Under ten-year proviso.

WABASH

MANUFACTURING CO

Particular description of goods.—Men's and Boys' Overalls and Men's and Boys' Work-Shirts.
Claims use since Nov. 1, 1886.

Ser. No. 112,375. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN PASTLAPF HARDWARE CO., Milwaukee, Wis. Filed Sept. 25, 1918.

OVERKEEN

Particular description of goods.—Pocket-Cutlery, Bel-sors, Shears, Razors, Putty and Scraping Knives, Paring-Knives, Broad-Knives, Broad and Meat Slicers, Butcher-Knives, Carvers, Men's Axes, Boys' Axes, Sportsmen's Hatchets, Hunters' Hatchets, Carpenter-Adzes, Broad-axes, Hatchets, Hammers, Railroad-Picks, Mattocks, Grub-Hoes, Hazel-Hoes, Hickory Tool-Handles, Hickory Ax-Handles, Hand-saws, Rip-Saws, and Panel-Saws, Back-Saws, Nested Saws, Compass-Saws, Hack-saw-Frames, Butcher-Saws, Coping-Saws, Buck-saws, Buck-saw-Blades, Saw-Handles, Bit-Braces, Screw-Drivers, Auger-Bits, Screw-Driver Bits, Countersink-Bits, Nail-Set, Cold-Chisels, Carpenters' Chisels, Carpenters' Bits, Carpenters' Gouges, Drawing-Knives, Planes, Plane-Irons, Automobile-Tool Kits, Plastering-Trowels, Brick-Trowels, Pointing-Trowels, Files, Pliers, Tool-Grinders, Screw-Plates, Dies for Screw-Plates, Shovels, Spades, Scoops, Drain-Spades, Ditch-Spades, Post-Spades, Combination Fence-Pliers, Lawn-Mowers, Grass-Shears.
Claims use since February, 1900.

Ser. No. 112,822. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) COMMONWEALTH BRASS CORPORATION, Detroit, Mich. Filed Oct. 21, 1918.



Particular description of goods.—Metallic Radiator-Valves.
Claims use since 1910.

[Vol. 363. No. 3.]

Ser. No. 114,301. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SOUTHERN COTTON OIL CO., Jersey City and Bayonne, N. J.; New York, N. Y.; Gretna, La.; Savannah, Ga., and Chicago, Ill. Filed Nov. 22, 1918.

SNOWDRIFT

The trade-mark consists of the word "Snowdrift," as shown in the accompanying drawing.
Particular description of goods.—A Cotton-Seed-Oil Shortening Compound Composed of Fatty, Oleaginous, or Unctuous Food Substances.
Claims use since about Nov. 17, 1900.

Ser. No. 114,337. (CLASS 12. CONSTRUCTION MATERIALS.) EDWARD D. FITZPATRICK, Battle Creek, Mich. Filed Nov. 25, 1918.

"Fitz-Pat"

Particular description of goods.—Sheet-Metal Doors.
Claims use since July, 1915.

Ser. No. 114,643. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) D. FRANK, New York, N. Y. Filed Dec. 14, 1918.



The lining on the shield shown in the drawing is for red and that on the background of the figure of the gladiator is for black. No claim is made to the use of the word "Silks" apart from the mark shown on the drawing.

Particular description of goods.—Silks and Satins in the Piece.
Claims use since October, 1918.

Ser. No. 114,730. (CLASS 39. CLOTHING.) CHENEY BROTHERS, South Manchester, Conn. Filed Dec. 20, 1918.

AURATONES

Particular description of goods.—Cravats, Neckties.
Claims use since about Dec. 14, 1918.

Ser. No. 114,731. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CHERRY BROTHERS, South Manchester, Conn. Filed Dec. 20, 1918.

AURATONES

Particular description of goods.—Fabrics of Silk and Silk Mixtures.

Claims use since about Dec. 14, 1918.

Ser. No. 114,898. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOOTH FISHERIES SARDINE COMPANY, Chicago, Ill. Filed Dec. 31, 1918.

FERN LEAF

Particular description of goods.—Canned Sardines.

Claims use since July 20, 1918.

Ser. No. 115,112. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) O. R. ADAMS MFG. CO. INC., Rochester, N. Y. Filed Jan. 11, 1919.



No claim is made to the word "Lathe" apart from the mark shown in the drawing.

Particular description of goods.—Lathes.

Claims use since Aug. 5, 1918.

Ser. No. 115,201. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE DAVIS SAWING MACHINE COMPANY, Dayton, Ohio. Filed Jan. 15, 1919.



Particular description of goods.—Bicycles.

Claims use since 1917.

Ser. No. 115,337. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH H. CALISHER, New York, N. Y. Filed Jan. 21, 1919.

AMORIJA

Particular description of goods.—Toilet Powders, Tooth-Powders, Toilet Waters, Bath-Powders, Liquid Face-Powder, Hair-Tonic, Cucumber Cream, Toilet Lotions, Violet Almond-Meal, Bay-Rum, Lilac Vegetal, Vanishing Cream, Bougan, Brilliantine, and Perfumes.

Claims use since January, 1898.

Ser. No. 115,399. (CLASS 26. PRINTS AND PUBLICATIONS.) EDWARD J. CLOER, New York, N. Y. Filed Jan. 22, 1919.



No claim is made to the word "Series" apart from the mark shown in the drawing.

Particular description of goods.—Printed Books Published in Series.

Claims use since July 1, 1918.

Ser. No. 115,400. (CLASS 12. CONSTRUCTION MATERIALS.) HIRAN S. BARBER, Detroit, Mich. Filed Jan. 27, 1919.

BARGREST

Particular description of goods.—Shingles, Said Shingles Being Cedar.

Claims use since Nov. 1, 1918.

Ser. No. 115,506. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAKE OF THE WOODS MILLS COMPANY LIMITED, Montreal, Quebec, Canada. Filed Jan. 29, 1919.

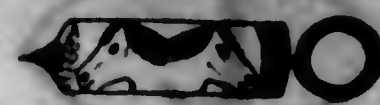


No claim being made to the exclusive use of the words "Lake of the Woods Milling Company, Limited, Kewatin" apart from the mark as shown in the drawing.

Particular description of goods.—Wheat-Flour.

Claims use since May 22, 1888.

Ser. No. 115,568. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN S. JOHNSON, Bismarck, N. D. Filed Feb. 1, 1919.



No claim being made to the representation of the syringe apart from the mark shown in the drawing.

Particular description of goods.—A Medicinal Preparation for the Treatment of Swarms, Lame Tendons, Filled Hoofs, Spavin, Ring-Bone, Curb.

Claims use since Dec. 27, 1918.

[Vol. 298.

No. 2.]

Ser. No. 115,599. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) CHAS. T. COMPANY, Wilmington, Del., and Pittsburgh, Pa. Filed Feb. 2, 1919.



Particular description of goods.—Toy Soldiers and Automatic Mechanical Toys.

Claims use since the 29th day of January, 1919.

Ser. No. 115,628. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) POLGRAM & MEYER, New York, N. Y. Filed Feb. 4, 1919.



Particular description of goods.—Crape Goods in the Piece.

Claims use since April, 1918.

Ser. No. 115,637. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EMPIRE SILE COMPANY, Wilmington, Del., and New York, N. Y. Filed Feb. 5, 1919.

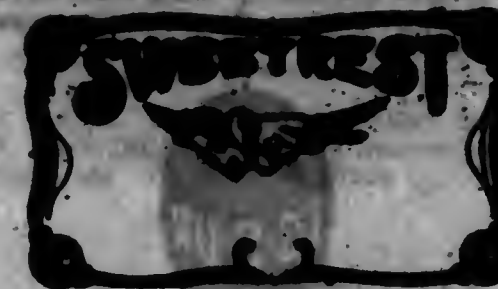
Driftweave

The word "Weave" is disclaimed when used apart from the mark shown in the drawing.

Particular description of goods.—Silk Piece Goods.

Claims use since the 21st day of January, 1919.

Ser. No. 115,655. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GUY G. DULOW, St. Louis, Mo. Filed Feb. 6, 1919.



Particular description of goods.—A Preparation for the Treatment of Rheumatic, Neuritic-Pain, Toothache, Monthly Pains, Toothache, and Rheumatic Pains.

Claims use since the 6th day of August, 1908.

[Vol. 298.

Ser. No. 115,700. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES STEPHEN SIMPSON, Brooklyn, N. Y. Filed Feb. 8, 1919.

SIMPOLENE

Trade Mark

No claim being made to the words "Trade Mark" apart from the mark shown on the drawing.

Particular description of goods.—A Prepared Chemical Material or Product for Saving Gasoline and Eliminating and Preventing the Formation of Carbon Deposits in Automobiles and the Like by Putting One Tablet of the Material with Each Gallon of Gasoline in the Storage Tank or Receptacle That Feeds the Mixture to the Motor.

Claims use since about the 20th day of November, 1919.

Ser. No. 115,800. (CLASS 2. RECEPTACLES.) WOODBURY MANUFACTURING COMPANY, Richmond, Va. Filed Feb. 14, 1919.

VICTORY

Particular description of goods.—Paper Bags.

Claims use since Jan. 1, 1901.

Ser. No. 115,895. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN PACIFIC WHALING COMPANY, Tacoma, Wash. Filed Feb. 17, 1919.

SEI

Particular description of goods.—Canned Whale-Steak.

Claims use since Nov. 1, 1918.

Ser. No. 115,909. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) MEAD CYCLE COMPANY, Chicago, Ill. Filed Feb. 19, 1919.

Ranger

Particular description of goods.—Bicycles.

Claims use since early in the year 1894.

Ser. No. 116,001. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) MEAD CYCLE COMPANY, Chicago, Ill. Filed Feb. 19, 1919.

Bathfinder

Particular description of goods.—Bicycles.

Claims use since the spring of 1919.

[Vol. 298.

No. 2.]

Ser. No. 116,128. (CLASS 39. CLOTHING.) CROSSINGHAM KNITTING MILLS, Philadelphia and Germantown, Pa. Filed Feb. 25, 1919.

CROSS-KNIT
"HOLDITS SHAPE"

The drawing being lined for shading only and no claim being made to exclusive use of the words "Holds Its Shape" and "Knit" apart from the mark shown on the drawing.

Particular description of goods.—Knitted Undershirts, Drawers, and Union-Suits of Cotton, Wool, or Mixed Wool and Cotton.

Claims use since Jan. 18, 1919.

Ser. No. 116,402. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HARRY B. BURT, Youngstown, Ohio. Filed Mar. 8, 1919.

Good Kinner

Particular description of goods.—Candy.
Claims use since Mar. 1, 1917.

Ser. No. 116,405. (CLASS 39. CLOTHING.) CRIPPEN & RAID, Baltimore, Md. Filed Mar. 8, 1919.

Miss Saratoga

Particular description of goods.—Middy-Blouses for Women and Children and Middy-Suits for Women and Children.

Claims use since October, 1917.

Ser. No. 116,561. (CLASS 23. PRINTS AND PUBLICATIONS.) CLARK PRINTING & MANUFACTURING COMPANY, Lock Haven, Pa. Filed Mar. 14, 1919.

al-note-minder

Particular description of goods.—A Combination Calendar and Reminder.
Claims use since Jan. 1, 1919.

Ser. No. 116,571. (CLASS 17. TOBACCO PRODUCTS.) H. N. HUNTER & SON, Hanover, Pa. Filed Mar. 14, 1919.



The trade-mark, which is fanciful, and the figure of the doughboy is of khaki color, with a background the center of which is red, with radiating rays in red, white, and blue.

Particular description of goods.—Cigars.
Claims use since Nov. 23, 1918.

Ser. No. 116,600. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SIERRA CHEMICAL COMPANY, Los Angeles, Calif. Filed Mar. 17, 1919.



Comprising a fanciful picture illustrating a child sitting under an umbrella, with the rain pouring over it and down a spout overflowing a barrel.

Particular description of goods.—A Water-Softening Compound.
Claims use since Oct. 1, 1914.

Ser. No. 116,684. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE E. INGRAM COMPANY, Bristol, Conn. Filed Mar. 18, 1919.

NIGHT-LIGHT

Particular description of goods.—Alarm-Clocks and Watches.
Claims use since Mar. 7, 1919.

Ser. No. 116,797. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) ROCKWELL PRODUCTS COMPANY, Milwaukee, Wis. Filed Mar. 21, 1919.



Particular description of goods.—Lactogen-Block Chicken Food.
Claims use since Feb. 12, 1919.

Ser. No. 116,811. (CLASS 22. FURNITURE AND UPHOLSTERY.) CUNNINGHAM SPRINGLESS SHADE COMPANY, Greensboro, N. C. Filed Mar. 22, 1919.

"Cu-Co"

Particular description of goods.—Window-Shades.
Claims use since Oct. 1, 1917.

Ser. No. 116,832. (CLASS 12. CONSTRUCTION MATERIALS.) KETES LUMBER CO., Birmingham, Ala. Filed Mar. 24, 1919.

STA-RITE

Particular description of goods.—Lumber, Shingles, Composition Roofing, and Lime.
Claims use since Jan. 1, 1919.

Ser. No. 116,884. (CLASS 20. BROOMS, BRUSHES, AND DUSTERS.) BURNARD H. KARMER, New York, N. Y. Filed Mar. 25, 1919.

Velvatore

Consisting of the word "Velvatore."
Particular description of goods.—Powder-Puffs.
Claims use since Dec. 1, 1917.

Ser. No. 116,904. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Mar. 26, 1919.

ECONOMY

Particular description of goods.—Wringers.
Claims use since Mar. 26, 1919.

Ser. No. 116,908. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Mar. 26, 1919.

20TH CENTURY

Particular description of goods.—Wringers.
Claims use since Nov. 24, 1918.

Ser. No. 116,918. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHAS. H. CIRCLE, Minneapolis, Minn. Filed Mar. 26, 1919.

Analgon

Particular description of goods.—Capsules Containing a Compound of Acid Acetylsalicylic, Acetphenetidin, Caffeine Citrate, and Quinine Salicylate.
Claims use since Feb. 1, 1919.

Ser. No. 116,920. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) EASTMAN FINISHING WORKS, INC., Kenyon, R. I. Filed Mar. 26, 1919.

TEXSHED

Particular description of goods.—Waterproof Textile Fabrics.
Claims use since July, 1908.

Ser. No. 117,026. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROBERT L. L. WARNER, Binghamton, N. Y. Filed Mar. 29, 1919.

To-Ko

Particular description of goods.—Medicinal Health-Inventorator for Relieving Coughs and Distress of the Stomach, for Promoting an Appetite, and for Relieving a Craving for Alcoholic Beverages.
Claims use since Jan. 1, 1919.

Ser. No. 117,049. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HILLS LABORATORIES, Chicago, Ill. Filed Mar. 31, 1919.

ARMERVENOL

Particular description of goods.—A Medicinal Compound for Internal Use in the Treatment of Infectious Diseases, Such as Influenza, Pneumonia, Catarrh, Colds, Grippe, Whooping-Cough, Pleurisy, Tuberculosis, Rheumatism, Erysipelas, Syphilis, Gonorrhea, Pernicious Anemia, Diabetes, Measles, Scarlet Fever, Erysipelas, Meningitis, Infantile Paralysis, Typhoid Fever, Malaria, Toxicity, Tetanus, Septicemia, Puerperal Sepsis, Septic Carditis, Skin Diseases, Bolls, Infections, and Infected Wounds.
Claims use since some time in 1910.

Ser. No. 117,060. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HILLS LABORATORIES, Chicago, Ill. Filed Mar. 31, 1919.

MERVENOL

Particular description of goods.—A Medicinal Compound for Internal Use in the Treatment of Infectious Diseases, Such as Influenza, Pneumonia, Catarrh, Colds, Grippe, Whooping-Cough, Pleurisy, Tuberculosis, Rheumatism, Erysipelas, Syphilis, Gonorrhea, Pernicious Anemia, Diabetes, Measles, Scarlet Fever, Erysipelas, Meningitis, Infantile Paralysis, Typhoid Fever, Malaria, Tonsillitis, Toxemia, Septicemia, Puerperal Sepsis, Septic Carditis, Skin Diseases, Bolls, Infections, and Infected Wounds.

Claims use since some time in 1909.

Ser. No. 117,075. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) WHITALL TATUM COMPANY, New York, N. Y. Filed Mar. 31, 1919.

TIP TOP

Particular description of goods.—Pharmaceutical Rubber Goods, as Follows: Elastic Nursing-Nipples.

Claims use since Oct. 2, 1911.

Ser. No. 117,080. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE BONOWEL & Co., New York, N. Y. Filed Apr. 1, 1919.



Particular description of goods.—Solid Alcohol.

Claims use since August, 1918.

Ser. No. 117,086. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY B. MYERS, Idabel, Okla. Filed Apr. 1, 1919.



Particular description of goods.—A Blood-Purifier, a Liniment for Use in the Treatment of Rheumatism and Skin Diseases, and a Salve for the Treatment of Skin Diseases.

Claims use since January, 1909.

Ser. No. 117,118. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) EASTMAN FISHBONE WORKS, INC., Keosau, R. I. Filed Apr. 2, 1919.

PARATON

Particular description of goods.—Waterproof Textile Fabrics.

Claims use since July 1, 1918.

Ser. No. 117,123. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS A. BUNNICH, Chicago, Ill. Filed Apr. 2, 1919.



The trade-mark being the fanciful word "Ezem."

Particular description of goods.—Laxative Tablets.

Claims use since Jan. 21, 1919.

Ser. No. 117,222. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) ARTHUR B. COWLES, Rochester, N. Y. Filed Apr. 7, 1919.

A.B.C.

Particular description of goods.—Plant and Tree Protectors Made of Tar Felt Paper.

Claims use since Feb. 10, 1918.

Ser. No. 117,247. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) JAMES J. O'CONNOR, St. Louis, Mo. Filed Apr. 7, 1919.

RONNOCO

Particular description of goods.—Roasted Coffee.

Claims use since Jan. 1, 1906.

Ser. No. 117,214. (CLASS 29. CLOTHING.) CARL BEUWER, New York, N. Y. Filed Apr. 10, 1919.

COLONIAL of 1919

Particular description of goods.—Outer Shirts and Dresses for Women and Misses.

Claims use since Mar. 20, 1919.

[Vol. 302, No. 2.]

Ser. No. 117,318. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & Co. Inc., New York, N. Y. Filed Apr. 10, 1919.

Paritex

Particular description of goods.—Fine Fabrics in the Piece.

Claims use since the 6th day of February, 1919.

Ser. No. 117,319. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & Co. Inc., New York, N. Y. Filed Apr. 10, 1919.

Alaskat

Particular description of goods.—Fine Fabrics in the Piece.

Claims use since the 14th day of February, 1919.

Ser. No. 117,330. (CLASS 29. CLOTHING.) MARIE DE B. COLQUITT, Washington, D. C. Filed Apr. 10, 1919.



The fanciful mark shown in the accompanying drawing.

Particular description of goods.—Bonnets, Hats, and Dresses for Children.

Claims use since the 1st day of January, 1919.

Ser. No. 117,402. (CLASS 28. PRINTS AND PUBLICATIONS.) THE GLOBE PRINTING COMPANY, St. Louis, Mo. Filed Apr. 12, 1919.

The Globe-Commercial Merchandise

Particular description of goods.—A Monthly Publication.

Claims use since Apr. 2, 1919.

Ser. No. 117,406. (CLASS 44. FOODS AND INGREDIENTS OF FOODS.) HANNAH E. KRIEM, Baltimore, Md. Filed Apr. 12, 1919.

COSEDO

Particular description of goods.—A Compound Used as a Substitute for Lard Composed of Cotton-Seed Oil and other Ingredients.

Claims use since the 1st day of March, 1919.

[Vol. 302, No. 2.]

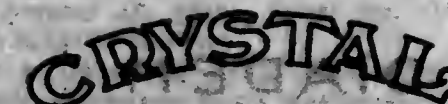
Ser. No. 117,391. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ARTHUR BUNN & Co. Inc., New York, N. Y. Filed Apr. 14, 1919.

A.B.C.

Particular description of goods.—Fine Fabrics in the Piece.

Claims use since the year 1909.

Ser. No. 117,443. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) CRYSTAL WASHING MACHINE COMPANY, Detroit, Mich. Filed Apr. 14, 1919.



Particular description of goods.—Power-Driven Clothes-Washing Machines, Particularly Electrically-Driven Washing-Machines and Wringers.

Claims use since May 15, 1912.

Ser. No. 117,508. (CLASS 35. BELTING, ROPE, MACHINERY PACKING, AND NON-METALLIC TIRES.) "SCANDINAVIA" BELTING LTD., London, England. Filed Apr. 15, 1919.

BRASBESTOS

Particular description of goods.—Brake-Lining.

Claims use since July 10, 1918.

Ser. No. 117,516. (CLASS 2. RECEPTACLES.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Apr. 15, 1919.



Particular description of goods.—Tool-Bags, Tool-Cases.

Claims use since Dec. 29, 1911.

Ser. No. 117,617. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) EASTERN LUMINOUS INDICATOR CO. INC., Waltham, Mass. Filed Apr. 19, 1919.

POINTSWITCH

Particular description of goods.—Luminous Push-Button Locators.

Claims use since Nov. 4, 1918.

Ser. No. 117,835. (CLASS 9. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FARMER AND PHARMACEUTICAL PREPARATIONS. Filed Apr. 21, 1919.

P-C-O.

Particular description of goods.—A Liniment for Scalds, Burns, Chills, Mosquito-Bites, Frost-Bites, and Collar-Scalds on Horses.

Claims use since Nov. 18, 1918.

Ser. No. 117,833. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CAMPBELL, MITCHELL & JACOBSON, New York, N. Y. Filed Apr. 28, 1919.

DIADEM

Particular description of goods.—Cotton Cloth Piece Goods.

Claims use since Apr. 21, 1919.

Ser. No. 117,832. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) TULLY GARRISON FISHER, Cape Charles, Va. Filed Apr. 28, 1919.

Flkaola

Particular description of goods.—Non-Alcoholic, Non-Cereal, and Maltless Carbonated Beverages Sold as Soft Drinks.

Claims use since about Aug. 5, 1918.

Ser. No. 117,848. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE PIERCE-ARROW MOTOR CAR COMPANY, Buffalo, N. Y. Filed Apr. 28, 1919.

PIERCE ARROW

Particular description of goods.—Motor-Vehicles—Namely, Passenger-Automobiles and Motor-Trucks.

Claims use since in or about the year 1901.

Ser. No. 117,849. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE PIERCE-ARROW MOTOR CAR COMPANY, Buffalo, N. Y. Filed Apr. 28, 1919.

PIERCE-ARROW

Particular description of goods.—Motor-Vehicles—Namely, Passenger-Automobiles and Motor-Trucks.

Claims use since in or about the year 1901.

Ser. No. 118,005. (CLASS 37. PAPER AND STATIONERY.) WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y. Filed Apr. 29, 1919.

LUZON BOND

No claim is made to the word "Bond" apart from the mark as shown.

Particular description of goods.—Bond-Paper for Printing and Writing Purposes.

Claims use since Nov. 7, 1904.

Ser. No. 118,143. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE EVANS COAL COMPANY, Fort Wayne, Ind. Filed May 5, 1919.

KENTUCKY KING

Particular description of goods.—Bituminous Coal.

Claims use since July, 1918.

[Vol. 902. No. 2.]

TRADE-MARK REGISTRATIONS GRANTED

JUNE 17, 1919.

125,774. COTTON-PLANT FERTILIZER. A. D. ADAMS & McCARTY BROS. Inc., Atlanta, Ga. Filed November 28, 1918. Serial No. 114,338. PUBLISHED MARCH 4, 1919.

125,775. ROPE, CORD, TWINE, ALL MANUFACTURED FROM VEGETABLE FIBER. AMERICAN MANUFACTURING COMPANY, Boston, Mass., and Brooklyn, N. Y. Filed January 4, 1918. Serial No. 108,282. PUBLISHED FEBRUARY 18, 1919.

125,776. NON-INTOXICATING CEREAL BEVERAGE OF A MALT NATURE. AMERICAN PRODUCTS COMPANY, Detroit, Mich. Filed January 6, 1919. Serial No. 115,001. PUBLISHED FEBRUARY 25, 1919.

125,777. ADHESIVE PASTE. SAMUEL E. BRICK, Salina, Kans. Filed April 6, 1918. Serial No. 110,015. PUBLISHED MARCH 4, 1919.

125,778. AUTOMOBILE AND FURNITURE POLISH. HENRY H. BRUNDAGE, New York, N. Y., assignor to Aurelie M. Brundage, New York, N. Y. Filed December 2, 1918. Serial No. 114,444. PUBLISHED FEBRUARY 11, 1919.

125,779. MALTLESS CEREAL BEVERAGE CONTAINING LESS THAN ONE-HALF OF ONE PER CENT. ALCOHOL. BREKHAERT BREWING COMPANY, Boston and Roxbury, Mass. Filed December 28, 1917. Serial No. 108,195. PUBLISHED MARCH 4, 1919.

125,780. NON-ALCOHOLIC CEREAL MALTLESS BEVERAGE SOLD AS A SOFT DRINK. C. L. CHRYSLER BREWING CO., Fort Wayne, Ind. Filed October 17, 1917. Serial No. 108,907. PUBLISHED MAY 14, 1918.

125,781. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,085. PUBLISHED MARCH 4, 1919.

125,782. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,086. PUBLISHED MARCH 4, 1919.

125,783. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,087. PUBLISHED MARCH 4, 1919.

125,784. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,088. PUBLISHED MARCH 4, 1919.

125,785. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,089. PUBLISHED MARCH 4, 1919.

125,786. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,090. PUBLISHED MARCH 4, 1919.

125,787. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,091. PUBLISHED MARCH 4, 1919.

125,788. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,092. PUBLISHED MARCH 4, 1919.

125,789. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,093. PUBLISHED MARCH 4, 1919.

125,790. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,094. PUBLISHED MARCH 4, 1919.

125,789. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,095. PUBLISHED MARCH 4, 1919.

125,790. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,096. PUBLISHED MARCH 4, 1919.

125,791. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,100. PUBLISHED MARCH 4, 1919.

125,792. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,101. PUBLISHED MARCH 4, 1919.

125,793. FABRICS OF SILK AND SILK MIXTURES. CHENEY BROTHERS, South Manchester, Conn. Filed January 10, 1919. Serial No. 115,102. PUBLISHED MARCH 4, 1919.

125,794. REMEDY FOR PILES. WILLIAM D. CHRYSTOS, Chicago, Ill. Filed September 19, 1918. Serial No. 113,241. PUBLISHED MARCH 11, 1919.

125,795. CERTAIN NAMED CLOTHING FOR MEN, WOMEN, AND CHILDREN. COOPER UNDERWEAR COMPANY, Kenosha, Wis. Filed October 3, 1918. Serial No. 113,580. PUBLISHED MARCH 4, 1919.

125,796. PAPER-PULP SPOONS. THE DAINTY CUT COMPANY, INCORPORATED, New York, N. Y. Filed August 30, 1918. Serial No. 112,989. PUBLISHED FEBRUARY 11, 1919.

125,797. WHISKY. JACK DANIEL DISTILLING COMPANY, St. Louis, Mo. Filed January 19, 1917. Serial No. 100,737. PUBLISHED JULY 23, 1918.

125,798. SHAVING-BRUSHES. DE LUXE BRUSH COMPANY, Wilmington, Del., and Philadelphia, Pa. Filed January 7, 1919. Serial No. 115,025. PUBLISHED FEBRUARY 25, 1919.

125,799. PORCELAIN WARE—VIZ., BRIC-A-BRAC AND TABLE-PORCELAIN. DEN KONGELIJS PORCELAIN-FABRIK, Copenhagen, Denmark. Filed October 30, 1918. Serial No. 113,940. PUBLISHED MARCH 4, 1919.

125,800. ROCK-DRILLS. THE DENVER ROCK DRILL MANUFACTURING COMPANY, Denver, Colo. Filed December 17, 1918. Serial No. 114,686. PUBLISHED FEBRUARY 25, 1919.

125,801. WHISKY. THE DUBLIN DISTILLERS CO. LTD., Dublin, Ireland. Filed June 17, 1918. Serial No. 111,610. PUBLISHED MARCH 4, 1919.

125,802. TAPS MADE OF RUBBER, RUBBER COMPOSITION, AND FIBER FOR BOOTS AND SHOES. EMERY HALL SALES COMPANY, Boston, Mass. Filed November 20, 1918. Serial No. 114,282. PUBLISHED MARCH 4, 1919.

125,803. SILK PIECE GOODS. EMPIRE SILK COMPANY, Wilmington, Del., and New York, N. Y. Filed January 28, 1919. Serial No. 115,478. PUBLISHED MARCH 4, 1919.

125,804. SILK PIECE GOODS. EMPIRE SILK COMPANY, Wilmington, Del., and New York, N. Y. Filed January 28, 1919. Serial No. 115,479. PUBLISHED MARCH 4, 1919.

- 125,805. ROOFING MATERIAL COMPRISING FELTS SATURATED WITH COMPOUNDS. THE FLINT-KOTE COMPANY, Boston, Mass.
Filed April 6, 1918. Serial No. 110,930. PUBLISHED MARCH 4, 1919.
- 125,806. HEAT AND COLD INSULATION MATERIALS IN WHICH MINERAL WOOL IS THE MAIN INGREDIENT. GENERAL INSULATING & MANUFACTURING COMPANY, St. Louis, Mo., and Alexandria, Ind.
Filed October 19, 1918. Serial No. 112,799. PUBLISHED MARCH 4, 1919.
- 125,807. TEXTILE FABRICS CONSISTING OF COTTON PIECE GOODS. W. R. GRACE & Co., New York, N. Y., and San Francisco, Calif.
Filed October 26, 1918. Serial No. 112,999. PUBLISHED MARCH 4, 1919.
- 125,808. CERTAIN NAMED FURNITURE AND HOUSE-FURNISHINGS. Morris H. Gossens, Houston, Tex.
Filed July 15, 1918. Serial No. 112,134. PUBLISHED FEBRUARY 25, 1919.
- 125,809. EMOLLIENT TABLETS FOR TREATMENT OF THE SKIN. F. W. HAMPHRIS & Co. Ltd., Derby, England.
Filed May 14, 1918. Serial No. 110,886. PUBLISHED MARCH 11, 1919.
- 125,810. ROOFING—NAMELY, FELT (USUALLY OF RAG-STOCK) SATURATED WITH ASPHALTUM. CHARLES H. HARRIS, Oil City, Pa.
Filed June 4, 1918. Serial No. 111,360. PUBLISHED FEBRUARY 18, 1919.
- 125,811. HAIR-COLOR RESTORER, DEPILATORY, LIQUID SHAMPOO, AND HAIR-TONIC. Hesse-Hellis Dope Co., Memphis, Tenn.
Filed January 12, 1919. Serial No. 115,147. PUBLISHED MARCH 11, 1919.
- 125,812. WOMEN'S AND GIRLS' UNDERGARMENT OF COMBINATION DESIGN MADE FROM TEXTILE FABRIC. LUNA HYERMAN, Fort Wayne, Ind.
Filed November 19, 1918. Serial No. 114,342. PUBLISHED MARCH 4, 1919.
- 125,813. ALE, LAGER, AND PORTER. THE HOME BREWING Co., Bridgeport, Conn.
Filed February 8, 1918. Serial No. 108,826. PUBLISHED APRIL 16, 1918.
- 125,814. CLOTH ATHLETIC BELT FOR WOMEN. LUTHERA HESSA, Indianapolis, Ind.
Filed June 2, 1918. Serial No. 111,341. PUBLISHED FEBRUARY 25, 1919.
- 125,815. CERTAIN NAMED LADIES' WEARING-APPAREL. MAURICE N. HYMAN, New York, N. Y.
Filed July 9, 1918. Serial No. 112,011. PUBLISHED AUGUST 27, 1918.
- 125,816. METAL FLOORINGS OR GRATINGS. JAVINE IRON WORKS COMPANY, Long Island City, N. Y.
Filed January 8, 1919. Serial No. 115,048. PUBLISHED MARCH 4, 1919.
- 125,817. OVERALLS. JELLICO CLOTHING MANUFACTURING Co., Jellico, Tenn.
Filed July 29, 1918. Serial No. 112,302. PUBLISHED NOVEMBER 5, 1918.
- 125,818. DISINFECTANT. JOSEPH HENRY KARP, New York, N. Y.
Filed January 8, 1919. Serial No. 115,048. PUBLISHED MARCH 11, 1919.
- 125,819. MEN'S, WOMEN'S, AND CHILDREN'S HATS MADE OF CLOTH, FELT, OR STRAW. FRANK KATS HAT Co. Inc., New York, N. Y.
Filed July 30, 1918. Serial No. 112,427. PUBLISHED MARCH 4, 1919.
- 125,820. SMOKERS' PIPES, CIGAR AND CIGARETTE HOLDERS. KAUFMAN BROS. & BONDY, New York, N. Y.
Filed December 17, 1918. Serial No. 114,663. PUBLISHED MARCH 4, 1919.
- 125,821. SHOE-DRESSINGS AND CLEANERS, POLISHES, AND RENEVERS FOR LEATHER, GLOVES, AND SHOES. JOHN KAPPA, Los Angeles, Calif.
Filed June 18, 1917. Serial No. 104,481. PUBLISHED JANUARY 23, 1919.
- 125,822. SATINS AND VENETIANS. J. KRISSEL, Sons & Co., New York, N. Y.
Filed November 12, 1917. Serial No. 107,811. PUBLISHED NOVEMBER 12, 1918.
- 125,823. GLASS SLIDES IN MICROSCOPIC WORK. E. LUTZ, Inc., New York, N. Y.
Filed June 3, 1918. Serial No. 111,342. PUBLISHED FEBRUARY 11, 1919.
- 125,824. LADIES' DRESSES. LUTHER & GOLDSMITH, New York, N. Y.
Filed June 12, 1918. Serial No. 111,324. PUBLISHED MARCH 4, 1919.
- 125,825. AUTOMATIC ACCOUNT-FINDING MACHINES. LIBERTY SYSTEMS CORPORATION, Edwardsville, Ill.
Filed November 15, 1918. Serial No. 114,163. PUBLISHED FEBRUARY 11, 1919.
- 125,826. CERTAIN NAMED CLOTHING FOR MEN, WOMEN, BOYS, AND CHILDREN. LIGON, HICKS & Co., Inc., Petersburg, Va.
Filed September 16, 1918. Serial No. 112,196. PUBLISHED MARCH 4, 1919.
- 125,827. COLORING SUBSTANCES USED TO PRODUCE AN OXIDIZED FINISH ON TABLE-SILVERWARE AND MARKING BRASS ARTICLES. FRANK C. MARCUS and JACOB PARIKH, Bloomington, Ind.
Filed September 22, 1917. Serial No. 108,892. PUBLISHED FEBRUARY 25, 1919.
- 125,828. CERTAIN NAMED PAINTS AND PAINTERS' MATERIALS. ROGER FREDERICK MUNDAY, London, England.
Filed September 21, 1917. Serial No. 104,267. PUBLISHED NOVEMBER 12, 1918.
- 125,829. DIE-CAST BEARINGS, BARBITT-LINED BEARINGS, AND BRONZE BEARINGS. THE MURPHY-LYON Co., Ltd., Detroit, Mich.
Filed October 26, 1918. Serial No. 112,910. PUBLISHED FEBRUARY 11, 1919.
- 125,830. BIRD-LIME. ARTHUR O. MROSCOWSKI, Stephen, Minn.
Filed March 2, 1918. Serial No. 109,835. PUBLISHED FEBRUARY 25, 1919.
- 125,831. CERTAIN NAMED RECEPTACLES. ROWIN B. NATHAN, New York, N. Y.
Filed October 9, 1917. Serial No. 106,070. PUBLISHED DECEMBER 17, 1918.
- 125,832. WOVEN COTTON PIECE GOODS. NAUSS, HUGGELIN & Co., New York, N. Y.
Filed November 1, 1918. Serial No. 114,010. PUBLISHED MARCH 4, 1919.
- 125,833. SHADE-CLOTH. OSWEGO SHADE CLOTH COMPANY, Oswego, N. Y.
Filed February 10, 1918. Serial No. 109,063. PUBLISHED DECEMBER 31, 1918.
- 125,834. GAME-BOARDS AND PIECES THEREFOR. GEORGE HENRY PARKIN, Stamford, Conn.
Filed July 21, 1917. Serial No. 105,178. PUBLISHED MARCH 4, 1919.
- 125,835. CERTAIN NAMED METAL AND WOOD WORKING MACHINES, PARTS THEREOF, AND ACCESSORIES THEREFOR. PRATT & WHITNEY COMPANY, New York, N. Y.
Filed August 16, 1918. Serial No. 112,784. PUBLISHED FEBRUARY 11, 1919.
- 125,836. READY-MIXED PAINTS AND VARNISHES. PRESERVATIVE PAINT COMPANY, Seattle, Wash.
Filed December 2, 1918. Serial No. 114,000. PUBLISHED MARCH 4, 1919.
- 125,837. [WITHDRAWN.]

- 125,838. PIECE GOODS OF SILK AND OF SILK MIXED WITH WOOL OR LINEN. RICE-STIX DRY GOODS COMPANY, St. Louis, Mo.
Filed February 25, 1918. Serial No. 109,206. PUBLISHED SEPTEMBER 3, 1918.
- 125,839. ADHESIVE TAPE ESPECIALLY ADAPTED FOR SHOE-REPAIR WORK. FRED RISK, Pittsburgh, Pa.
Filed September 10, 1918. Serial No. 112,111. PUBLISHED FEBRUARY 25, 1919.
- 125,840. MEN'S HATS. ROGESSA HRET COMPANY, New York, N. Y.
Filed August 10, 1918. Serial No. 112,758. PUBLISHED MARCH 4, 1919.
- 125,841. MOTION-PICTURE FILMS. ROMAYNS SUPER-FILM COMPANY, Los Angeles, Calif.
Filed October 10, 1918. Serial No. 112,673. PUBLISHED FEBRUARY 11, 1919.
- 125,842. MOTION-PICTURE FILMS. ROTRACKER FILM MFG. Co., Chicago, Ill.
Filed January 13, 1919. Serial No. 115,161. PUBLISHED FEBRUARY 18, 1919.
- 125,843. MEN'S OUTER WEARING-APPAREL—NAMELY, COATS, OVERCOATS, AND SUITS. SABS & COMPANY, New York, N. Y.
Filed May 15, 1918. Serial No. 110,912. PUBLISHED MARCH 4, 1919.
- 125,844. EYEGLASSES. HERMANN WALTER SCHONBERG, Aberdeen, Wash.
Filed September 12, 1918. Serial No. 112,154. PUBLISHED FEBRUARY 11, 1919.
- 125,845. READY-MIXED PAINTS. WILHELMUS MAUDE SCOTT, Kansas City, Mo.
Filed November 26, 1917. Serial No. 107,885. PUBLISHED FEBRUARY 11, 1919.
- 125,846. PREPARED ROOFINGS IN ROLL, SHEET, AND SHINGLE FORM. THE STANDARD PAINT COMPANY, Boundbrook, N. J., and New York, N. Y.
Filed December 14, 1918. Serial No. 114,852. PUBLISHED FEBRUARY 18, 1919.
- 125,847. LADIES' OUTER APPAREL—TO WIT, COATS, SUITS, DRESSES, WAISTS, AND SKIRTS. THE SAMUEL STORRS, Inc., New York, N. Y.
Filed July 31, 1918. Serial No. 112,448. PUBLISHED MARCH 4, 1919.
- 125,848. COFFEE. THE STOWELL COFFEE Co., Cincinnati, Ohio.
Filed October 10, 1918. Serial No. 112,676. PUBLISHED JANUARY 7, 1919.
- 125,849. DYES. EUGENE SUTER & COMPANY, New York, N. Y.
Filed January 14, 1919. Serial No. 115,187. PUBLISHED MARCH 11, 1919.
- 125,850. READY-MIXED PAINTS AND VARNISHES. TWIN CITY VARNISH Co., St. Paul, Minn.
Filed November 25, 1918. Serial No. 114,364. PUBLISHED FEBRUARY 11, 1919.
- 125,851. WATERPROOF ADHESIVE CEMENT. THE ULMER LEATHER COMPANY, Norwich, Conn.
Filed November 9, 1918. Serial No. 114,121. PUBLISHED FEBRUARY 18, 1919.
- 125,852. CERTAIN NAMED CARPENTERS' TOOLS AND CHUCKS. UNION MANUFACTURING COMPANY, New Britain, Conn.
Filed February 4, 1918. Serial No. 108,812. PUBLISHED FEBRUARY 11, 1919.
- 125,853. INTERNAL-COMBUSTION ENGINES AND PARTS THEREOF. UNITED STATES OF AMERICA, Washington, D. C.
Filed November 29, 1918. Serial No. 114,426. PUBLISHED FEBRUARY 11, 1919.
- 125,854. OIL OR RUBBER TREATED RAIN-PROOF OVERCOATS. UNITED STATES RUBBER COMPANY, New York, N. Y.
Filed December 22, 1918. Serial No. 100,105. PUBLISHED MARCH 4, 1919.
- 125,855. SHEETS, SHEETINGS, PILLOW-CASES, AND COTTON PIECE GOODS. UTICA STRAM & MOWAWK VALLEY COTTON MILLS, Utica, N. Y.
Filed September 25, 1918. Serial No. 112,411. PUBLISHED MARCH 4, 1919.
- 125,856. SHAMPOO. AUGUSTUS A. WAST, Philadelphia, Pa.
Filed January 7, 1919. Serial No. 115,037. PUBLISHED MARCH 11, 1919.
- 125,857. TOOTH-BRUSHES. WILLIAMS BRUSH Co., Philadelphia, Pa.
Filed December 5, 1918. Serial No. 114,504. PUBLISHED FEBRUARY 25, 1919.
- 125,858. LINIMENT USED IN THE TREATMENT OF TOOTHACHE, RHEUMATISM, LA GRIFFE, AND PNEUMONIA. BENJAMIN C. WINELAND, Great Bend, Kans.
Filed December 30, 1918. Serial No. 114,800. PUBLISHED MARCH 11, 1919.
- 125,859. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS FOR TOILET PURPOSES. ALFRED WRIGHT, Inc., Philadelphia, Pa.
Filed September 11, 1917. Serial No. 106,185. PUBLISHED MARCH 11, 1919.
- 125,860. LINIMENT FOR CERTAIN NAMED DISEASES AND AILMENTS. FRANK C. YOUNG, New Haven, Conn.
Filed December 30, 1918. Serial No. 114,802. PUBLISHED MARCH 11, 1919.

TRADE-MARK REGISTRATIONS RENEWED.

- 16,993. PERFUMERY AND PERFUMED TOILET PREPARATIONS AND EXTRACTS. F. C. CALVERT & Co., Bradford, Manchester, county of Lancaster, England. Registered September 10, 1899. Renewed September 10, 1919.

LABELS

REGISTERED JUNE 17, 1919.

21,279.—Title: "PATRIA." (For Food Products.) Iwan
Bunson, New York, N. Y. Filed April 14, 1919.

480

DECISIONS

OF THE COMMISSIONER OF PATENTS AND OF UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Eighth Circuit.

LUTEN v. WASHBURN et al.

Decided November 11, 1918; rehearing denied January 21, 1919.

[254 Fed. Rep. 550.]

PATENTABILITY—STEEL TENSION-RODS IN REINFORCED CONCRETE.

The Luten patents, No. 852,970, claims 14, 15, and 16; No. 852,982, claim 17; No. 979,776, claim 1, and No. 979,772, claim 2, all for reinforced concrete construction, held invalid. Steel rods having been placed in concrete structures to resist tension or pull, it required only mechanical or engineering skill to locate in any particular structure where the tension is and only the same skill to determine where the steel should be placed to resist such tension.

APPEAL from the District Court of the United States for the District of Colorado; Robert E. Lewis, Judge.

Suit by Daniel B. Luten against George Washburn and Weld County, Colo. From a decree dismissing the complaint, plaintiff appeals. Affirmed.

Mr. Russell T. MacPell and Mr. Frank M. Hall (Mr. Frank H. Drury and Mr. Miles G. Saunders on the brief) for the appellant.

Mr. A. J. O'Brien (Mr. Walter E. Biles and Mr. Joseph C. Ewing on the brief) for the appellees.

Before SANBORN, CARLAND, and STONE, Circuit Judges.

CARLAND, Cir. J.:

The appellant commenced this action against appellees for infringement of United States Letters Patent numbered 852,970, 852,982, 852,902, 852,903, all dated May 7, 1907, 979,776, dated December 27, 1910, and 979,772, dated April 11, 1911, all issued to himself. The district court held the patents void for lack of invention and dismissal of the complaint. This is an appeal from that decree.

The patents relate to metal-reinforced-concrete bridges and similar structures. Appellees were alleged to have infringed the patents in the construction of what is known as "Sheep Drawbridge" in Weld county, Colo. The specifications of the bridge called for a reinforced-concrete bridge of the beam and slab type, of thirty-foot span; supported on reinforced-concrete abutments, twenty feet in width. In this court counsel for appellant has

[Vol. 302, No. 3.]

abandoned all claims for infringement, except as to claims 14, 15, and 16 of Patent 852,970, claim 17 of Patent 852,982, claim 1 of Patent 979,776, and claim 2 of Patent 979,772. The record shows that appellant has obtained eighteen consent or pro confesso decrees declaring the patents in suit valid and infringed in different United States district courts. In contested suits involving the claims here involved, or similar claims, the Luten patents have been decided to be invalid for lack of invention in the following cases: *Luten v. Allen* (254 Fed. —) and *Luten v. Young* (254 Fed. —) in the United States District Court, District of Kansas; *Luten v. WAMMER* (251 Fed. 500; — C. C. A. —) in the Circuit Court of Appeals, Sixth Circuit; *Luten v. Wilson et al.* (254 Fed. —) in the United States District Court, District of Nebraska; *Luten v. Marsh et al.* (254 Fed. —) in the United States District Court, Southern District of Iowa; *ex parte Luten*, (237 O. G., 917; *in re Luten*, (37 App. D. C., 370.) So far as we know, the claims now before us, or similar claims, have not been held valid in any contested case. The claims read as follows:

Patent No. 852,970.

14. A bridge or arch of concrete or other suitable material having wings joined thereto by rods embedded in said wings and extending into the abutments.

15. A bridge or arch of concrete or other suitable material having wings joined thereto by rods embedded in said wings and extending into and through the abutments.

16. A bridge or arch of concrete or other suitable material having wings joined thereto by rods embedded in one of said wings and extending through the abutment into the opposite wing.

Patent No. 852,982.

17. A bridge of concrete or similar material having a reinforced spandrel or girder extending across the abutment or pier, and cantalvered on the abutment or pier, with tension members extending across the abutment or pier near the upper surface of the spandrel or girder.

Patent No. 979,776.

1. A reinforcement for concrete girders, beams, etc., comprising a lower horizontal tension rod and upper and lower shearing rods, each having a central horizontal part, inclined parts extending outwardly from opposite ends of the central part and horizontal parts extending outwardly from the ends of said inclined parts, the central horizontal part of the lower shearing rod being longer than that of the upper shearing rod, and the horizontal ends of the upper shearing rod being longer than those of the lower shearing rod, substantially as set forth.

Patent No. 979,772.

2. The combination of an upright member with a transverse member and knee brace all of hardened plastic with embedded tension members reinforcing the upright member and transverse member continuously adjacent the surfaces opposite the knee brace and extending away from said opposite surfaces of the transverse member intermediate its middle and the knee brace and other tension members embedded longitudinally through the knee brace.

481

An examination of the claims clearly shows that appellant's claim to invention, so far as the subject-matter thereof is concerned, is based upon the particular positioning of steel rods or metal bands in concrete or plastic material employed in the construction of bridges or culverts. This court in *Luten v. Sharp*, (234 Fed., 880; 148 C. C. A., 478,) speaking by Judge Sanborn, said:

The use of steel and iron rods, wire mesh, expanded metal, and like articles embedded in different ways in cement girders, beams, floors, posts, and other articles made of cement, to strengthen and reinforce them, was old, well known, and had long been practiced before the patented inventions of Luten here in question were discovered, and the question for review is one of fact.

The question of infringement was alone in issue in that case. Luten testified in the present case as follows:

That principle of reinforced concrete is admittedly old—that steel is to be used in tension. I never have made any contention that I invented steel in tension in concrete bridges, or the use of steel in tension in many other places. What I have maintained is that I have placed the steel in a new way that produces better results, in a more efficient form.

Now, in a concrete bridge, the greatest efficiency is always secured by resisting tension or pull with steel rods. That has been established for half a century; not, perhaps, with curved tension members, but the basic idea is very old. There is no question about that.

The French patents, numbered 88,547 and 88,546, issued to François Colnet, April 6, 1890, for improvement in making artificial stone and in monolithic structures, the United States patent for construction of joists, girders, and the like, issued to François Hennebique, October 4, 1898, No. 611,907, United States patent for construction of metal-concrete-arch bridges, issued to H. V. Hinckley, April 25, 1899, and United States Patent No. 604,838, for concrete-arch construction, issued to W. C. Parmley, April 1, 1902, disclose the prior art and anticipate the claims in suit. In *Turner v. Lester Penco Co.* (248 Fed., 930; — C. C. A., —; certiorari denied October 21, 1918) the Court of Appeals of the Third Circuit said:

There is to-day neither invention nor novelty in merely placing metal reinforcement in concrete at places at which strains come. The very principle of reinforcement, as the word denotes, is to give force to or strengthen the place that is weak by adding something that is strong. Invention in reinforcement is to be found only in discovering a new principle, or in employing new means embodying the old principle. Therefore, one striving to find a new principle, or to invent a new means of concrete reinforcement under the old principle, enters a well-known and widely practiced art, and must do something more than care for tensile strains at places where they are known to come.

This language was approved by us in *Turner v. Deere & Webber Building Co.* (240 Fed., 753; — C. C. A., —) and Judge Hook, in delivering the opinion of the court in the same case, in speaking of the use of concrete in building construction used the following language:

Its resistance to compression and susceptibility to other strains in certain positions were familiar to all who had to do with it, as were the general principles of reinforcing it with wire, rods, or strips of metal which possessed the quality the concrete lacked. When the plaintiff entered, the art had so progressed that the nature of the stresses and in a general way the places where the reinforcement should be disposed or arranged were a part of the common knowledge of builders, as in greater degree was the subject of struts, braces, and the like in carpentry. In pretensions or complicated construction, where ordinary experience did not suffice, mathematical computation was available. The evidence of prior practice in building and prior publications and patents show that little was left for patentable invention in placing the customary pieces of metal here or there, or turning them this way or that, in the mass of concrete.

[Vol. 200,

In *Drum v. Turner* (219 Fed., 188; 135 C. C. A., 74) we sustained the Norcross patent for a metallic concrete flooring without supporting-beams. The invention in that case, however, was for a floor without supporting-beams, not merely the location of the reinforcing-rods. In *Turner v. Moore* (211 Fed., 406; 123 C. C. A., 188) and in *Turner v. Deere & Webber Building Co.*, *supra*, we held the Turner patent for a reinforced-concrete building construction void for lack of invention in view of the prior art. Appellees claim that, in view of the prior art and on general principles, the claims in suit disclose mechanical or engineering skill alone. Appellant claims that he has placed the steel or reinforcing rods in a new way, that produces better results in a more efficient form. He is the positioning of the reinforcing-rods that is called invention. The question to be decided then, is this: In view of the prior art and on general principles, was it invention at the date of the patents to place the reinforcing-rods as indicated in the claims of the patents, or was it simply the putting together by the exercise of mechanical or engineering skill things old in the art, to perform functions long known, in a manner anticipated in prior patents? Neither the specifications, claims, nor drawings of the patents in suit give any specific directions as to where the reinforcing-steel should be placed. Steel rods are placed in concrete structures to resist tension or pull. It would seem to necessarily follow that it would require mechanical or engineering skill only to locate in any particular structure where the tension was, and the same skill to determine where the steel should be placed to resist such tension; but this would not be invention, which alone is patentable.

Industry in exploring the discoveries and acquiring the ideas of others; wise judgment in selecting and combining them; mechanical skill in applying them to practical results—some of these are creation; some of these enter into the inventive act. (Rob. on Pat., sec. 78.)

In view of what was old and well known at the date of the patents, we can see no invention in the claims in suit. The wing-walls in connection with bridges were old, the tying of the wings to the abutments was not new, and the employment of metal rods in connection with concrete, to strengthen the material and cause it to remain intact, was well known. We therefore agree with the Court of Appeals of the District of Columbia, in the case of *re Luten*, *supra*, when it said:

All therefore that appellant did was to put together by the exercise of the simplest mechanical skill things old in the art, to perform functions long known, in a manner anticipated in prior patents.

Decree below affirmed.

U. S. Circuit Court of Appeals—Fourth Circuit.

ARMSTRONG SEATAG CORPORATION v. SMITH'S ISLAND OYSTER CO.

Decided December 5, 1918.

(264 Fed. Rep., 531.)

1. PATENTABILITY—INVENTION—TAGGING OYSTERS FOR IDENTIFICATION.

The Armstrong patent, No. 1,195,946, for marking bivalves by means of a tag attached to the lower shell

of an oyster, involving claims for a tag attached to an oyster-shell and a method of attaching the tag at a certain point, held void for lack of invention, it being a common practice to identify articles by attaching tags thereto.

2. SAME—SUPPORT-MATERIAL FOR PATENTS—TAGGING OYSTERS.

A tagged oyster is not a machine or a composition of matter, and it is not a manufacture.

APPEAL from the District Court of the United States for the Eastern District of Virginia, at Norfolk; Edmund Waddill, Judge.

Suit in equity by the Armstrong Seatag Corporation against the Smith's Island Oyster Company. Decree for defendant, and complainant appeals. Affirmed.

Mr. E. Hayward Fairbanks and Mr. S. Gordon Cummings (Mr. J. Bonnell Taylor on the brief) for the appellant.

Mr. Samuel O. Edwards for the appellee.

Before KNAFF and Woods, Circuit Judges, and McDowell, District Judge.

McDOWELL, Dis. J.:

(1) In August, 1918, Patent No. 1,195,946, for "marking bivalves," was issued to M. C. and Richard Armstrong, and on September 16, 1916, all rights under the patent were duly assigned to the appellant, the plaintiff below. Under this patent the plaintiff claims a monopoly in a so-called invention defined as follows:

1. Means for identifying oysters, consisting of a tag attached to that part of the shell on which the oyster is to be served at a point outside of the ligament or hinge of said oyster, whereby, when the oyster is opened, said tag remains attached to the part to be served.

2. An improvement in the art of identifying oysters, which consists in attaching a tag to that part of the shell on which the oyster is to be served at a point outside of the ligament or hinge of said oyster, whereby, when the oyster is opened, said tag remains attached to the part to be served.

The plaintiff's method of identifying its oysters is to drill a small hole through what may be called the lobe of the lower or deep shell, outside of the hinge, through which is passed the elongated shank of a flat piece of thin, pliable metal. One end of the metal piece, octagonal in form, contains plaintiff's trade-mark, and the elongated extension or shank is clamped after being passed through the hole in the shell. The defendant has for some time been identifying its oysters by boring a hole through the lobe of the lower shell and attaching thereto a triangular flat piece of thin metal, by running a pin having an enlarged head through a hole in the metal piece and through the hole in the oyster-shell, and then fastening the lower end of the pin. The litigation between these parties commenced with a suit for unfair competition, brought prior to the issue of the patent by the present plaintiff, which was decided in favor of the present defendant. (*Armstrong Seatag Corporation v. Smith's Island Oyster Co.*, 224 Fed., 100; 139 C. C. A., 656.) The present suit was instituted by filing a bill in equity for infringement. The defendant moved to dismiss the bill, chiefly on the ground of invalidity of the patent. The trial court held the patent void

[Vol. 200,

on its face for want of invention, and the plaintiff appeals.

If the patent in suit be supposed to cover a tagged oyster, the answer is that a tagged oyster is not a machine or a composition of matter, and it is not a manufacture. A spring chicken, with an identifying-tag fastened to its leg, is closely analogous. If he so desired, any fisherman could attach an identifying-tag to his fish. But none of these natural products could be classed as manufactured articles, simply because of being tagged. If the method of the patentees may be considered as a process, we are unable to perceive that it involved invention. The problem was too simple, and its solution too obvious.

In adopting the method used by the patentees to identify oysters, they displayed some skill, not of high order, but nothing approaching the dignity of invention. The practice of identifying articles of commerce by attaching a tag thereto is, as a matter of common knowledge, both very old and very general. The demand for oysters grown in unpolluted water is of comparatively recent origin. It has arisen from the rather-recently-acquired public knowledge of the fact that oysters grown in polluted water are capable of transmitting the typhoid germ. The desire to identify oysters, as having been grown in unpolluted water is therefore also recent. This is we think the chief reason why tagged oysters have not long been common. What the patentees do is what any one would do who desired to attach a tag to an oyster-shell, unless he bethought himself of a better method. There is in the patentees' process an entire absence of—

that intuitive faculty of the mind put forth in the search of new results or new methods, creating what had not before existed, or bringing to light what lay hidden from vision. (*Hollister v. Benedict*, 113 U. S., 59, 72; 5 Sup. Ct., 717; 23 L. Ed., 901. See also *King v. Gullies*, 160 U. S., 99, 102; 3 Sup. Ct., 85; 27 L. Ed., 870; *Stinson v. Grand Street Railroad Co.*, 107 U. S., 640, 683; 3 Sup. Ct., 623; 27 L. Ed., 576; *Phillips v. Detroit*, 111 U. S., 604, 607; 4 Sup. Ct., 680; 28 L. Ed., 532.)

Where only the skill of the workman, and not the genius of the inventor, was required, as in the case at bar, the result is not an invention.

(2) It has often been laid down in one form or another that using an old process for a new, but analogous, purpose, with no substantial change in result, is not invention. (*Brown v. Piper*, 91 U. S., 37, 41, 43; 23 L. Ed., 200; *Pennsylvania R. Co. v. Safety Truck Co.*, 110 U. S., 400, 404, 406; 4 Sup. Ct., 220; 23 L. Ed., 222; *Blake v. San Francisco*, 113 U. S., 679, 683; 5 Sup. Ct., 692; 28 L. Ed., 1070; *Miller v. Forer*, 116 U. S., 22, 27; 6 Sup. Ct., 204; 29 L. Ed., 532.) But it seems hardly necessary to here invoke this doctrine. What the patentees here have done is to apply an old process to a new subject, for an old purpose, without any change in result. The purpose and the result of tagging articles of commerce was identification. This is the purpose and the result of the patentees' practice. In its entirety the thought of the patentees was only an extension of the thought of the first producer who attached a mark of identification to his goods. To No. 2.]

apply this old practice to oysters required at the utmost some degree of skill, but no invention.

The decree of the trial court must be affirmed, with costs to the appellee.

Affirmed.

U. S. Circuit Court of Appeals—Third Circuit.

EDMONDS V. PERLMAN.

Decided December 4, 1918; rehearing denied March 26, 1919.
[285 Fed. Rep., 564.]

PATENTS—VALIDITY AND INFRINGEMENT—ELECTRICAL SURGICAL BAKER.

The Edmonds and Hoyt patent, No. 775,105, for an electrical surgical baker, was not anticipated, disclosed invention, and is entitled to a construction broad enough to protect the valuable contribution of the patentees to the art; also *held* infringed.

APPEAL from the District Court of the United States for the Eastern District of Pennsylvania; Oliver B. Dickinson, judge.

Suit in equity by Alberta F. Edmonds against Henry Perlman, doing business as the Crown Electric Hot Pack Company. Decree for defendant, and complainant appeals. Reversed.

Messrs. Macleod, Colver, Copeland & Dike and Mr. Monroe Buckley (Mr. George P. Dike of counsel) for the appellant.

Mr. Daniel J. McBride and Mr. W. Preston Williamson for the appellee.

Before BUFFINGTON and WOOLLEY, Circuit Judges. BUFFINGTON, Cir. J.:

The subject here involved is the treatment of some part of the human body by confining and applying electric light and electric heat by means of an enveloping-chamber. The record discloses that in that general prior art was a patent, No. 664,081, to one Gohlin, issued in 1900. It shows that Gohlin conceived the idea of applying heat and light generated by electricity to the whole of the human body below the shoulders. He used two structures, each mounted on a standard and wheeled up on either side of the bed, cot, or table on which the patient rested. From these supporting-standards curved parts projected inwardly and formed a top, and the two met and made a chamber substantially the length of the human body. Curtains were then drawn at the end of each chamber and the electricity turned on. There was no suggestion in the patent of the use of Gohlin's apparatus, other than to inclose the entire body; nor were the parts of the structure such that the size or shape of the chamber could be changed. What he states in his specification, and what his figures disclose, is a large, cumbersome apparatus of unchangeable proportions, designed to treat the human body as a whole.

Such remained the state of the art, and presumably the use of chambered electricity, for some two and one-half years thereafter, when the patent in suit was applied for. It is quite manifest that when this patent was applied for, and its specification drawn, the applicant was unaware of what Gohlin had done, or of his patent, and when that patent was

cited against his application he realized his entire specification described the art in an inadequate way, and that the broad first claim which he made would have covered Gohlin's device. When thus apprised, he at once withdrew his application, craved a number of his figures, and filed a new application and new claims, which properly described what he brought into the art.

An examination of this new application shows that what the patentee really did was to devise a simple, easily-movable, readily-adjustable apparatus, without standards or support. It was adapted to take such different forms that it could be used on any limb or part of the body, and thus create a chamber which could in size and shape bring its walls into closer relation to the member to be affected by its radiated heat and light. He dispensed with standards, by suspending his simple apparatus by ceiling-cords. This allowed it to be swung about, and to be placed in any position desired, and dispensed with standards. Second. He made the structure a unitary movable one, which could be picked up by a handle. Third. He made it a unitary structure, by disclosing for the first time the use of a hinge, which allowed the sides to be adjusted, so as to conform to the limb or the part that is being treated, or, in other words, to be, so to speak, wrapped about the heated part. Fourth. He disclosed elements that were not shown in Gohlin's structure, which was two-part, mounted on standards, had a chamber of one fixed size, and adapted for application to the whole body.

As to those elements which alone embodied the present plaintiff's invention, and contrasting them with Gohlin's invention, we see that the only thing in common between him and Gohlin was an electric chamber. But as to those things which were new, and which are referred to above, there was nothing in Gohlin's patent which required the patentee in any way to limit or modify his claims, so long as he restricted them to the elements of novelty which he disclosed in his specification.

Bearing this in mind, we see that Gohlin's patent had no other significance or effect in the proceedings in the Patent Office than to restrict the patentee to those elements of novelty which he showed; but in so far as those elements of novelty were themselves concerned, and his right to have claims commensurate with those disclosures, his application stood unaffected by Gohlin's patent. It was a red flag, which warned the applicant to keep off the path which Gohlin had pre-empted, but which in no way restricted his right to the new path which he himself had disclosed.

What, then, was the apparatus which the present patentee disclosed, and what claims were allowed him? His apparatus consisted of a simple structure suitable for limb treatment. His new idea of adjustment of the sides of his chamber, which adjustment could not have taken place in Gohlin's structure, but which enabled him to closely chamber a limb of the body, was provided for by a hinge at the

[Vol. 268, No. 2.]

upper end of the chamber sides, and this was embodied in his claim, to wit:

The improved surgical baker, comprising the opposite side sections hinged together at the upper ends thereof, and adjustable toward and from each other, to vary the distance between them, and provided with means of holding the same in their position of adjustment.

It is quite evident that the particular form in which these opposite side sections were commercially built, whether they took the form of the side of a Gothic arch, as he appeared to have worked out in practice, or the quadrant of a circle, as he showed in Figure 2, with an arch flattened at the top, were matters of functional indifference. The point was that, whatever form they took, the two sides of the chamber were to be adjustable to and from each other, and this adjustability was to be secured by a hinge at the upper ends of the chamber sides, and when the desired position was obtained the hinge was controlled by a set-screw. His second idea of ceiling suspensory support was embodied in his second claim by adding to it the element of an "over-head suspensory support." His third element was for the hinge novelty of his first claim, with the addition of electrical equipment.

This little structure appears to have met a need in the art. The proofs showed that, from four used in 1908, there was a gradual increase to ninety-seven in 1912, at which time the merit of the device seemed to have been recognized by the medical profession, for in 1914 the sales sprang to 207, and have increased from that time to the hearing before the court. When the further fact is considered that this apparatus is not for individual use, but obviously intended for general use in hospitals, that it has been sold in Canada, Australia, and gone abroad, it is quite evident that it has up to this time met a public need, and that in all probability the remaining two years of the patent's life will be the period of its greatest value. During all these years there is no proof that any one challenged the patent or trespassed upon its commercial monopoly, until the defendant manufacturing company has lately put the alleged infringement upon the market. That its functional purpose is to do exactly what this patentee saw, and has for 14 years been doing, is quite clear. It shows a small, compact structure, adapted to suspension, capable of adjustment to limbs, unitary, and of such size as to be readily portable. Functionally, and in its adaptability, it does everything in the same way and for the same purpose that this plaintiff patent disclosed fourteen years before.

That it may be a slight improvement over the plaintiff's structure may be admitted, but the question still remains: Did it infringe the claim by which the original patentee's disclosure was protected? That it has side walls, and that those side walls are adjustable by hinge movement from the top, is the fact. It seeks to escape infringement by reading into the plaintiff's claim a limitation to a single hinge, which physically and alone connects

the plaintiff's two chamber sides, and by superimposing a third member at the top of its own chamber, which has a hinge at each end, connecting with the upper ends of its side structure, it would avoid infringement. But functionally the defendant's two hinges are the mechanical equivalent of the defendant's one hinge, in that the hinge mobility of both mechanisms alike effects the chamber side adaptability which this patent brought into the art. It is manifest the defendant does not use his two hinges to eliminate the function of chamber-side adaptability, but solely to mask infringement.

It is clear to us that the plaintiff's claim must be read in a way to give the hinged connection, which he brought into the art, the functional breadth which would cover any hinge arrangement which, while escaping the mere form of the plaintiff's structure, embodied and secured all its hinge functional purpose. The art has respected the monopoly of the plaintiff for fourteen years, and it is quite evident to us that the value and success of this little structure have tempted this defendant manufacturing company to appropriate its substance by the substitution of what is a mere mechanical expedient, which, while it respects the literalism of the claim, dilutes the soul and substance of the disclosure which the claim was given him to protect.

This case must be reversed, and infringement decreed.

Amendment to Rule VIII of the Court of Appeals of the District of Columbia.

DEPARTMENT OF THE INTERIOR,

UNITED STATES PATENT OFFICE,

Washington, D. C., June 9, 1919.

The following amendment to the rules of the Court of Appeals of the District of Columbia is published for the information of those practicing before that court.

J. T. NEWTON,
Commissioner.

It is by the court this day ordered that Rule VIII be, and the same is hereby, amended as follows:

By striking from section 3 thereof the words "for failure to file the brief within the specified time such appeal shall stand dismissed."

By adding these sections:

4 (a). No party will be permitted to file a brief after the expiration of the time allowed for that purpose by sections 3 and 4 of this rule without permission of the court granted for good cause shown.

4 (b) When a case is called for hearing, if the appellant's brief is not on file, the appeal may be dismissed.

PER CURIAM.

Test:

HENRY W. HODGES,

Clerk.

Promulgated June 6, 1919.

[Vol. 268, No. 2.]

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 263—No. 4.

TUESDAY, JUNE 24, 1919.

Price—\$5 per year.

[PUBLISHED JUNE 24, 1919.]

The OFFICIAL GAZETTE is issued under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, \$5.00 per annum; single numbers, 10 cents each. Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

CONTENTS.

	Page
ISSUE OF JUNE 24, 1919.....	487
INTERFERENCE NOTICES.....	487
ADVERSE DECISIONS IN INTERFERENCE.....	487
PATENT OFFICE PUBLICATIONS.....	487
APPLICANT'S ADDRESS.....	487
PRINTED COPIES OF PATENTS.....	487
APPLICATIONS UNDER EXAMINATION.....	487
PATENTS GRANTED.....	487
REMARKS.....	487
DECEASED.....	None.
TRADE-MARK REGISTRATION APPLIED FOR.....	487
TRADE-MARK REGISTRATIONS GRANTED.....	487
TRADE-MARK REGISTRATIONS RENEWED.....	487
LABELS AND PRINTS.....	None.
COMMISSIONER'S DECISIONS—	
Ex parte Samuel Cabot, Inc.....	487
Ex parte Manning & Co.....	487
DECISIONS OF THE U. S. COURTS—	
Frederick & Son, Inc. v. Berlin Mills Co.....	487
APPROVED PATENTS.....	487
AGREEMENT TO TRADE-MARK LAW OF PARAGUAY.....	487
CHANGES IN CLASSIFICATION.....	487

Issue of June 24, 1919.

Patents.....	688—No. 1,307,333 to No. 1,308,080, inclusive.
Trade-Marks.....	28—No. 128,981 to No. 128,991, inclusive.
Between.....	7—No. 14,670 to No. 14,676, inclusive.
Total.....	721

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 3, 1919.

J. H. Michener & Co., their assigns or legal representatives, take notice:
An interference having been declared by this Office between the application of John Morrell & Co., Hayne street and Iowa avenue, Ottumwa, Iowa, for registration of a trade-mark and trade-marks registered January 4, 1904, No. 81,688; March 8, 1904, No. 24,360, and February 12, 1904, No. 24,218, to J. H. Michener & Co., 958 North Front street, Philadelphia, Pa., and a notice of such declaration sent by registered mail to said J. H. Michener & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said J. H. Michener & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default. This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 3, 1919.

Joseph Grant Pease, his assigns or legal representatives, take notice:
An interference having been declared by this Office between the application of Charles E. Cohen, 289 South street, Newark, N. J., for registration of a trade-mark and trade-marks registered November 12, 1900, No. 25,300,

to Joseph Grant Pease, 29-33 West Forty-second street, New York, N. Y., and a notice of such declaration sent by registered mail to said Joseph Grant Pease at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Joseph Grant Pease, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default. This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. F. WHITEHEAD,
First Assistant Commissioner.

Adverse Decisions in Interference.

PATENT No. 1,300,484.

On May 22, 1919, a decision was rendered that Walter V. Turner was not the first inventor of the subject-matter covered by claims 1, 2, and 3 of his Patent No. 1,300,484, subject, "Automatic train-speed-control device," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,270,084.

On May 21, 1919, a decision was rendered that Louis N. D. Williams was not the first inventor of the subject-matter covered by claim 5 of his Patent No. 1,270,084, subject, "Uniting knitted webs," and no appeal having been taken within the time allowed such decision has become final.

Patent Office Publications.

The stock of publications, exclusive of printed copies of patents, formerly held for sale by the Patent Office, has been transferred to the Superintendent of Documents, Government Printing Office. Orders for Patent Office publications should NOT be sent to the Patent Office, but to the "Superintendent of Documents," to whom all remittances for such publications should be made payable. Printed copies of specifications and drawings of patents will be furnished by the Patent Office, as heretofore.

Applicant's Address.

The requirement of Rule 23, that the post-office address of the applicant must be stated in the petition, means that the applicant must give the post-office address at which he customarily receives his mail. The rule was made in order that the Office in necessary cases might correspond directly with the applicant and not through his attorney. The address of the attorney with instructions to send communications to the applicant in his care will not be accepted as a compliance with this rule.

Printed Copies of Patents.

A printed copy of the complete specification and drawings of any patent published herein can be obtained for five cents.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business June 30, 1919.

Item No.	Divisions and subjects of invention.	Oldest new application and date when by applicant or applicant's attorney.		No. of applications awaiting action.
		Nov.	Amended.	
314	1. Closure operators; Fences; Gates; Harrows and Digges; Plows; Planting; Sowing; Unloading; Trees, Plants, and Flowers.	Apr. 15	May 8	381
126	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Paper Mills and Bladders; Medicines; Pneumatics; Preserving; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Jan. 31	Mar. 7	578
175	3. Electric Heating and Rheostats; Electrochemistry; Heating; Metal-Forming; Metallurgical Apparatus; Metallurgy; Metal Treatment; Plastic Metal Working.	Apr. 16	Dec. 17	148
234	4. Conveyors; Elevators; Excavating; Hoisting; Material or Article Handling; Pneumatic Dispatch; Pressing and Pulling Implements; Railway Mail Delivery; Store-Servants; Traveling Halls.	Feb. 12	May 28	438
167	5. Book-Making; Books, Maps and Leaves; Harvesters; Jewels; Machine-Making; Music; Printed Matter; Tying Cords or Strands.	Mar. 31	Jan. 27	171
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Substance Preparation.	Mar. 6	Mar. 13	313
312	7. Educational Appliances; Games and Toys; Optics; Voleypoles.	Apr. 28	May 8	388
181	8. Beds; Chairs; Flexible-Sheet Securing Device; Furniture; Kitchen and Table Articles; Bed Furniture; Supports.	Apr. 3	Apr. 10	176
221	9. Air and Gas Pumps; Hydraulic Motors; Injectors and Ejectors; Motors, Fluid; Motors, Fluid-Circuit; Pumps.	Jan. 27	Apr. 11	385
225	10. Carriages and Wagons; Motor Vehicles.	Feb. 21	Apr. 17	435
164	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Buttons, Eyes, and Rivet Setting; Harness; Leather Manufacture; Nailing and Stapling; Spring Devices; Whips and Whip Apparatus.	Mar. 28	May 10	251
222	12. Journal-Boxes, Pulleys, and Shaking; Machine Elements.	Dec. 19	Dec. 2	1613
220	13. Ammunition and Explosive Charge Making; Bolt, Nail, Nut, Rivet, and Screw Making; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Working; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Feb. 16	May 8	639
223	14. Compound Tools; Cutting and Punching Sheets and Bars; Fasteners; Metal-Banding; Packaging Liquids; Sheet-Metal Ware, Making; Tools; Wire Fabric and Structure; Wire-Working.	Mar. 20	Mar. 17	162
308	15. Bread, Pastry, and Confection Making; Canning; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Feb. 6	Apr. 17	288
112	16. Radiant Energy; Telegraphy; Telephony.	Jan. 28	Feb. 8	679
307	17. Label Pressing and Paper Linings; Ornamentation; Paper Manufacture; Printing; Type Casting; Sheet Material Association or Folding; Sheet Feeding or Delivering; Type Setting.	Apr. 10	Apr. 24	381
229	18. Fluid-Pressure Regulators; Liquid Meters and Vaporizers; Power Plants; Speed Responsive Devices; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Mar. 1	Apr. 2	481
224	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces; Domestic Cooking Vessels.	Apr. 17	Apr. 1	275
179	20. Artificial Body Members; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Saws; Undertaking.	May 13	May 8	286
212	21. Brakes and Cams; Carding; Cloth-Finishing; Continuous-Strip Feeding; Cardage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Nov. 28	Mar. 13	388
240	22. Aeromotion; Firearms; Ordnance.	Apr. 18	May 13	379
247	23. Acoustics; Cam-Handling; Hierarchy; Recorders; Registers; Sound Recording and Reproducing; Time-Controlling Mechanism.	Apr. 14	May 3	264
144	24. Apparel; Apparel Apparatus; Garment Supporters; Sewing Machines.	Jan. 2	Apr. 2	427
315	25. Agitating; Butchering; Centrifugal Bowl Separators; Mills; Threshing; Vegetable Cutters and Crushers; Gas Separation.	May 7	May 10	130
106	26. Electricity, Generation; Motive Power; Prime Mover and Dynamo Plants.	Nov. 14	Jan. 28	687
214	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Apr. 7	Apr. 29	419
228	28. Internal-Combustion Engines.	Feb. 6	Apr. 17	381
147	29. Boring and Drilling; Chains or Ropes; Coppering; Fire Engines; Ladders; Red Joints or Couplings; Wheelwright-Machines; Wooden Buildings; Wood-Saving; Wood-Turning; Woodworking; Woodworking Tools.	Jan. 3	Mar. 21	615
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 21	June 4	264
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lams; Mineral Oils; Oils, Yarn, and Glass; Sugar and Salt.	Mar. 7	Mar. 8	338
378	32. Gas and Liquid Contact Apparatus; Heat Exchange; Refrigeration.	Dec. 3	Apr. 4	679
70	33. Bridges; Hydraulic and Earth Engineering; Masonry and Concrete Structures; Mobile Building Structures; Roads and Pavements; Paving; Roofs.	Jan. 28	Feb. 28	281
304	34. Railways; Railway Rails and Joints; Railway Rolling Stock; Railway Switches and Signals; Railway Ties and Fasteners; Railway Wheels and Axles; Track-Benders; Vehicle-Fenders.	Mar. 14	May 6	286
57	35. Buckles, Buttons, Clips, Etc.; Card, Picture, and Sign Exhibiting; Signals; Ties.	May 17	May 17	388
291	36. Driers; Geometrical Instruments; Measuring Instruments; Photography; Force Measuring.	Apr. 28	Apr. 7	438
169	37. Electric Lamps; Electricity, Circuit Makers and Breakers; Electricity, General Apparatus.	Feb. 18	Mar. 21	649
376	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Mining; Quarrying; and Ice Harvesting; Stationary; Stone-Working; Walls.	May 21	May 14	165
220	39. Joint Fastenings; Multiple Valves; Packed Shaft or Rod Joints; Pipe Joints or Couplings; Valved Pipe Joints or Couplings; Valves; Water Distribution.	Dec. 26	Dec. 7	384
372	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Packages and Articles Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Mar. 21	Mar. 24	489
126	41. Railway Draft Appliances; Railroad Ties and Wheels.	Mar. 1	Mar. 8	264
114	42. Electricity, Conductors; Electricity, Transmission to Vehicle; Electricity, Conductors; Electric Signaling.	Feb. 17	Feb. 14	477
289	43. Baths and Closets; Dispensing; Dispensing Beverages; Electricity, Medical and Surgical; Fire-Extinguishers; Sewers; Surgery; Water Purification.	Apr. 8	Apr. 28	169
248	44. Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Beds and Bunks; Ships.	Mar. 28	May 8	116
379	45. Clutches; Lubrication; Motors; Railway Brakes.	Mar. 14	Mar. 28	289

Oldest new case, Nov. 14; oldest amended, Dec. 2.

Total number of applications awaiting action..... 17,088

108	TRANS-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	May 6	May 28	1171
	Designs.....	Apr. 13	May 15	489
	Labels and Prints.....	May 27	May 29	28

PATENTS

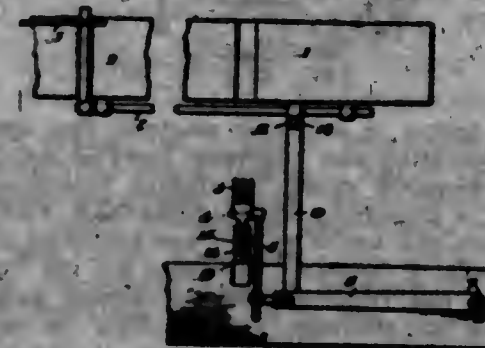
GRANTED JUNE 24, 1919.

1,307,322. BUILDING CONSTRUCTION. MARTIN B. ARMSTRONG, London, Ohio. Filed Oct. 16, 1916. Serial No. 128,849. 1 Claim. (Cl. 180-84.)



In a grain bin, a wall therefor including a plurality of relatively thin plain metallic sheets, a joint structure for uniting the meeting edges of said sheets, comprising a pair of spaced parallel corrugated bands formed upon each of the adjoining edges of said sheets, intervening substantially flat portions of considerable width located between said bands, said adjoining edges being formed to overlap so that the banded portions thereof will be arranged in nested relation, a stabilizing angular member having one of its legs disposed in parallel relation and physical contact with the intervening flat portions of said sheets to provide a base for the latter, and its other leg disposed at substantially right angles to the first mentioned leg to provide vertical stiffening means for said member, and a plurality of transversely disposed bolts rigidly connecting the joining edges of said sheets by passing through registering openings formed in the intervening flat portions and through the base leg of said angular member.

1,307,334. SHUTTLE-CHANGE MECHANISM FOR LOOMS. MAX AUBMANN, Bremen, Germany, assignor to Herman Blaupot ten Cate, Wassenaar, near The Hague, Netherlands. Filed May 13, 1916. Serial No. 96,494. 2 Claims. (Cl. 120-85.)



1. In a loom, the combination of a shuttle-box having a pivotally mounted rear wall, a member tending to impart a swiveling motion to said rear wall, a pawl for holding said rear wall in position substantially parallel with the shuttle-box front wall against the action of said member, a weft-fork adapted to be actuated on the failure of a weft across the grid, a breast-beam, a lever connected with the weft-fork and pivotally mounted on said breast-beam, and a mechanism including a catch for transmitting the motion of said lever to said pawl.

1,307,335. LOADING-MACHINE. HOWARD L. BARNES and JAMES P. DONALDSON, Amherst, Mass., W. Va. Filed Jan. 2, 1918. Serial No. 210,193. 3 Claims. (Cl. 87-87.)

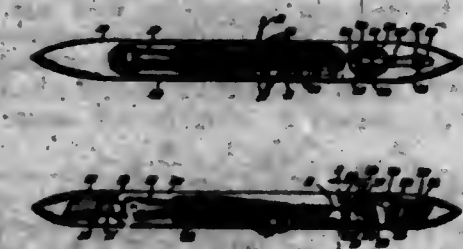
1. A loading machine, comprising in combination, a framework, a conveyor mechanism mounted upon the

framework in elevating flights, and a series of rollers mounted around the receiving end of the conveyor mechanism to deliver material from a pile against which said



rollers are brought onto said conveyor, one of said rollers extending across an end of another of said rollers and being arranged to rotate upwardly and inwardly toward said other roller.

1,307,336. TENSION DEVICE FOR SHUTTLES. JAMES BARTON and WALTER COTTRELL, Newark, N. J., assignors to The Rosendale-Reddaway Belting & Hose Co., Inc., Newark, N. J., a Corporation of New Jersey. Filed Jan. 2, 1919. Serial No. 209,211. 9 Claims. (Cl. 120-46.)



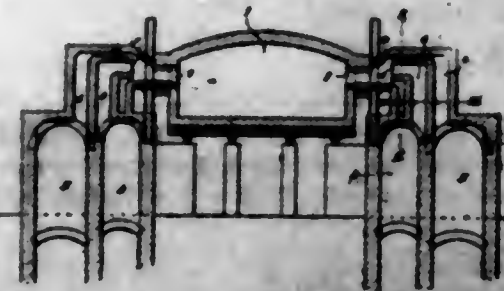
1. The combination with a shuttle provided with two chambers, one of said chambers provided with one or more lateral perforations or eyes in one side thereof, of a bobbin in said last mentioned chamber, a tensioning means located in the other chamber, and a bridge separating said chambers and provided with a perforation therein through which the thread is adapted to be fed from the bobbin to the tension means and also provided with a cut-away portion through which the thread is fed back from the tension means through the bobbin chamber to the eyes in the sides of the latter.

1,307,337. WATER-METER. ROBERT S. BARNETT, Buffalo, N. Y. Filed Aug. 23, 1918. Serial No. 251,171. 10 Claims. (Cl. 73-167.)



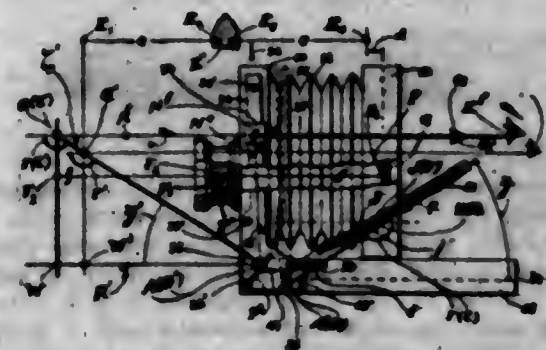
4. A water meter comprising a measuring device operative by a flow alternately through it in either direction and two registering devices adapted to alternately register and separately indicate the same; substantially as and for the purpose described.

1,307,338. FURNACE CONSTRUCTION. CHRIST J. BAUMANN, Pittsburgh, Pa., assignor to Macbeth-Evans Glass Company, a Corporation of Pennsylvania. Filed Sept. 21, 1917. Serial No. 192,492. 4 Claims. (Cl. 158-7.5.)



1. The combination with a furnace, the wall of which is provided with a restricted air and gas nozzle inlet, of a pair of regenerating chambers disposed adjacently of said wall, a gas passage extending from one of said chambers and provided with an outlet projecting inwardly toward and terminating short of said inlet, and an air conducting conduit leading from the other of said chambers to said inlet and disposed about said gas conduit to surround its outlet, the axes of said outlet and inlet being located in different planes.

1,307,339. FOCUSING-CAMERA. JOSEPH DUCKER, Washington, D. C., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Original application filed Aug. 11, 1900, Serial No. 28,047. Divided and application filed Apr. 2, 1916. Serial No. 58,619. This continuation application filed Sept. 24, 1918. Serial No. 263,491. 4 Claims. (Cl. 95-44.)



1. (Allowed April 5, 1918, as claim 1 of my said Case No. 111,111.) The combination with a photographic camera comprising relatively movable parts adapted to be relatively moved to set the camera in focus on an object point in the camera field, of an optical focuser for said camera consisting in means for sighting virtually from two laterally separated stations on the camera convergently onto the same said object point of the camera field; said focuser comprising a pivoted mirror, also a radial cam pivoted to one side of said pivoted mirror, and mechanism connecting said mirror and radial cam to cause said cam to rotate twice as fast as the mirror.

1,307,340. WIRE OR CABLE CLAMP. PAUL M. BENDICT, New Haven, Conn., assignor to The B & K Mfg. Co., Milford, Conn., a Corporation of Connecticut. Filed Oct. 9, 1916. Serial No. 124,620. 4 Claims. (Cl. 24-135.)

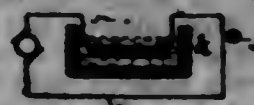
3. In a clamp, the combination of a box-like member formed of metal and having a bottom with an opening therethrough and spaced upwardly directed side and end walls, said side walls being of less length than the distance between the opposite end walls whereby channels are formed across the box-like member on each side of

said opening and between said side and end walls to receive cables upon the bottom of the box-like member, and



a T bolt having its shank mounted in said opening and its head overlying said cables to clamp the same in said channels upon the bottom of the box-like member.

1,307,341. PROCESS OF MAKING ELECTRICAL CONDENSERS. WILLIAM C. BENTON, JR., Kennett Square, Pa., assignor to Philips-Briston Company, Kennett Square, Pa., a Corporation of Pennsylvania. Filed July 20, 1917. Serial No. 181,735. 12 Claims. (Cl. 250-41.)



1. The process of making electrical condensers which consists in arranging layers of conducting and dielectric material to form a condenser body, and then passing through the condenser body an electric current of a strength sufficient to raise the internal temperature of the condenser to the point required to expel the moisture without destruction of the dielectric material.

1,307,342. IGNITER. PHILIPS BROWN, Springfield, Mass. Filed Oct. 2, 1918. Serial No. 264,615. 4 Claims. (Cl. 171-200.)



1. In an igniter, a source of magnetic flux, means including cooperating and relatively movable members to provide a magnetic circuit of varying reluctance from said source, a generating winding associated with one of said members, and means at all times providing a second magnetic path of constant reluctance for the flux from said source, the reluctance of the second path being greater than the minimum and less than the maximum reluctance of said circuit.

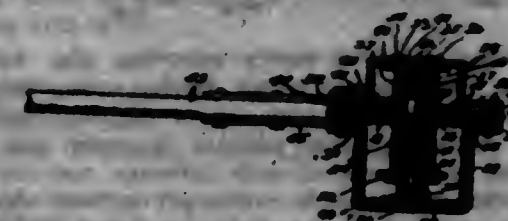
1,307,343. IGNITER. PHILIPS BROWN, Springfield, Mass. Filed Oct. 24, 1918. Serial No. 259,530. 15 Claims. (Cl. 132-140.)



1. In an igniter, relatively separable magnetic members cooperating with one another to vary the reluctance of

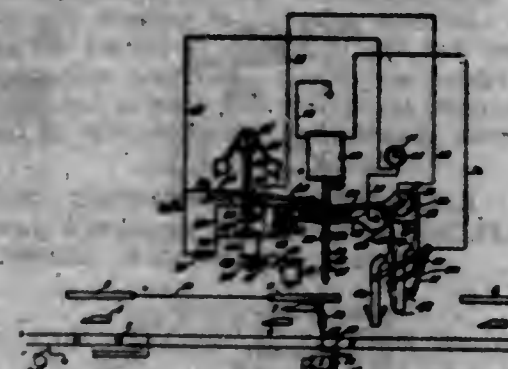
a magnetic circuit, means to move one of said members toward the other, compressible means to move the one member away from the other, said first-named means having a travel greater than the distance of separation of said members, and resilient means to absorb the excess travel of said first-named means, said resilient means opposing the compression of the second-named means.

1,307,344. VEHICLE-COUPLING. GEORGE L. BURGESS, Gridley, Kans., assignor of one-half to Harry A. Partridge, Gridley, Kans. Filed Jan. 26, 1918. Serial No. 218,739. 4 Claims. (Cl. 21-84.)



1. In an apparatus of the character described, the combination with an axle, a cam-board and a balancer, of superposed retaining plates mounted between two of the first named elements, a guide plate having a portion mounted between said retaining plates and between which plates and the guide plate there is relative movement, means connecting said guide plate to one of the first named elements, and a pivot stud extending through said guide plate and about which certain of the plates are revolvable.

1,307,345. VEHICLE-CONTROL SYSTEM. FRANK H. BURTON, New York, N. Y. Filed May 1, 1918. Serial No. 24,532. 14 Claims. (Cl. 344-54.)



10. In combination, a vehicle, electrically-operated vehicle controlling means thereon, a circuit for controlling said vehicle controlling means, circuit controllers in said circuit, a speed governor on said vehicle for operating one of said circuit controllers, and a device on said vehicle for determining the speed at which the vehicle may run, for operating the other of said circuit controllers.

1,307,346. LOCK FOR STOP-BOXES. PHILIPS BROWN, Springfield, Mass. Filed Dec. 21, 1918. Serial No. 267,854. 3 Claims. (Cl. 137-12.)



1. In a locking device for stop boxes, the combination with a stop box body, a separately formed top plate there-

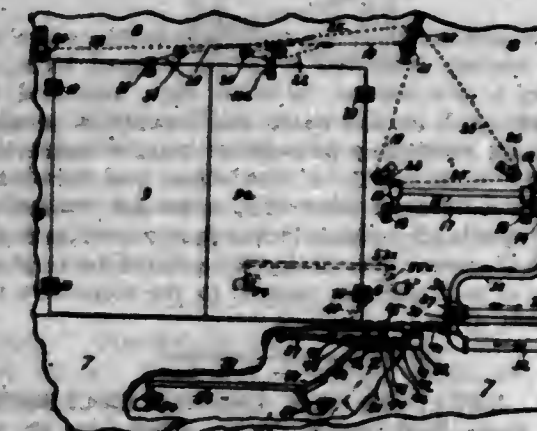
for and a bolt adapted to unite said top plate and stop box, of a locking member beneath the head of said bolt and a sealing cap having internal means for engagement with said locking member when the cap is pressed downward over the head of the bolt.

1,307,347. LEAD-TESTING APPARATUS. MATTHEW S. CUMMER, New York, N. Y., and FREDERICK W. GRISSENHAIN, Freehold, N. J., assignors to Nestor Manufacturing Company, Inc., New York, N. Y., a Corporation of New York. Filed Sept. 18, 1918. Serial No. 254,543. 8 Claims. (Cl. 53-190.)



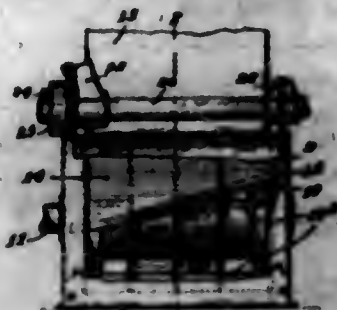
1. A lead testing apparatus comprising means for supporting a threaded article, a block rest having a finished plane surface parallel with the axis of the threaded article, and another finished plane surface at right angles to said first surface and to said axis, a test gage having a rectangular body, and a pair of converging surfaces at substantially right angles to its under surface, and a spacing block having parallel sides at a known distance apart, said spacing block being adapted to be placed on one of said surfaces of the block rest with the test gage and interposed between the test gage and the other of said surfaces of the block rest.

1,307,348. AUTOMATIC DOOR OPENER AND CLOSER. PETER L. DE MARCO, Minneapolis, Minn. Filed Feb. 19, 1919. Serial No. 277,997. 4 Claims. (Cl. 268-9.)



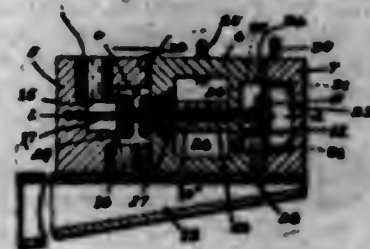
1. An automatic door opening and closing device comprising a cylinder having a piston with piston rod extended beyond the cylinder, means for guiding said piston rod, flexible guided elements connecting the piston rod with the doors in such a manner as to open the doors when the piston moves in one direction and close them when it moves in the other direction, a supply pipe having two branches connected one with each end of the cylinder for supplying thereto a flowing element under pressure, a valve at the junction of the pipe branches and adapted to admit the pressing element alternately into either end of the cylinder, and providing at the same time an exhaust opening from the other end of it, two arches mounted some distance from the doors to be opened, one outside and the other inside the door in the path of a vehicle intended to pass through the door; said arches having their legs pivoted to allow them to fold to either side, a spring having operative connection with the arches to hold them normally in upstanding position, and operative connection between said arches and the said valve.

1,307,349. FEED-REGULATOR. EMIL R. DRAVER, Richmond, Ind. Filed Dec. 18, 1916. Serial No. 187,431. 2 Claims. (Cl. 82-44.)



1. A feeding device of the kind described comprising a casing having inlet and discharge passages, and a drum rotatively mounted in said casing, said drum having pocket-forming flanges that are parallel to its axis, and said casing having a surface that follows the periphery of said drum and terminates in a delivery edge that is oblique to a plane radiating from the axis of the drum.

1,307,350. PNEUMATIC VALVE-ACTION. STANLEY L. FISHER, Saybrook, Conn., assignor to The Pratt Head Player Action Company, Deep River, Conn., a Corporation of Connecticut. Filed July 25, 1917. Serial No. 182,778. 13 Claims. (Cl. 84-184.)



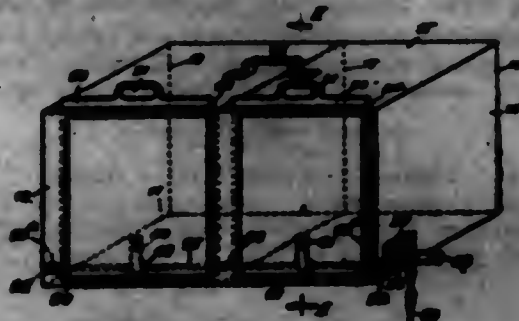
10. In a pneumatic valve action, a double valve comprising a wooden base disk with an integral stem, said disk having a flat bottom, or outer face, and said stem being bored out from the outer end thereof to present a guide opening extending through at least a considerable part of the total length of the stem, but terminating short of the bottom of said disk, a second wooden disk having an opening by which it fits snugly over said stem, whereby said second disk is rigidly secured to said stem, and layers of soft material applied to the respective outer faces of said disks.

1,307,351. RETAINER FOR CONTAINER-CLOSURES. BEN K. FORD, East Orange, N. J. Filed June 22, 1918. Serial No. 241,404. 2 Claims. (Cl. 239-12.)



1. In a retainer for container closures, the combination of a support comprising a shelf and a part integral therewith and secured against the inner side of the container at its end, said part having perforations in a row parallel to the shelf, and a sheet metal retainer which is T-shaped in cross section and having its central portion formed by folding the sheet metal upon itself, and pressing against the closure, one edge extending down the edge of the closure and the other edge extending outwardly and bent out at intervals into said perforations.

1,307,352. SAFETY RECEIVING-BOX. JAMES FARM-LAND, Brooklyn, N. Y. Filed Oct. 2, 1917. Serial No. 184,532. 1 Claim. (Cl. 282-41.)



The combination, in a safety receiving box, with a substantially rectangular casing having compartments each with an entrance through one of the side walls of the casing, including doors slidable inwardly and outwardly of the casing, one of each entrance, and the casing having through its ends registered orifices adjacent to the inner surfaces of the doors, of a rod removably disposed in the registered orifices, registered over one on the rod and one on the casing for reception of a separate lock to hold the rod in the casing, and a spring hook on each door, adapted to releasably engage the rod to lock the door when closed as well as to allow disengagement of all the hooks with the rod when the rod is withdrawn from the orifices of the casing.

1,307,353. RECOVERY OF BUTANE AND PROPANE. JAMES E. GARNER, Pittsburgh, Pa., and HOWELL C. COOPER, Charlottesville, W. Va., assignors to Hope Natural Gas Company, Pittsburgh, Pa., a Corporation of West Virginia. Filed Aug. 5, 1919. Serial No. 112,590. 6 Claims. (Cl. 183-115.)



2. The method herein described of recovering butane and propane separately and each in liquid form which consists in isolating a substantially pure mixture of butane and propane alone, forcing the mixture into a suitable chamber until the condensation pressure of butane is reached and the butane component of the mixture in liquid form gravitates to the bottom of the chamber, then drawing off the butane; next in compressing the propane remaining in said chamber to the point of condensation, and finally in forcing the liquefied propane from said chamber.

1,307,354. GRAB-SHIFT-LOCKING MECHANISM. THOMAS A. GOOSE, Kansas City, Kans., assignor of one-third to Calvin M. Hinds, Kansas City, Mo., and one-third to Julian Bragg, Huntington, Ore. Filed Mar. 18, 1919. Serial No. 268,385. 3 Claims. (Cl. 70-129.)

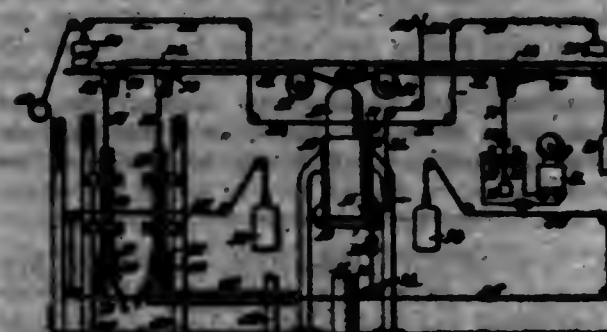
1. In a gear shift locking mechanism, the combination with a gear shift lever, of a nut and a foot board of an

automobile, two members hinged to each other, one being hinged to said nut, and means for releasably locking the other member to the foot board when said members are



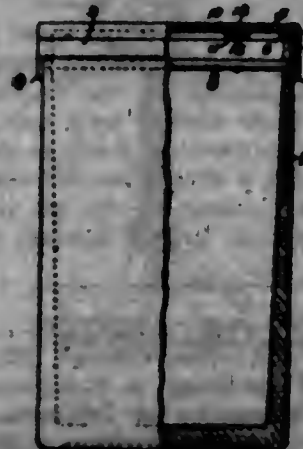
moved to the locking position, said members having means, when in the locking position, for embracing and holding said lever.

1,307,355. STOCK-RELEASING DEVICE. JOHN HILL, Worcester, Mass. Filed Aug. 31, 1918. Serial No. 282,124. 8 Claims. (Cl. 119-115.)



1. In a device of the character described, the combination with an operating weight, means constructed and adapted to be operated in case of fire for releasing the weight so as to allow it to descend, an operating flexible connection passing by the weight movably connected thereto, and running in opposite directions therefrom, whereby the descent of the weight will pull both ends of said connection lengthwise toward the weight or if one end should fail to work will operate the other, and means operated by said connection for releasing stock.

1,307,356. RECTANGULAR MUSEUM-JAR. FRANK L. HINZELT, Pittsburgh, Pa. Filed Oct. 16, 1918. Serial No. 235,463. 5 Claims. (Cl. 218-80.)

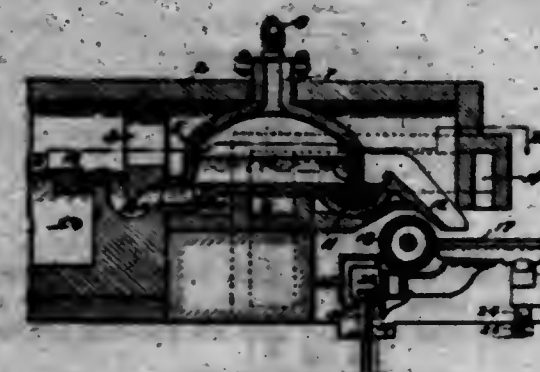


1. A glass museum jar of rectangular form comprising a pressed body provided in its inner surface at the top of opposite side walls with recesses opening at the top of said walls and forming seats for specimen supports.

1,307,357. APPARATUS FOR THE MANUFACTURE OF PLATE-GLASS. HALBERT K. HITCHCOCK, Pittsburgh, Pa., assignor of one-half to Hitchcock Experiment Company, a Corporation of New Jersey. Filed Sept. 28, 1912, Serial No. 792,911. Renewed Feb. 4, 1918. Serial No. 235,397. 6 Claims. (Cl. 40-5.)

1. In apparatus for the manufacture of glass sheets or plates, the combination with a receptacle for molten glass

provided with an outlet, and means for forming a sheet of glass, of means for discharging molten glass from the outlet, means for moving the sheet-forming means in a



line adjacent to the outlet, and means operated by the movement of the sheet-forming means for controlling the operation of the glass-discharging means.

1,307,358. TAKE-UP FOR CIRCULAR-KNITTING MACHINES. HAROLD E. HOUSEMAN, Philadelphia, Pa., assignor to Standard Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 5, 1918. Serial No. 220,435. 10 Claims. (Cl. 66-9.)



6. In a circular knitting machine, the combination with a relatively rotatable needle cylinder, of a take-up device comprising a relatively fixed helical member within and adjacent the walls of the cylinder and adapted, during the rotation of the cylinder, to be frictionally engaged by the knitted fabric and pull it down as it is knit.

1,307,359. FOUNTAIN-PEN. EDWARD HUGERT, New York, N. Y. Filed Feb. 1, 1919. Serial No. 274,419. 1 Claim. (Cl. 120-84.)



The combination of a fountain pen open at one end, a cup inserted in the open end of the pen, and a hollow perforated plug, removably fitting said cup, said cup and plug forming a chamber for a salt or the like, the wall of the plug being slotted to form yieldable tongues.

1,307,360. LIFTING-JACK. RONALD B. JUSTIN, New Cumberland, W. Va., assignor to Harry A. Schnellbach, Follansbee, W. Va. Filed Jan. 11, 1918. Serial No. 211,521. Renewed Nov. 21, 1918. Serial No. 263,684. 11 Claims. (Cl. 254-111.)

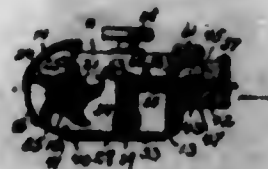
5. In a lifting-jack, the combination with a suitable frame, of a lifting-bar having oppositely-disposed teeth, a holding-pawl, a lifting and lowering pawl, means for rais-

ing and lowering said pawl, a guide on said lifting-bar between said oppositely-disposed teeth having cam on one side thereof, a projection on said last-named pawl



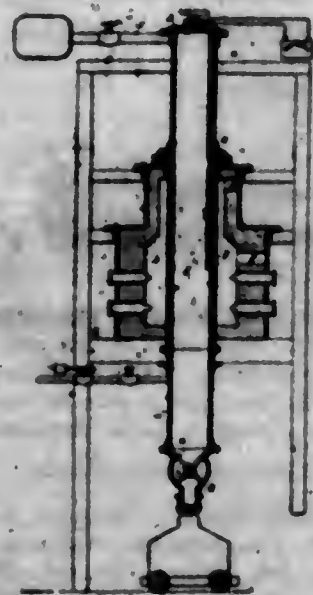
lying on one side of said guide, and means for shifting said pawl to move said projection from one side to the other of said guide.

1,307,361. CLIPPING-MACHINE. FERDINAND E. KAUFFMANN, Clark township, Union county, N. J. Filed Mar. 8, 1919. Serial No. 281,428. 14 Claims. (Cl. 30-1.)



1. A clipping machine comprising a box-like casing, a floor plate, a vertically adjustable handle on the rear of the casing, a clipping mechanism on the front thereof, and means on the handle for swinging the floor plate.

1,307,362. FIXATION-CHAMBER FOR MAKING NITROGEN COMPOUNDS. ALFONSO KAUFMAN, New York, N. Y., assignor, by mesne assignments, to Air Reduction Company, Incorporated, a Corporation of New York. Filed May 2, 1917. Serial No. 165,850. 8 Claims. (Cl. 23-13.)



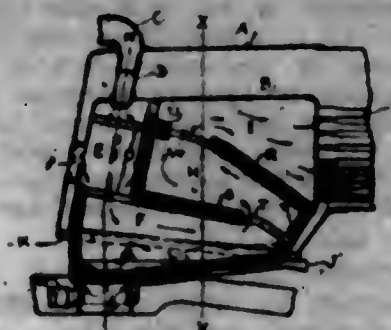
7. An elongated reaction chamber of metal, for the purpose described, having its exterior more resistant to oxidation than its interior.

1,307,363. JAR AND OTHER RECEPTACLE. CARL WILLIAM KUTTLER, Warwood, W. Va., assignor of one-half to Alfred Ingram and Harry Ingram, Brooklyn, N. Y. Filed Dec. 31, 1918. Serial No. 299,140. 3 Claims. (Cl. 215-85.)



1. A jar or other receptacle, a cover therefor, a substantially semi-circular locking-ball for said cover and a substantially semi-circular side lever-ball receiving the lower ends of said locking ball, said jar having integrally therewith vertical lugs at opposite sides of the neck thereof, combined with metallic ears applied upon and engaging the sides and lower ends of said lugs and having bearings to receive the inwardly bent ends of the said lever ball.

1,307,364. LOCOMOTIVE FIRE-BOX. ALONZO G. KINYON, Chicago, Ill., assignor to Powdered Coal Engineering & Equipment Company, Chicago, Ill., a Corporation of Delaware. Filed Dec. 4, 1918. Serial No. 134,969. 1 Claim. (Cl. 110-28.)



In a locomotive fire box, upper and lower sets of longitudinally extending inclined supporting pipes, upper and lower baffle walls supported on the respective sets of pipes and a substantially upright wall near the front of the fire box but spaced from the front to provide a passage adjacent the same, a burner for pulverized fuel communicating with said passage at the top thereof, and a hearth having an opening directly beneath said passage.

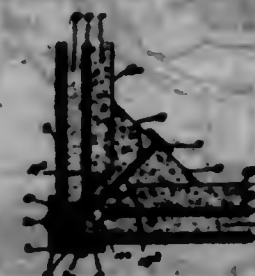
1,307,365. DEVICE FOR AERATING POWDERED FUEL. ALONZO G. KINYON, Chicago, Ill., assignor to Powdered Coal Engineering & Equipment Company, Chicago, Ill., a Corporation of Delaware. Filed Dec. 4, 1917. Serial No. 295,395. 4 Claims. (Cl. 110-104.)



1. In a device of the class described, an elongated mixing chamber, a conduit connected to one end thereof, a hopper opening into said conduit, a tubular conveyor in

said conduit and mixing chamber, said conveyor having a worm in said conduit and perforated in the mixing chamber, teeth on said conveyor in the mixing chamber, means for rotating the conveyor, and an exhaust conduit leading from the end of the device opposite that to which the hopper is connected.

1,307,366. ARTIFICIAL MONUMENT. SYLVAIN LE DURT, San Jose, Calif. Filed July 2, 1917. Serial No. 178,366. 2 Claims. (Cl. 72-7.1.)



1. An artificial monument of the class described consisting of corner members made of reinforced concrete and having longitudinal grooves therein; metal corner protecting strips secured to the corner members; a plurality of slabs, the edges of which are adapted to engage the grooves in the corner members, thereby forming, when assembled, a box-like structure, adapted to receive a body of concrete poured therein; means for anchoring said slabs to the body concrete; glass cemented to one side of the slabs substantially as set forth.

1,307,367. METHOD OF TREATING GRAIN. JOHN I. LOGAN, Chicago, Ill. Filed Dec. 14, 1916. Serial No. 136,398. 1 Claim. (Cl. 82-28.)

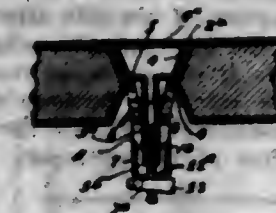


Improvement in the manufacture of wheat flour which consists in causing the grain before grinding to be permeated with a solution of chlorine and water.

1,307,368. CONCRETE FORM. STEWART R. MCKAY, Cleveland, Ohio, assignor to McKay Concrete Form Company, Sewaren, N. J., a Corporation of New Jersey. Original application filed June 12, 1915, Serial No. 32,780. Divided and this application filed Sept. 13, 1916. Serial No. 119,847. 12 Claims. (Cl. 25-131.)

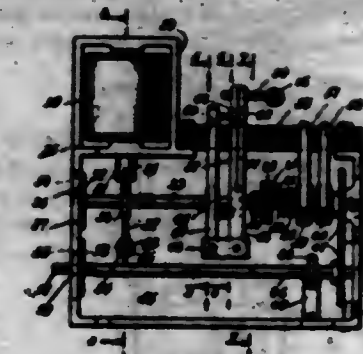
1. In a form of the character described, the combination, with a pair of posts each having a lateral surface presented toward the other and said surfaces being beveled in opposite directions, of a panel having at each end thereof oppositely beveled surfaces, the surfaces of

the panel being adapted to cooperate with the beveled surfaces of said posts and there being a lateral extension



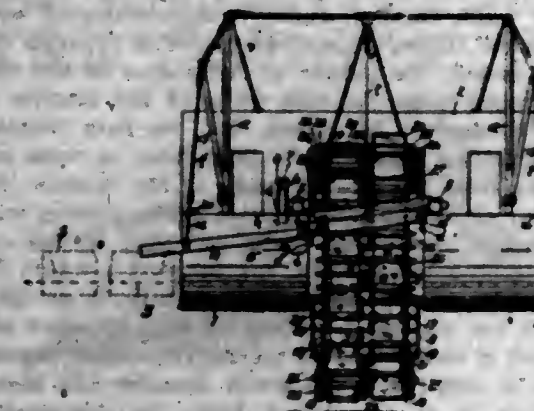
between the beveled surfaces at each end of said panel, and means cooperating with said posts and said extensions for securing the said panel to said posts.

1,307,369. INTEGRATING MECHANISM. EDWIN H. MASSIE, Brooklyn, N. Y., assignor to Electric Weighing Company, New York, N. Y., a Corporation of New York. Filed Sept. 20, 1917. Serial No. 192,282. 18 Claims. (Cl. 235-92.)



1. A counting mechanism comprising a frame, a rotatable spindle, a number plate and a movable contact connected to be driven by the spindle, an adjustable relatively stationary contact member adjacent to the movable contact, a signal contact plate connected with the adjustable member, means for setting the positions of the adjustable contact and signal number plate and a signal adapted to be energized by the contact of the movable and adjustable contacts.

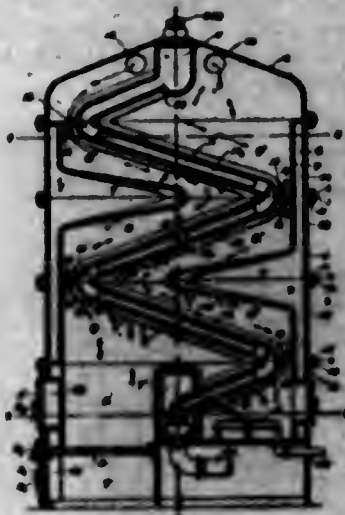
1,307,370. DREDGING APPARATUS. WILLIAM O'CONNELL, Detroit, Mich. Filed Nov. 13, 1918. Serial No. 262,398. 2 Claims. (Cl. 37-24.)



1. In a dredging apparatus of the character described, a chain bucket-conveyor comprising a series of transverse parallel rods, links disposed in pairs connecting said rods, spacing sleeves on the rods disposed between the links, an apron having terminals looped about two successive sleeves, a bucket disposed in adjacent relation to an apron along the conveyor, the bucket being provided with loops hinged about the sleeve supporting one end of an apron and the next succeeding sleeve, the conveyor hav-

ing a series of buckets and associated aprons disposed on one side of a longitudinal medial line of the conveyor and spaced apart and a corresponding series of buckets and conveyers on the opposite side of said line and spaced apart, a bucket and apron on one side alternating with a bucket and apron on the opposite side, whereby a bucket and apron on one side of the conveyor comes opposite a space on the opposite side, the buckets discharging in succession first on one side and then the other of the medial longitudinal line of the conveyor.

1,307,371. FURNACE. FREDERICK H. OENLEK, deceased, Ridgeville, Ohio; Laura Augusta Pease, executrix, Ridgeville, Ohio, assignor to Bertha M. Oehlke, West Dover, Ohio. Filed Apr. 11, 1918. Serial No. 237,876. 4 Claims. (Cl. 122-211.)

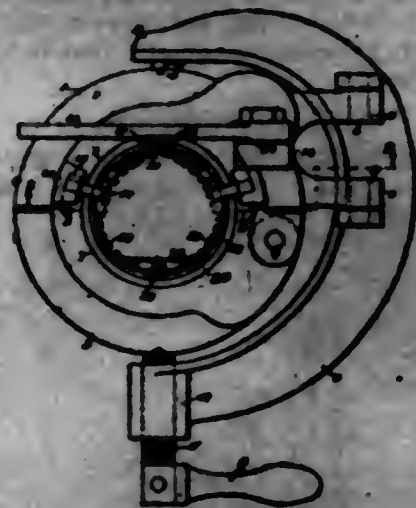


1. In a furnace, the combination of a frame built up of sections, a water jacket and space for water all about the sides of the furnace, a chamber for burning solid fuel in one side of the frame, a chamber for burning gas in the other side of the frame, a chamber for water between said fuel and gas burning chambers and extending clear across the furnace interior, said water chamber joining the opposite side walls of the furnace where it communicates with the water jacket, a conduit for water joining at its lower end with said water chamber and zig-zagging alternately above said fuel and gas burning chambers to the top of the furnace, said conduit extending from side to side of the interior of the furnace and joining the side walls thereof where it communicates with the water jacket through openings provided through the walls of the jacket, the points of the angles of the conduit being spaced from the side walls of the interior of the furnace to permit hot gases, etc., to pass therebetween, hollow baffles substantially triangular in cross section extending from the interior walls of the furnace into the angles formed by the conduit, said baffles joining with the water jacket through openings provided in the end and sides thereof, a top part for the furnace, a water distribution chamber in the top part provided with an opening at which the conduit is joined to said chamber and through which it communicates therewith, means through which water is supplied to the water chamber and means through which it is distributed from the distribution chamber.

1,307,372. MOLD. KENNETH A. PALMER and JOHN C. JAVIN, New York, N. Y. Filed July 6, 1918. Serial No. 243,667. 6 Claims. (Cl. 18-18.)

1. A mold of the character described having an opening extending therethrough in a substantially vertical direction; an expandable mandrel adapted to be positioned within said opening; means for engagement with the top of said mold for suspending said mandrel in said open-

ing; and mechanical means mounted independently of said mandrel and having a portion adapted to engage a



part of said mandrel to effect the expansion of the latter within the mold, substantially as described.

1,307,373. METHOD OF WATERPROOFING FABRICS. HENRIET P. FRANKSON, New York, N. Y., assignor to Pearson Products Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 3, 1919. Serial No. 237,194. 3 Claims. (Cl. 91-64.)

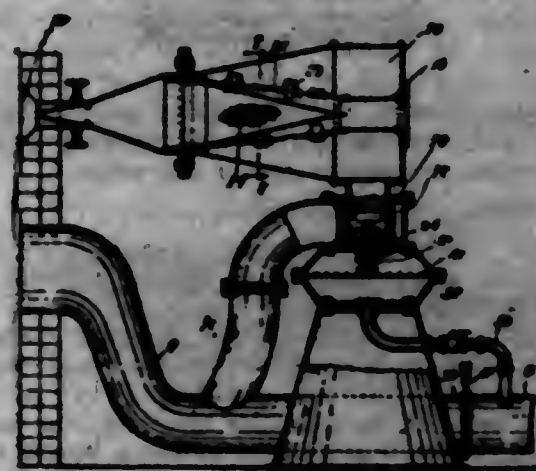
1. The process of water-proof finishing textile fabrics and wearing apparel which comprises their treatment with paraffin wax in conjunction with petrolatum and a selenium treated Chinese wood oil.

1,307,374. CARBURATOR. AUGUSTUS F. PRINER, Chicago, Ill. Filed Mar. 4, 1918. Serial No. 236,962. 8 Claims. (Cl. 48-180.)



8. In a carburetor, a butterfly valve comprising a stem and a closure plate rigidly attached to said stem, said stem being tubular and having a slot therethrough to receive said plate and an opening through the wall of said stem at the face of said plate, said plate having a pair of notches in its opposite edges each adapted to register with said openings and the central bore of said stem and means for removably attaching said plate to said stem.

1,307,375. COMBUSTION OF POWDERED FUEL. HARRY B. PRUMM, Chicago, Ill. Filed May 22, 1918. Serial No. 99,016. 1 Claim. (Cl. 110-104.)



A method of preparing powdered fuel for combustion which consists in maintaining a mass of powdered fuel in

an inclined space causing jets of air to impinge upon the fuel across an air space adjacent the fuel thus creating and maintaining a body of fuel-laden air in contact with said mass of powdered fuel, and agitating the fuel-laden air continuously to prevent precipitation of the fuel, and continuously drawing a supply of the mixture therefrom and feeding it to the place of combustion.

1,307,376. WINDING-MACHINE. JOHN W. BOWERS, Paterson, N. J., assignor of one-half to Henry Deberry Silk Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 8, 1917. Serial No. 206,155. 1 Claim. (Cl. 242-44.)



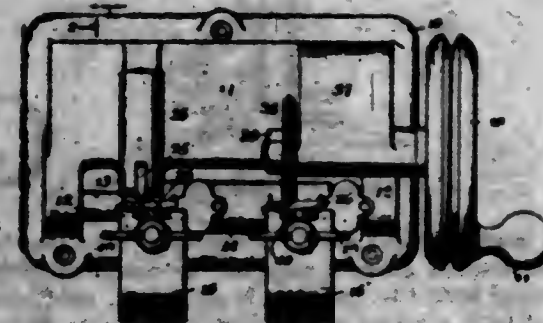
In combination, a supporting structure, a plurality of rotary driving members journaled therein and having their axes aligned, a plurality of rotary driven members also journaled in said structure with their axes aligned and parallel with the axes of the driving members, said driven members being adapted to receive the package windings and normally held in but movable out of peripheral engagement with the driving members, a rod arranged parallel with the axes of said members and rotatably adjustable on its own axis, means to secure the rod in any position to which it is relatively adjusted, brake devices, one for each driven member, arranged in position to be wiped by the corresponding growing packages of windings and arranged on and adjustable around said rod as an axis and means, one for each brake device, to secure each brake device in any position to which it is relatively adjusted around the rod.

1,307,377. DELIVERING MECHANISM. ADOLPH RYDQUIST, Rochester, N. Y. Filed June 8, 1915. Serial No. 32,906. 8 Claims. (Cl. 211-8.)



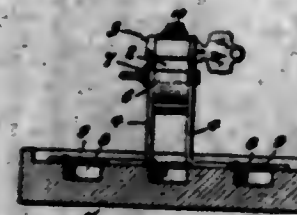
2. In a delivering mechanism, the combination with a receptacle for holding merchandise, of a movably mounted delivering member adapted to receive merchandise from the receptacle, an actuator, a gear slidably mounted upon the actuator and adapted to be actuated thereby, a crank operatively connected with the delivering member and means for moving the gear into and out of operative engagement with said crank.

1,307,378. KEY-DUPLICATING MACHINE. SAMUEL SEGAL, New York, N. Y., assignor to Segal Lock & Hardware Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 21, 1918. Serial No. 235,062. 9 Claims. (Cl. 90-122.)



1. In a key-duplicating machine, a carriage and work-holding clamps for clamping the master key and key blank and comprising one-piece split rings secured to said carriage, said clamps being provided with means for forcing the same into clamping position.

1,307,379. GAGE FOR FILING TUMBLERS OF LOCKS. SAMUEL SEGAL, New York, N. Y., assignor to Segal Lock & Hardware Co., Inc., New York, N. Y., a Corporation of New York. Filed Jan. 9, 1919. Serial No. 270,370. 4 Claims. (Cl. 29-89.)



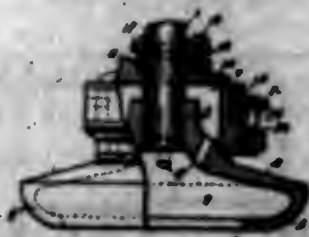
1. A filing jig for locks of the character described, having a socket adapted to hold and permit the lock cylinder to be turned on its longitudinal axis, said socket having a longitudinal slot in its side to expose the ends of the tumbler actuating pins.

1,307,380. RAILWAY-TRACK-SIGNAL DEVICE. JOHN SMITH, Southbridge, Mass. Filed Aug. 6, 1917. Serial No. 184,593. 1 Claim. (Cl. 110-33.)



In a device of the character described, the combination of a casing provided with sound openings in three of its walls and adapted to be secured to a support with a train-operated electric bell disposed therein in approximately its center, closely meshed metal wire nettings covering said openings, and horns disposed with their inner rounded ends in close proximity to said bell and with their flanged outer widened ends adapted to be secured to the inner walls of said casing for intensifying the acoustic signals produced by the bell.

1,907,381. WINDOW-GLASS-BLOWING HEAD. WILLIAM E. STANLEY, Pittsburgh, Pa., assignor to Window Glass Rotary Pot Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 17, 1918. Serial No. 61,974. 3 Claims. (Cl. 49—17.1.)



1. A glass blowing head, comprising a hollow shaft for engaging molten glass, a conduit for compressed air communicating with the chamber in said shaft, said shaft being provided with a series of openings through its wall around the conduit opening to permit the escape of air, a casing inclosing a chamber on the outer face of said shaft and with which said perforations communicate, the wall of said casing being provided with an opening, and a ring mounted on the outside of said casing adapted to turn thereon and having perforations of different sizes adapted to register alternately with the opening through the wall of said casing to regulate the escape of air from said shaft.

1,907,382. MEANS FOR PLACING TEETH IN CORRECT POSITIONS. FREDERICK L. STANTON and OLIVER D. FISH, New York, N. Y.; said Fish assignor to said Stanton. Filed Jan. 15, 1917. Serial No. 142,341. 3 Claims. (Cl. 32—19.)



3. In a device of the class described, a free arch with parallel pivots, yokes connected to said pivots and connections holding said yokes to adjacent rear teeth, one of said connections consisting, in part, of a hook and loops placed so as to twist a tooth to its true occlusal position.

1,907,383. PLOW-TRACTOR, STOP DRAFT-GEAR. BENJAMIN FRANKLIN UMBOWEN, Royer, Pa. Filed Oct. 3, 1918. Serial No. 256,767. 3 Claims. (Cl. 180—14.)



3. A plow-tractor, stop-draft-gear comprising the combination of a spring draw-bar, a link and rod adapted for connection to the draw-bar, a tractor starting shaft provided with an arm having a notch, a spring tongue pivotally connected to the rod and provided with a contracted portion adapted to engage and disengage said notch, a spring pivotal locking plate adapted to engage and disengage the arm, and a spring retracted push-rod for positioning the tongue, substantially as described.

1,907,384. MORTAR OR CANNON AND PROJECTILE ADAPTED FOR USE THEREWITH. PIERRE VAN DUNEN, Calais, and ALBERT DELAS and MAURICE LEBLANC, Paris, France, assignors to Société anonyme pour l'Exploitation des Procédés Westinghouse-Lablanc, Paris, France. Filed Aug. 23, 1917. Serial No. 187,961. 3 Claims. (Cl. 89—1.)

2. The combination with a cannon, of a projectile having a hollow tail fitting the cannon bore and, with said

bore, forming the explosion chamber for the propelling charge, a body for said projectile secured to said tail and which is adapted to contain an explosive charge, wings



for said projectile, and means cooperating with said wings for determining the distance to which said tail projects into the cannon bore.

1,907,385. X-RAY-TUBE HOLDER AND SHIELD. HARRY F. WAITE, New York, N. Y. Filed Sept. 30, 1917. Serial No. 192,251. 2 Claims. (Cl. 250—34.)



1. In a device of the class described, a two part protector adapted to hold an X-ray tube and provided with two necks, a clamp for holding the two parts in fixed relation while containing a tube so that X-rays may be projected through one of the necks and means for permitting the clamp to be held and adjusted in any desired position while so holding the tube.

1,907,386. FILM-HOLDER FOR X-RAY APPARATUS. HARRY F. WAITE, Whitestone Landing, N. Y. Filed Nov. 1, 1917. Serial No. 199,722. 1 Claim. (Cl. 250—34.)

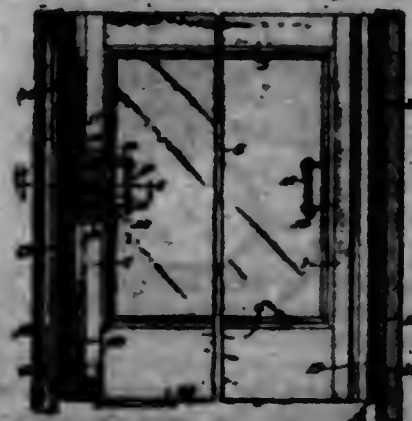


In a device of the class described, a box of opaque material with centers at each end adapted to receive the spools of the film, lead linings surrounding the spaces occupied by said spools, an opaque cover adapted to fit said box which cover is provided with lead for said chambers, a fluorescent screen between said chambers and a socket, stem and cam for raising and lowering the screen.

1,907,387. WINDOW CONSTRUCTION. LILLIE B. WILKES, Chicago, Ill. Filed Oct. 7, 1918. Serial No. 257,223. 3 Claims. (Cl. 20—49.)

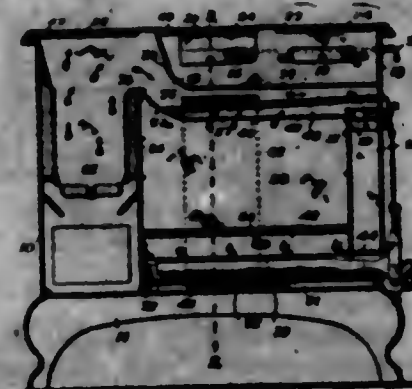
1. A window frame, a window sash consisting of top, bottom and side members for holding the glass, a guiding member having sliding engagement with said window frame, an intermediate member, a pair of pins projecting inwardly from said guiding member and passing through openings in said intermediate member, a spring located between said intermediate member and one of said side members for holding said intermediate member in engage-

ment with said pins, and a handle for moving said intermediate member laterally against the tension of said spring to thereby permit disengagement of said intermediate member from one of said pins and permit the sash to be swung about the other of said pins as a horizontal axis.



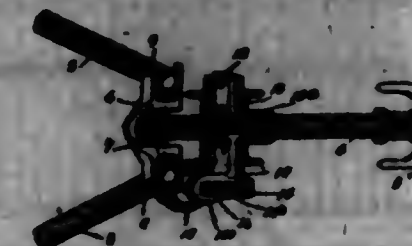
2. In a device of the class described, a guiding member from one of said pins and permit the sash to be swung about the other of said pins as a horizontal axis.

1,907,388. COMBINATION-STOVE. PHILIP WILL and FREDERICK WILL, Rochester, N. Y., assignors to Still Stove Works, Rochester, N. Y., a Corporation of New York. Filed June 3, 1915. Serial No. 31,988. 1 Claim. (Cl. 126—36.)



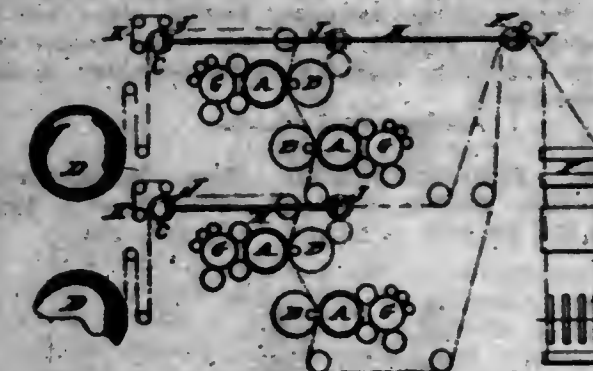
In a device of the class described, a casing, a fire box for the consumption of solid fuel, an oven inside said fire box, a top burner box over said oven but with the under wall spaced therefrom, said burner box extending substantially to said fire box and having substantially its entire under wall directly exposed to the heated gases from said fire box, and one or more fluid fuel burners in said burner box.

1,907,389. SELF-ANCHORING WINDLASS. ELMER C. WINGERS, Minneapolis, Minn., assignor of one-half to Peter J. N. Miller, Miller, S. D. Filed Mar. 30, 1917. Serial No. 158,614. 1 Claim. (Cl. 254—194.)



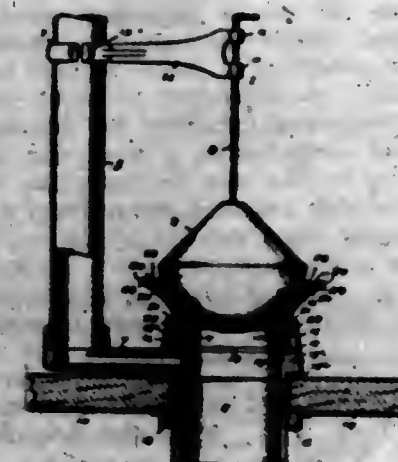
In a device of the kind described, the combination with an oblique back frame, of a yoke-like head pivoted to the front end of the back frame for reverse turning movement past the front end thereof, a pair of legs pivoted to said head for transverse movement in respect to the back frame and arranged to be folded by a turning movement of said head into substantially parallel arrangement with the back frame, a bearing bracket mounted on the back frame, and a windlass drum journaled on the bearing bracket.

1,907,390. WEB-PRINTING MACHINE. HENRY A. WISS WOOD, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Apr. 2, 1918. Serial No. 226,225. 3 Claims. (Cl. 101—225.)



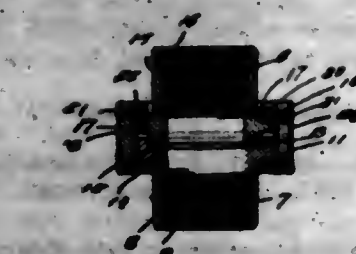
2. In a web printing machine, the combination with one or more rotary printing couples, of means for feeding a web to the printing couples at a feeding velocity slightly in excess of the printing velocity of the printing couples, so that a slight excess of paper shall be fed to the said couples.

1,907,391. VALVE CONSTRUCTION. EUGENE BUSH, Washington, D. C. Filed Apr. 13, 1918. Serial No. 228,419. 4 Claims. (Cl. 4—5.)



1. A valve seat construction for tanks, comprising a pipe to project through the bottom of the tank and having an upper extension of larger internal diameter than the pipe to provide a shoulder, a valve seat screw threaded into said extension and having a flange above said extension, packing means between said flange and extension above the screw threads, and packing means between said seat and shoulder at the lower portion of the screw threads.

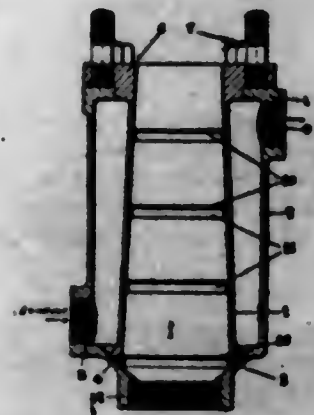
1,907,392. PIPE-COUPLING. WILLIAM C. CODD, Baltimore, Md. Filed Sept. 22, 1917. Serial No. 192,717. 2 Claims. (Cl. 285—122.)



1. In a pipe coupling, a lower member provided with a beveled seat, an upper member having its lower end fitted against said seat and provided adjacent its lower end with a flange.

end with an outer annular flange, said flange being provided in its upper face with an annular recess spaced from the periphery of said upper member, a ring washer mounted in said recess and projecting above said flange, and a coupling nut threaded upon the lower member and provided at its upper end with an inwardly projecting annular flange having its under surface plane and in tight engagement with the upper edge of the washer and having its inner edge spaced from the periphery of said upper member.

1,307,393. FUEL-VAPORIZER. CECIL MUNRO DYER, Kennington, London, England. Filed May 2, 1918. Serial No. 232,079. 4 Claims. (Cl. 237-241.)



1. A vaporizer for use in preparing combustible mixtures for internal combustion engines, comprising a tapering casing, a plurality of gauze screens at intervals therein, an outer shell adapted to serve as a jacket around said casing, and apertures for introducing heating fluid to and withdrawing it from said jacket, said outer shell being formed with an expanding conical surface at the inlet end, and said casing being formed with an enlarged conical end which fits against said expanding conical surface in the shell, whereby a gas-tight joint is formed while an enlarged chamber is provided beneath the first gauze screen, for the purpose specified.

1,307,394. PHOTOGRAPH-HOLDER. MILTON I. D. MINNEMAN, New York, N. Y. Filed Oct. 15, 1918. Serial No. 258,175. 5 Claims. (Cl. 40-145.2.)

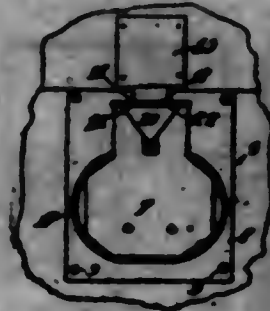


5. A photograph-holder consisting of a sheet of suitable material having an elliptical central-portion whose two sides are completely severed from the remainder of said sheet by two oppositely-curving slits cut entirely through the thickness of said sheet, while the end-portion of said ellipse are unseparated from the main portion of the sheet.

1,307,395. LOCK. IRMA V. ELDER, Cosmopolis, Wash. Filed July 7, 1917. Serial No. 179,262. 2 Claims. (Cl. 70-57.)

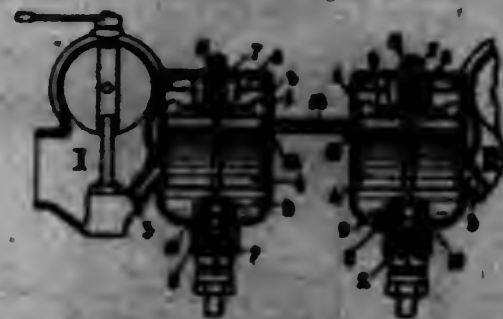
1. A lock comprising a casing, a pair of latch members pivoted at one end within the casing and projecting at their opposite ends from the casing, the projecting ends having portions extending beyond the outer face of the casing that is parallel to the plane of pivotal movement

of the latch members and then toward each other to receive and hold a keeper between the portions that project



toward each other and the adjacent portion of the casing, and means for holding the latch members yieldably in their keeper engaging relation.

1,307,396. CARBURETOR FOR EXPLOSION-ENGINE. ENRICO FASOLIN, Turin, Italy. Original application filed Feb. 28, 1918, Serial No. 219,556. Divided and this application filed Dec. 14, 1918. Serial No. 294,757. 4 Claims. (Cl. 158-38.)



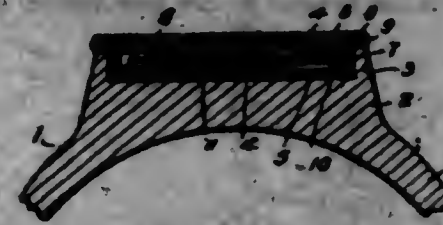
1. In an explosion engine, a plurality of carburetors feeding the engine cylinders, each carburetor having a float chamber feeding its nozzle and connected with the main fuel tank, means for controlling the fuel inlet into each constant level chamber, the wall of each of said chambers having an opening above the fuel constant level therein, and means interconnecting said openings to cause the excess of fuel into any of said float chambers, when the respective controlling means are out of operation, to overflow into other ones.

1,307,397. BREAD-SLICING MACHINE. WILLIAM H. GARLOCK, Seattle, Wash. Filed Apr. 2, 1919. Serial No. 294,978. 5 Claims. (Cl. 146-12.)



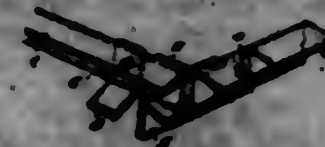
1. In a bread slicing machine, the combination of a baseboard, a leaf pivotally connected to and resting on the baseboard, a series of spaced knife-guiding ribs attached to the leaf, a shaft engaged by the upper ends of the ribs, spacing members between the ribs, corresponding opposed ribs pivotally connected to the shaft, and means for locking the series of ribs to the baseboard adjustably.

1,307,398. FINGER-RING. HARRISON R. GREENMAN, Philadelphia, Pa. Filed Oct. 29, 1917. Serial No. 199,178. 1 Claim. (Cl. 68-15.)



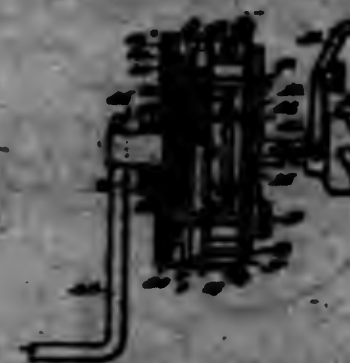
A finger ring provided with an internal pocket having a side wall, said wall being provided with two diametrically-disposed, longitudinally-extending grooves and with two transversely-extending grooves running from the free edge of said wall and communicating with said longitudinally-extending grooves, a cap normally closing said pocket and provided with an annular flange carrying diametrically-disposed pins, and a plurality of linked disks, one thereof being hinged to the inner surface of said flange of the cap.

1,307,399. FOLDABLE BED-FRAME. GEORGE L. HARRIS, Memphis, Tenn. Filed Nov. 12, 1918. Serial No. 292,122. 2 Claims. (Cl. 5-5.)



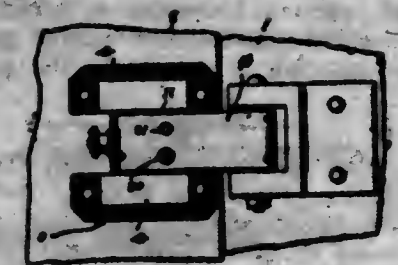
2. A collapsible or foldable bed-frame, comprising side members, each thereof being formed of two sections of angle-bar, united at their adjacent ends by a hinge, an angle-bar brace carried by one of said sections and lying against the inner surface thereof, a portion of said brace extending across the adjacent or hinged ends of said sections when the two sections of said side-members are in alignment, whereby the brace lies against the inner surface of both of said sections when the latter are in alignment, and an angle-member secured to that section of each of said side-members which is opposite the section carrying said brace, said angle-member containing the free end of said brace when the said sections of the side member of the frame are in alignment.

1,307,400. CRANKING DEVICE. IRVIN F. HARRIS, Waukegan, Ill. Filed Mar. 8, 1918. Serial No. 221,190. 3 Claims. (Cl. 185-39.)



1. A starter for gas engines, including a shaft, means for coupling the shaft to the crank shaft of an engine, a casing, a spring motor in the casing and connected to the shaft, a crank arm, gearing between the crank arm and the shaft to turn the shaft and wind the motor, means for locking the motor in wound position, means for releasing the motor to rotate the shaft, and means for relocking the motor.

1,307,401. BARN-DOOR LOCK. FRANK R. HARRISCHMAN, Rosenberg, Tex. Filed Nov. 23, 1917. Serial No. 292,598. 2 Claims. (Cl. 70-14.)



1. A lock comprising a pair of spaced blocks, a plate associated with said blocks, one of said blocks having a recess therein, a locking block pivoted to the plate, a locking element pivoted within said locking block and adapted to be moved within the recess of one of the blocks, a spring actuated dog adapted to engage the locking element when in engagement with the block, and an actuating member pivoted within the locking block and disposed over the dog, and means for moving said actuating member downwardly to disengage the dog from the locking element.

1,307,402. AUTOMOBILE ATTACHMENT. HORATIO B. HOLLIFFIELD, Washington, D. C. Filed Aug. 7, 1918. Serial No. 248,739. 5 Claims. (Cl. 100-7.)



1. The combination with an automobile wheel and a detachable stub shaft projecting axially outward from the wheel and arranged to rotate therewith, of a roller rigidly secured to said shaft and having its periphery adapted for non-slipping engagement with a log or the like placed in the earth below the roller and in its plane.

1,307,403. FEED-WATER APPARATUS. JOHN L. HUGHES, Tulsa, Okla., assignor of one-third to Isaac Shuler, Tulsa, Okla., and one-third to Claude L. Bruce, Sedalia, Mo. Filed Jan. 10, 1919. Serial No. 270,499. 4 Claims. (Cl. 210-19.)



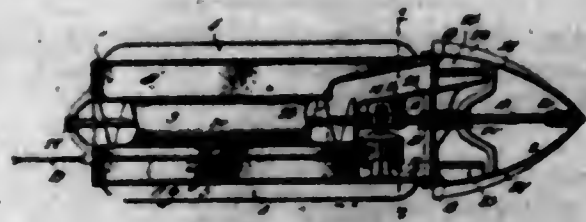
4. In an apparatus for the purpose set forth, the combination of a feed water heater, a container for a cleaning compound, a hopper on said container, a valve controlling the flow from the hopper into the container, a feed water pipe leading from the feed water heater, a valve pipe leading from the container into the said feed water pipe, a steam pipe having a branch leading into the feed water heater and having another branch disposed within the container, and a pipe leading from the last-mentioned branch into the feed water heater.

1,307,404. PROCESS OF MANUFACTURING PAPER LEAVES. GONHEI IWATSUBO, Kyoto, Japan. Filed Apr. 23, 1917. Serial No. 164,058. 1 Claim. (Cl. 91-87.9.)
A method of preparing paper for embossing, which consists of applying a coating of a mixture of gelatin, glycerin, pigment, and calcium chlorid to the surface of paper and applying a hot die to the paper treated in this way.

1,307,405. WATERPROOF PAPER. KOTARO KONAGAI, Tokyo, Japan. Filed Nov. 8, 1918. Serial No. 261,689. 1 Claim. (Cl. 91-68.)

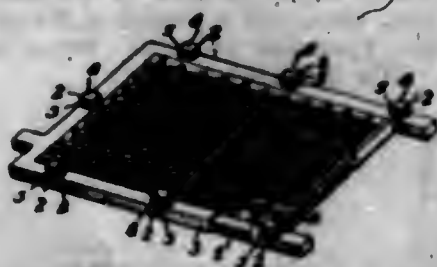
The process of making paper impermeable to water, and which consists in first covering the paper with gelatin solution, rendering the gelatin insoluble, then coating with a mixture of castor oil, lead oxid, tung oil and iron oxid, and subsequently coating over the said mixture with a second mixture consisting of castor oil, white lead, zinc oxid, tung oil and linseed oil.

1,307,406. SELF-PROPELLED TERRESTRIAL TORPEDO. FORREST MCNICOL, Milwaukee, Wis. Filed Mar. 14, 1918. Serial No. 222,404. 6 Claims. (Cl. 102-2.)



1. An explosive device of the class described comprising an explosive carrying body a rotary hollow excavating head, a plurality of digging elements projecting outwardly from the head, a plurality of conveyor elements disposed within the head and positioned adjacent the connection of the digging elements therewith, said head having an opening adjacent each digging element to permit material therefrom to be deposited on the conveyor elements, and a relatively stationary conveyor projecting within the hollow head to successively receive material from the conveyor elements.

1,307,407. CELL-PLATE. TOSIJO MAJIMA, Hyogo-Ken, Japan. Filed Oct. 11, 1918. Serial No. 257,735. 1 Claim. (Cl. 204-29.)

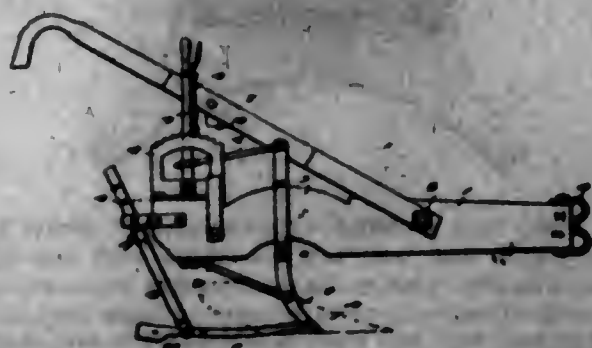


A composite cell-plate, consisting of a body formed with distance pieces, such body being of porcelain or earthenware which is entirely covered with a thin sheathing of lead with the exception of the distance pieces, which are integral with the said body or core, and are left exposed.

1,307,408. PLOW. ANDREW JACKSON MARSHALL, Richmond, Tex. Filed May 20, 1918. Serial No. 237,288. 1 Claim. (Cl. 97-26.)

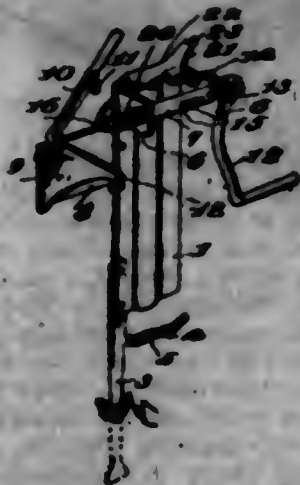
In a plow, a beam having one portion thereof formed to provide a curved bearing surface, a standard having one portion thereof engaged about the beam adjacent said bearing surface, rollers carried by the standard engageable with the curved upper and lower surfaces of the curved portion of the standard, a bracing arm fixedly

secured at one end to one end of the beam and pivoted at its remaining end to the lower portion of said standard, a rearwardly disposed shoe pivoted at one end to the lower end of the standard and extending rearwardly of the beam, a bar pivoted to the free end of said shoe



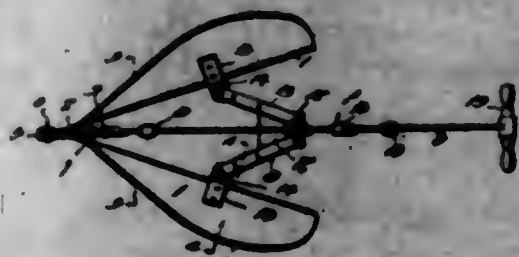
and pivotally connected at its remaining end to the adjacent end of said beam, an operating lever mounted on the upper portion of said beam at its rear end, and means for effecting connection between said operating lever and the upper end of said standard.

1,307,409. MEANS FOR SPLICING AND STRETCHING FENCE-WIRES. CHARLES H. MATTHEWS and JAY E. MATTHEWS, Dresden, Kans. Filed Aug. 22, 1918. Serial No. 250,998. 9 Claims. (Cl. 140-115.)



1. A tool for the purpose set forth, comprising means for holding the branches of a loop, and a drum constructed at one end to engage between the branches of the loop whereby rotation of the drum about its own longitudinal axis will close the open end of the loop.

1,307,410. SNOW-PLOW. CHARLES W. MORRIS, Toledo, Ohio. Filed Apr. 11, 1918. Serial No. 227,980. 5 Claims. (Cl. 87-5.)



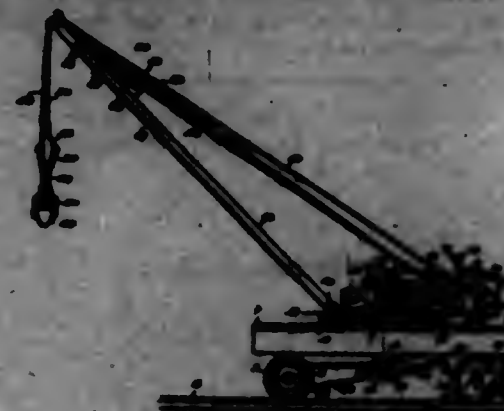
3. A snow plow comprising a pair of rearwardly diverging mold boards, a bar extending longitudinally between said mold boards and secured rigidly in place, a slide movable along said bar, toggle links connecting said slide and mold boards, a second longitudinal bar spaced from said first named bar, a casting slide on said second bar having a laterally extending arm, and a link connecting said arm and said first named slide, whereby to normally cant the other slide to cause it to grip said second longitudinal bar.

1,307,411. SHOE-HOOK. ALBERT T. MOORE, Columbus, Ohio. Filed Apr. 2, 1918. Serial No. 267,807. 3 Claims. (Cl. 68-4.)



1. A shoe hook comprising a two part structure formed to include a lower half receiving member and an upper line attaching member, said lower member having the upper end of its shank formed with a hook, which latter terminating upwardly in an extremity located in substantially vertical alignment with the main shank of said lower member, an eye formed upon the lower end of said upper member for the reception of said hook, and a sleeve slidably mounted upon the shank of the upper member and arranged to fit over the upper extremity of said lower member to retain said hook in locked relation with said eye, whereby separating movement on part of said members will be prevented during the engagement of said shoe with said extremity.

1,307,412. CRANE. THOMAS MELLARD NICHOLS, Ashland, Ky. Filed Dec. 21, 1917. Serial No. 268,262. 5 Claims. (Cl. 212-24.)



1. In a crane, a truck; a propelling means on the truck; a turn table journaled on the truck; means for rotating the turn table; a reversible motor on the turn table; mechanism continuously driven by the motor and bodily movable alternatively into and out of engagement with the means for rotating the turn table, and into and out of engagement with the propelling means; and a winding means on the turn table, the winding means including a part movable into and out of cooperative relation to the motor.

1,307,413. BRACKET. ROY R. OLSON, Danville, Ill., assignor to AMISH Freest Company, Danville, Ill., a Corporation of Illinois. Filed June 2, 1917. Serial No. 172,879. 11 Claims. (Cl. 294-111.)



1. A bracket comprising a wall attaching member, a body member and a load supporting member, the latter being O. G.-34

ing rotatably and bodily movably associated with said body member, and means for securing said parts in a plurality of adjusted positions, substantially as described.

1,307,414. AIRSHIP. JOHN PAULAKSKI, Cicero, Ill. Filed Oct. 31, 1918. Serial No. 268,688. 4 Claims. (Cl. 244-25.)



1. In an aerial craft, side propellers, engines driving said propellers, and supports for the engines on which the latter are slidably mounted, the engines and their propellers being located on the outside of the craft, and the engines being slidable on the supports into and out of the craft.

1,307,415. CARDING-ENGINE. LOREN W. FENNER, Newton, Mass., assignor to Saco-Lowell Shops, Boston, Mass., a Corporation of Massachusetts. Filed July 12, 1918. Serial No. 244,648. 13 Claims. (Cl. 19-15.)



1. In a machine of the kind described, a cylinder, a doffer, guideways located between said cylinder and said doffer, a rotary stripping brush, a mounting for said brush at each end thereof, said mountings being mounted in said guideways.

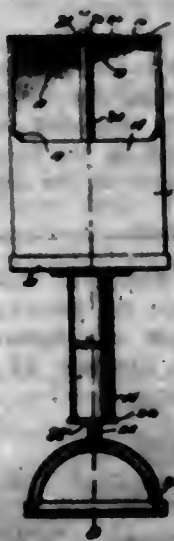
1,307,416. UNION-UNDERGARMENT. JAMES K. P. FINE, Troy, N. Y., assignor to United Shirt and Collar Company, Troy, N. Y., a Corporation of New York. Filed Oct. 14, 1918. Serial No. 265,798. 2 Claims. (Cl. 2-144.)



1. A union suit having an upper front portion comprising two side front members, and a hip-member between and throughout its length substantially lapping each of

said side front members, each of said side front members being formed of a separate piece of fabric secured by a seam along its lower edge to the lower front portion of the garment, and by a seam along the lower portion of its outer side edge to the body of the garment, and having common means for detachably securing the upper ends of said side front members to said rib-member, said side front members forming continuous permanent connections between the front and back portions of the garment, extending over the shoulders.

1,907,417. **FRUIT-PICKER.** JOSEPH V. POWERS, Merrick, N. Y. Filed Jan. 22, 1918. Serial No. 212,258. 1 Claim. (Cl. 56-335.)



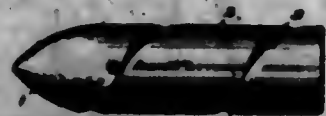
A fruit picker comprising a rigid receptacle having a fruit-receiving opening in the upper portion of its front wall and an inwardly tapered opening in its top communicating at its outer end with said front wall opening, an edge of the top wall opening being sharpened and constituting a cutting edge, a handle upon which the receptacle is supported, a shaft rotatable in the handle and depending therefrom and provided with a grip, said shaft extending through the receptacle and having bearings in its ends, and a cutter carried by the shaft in cooperative relation to the cutting edge of the top.

1,907,418. **EXPANSION AND FASTENING DEVICE.** GEORGE C. RASCH, Waterloo, N. Y. Filed Feb. 6, 1918. Serial No. 215,897. 10 Claims. (Cl. 86-2.4)



1. An expansion and fastening device comprising an expandable member adapted to be inserted in a hole of a structure, and consisting of a wire cage having pairs of longitudinal strands connected laterally together at a series of points intermediate their ends, and an expansion member engaging the cage interiorly and expanding the cage exteriorly against the wall of the hole.

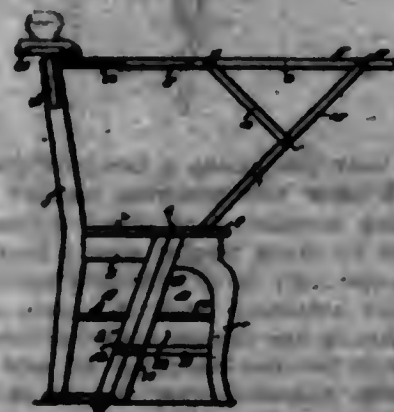
1,907,419. **PROJECTILE.** JOSEPH McFARLANE ROSS, Louisville, Ky. Filed Jan. 18, 1918. Serial No. 212,437. 2 Claims. (Cl. 102-36.)



1. A projectile having a groove in the face thereof, the front wall of such groove being perpendicular to the

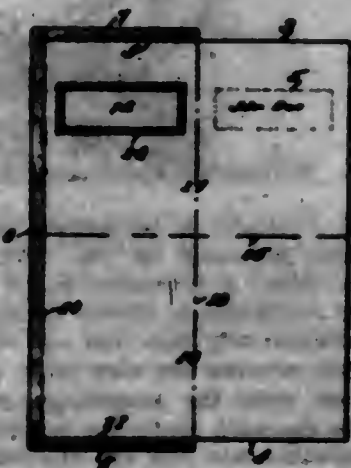
longitudinal axis of the projectile, and the rear wall thereof curving toward the rear of the projectile and merging with the surface of the same.

1,907,420. **COMBINED CHAIR AND IRONING-BOARD.** ROBERT SCHMIDT, Boston, Mass. Filed Mar. 20, 1918. Serial No. 282,574. 3 Claims. (Cl. 138-9.)



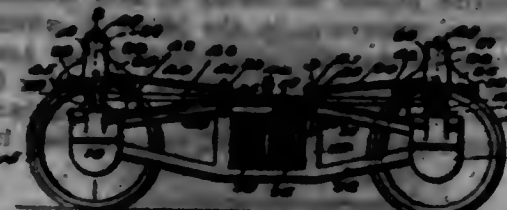
1. A chair frame including rear posts which extend above and below the chair bottom, a member disposed between the posts and adapted in one position to form an ironing board and in another position to constitute a back for the chair, slotted irons at opposite ends of the member, hinged fastenings mounted in the upper ends of the posts and having their hinged ends engaging the slotted irons, one of said fastenings projecting outwardly beyond the posts and a thumb nut on the projecting end of the fastening to secure the member in the required adjusted position.

1,907,421. **ENVELOP.** HANS KARL SCHRAMM, New York, N. Y. Filed Dec. 12, 1917. Serial No. 308,832. 2 Claims. (Cl. 228-62.2.)



1. An envelop comprising a blank, adapted to be folded first upon itself upon its longitudinal axis then again upon itself upon the transverse axis of the folded blank provided by the longitudinal fold, said blank having one of its entire longitudinal marginal edges and one half of its transverse top and bottom marginal edges cut away parallel to their respective opposite marginal edges, and the remaining longitudinal marginal edge and transverse top and bottom edges being gummed and provided with lines of perforations extending the entire length of said edges, whereby the gummed longitudinal marginal edge is folded and adhered to the back of its opposite edge, and the transverse bottom gummed edge is folded and adhered to the back of this adjacent edge of the blank when the blank is first folded upon its longitudinal axis, while the transverse top marginal gummed edge is adhered to the front of the opposite portion of the transverse bottom edge after the blank has been folded again upon its transverse axis.

1,907,422. **CAR-BRAKE.** GEORGE L. GOVER, Shawnee, Okla. Filed May 2, 1918. Serial No. 282,582. 11 Claims. (Cl. 100-60.)



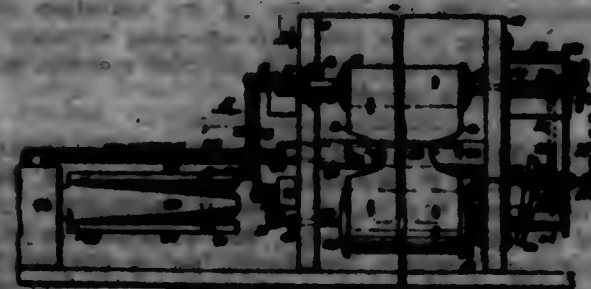
1. A car brake including brake hanger brackets mounted upon a truck of the car, independent brake hangers swingingly connected to said brackets to project over corresponding wheels of the truck, brake heads carried by the said hangers, and means connected with the truck and operatively engaged with the said hangers for simultaneously swinging the hangers to shift the brake heads toward the said truck wheels, said means being detachably connected with the hangers whereby either hanger may be operated independently of the other.

1,907,423. **DETACHABLE REEL.** LARK SMITH, STEPHEN D. MCCORMICK, and JAMES R. SMITHSON, Beld, Ohio. Filed May 17, 1918. Serial No. 282,176. 3 Claims. (Cl. 98-38.)



1. As a new article of manufacture, a rubber band comprising a body portion and a single end rotatably thin reinforcing plate of the general contour of the band embedded in the body portion near the attaching face thereof and provided with a plurality of upturned substantially V-shaped spurs disposed on one side of the plate only and spaced inwardly from the marginal edge thereof with certain of the spurs extending diagonally across the breast corners of the plate, said spurs being arranged in triangular form with the points of the spurs normally projecting through and beyond the attaching face of the band, the central portion of the plate being thickened and provided with a centrally disposed threaded opening for the reception of a fastening device, there being a plurality of openings formed in said plate between certain of the spurs and disposed concentric with the central opening and a plurality of smaller openings extending entirely around the plate near the marginal edge thereof.

1,907,424. **ROLL-SHIFTING MECHANISM FOR AUTOMATIC MUSICAL INSTRUMENTS.** LOUIS W. SOUTHGATE, Worcester, Mass., assignor to Standard Pneumatic Action Co., New York, N. Y., a Corporation of New York. Filed Apr. 2, 1918. Serial No. 282,978. Reissued Nov. 14, 1918. Serial No. 282,997. 5 Claims. (Cl. 84-101.)



1. In an automatic musical instrument, a frame, music and take-up rolls mounted in said frame, a tracer bar, and mechanism for moving said rolls simultaneously laterally to adjust the note sheet relatively to said tracer bar, said mechanism comprising a double-acting pneumatic device connected to move one roll axially in one

direction when one bellows is inflated and the second roll axially in the opposite direction when the second bellows is inflated and means for yieldingly moving each roll axially in its reverse direction.

2. In an automatic musical instrument, a frame, music and take-up rolls mounted in said frame, a tracer bar, and mechanism for moving said rolls simultaneously laterally to adjust the note sheet relatively to said tracer bar, said means comprising a motor for moving each roll axially in one direction and separate devices for moving each roll axially in the reverse direction, said separate devices being balanced against lateral displacement in all positions of the rolls.

3. In an automatic musical instrument, a frame, music and take-up rolls mounted in said frame, a tracer bar, and mechanism for moving said rolls simultaneously laterally to adjust the note sheet relatively to said tracer bar, said means comprising a motor for moving each roll axially in one direction and separate yielding devices for moving each roll axially in the reverse direction, said motor and said yielding devices being effective to normally maintain said rolls in a balanced state of rest as to lateral displacement in all lateral positions thereof.

4. In an automatic musical instrument, a frame, music and take-up rolls mounted in said frame, a tracer bar, and mechanism for moving said rolls simultaneously laterally to adjust the note sheet relatively to said tracer bar, said mechanism comprising a pneumatic device for at times moving one roll axially in one direction and at other times moving the second roll in the opposite direction, and separate resilient devices for moving each roll axially in the reverse direction, said rolls being normally balanced against lateral displacement in all lateral positions thereof.

5. In an automatic musical instrument, a frame, music and take-up rolls mounted in said frame, a tracer bar, and mechanism for moving said rolls simultaneously laterally to adjust the note sheet relatively to said tracer bar, said mechanism comprising a cam at one end of one roll and a second cam at the opposite end of the second roll, a pneumatic motor, connections from said motor to said cams, and separate resilient devices engaging said rolls at the ends opposite to said cams, said rolls, cams, resilient devices and connections forming a construction balanced within itself as to lateral displacement in every position of the rolls.

1,907,425. **COLLAR.** JOHN M. VAN HUSEN, Jamaica Plain, Mass. Filed Aug. 11, 1917. Serial No. 185,641. 9 Claims. (Cl. 2-67.)



1. A folding or turn down collar made up of a neck band portion and a folding or turn down portion woven integral therewith, one of said portions being of appropriate thickness and weave to give stiffness to the collar and being woven thicker than the other portion, and having a line of union therewith of curvilinear contour corresponding to the fold line of the collar; substantially as described.

3. A folding or turn down collar made up of a neck band portion and a folding or turn down portion woven integral therewith, one of said portions being of multiply fabric and woven thicker than the other, and having a line of union therewith of curvilinear contour corresponding to the fold line of the collar; substantially as described.

4. A folding or turn down collar made up of a neck band portion and a folding or turn down portion woven integral therewith, the neck band portion being of appropriate thickness and weave to impart stiffness to the collar and having a line of union with the folding portion which is of curvilinear contour conforming to the fold line of the collar, and one of said portions being woven thicker than the other; substantially as described.

5. A folding or turn down collar made up of a neck band portion and a folding or turn down portion woven integral therewith, the outer folding portion of the collar being a multiply fabric of appropriate thickness and weave to impart stiffness to the collar and having a line of union with the neck band portion of curvilinear contour conforming to the fold line of the collar, said folding portion being thicker than the neck band portion, and said neck band portion having additional fabric secured thereto; substantially as described.

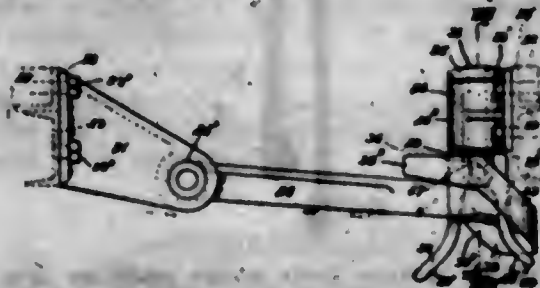
6. A folding or turn down collar made up of a neck band portion and a folding or turn down portion woven integral therewith, one of said portions being of multiply fabric having one or more plies thereof extended to form the other portion, and the union of such multiply fabric and of the single-ply extension or extension thereof being of curvilinear contour conforming to the fold line of the collar; substantially as described.

1,307,426. LIMIT-GAGE. FRANK O. WELLS, Greenfield, Mass., assignor to Greenfield Tap and Die Corporation, Greenfield, Mass. Filed Feb. 24, 1916. Serial No. 89,366. 10 Claims. (Cl. 35-103.)



2. A limit-gage comprising a frame having pairs of aligning sockets therein, corrugated contact points adjustably mounted within the said sockets, adjusting screws provided within the sockets to back-up the respective contact points, a single clamping member for each pair of contact points having portions thereof engaged with the corresponding points, and means for actuating the clamping member.

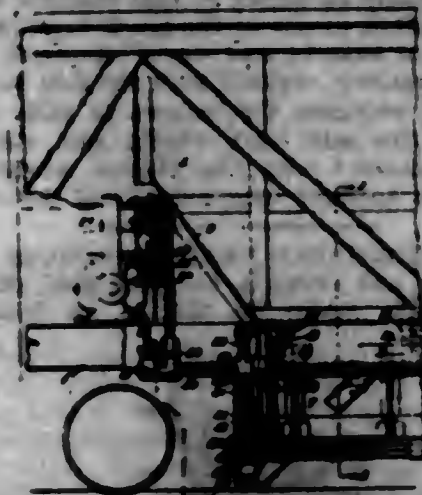
1,307,427. COUPLING. HARRY W. WOODWARD, Cleveland, Ohio. Filed Nov. 26, 1917. Serial No. 264,083. 13 Claims. (Cl. 213-67.)



1. In a coupler, the combination of supporting means adapted for attachment to a truck; a member forming a coupler jaw socket provided with means for attaching the same to a truck, said socket forming a bearing surface; a coupling bar, said first-mentioned means and said coupling bar being formed with cooperating surfaces enabling

the relative pivotal movement thereof; a coupler jaw provided with a journal surface adapted to cooperate with the bearing surface formed in said member so as to permit the relative pivotal movement of said member and jaw in a plane transverse to the plane in which said first-mentioned means and said coupling bar are relatively pivotally connected, said coupler jaw being formed with a recess adapted to receive said coupling bar; and means for removably holding said coupling bar in said recess.

1,307,428. DUMP-CAR. SAMSON D. WRIGHT, Cleveland, Ohio. Filed July 22, 1917. Serial No. 222,219. 5 Claims. (Cl. 105-200.)



1. A dump car, comprising a hopper body, doors closing the bottom of said hopper, links pivotally connecting the upper edges of said doors to the car body, and horizontally extending guides controlling the motion of the lower edges of said doors.

1,307,429. WATERING DEVICE. MICHAEL J. YOUNG, Stockton, Calif. Filed Mar. 14, 1919. Serial No. 282,622. 4 Claims. (Cl. 119-71.)



1. In a watering device of the class described, the combination of a water container, a tubular extension rising from the top of said container with its interior in communication with the interior of the container and having an opening in its side wall affording entrance to the contained water, and laterally directed radiant cars at the sides of said opening.

1,307,430. PROCESS OF MANUFACTURING CARBON-BLACK. DAVID F. KIMMEL, ALFONSO, RICHARD H. JESSOP, OLANSPORT, WALTER J. KOSMA, SPRINGDALE, and JAMES R. GARRER, PITTSBURGH, Pa., assignors to Hope Natural Gas Company, Pittsburgh, Pa., a Corporation of West Virginia. Filed Apr. 2, 1919. Serial No. 282,429. 4 Claims. (Cl. 126-69.)

1. The process of manufacturing carbon black from natural gas, which consists in separating from such gas one of its constituents lighter than paraffin, and subjecting such constituent to a decomposing temperature of from about 700° to 900° C.

1,307,431. REFRIGERATING APPARATUS. ARTHUR P. ARDEN, Chicago, Ill. Filed Sept. 22, 1906. Serial No. 222,222. 25 Claims. (Cl. 68-194.)



1. In refrigerating apparatus, the combination of an enclosing casing adapted to contain water, a condenser in the casing, a refrigerant line, and a compressor comprising a crank case, a plurality of cylinders and pistons reciprocable in the cylinders, said crank-case, and cylinder being integrally formed with a wall of the casing.

1,307,432. CONCRETE CONSTRUCTION. THEODORE ARN, Floral Park, N. Y. Filed Dec. 9, 1914. Serial No. 876,201. 15 Claims. (Cl. 72-12.)

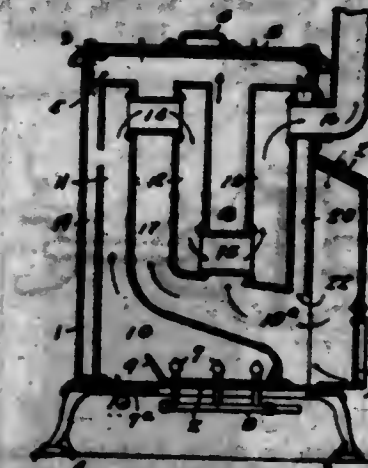


1. The method of forming subterranean concrete tanks and the like, consisting of digging a hole in the ground, inserting a metal screen in said hole, said screen extending adjacent to the side walls of the hole so as to leave a narrow space between said screen and said side walls, filling concrete into said space from the top, some of said concrete seeping through the interstices of said screen in the direction of the center of the tank, so as to interlock with said screen, whereby said screen serves as a mold during the construction of the tank, but becomes embedded in the concrete so as to form a permanent reinforcement therefor.

1,307,433. STOVE. FREDERICK BRUCKMAN and HENRY BAUM, Belleville, Ill. Filed Feb. 12, 1918. Serial No. 216,000. 2 Claims. (Cl. 126-90.)

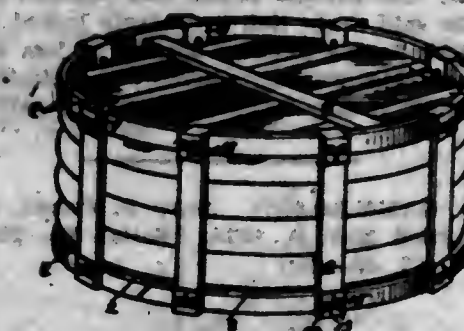
1. A casing, a combustion chamber located on the bottom of the casing and formed with an inclined top, and a vertical flue located at one side of the top and terminating adjacent to the top of the casing and serving as a radiator, gas burners in the combustion chamber adjacent to said inclined top, radiators suspended in said casing and communicating with each other and with the combustion chamber flue and an outlet flue and forming a turbulent passage for the products of combustion, said casing having an air inlet in its bottom opening into the combustion chamber and an air outlet in its top, and

an air inlet at one side whereby the air is directed over the top of the combustion chamber and under and over the



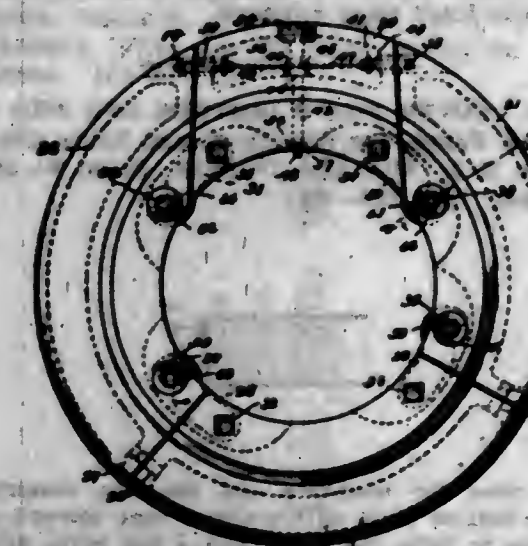
radiators, and a deflector adjacent the burners and the air inlet opening in the bottom of the combustion chamber.

1,307,434. CRATE. JOHN R. BUSCHLER, Keokuk, Iowa, assignor to Albert G. Wetmore, Plymouth, Ind. Filed Jan. 8, 1917. Serial No. 141,175. 2 Claims. (Cl. 217-49.)



1. A crate comprising end members or heads spaced apart, each embodying a ring-shaped marginal member, slats extending between said heads and arranged in lapping engagement with the latter, rectangular U-shaped coupling members secured to the ends of each slat and engaging over the marginal member of each head and provided in the side portions with aligned openings, and a fastening member arranged to be positioned in said openings and inwardly of said marginal member for detachably coupling the crate members together.

1,307,435. COLLAPSIBLE CORE. ELMER J. BUNDY, East Palestine, Ohio, assignor to The McGraw Tire & Rubber Company, East Palestine, Ohio, a Corporation of Ohio. Filed Mar. 17, 1919. Serial No. 283,050. 9 Claims. (Cl. 18-45.)



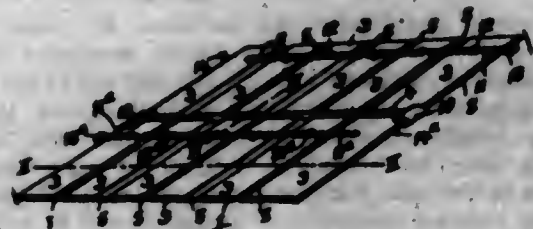
1. In a collapsible core, the combination with sections of a hub pivoted in one section, and a bolt with an eccentric bearing surface in the adjacent section with which the hook engages.

1,307,436. CHAIN-COCKEY. CHARLES J. COOPER, Melrose, Ill., assignor of one-half to H. W. Cooper Saddlery Hardware Mfg. Company, Melrose, Ill., a Corporation of Illinois. Filed Dec. 22, 1917. Serial No. 299,909. 2 Claims. (Cl. 84-36.)



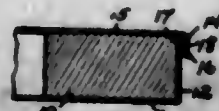
1. In combination, a chain cockey comprising a pair of separated limbs connected at one end to form an open eye, the opening to which is of substantially less width than the interior width of the eye, a removable member connecting the opposite ends of said limbs, and a chain link having an endless metallic band having one of its ends engaged in said eye with a loose fit therein, the opening to said eye being of less width than the thickness of that portion of the link engaged in the eye, whereby the said chain link is securely locked within the eye, said link having another portion of less width than the width of said opening, whereby, by suitably manipulating the link, it may be disengaged from said eye.

1,307,437. GAME-BOARD. JOHN F. CUNY, New York, N. Y. Filed Mar. 6, 1918. Serial No. 239,754. 10 Claims. (Cl. 46-21.)



1. A sectional board for card games comprising a plurality of rows of flats, each row comprising a plurality of flats, each flat having a plurality of its edges integrally united to the flats adjoining it, said board being adapted to present a continuous playing surface when open, and to fold upon itself when collapsed.

1,307,438. COVER FOR WASHTUBS AND THE LIKE. WILLIAM FADEN, JON SCHATMAN, and LOUIS GOLDSOME, Newark, N. J. Filed Mar. 19, 1918. Serial No. 293,000. 3 Claims. (Cl. 220-94.)



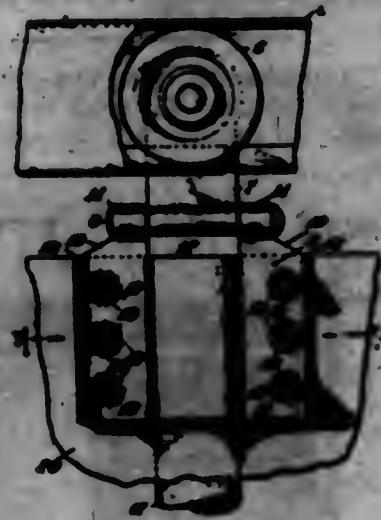
1. A cover for washtubs and the like comprising a frame, a bottom plate on the frame bent upward against the frame to form the sides, and a top plate sitting on the frame and with its edges joined to the bottom plate at the top of the sides by an interlocking seam, said seam being crimped to lie parallel with the sides.

1,307,439. BAG-HOLDER. ARTHUR J. FARNSWORTH and STEPHEN M. DE CLARK, San Francisco, Calif. Filed Mar. 28, 1918. Serial No. 295,842. 3 Claims. (Cl. 83-38.)



1. A bag holder comprising supports, bag holding arms thereon, spring bars extending from said supports, and clamping bars pivoted at their centers to said spring bars and bearing against said bag holding arms.

1,307,440. HANGER FOR FLEXIBLE COVERINGS FOR DOORWAYS, &c. WILLIAM H. FITZ, Aurora, Ill., assignor to Richards-Watson Manufacturing Company, Aurora, Ill., a Corporation of Illinois. Filed Oct. 7, 1918. Serial No. 297,300. 5 Claims. (Cl. 100-22.)



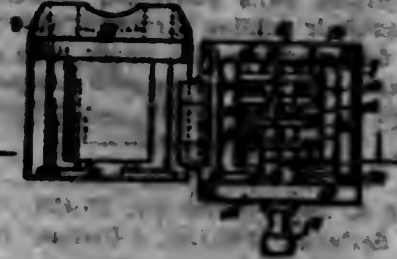
1. A hanger comprising in combination an overhead trolley, an apron hinged thereto and depending therefrom and forming one member of a clamp, a second clamp member opposite said apron, each of said members having an outwardly-bowed portion which when opposite each other form a vertical socket, and means at each side of such socket for tightly clamping said members together.

1,307,441. GUN-SIGHT. HERMAN R. FENSSON, Elmberly, Wis. Filed Oct. 19, 1918. Serial No. 298,322. 9 Claims. (Cl. 32-47.)



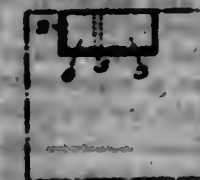
1. The combination of a front sight having a V-notch and a rear sight having an opening through which the front sight is visible and a depending pointer cooperating with said notch to determine the sighting elevation without enclosing the object from view.

1,307,442. COMBINATION-PAIDLOCK. THOMAS A. GOSSET, Kansas City, Mo., assignor of one-third to Calvin M. Linden, Kansas City, Mo., and one-third to Julius Bragg, Westington, Oreg. Filed Mar. 18, 1918. Serial No. 298,362. 7 Claims. (Cl. 70-113.)



1. In a combination padlock, a casing, a hump removably insertible therein, tumblers rotatably mounted on the same axis in said casing, each tumbler having means for transmitting rotation to the tumbler next adjacent, manually operated means for rotating one of the tumblers, the tumblers in the unlocked position permitting the insertion and removal of the hump, and in the locked position holding the hump from removal from the locking position, a locking member adapted to releasably engage all of said tumblers for holding them in the unlocked position, when the hump is withdrawn, the hump when inserted to the locking position moving said locking member out of engagement with said tumblers, and means for moving the locking member into engagement with said tumblers when the hump is withdrawn from the casing.

1,307,443. FOLDED SHEET OF PAPER AND THE LIKE. WILLIAM Y. LEWIN, Norwood, Pa. Filed May 31, 1917. Serial No. 172,181. 3 Claims. (Cl. 206-57.)

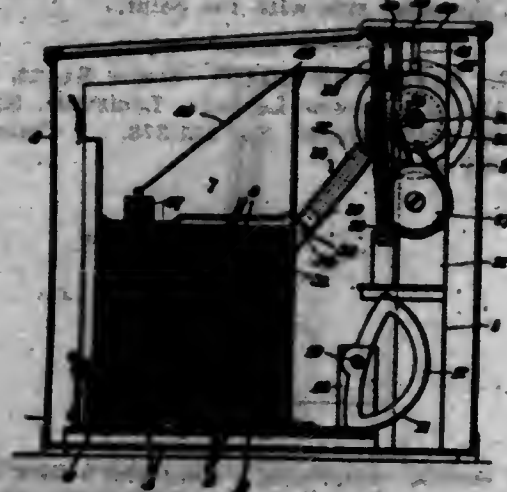


1. A sheet of paper having a central body portion and opposite edge portions folded on substantially parallel lines and extending inwardly from said lines adjacent to the body portion, said body portion and said edge portions being also folded on lines substantially at right angles to said parallel lines, one of said edge portions and the body portion forming the maximum thickness of the entire folded sheet at one portion thereof, and the other of said edge portions and the body portion forming the maximum thickness of the entire folded sheet at another portion thereof.

1,307,444. DISPENSING APPARATUS. OTTO JABOER, Elkins Park, Pa., assignor to Industrial Service Company, Philadelphia, Pa., a Corporation of Delaware. Filed May 31, 1917. Serial No. 171,878. 6 Claims. (Cl. 211-8.)

2. In a dispensing apparatus, the combination of a casing providing a container for the articles to be dispensed, a rock shaft mounted to turn in the casing, an operating member secured to and projecting from the shaft and operative to turn said shaft from a normal position, a longitudinally reciprocative plate slidable in said casing from a normal position, means operated by said shaft when turned from its normal position to move said

plate from its normal position, said means including a wheel mounted on said shaft and a flexible member connecting said wheel and said plate, and means operated by said plate when moved from its normal position to eject an article from said container.



1. In a tire-shoe, a tread-plate conforming to the outer curvature of a segment of tire, and provided with slotted ears, a stirrup to straddle the felly, and having terminal slotted ears, pins to connect the ears of the tread-plate and stirrup, and fastening means connecting with the stirrup to engage the felly.

1,307,445. TIRE-SHOE. WILLIAM J. KIMLY, Cedar Rapids, Iowa, assignor of one-half to E. L. Barber, Wyoming, Iowa. Filed Mar. 14, 1918. Serial No. 292,738. 3 Claims. (Cl. 152-14.)



1. In a tire-shoe, a tread-plate conforming to the outer curvature of a segment of tire, and provided with slotted ears, a stirrup to straddle the felly, and having terminal slotted ears, pins to connect the ears of the tread-plate and stirrup, and fastening means connecting with the stirrup to engage the felly.

1,307,446. DENTAL INSTRUMENT. MATTHEW M. KEAR, Detroit, Mich., assignor to Detroit Dental Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 24, 1918. Serial No. 28,568. 4 Claims. (Cl. 82-10.)



1. A dental instrument comprising a rod provided with ground polygonal faces forming cutting edges, said rod having the cutting edges at one end tapering to a point and extending substantially longitudinally thereof, and means for operating the rod.

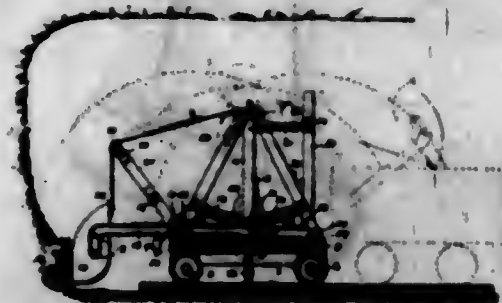
said rod being twisted to form spirals of relatively flat pitch, the cutting edges of the spirals having a sharper angle on the side opposite the point than the cutting edges on the same side with the point.

1,307,447. **SAFETY-ENVELOP.** SIMON KLOTZ, Birmingham, Ala., and SIMON LARABUS, Louisville, Ky. Filed Aug. 26, 1918. Serial No. 251,373. 3 Claims. (Cl. 229-78.)



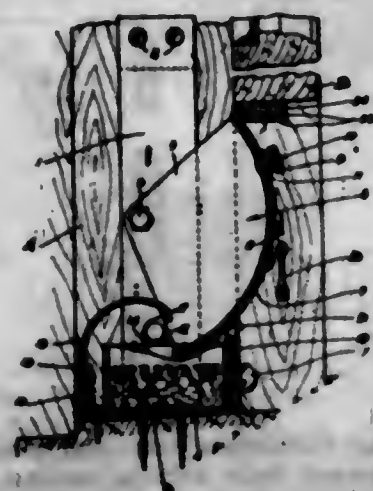
1. An envelop comprising a front and a back body portion, and a back flap adapted to fold down over the back body portion and having its tip gummed only on its outer surface, and a metallic fastener carried by the back body portion with its prongs outturned and disposed to penetrate the flap immediately above said gummed tip and in position to be concealed by the latter when folded back upon and sealed to the outer surface of the flap.

1,307,448. **MECHANICAL SHOVEL.** FRED LAMON, Virginia, Minn. Filed Mar. 20, 1917. Serial No. 155,904. 11 Claims. (Cl. 214-142.)



11. The combination with a mechanical shovel of the character described, comprising a suitable upright support, one piece dipper arm pivotally and reciprocally carried by the support and a dipper carried on the free end of the arm and operative over the support, of a single operating line leading through the upper end of the support and operating the dipper and its arms over the support.

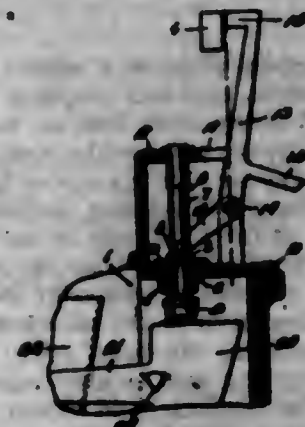
1,307,449. **VENTILATOR.** BROUJI MAYEDA, New York, N. Y. Filed Mar. 8, 1919. Serial No. 290,900. 8 Claims. (Cl. 98-31.)



6. A window ventilator comprising a pivotally mounted segmental drum having a convex surface facing into a

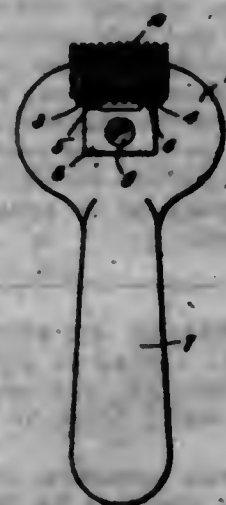
room to be ventilated, an arcuate guide plate to guide air against the convex surface of said drum, the lower edge of said drum positioned to deflect air beneath said arcuate guide for guiding about a portion of the convex surface of the drum into a room, a plate adjustably supported for movement toward or from the drum to regulate the quantity of air passing into the room, and detergent containing pans positioned between said drums and the arcuate air guiding surface of said guide, tangential flanges formed along the upper edge of said drum, and a yieldable pad carried by said flanges and adapted to be engaged by a window sash.

1,307,450. **VALVE.** HARRY E. MONTGOMERY, Boston, Mass. Filed May 3, 1918. Serial No. 25,425. Renewed May 28, 1916. Serial No. 100,155. 4 Claims. (Cl. 137-139.)



1. The valve herein described consisting of a valve-seat, a valve-plate arranged for engagement with said seat, a stem bearing said plate and extended above and below it, its upper end-portion having an elongated slot, and its lower end-portion being made tubular and having lateral openings, actuating-means arranged beneath said lower end-portion of the stem and resetting-means having a finger which enters the slot in the upper end-portion of the stem, and adapted, when in one position, to engage the lower end of the slot, and when in another position, to engage the upper end of the slot, said resetting-means serving as a supplementary actuating-means while being moved into its abnormal position.

1,307,451. **SCREW-THREAD GAGE.** RILEY HUBBARD PARKER, Winthrop, Mass., assignor to Gillette Safety Razor Company, Boston, Mass., a Corporation of Delaware. Filed Nov. 1, 1918. Serial No. 290,672. 2 Claims. (Cl. 23-190.)



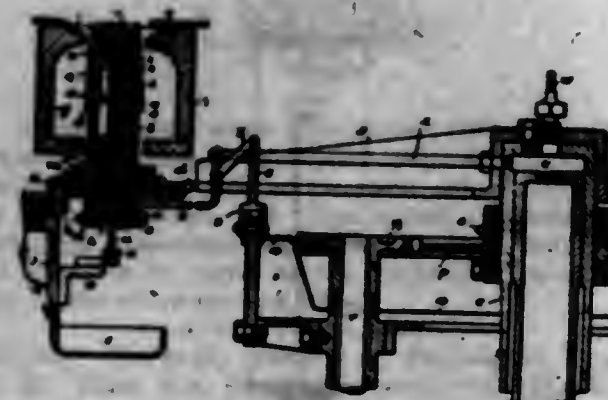
1. A screw thread gage comprising a body portion provided with two peep holes, and two abutments carried by the body portion and each located in line with one of the peep holes, said abutments being shaped and spaced to simultaneously fit a screw thread cut to a predetermined standard.

1,307,452. **MEANS FOR CLEANING CARDS.** LOREN W. FURBER, Newton, Mass., assignor to Geo-Lowell Shops, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 30, 1917. Serial No. 204,999. 5 Claims. (Cl. 10-15.)



4. In a machine of the kind described, a rotary member carrying card clothing and a rotary stripper also carrying clothing, and means for supporting said stripper whereby it may be moved into and out of operative engagement with said rotary member, said means comprising a rockable arm and means for rocking said arm, said means comprising a slot in said arm, an eccentric mounted in said slot, and means for turning said eccentric.

1,307,453. **MACHINE FOR FIRE-FINISHING TUMBLERS AND OTHER GLASS ARTICLES.** HENRY HARLEY PITT, Leamington, England. Filed Aug. 7, 1917. Serial No. 184,964. 5 Claims. (Cl. 40-53.)

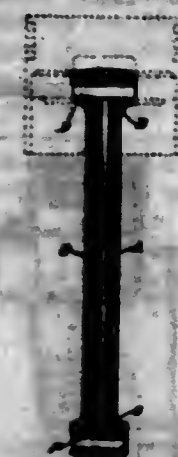


1. A fire-finishing machine for hollow glass articles comprising a movable carrier, a series of hollow article-carrying plugs mounted thereon, said plugs being of a shape corresponding to the interior of the article to be carried thereby, means for advancing the carrier to successively pass each plug and the article mounted thereon through the furnace, and means for supplying jets of cooling medium against the interior of each plug during the movement of the carrier, whereby the interior of the glass article is cooled and thereby prevented from sticking to the plug and from losing its shape.

1,307,454. **CONNECTING-ROD.** CLOVIS C. FITZMAN, New York, and GABRIEL MIDDON, Brooklyn, N. Y., assignors to Richard P. Lyden, New York, N. Y. Filed Dec. 21, 1916. Serial No. 193,190. 4 Claims. (Cl. 74-17.)

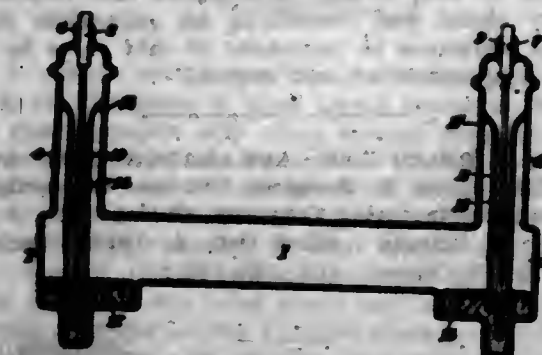
4. In a one-piece connecting rod provided with enlarged ends, a passage extending longitudinally through

the connecting rod and passages through the enlarged ends at an angle thereto, the metal surrounding said



passages being harder than the metal forming the exterior of the connecting rod.

1,307,455. **VACUUM ELECTRIC APPARATUS.** JOSEPH C. PULS, New York, N. Y., assignor to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed June 19, 1918. Serial No. 774,507. 4 Claims. (Cl. 176-50.)



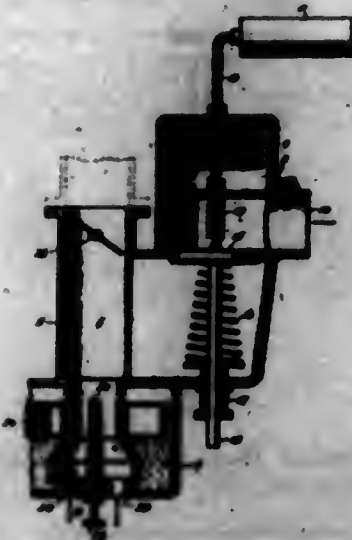
1. In a vapor electric lamp, a container of highly refractory glass, liquid metallic electrodes and chambers wherein they are located, leading in conductors extending into the liquid electrodes and surrounded by interior tubes out of contact throughout their length with said conductors, and tubular seals for the said leading in conductors remote from the region of the heated metal into which said conductors extend.

1,307,456. **PORTABLE ELECTRIC LIGHT.** LESTER FRAHAR, New York, N. Y., assignor to Louise Frahar, New York, N. Y. Filed July 24, 1917. Serial No. 182,404. 3 Claims. (Cl. 240-8.5.)



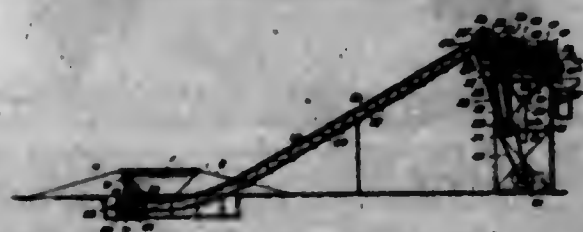
1. In combination, a two-part casing, said parts having telescoping peripheral walls, a strap for holding said parts together and for securing said casing in position, an electric light carried by the outer wall of one casing part, and a push-button carried by the end wall of the other casing part, and a battery within said casing.

1,307,457. CARBURIZER. CHARLES L. RAYFIELD, Chicago, Ill. Filed June 31, 1917. Serial No. 176,185. 5 Claims. (Cl. 123-119.)



5. A carburizer having an intake valve; yielding means to normally hold the valve closed; an expandable casing to supplement the valve closing means, another casing subject to the heat of the engine, and a closed conduit connected to said casing, said casing and conduit hermetically closed and containing an expandable fluid to vary the resistance to movement of said valve by variation of temperature of said engine.

1,307,458. RECEIVING APPARATUS FOR SUGAR-BEETS. HUGH F. ROSSINI, Chicago, Ill., assignor to Weller Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 5, 1916. Serial No. 123,822. 6 Claims. (Cl. 130-32.)



1. The method of handling beets for storage which consists in dumping a load of beets on a mass, conveying and gradually cleaning the material of the load and automatically separating the dirt and residual tops from the beets, retaining the tops and dirt separately from the beets during a continuous operation, weighing one of the separated products, and separately disposing of the cleaned beets.

1,307,459. MULTIPLE-BELLOWS PUMP. LYMAN R. ROSSINI, Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Original application filed May 24, 1916, Serial No. 99,488. Divided and this application filed Aug. 16, 1917. Serial No. 186,478. 6 Claims. (Cl. 230-2.)

1. The combination with a pneumatic pump having a plurality of pumping elements, each provided with a pulley, of a drive shaft for said elements, eccentrics mounted on said shaft, endless flexible connections running over said eccentrics and said pulleys and thereby driving said pumping elements, and springs individual to said elements maintaining said flexible connections taut.

2. The combination with a pneumatic pump, of a shaft for driving said pump, an eccentric pulley mounted on said shaft, a pulley connected to said pump, an endless flexible connection wrapping around said pulleys and connecting them in driving relation, and means to maintain the flexible connection taut.

2. The combination with a vacuum pump, of a shaft for driving said pump, continuously traveling endless flexible reciprocating connections between said shaft and said pump, for enabling said shaft to actuate said pump, and means for maintaining the connections taut.



4. The combination with a pneumatic pump including a plurality of individually-operable sections, a shaft for driving said pump, and individual driving connections between said shaft and each of said sections, said driving connections being staggered relatively to each other, so as to afford a regular continued action of said sections, each of said driving connections including a continuously traveling flexible endless element enabling the rotary movement of said shaft to operate said sections, and means to maintain said endless elements taut.

5. The combination with a pneumatic pump having three separately-operable sections, of a shaft for driving said pump, a plurality of eccentric pulleys secured on said shaft at angles of 120° to each other, so as to be evenly distributed around said shaft, an idle pulley connected to each of said pump sections, and an endless connection wrapped around each of said pairs of idle and eccentric pulleys, so as to form combined traveling and reciprocating driving connections between the shaft and the pump sections.

1,307,460. SANITARY OVERFLOW-VALVE. CHARLES N. SKALLA, Milwaukee, Wis. Filed Apr. 23, 1916. Serial No. 92,963. 1 Claim. (Cl. 4-34.)



In combination with a plumbing receptacle having a discharge opening and a threaded nipple extending there-through, a three way coupling member threaded at its upper end to the nipple and having a valve seat adjacent the nipple, a tubular member threaded to the side portion of the coupling member and having an outer closed end, a horizontally extending lever pivoted within the coupling and having one end portion extending only into the tubular portion, a valve positioned below the valve seat and movably mounted on the inner end portion of the lever and engaging the valve seat, a weight positioned within the tubular member and adjustably threaded on the outer end portion of the valve lever for counterbalancing the weight of the valve and a column of water in the receptacle of a predetermined height, a rock shaft extending through and journaled in the tubular member, an arm positioned within the tubular member and mounted on the rock shaft and extending to a position to engage

the outer end portion of the valve lever but not connected thereto, said cam engagement permitting the free independent movement of said valve lever, and manually operable means for turning the rock shaft.

1,307,461. TIRE-RIM-LOCKING DEVICE. THOMAS A. SUMNER, San Jose, Calif. Continuation in part of application Serial No. 186,968, filed July 12, 1917. This application filed Dec. 2, 1918. Serial No. 305,065. 4 Claims. (Cl. 163-21.)



1. The combination with a wheel body and a demountable rim and means for preventing the inward displacement of said rim on said wheel body, of a plurality of holding devices for said rim, each device comprising a cam-belt operatively mounted in said wheel-body and passing transversely therethrough, a cam formed on the central portion of said cam-belt, a locking member mounted on said cam and adapted to engage said rim when forced outwardly by the rotation of said cam, and terminal members on said cam-belt coacting with said locking member and adapted to engage said rim and said wheel body and thereby prevent the outward displacement of said rim.

1,307,462. RAIL-BEARING WORM-GEAR. HERBERT J. SUMNER, New York, N. Y. Filed July 24, 1918. Serial No. 246,897. 4 Claims. (Cl. 74-66.)



1. A ball bearing worm gear formed with teeth having corresponding raceways in opposite sides thereof, U-shaped tubes spanning the ends of the teeth and connecting the ends of the raceways, said tubes having a detachable and interlocking connection with the gear, and anti-friction balls arranged to travel in the continuous passage provided by the raceways and tubes.

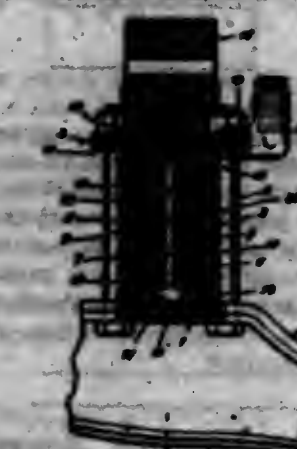
1,307,463. CLUTCH. JOSEPH M. BROCKTON, Yonkers, N. Y. Filed Nov. 18, 1913. Serial No. 801,582. 16 Claims. (Cl. 192-3.)



1. A driving shaft having a flattened portion, a driven member having an annular flange coaxial with the shaft,

a clutch sector between the flattened portion of the shaft and the inner periphery of the flange, the apex of said sector being squared off to align with the flattened portion of the shaft whereby rotation of the shaft relative to said sector may force the sector outward into frictional engagement with the flange, and means for limiting the outward movement of the sector.

1,307,464. VEHICLE-SPRING LUBRICATOR. WILLIAM H. THIMMER, Cleveland, Ohio, assignor to The Winton Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Aug. 5, 1916, Serial No. 113,318. Divided and this application filed Aug. 5, 1918. Serial No. 113,318. 3 Claims. (Cl. 267-82.)



1. A vehicle spring, having a plurality of superposed leaves, the thickness of some leaves gradually decreasing from their opposite side edges toward their middle portion whereby successive leaves bear upon each other only at their edges and thereby providing a shallow chamber between each two leaves, said leaves being also provided with registering openings at their middle portions forming a vertical lubricating channel, and a seat for said spring having a cap lying above and a base lying below the same, said cap having a lateral passage communicating with said channel and opening outwardly at the side of the spring.

1,307,465. COMPOUND FOR TEMPERING STEEL. CHRISTOPHER C. TRINKLE, Romney, Ind. Filed Mar. 21, 1919. Serial No. 284,132. 1 Claim. (Cl. 146-30.)

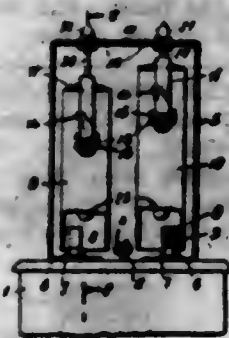
The herein described compound, comprising bicarbonate of soda, willow charcoal, sulfur, copperas and table salt, in or about the proportions specified and for the purpose set forth.

1,307,466. CHIME ATTACHMENT FOR TELEPHONE SIGNAL-BOXES. CHARLES MANNING VAN HEUSEN, Albany, N. Y. Filed May 27, 1918. Serial No. 236,715. 10 Claims. (Cl. 116-32.)



1. An attachment for a telephone signal box, comprising a striker and means for securing it to the usual hammer of the box; an elongated chime bell, a support adapted to extend over at least one of the usual gong posts of the box, and means for suspending the chime bell from the support; substantially as described.

1,307,467. CRIME ATTACHMENT FOR TELEPHONE SIGNAL-BOXES. CHARLES MARTIN VAN HANSEN, Albany, N. Y. Filed May 27, 1918. Serial No. 236,718. 10 Claims. (Cl. 110-33.)



9. An attachment for a telephone signal box, comprising a striker adapted to be secured to the usual hammer of the box, a vertical support adapted to be fastened to at least one of the usual gang posts of the box, a hollow bell suspended from said support in position to be struck exteriorly by said striker, and an impact member arranged to automatically strike against the interior of said bell consequent upon the operation of the hammer; substantially as described.

1,307,468. CLIMBING DEVICE. BENJAMIN FRANKLIN WELLS, Loveland, Colo. Filed July 6, 1918. Serial No. 243,626. 5 Claims. (Cl. 227-8.)



1. A ladder of the character described comprising a standard having ratchet teeth, a foot rest and a seat rest embracing the standard and movable along it, the seat rest being provided with means whereby it may be operatively connected to the body of the user, and both of said rests being provided with means whereby they may be detachably engaged with said ratchet teeth.

1,307,469. HAND-GRIP FOR GUNS. CHARLES D. WILSON, Toledo, Ohio, assignor of one-half to Catherine V. Wilson, Toledo, Ohio. Filed July 26, 1918. Serial No. 246,881. 10 Claims. (Cl. 80-1.)



1. A hand grip of the class described comprising a shell open at its ends and top, a flange for said shell spaced from the side portions thereof intermediate its ends to form air passages, said shell having inlet and outlet

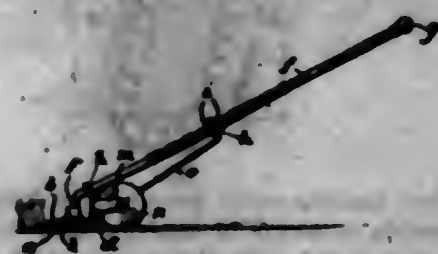
openings to said passages which are open at top and bottom to the atmosphere, and a cover movably carried by the shell for closing the top opening.

1,307,470. SECTIONAL MOLD. WARREN MALVIN YOD-HARR, Pittsburgh, Pa., assignor to The Best Engineering Company, Pittsburgh, Pa., a Partnership. Filed Jan. 21, 1918. Serial No. 212,397. 11 Claims. (Cl. 25-124.)



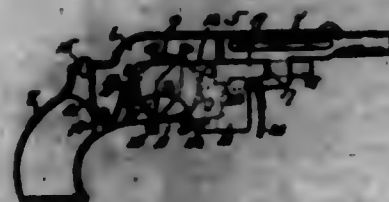
3. A sectional, frusto-conical mold comprising a series of sections having lengthwise tapering sides adapted to fix and maintain the taper of the mold, and a series of sections having lengthwise parallel sides, the sections having parallel sides being of varying widths adapted to change the mold to predetermined diameters without change in the taper thereof by the substitution of one section for another, and means for connecting the abutting edges of the mold sections.

1,307,471. GRASS-TRIMMING IMPLEMENT. WENDELL P. ANTHONY, Ridley Park, Pa. Filed Mar. 12, 1919. Serial No. 282,206. 7 Claims. (Cl. 56-242.)



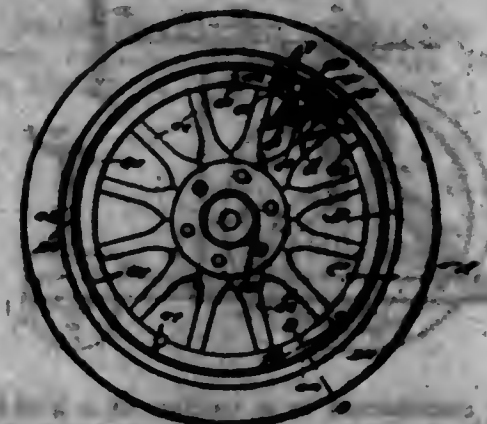
1. A grass trimming implement comprising a pair of serrated cutting blades, a push rod connected with said blades and by means of which the blades may be pushed forward, said push rod being rockable on its longitudinal axis, and means operable by the push rod, in its rocking movement, to impart to one blade a transverse reciprocating movement relatively to the other.

1,307,472. TOY-PISTOL. CHARLES A. BAILEY, Cromwell, Conn. Filed Dec. 30, 1918. Serial No. 266,836. 5 Claims. (Cl. 42-54.)



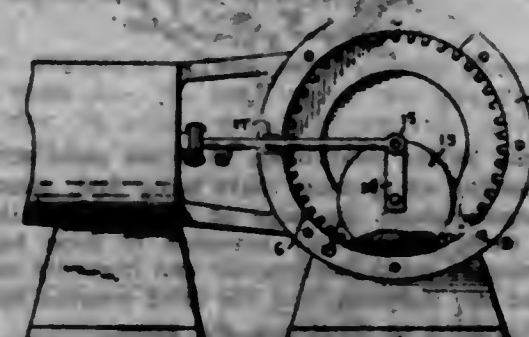
4. A cap holding wheel turning on a central axis, in combination with a slightly mounted detent plate having a lip to strike into cap pockets in said wheel, together with suitable mechanical means connecting said plate and wheel to move the latter one space as the slide is forced back and released for forward stroke to detentate a paper cap.

1,307,473. VEHICLE-WHEEL. ERIC H. BAKER, Chicago, Ill., assignor to Universal Tire Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 24, 1912. Serial No. 781,082. 4 Claims. (Cl. 182-21.)



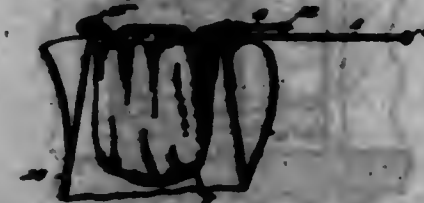
1. A demountable split tire, in combination with a wheel, rim expanding and contracting mechanism spanning the split and projecting inwardly from the rim, said wheel having a box-like chamber adapted to receive and inclose the mechanism, said mechanism including a system of operative levers adapted to expand and contract the rim, oppositely disposed projections on said levers adapted to contact with the opposite ends of said box to force and hold the rim ends toward each other.

1,307,474. MEANS FOR CONVERTING ROTARY INTO RECIPROCATING MOTION. WILLIAM B. BALDWIN and JOHN COOPER, South Madison, Wis. Filed June 22, 1918. Serial No. 241,406. 2 Claims. (Cl. 74-34.)



1. A device of the character described comprising a fixed internally toothed gear, said gear having an annular track at one end of the gear teeth, side plates closing the opposite sides of the gear, a shaft rotatably supported by one of said side plates at the axial center of the gear, a crank arm fixed upon said shaft, a relatively small gear wheel rotatably supported by the crank arm and meshing with the teeth of the internal gear and having an annular flange engaged upon said track, a wrist pin fixed to the small gear, and a rectilinearly movable reciprocating rod connected to said wrist pin.

1,307,475. BAG-HOLDER FOR COFFEE-STRAINERS. ARTHUR D. BAKER, Yakima, Wash. Filed Dec. 9, 1918. Serial No. 266,978. 1 Claim. (Cl. 88-26.)



A device of the character specified comprising a ring having a handle, a second ring having radial projections adapted to lap upon the first named ring, said second

ring being biased to the first named ring to swing toward and from the same and having a handle registering with the first named handle.

1,307,476. RAILWAY-SIGNAL. ROBERT H. BARNES, Fowler Springs, Ga. Filed Apr. 14, 1918. Serial No. 24,304. 3 Claims. (Cl. 240-208.)



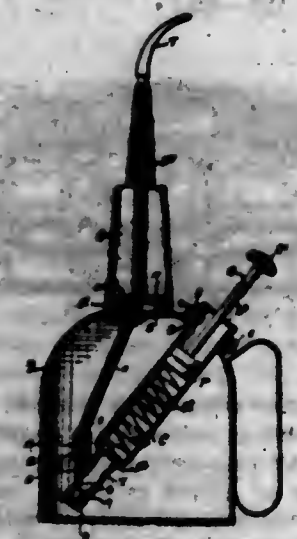
1. A crossing signal comprising a post secured near a railroad track, a signal board pivotally mounted near the upper end of the post, a signal light carried by the upper end of the post and having opposed light openings therein, a housing carried by one side of the signal board and adapted in connection with the board to cover said light openings, when the board is in its normal position and adapted to uncover the light openings when the board is in its raised position, and means for actuating said signal board on the approach of a train.

1,307,477. EYEGLASS-MOUNTING. EARLE J. R. BRANTLEY, Providence, R. I., assignor to Universal Optical Corporation, Providence, R. I., a Corporation of Rhode Island. Filed Jan. 22, 1918. Serial No. 213,282. 1 Claim. (Cl. 88-43.)



A one-piece eyeglass mounting comprising a bow spring bridge having its side portions shaped to be tangent to the inner edges of the opposite lens frames, said side portions each having an integral bendable clamping portion adapted to be folded about its adjacent lens frame and integral nose grips on the ends of said bridge.

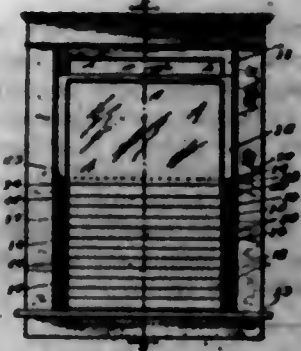
1,307,478. OIL-CAN. HENRY M. HANNAHL, Colton, S. D. Filed Apr. 7, 1919. Serial No. 288,067. 2 Claims. (Cl. 221-61.)



1. A can of the class described comprising a body provided with a pair of spaced openings in the upper end portion thereof, each of said openings being defined by an outstanding flange, a cylinder insertible through one of the openings, means coacting with said cylinder and the flange of said opening for securing the cylinder in applied

position, the inserted end of the cylinder being provided with a valve controlled opening, a feed pipe detachably engaged with the inserted end portion of the cylinder, the opposite end portion of the feed pipe being provided with a flange engaging the outer edge of the flange of the second opening, a spout engageable with the flange of the second opening and coacting with the flange of the feed pipe to secure said end portion of the feed pipe, and a piston working within the cylinder.

1,307,479. WINDOW BLIND AND VENTILATOR. EDWARD F. BOLTS, Chicago, Ill. Filed June 11, 1917. Serial No. 174,071. 6 Claims. (Cl. 156-17.)



1. In combination, a window sash capable of movement in a vertical plane, a plurality of flexible members attached thereto and movable vertically therewith, a plurality of slats spaced apart upon and supported by said members to form free and unobstructed ventilating spaces therebetween, and means for adjusting the angle of said slats relative to the plane of the window sash.

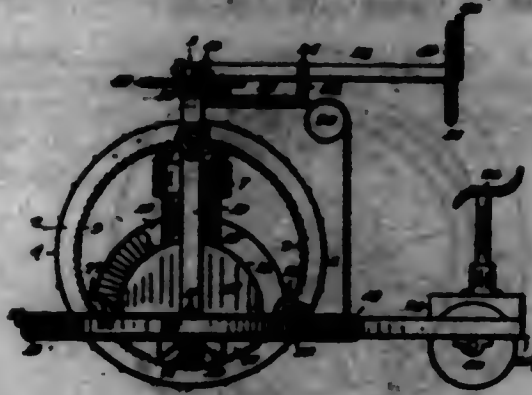
4. In combination, a window sash capable of movement in a vertical plane, a plurality of flexible members suspended from the lower edge thereof and movable therewith, and a plurality of separate disconnected slats carried by said flexible members at intervals and lying in a compact pile on the window sill when the window sash is closed, and lifted independently one by one from said pile as the sash is raised to open position, thereby filling the open space between the lower edge of the sash and the sill, and returned to said pile one by one as the sash is lowered to closed position.

1,307,480. ROTARY ENGINE. TRACY F. BRACKETT, Chicago, Ill. Filed May 18, 1918. Serial No. 235,408. 4 Claims. (Cl. 121-62.)



3. A rotary engine comprising a shaft having an angularly disposed bearing portion, an angle plate rotatably mounted upon said angularly disposed bearing portion, a plurality of pairs of aligned cylinders rotatably mounted upon said shaft, the opposed ends of said cylinders lying on opposite sides of said angle plate, a trunk piston reciprocally mounted in each of said pairs of cylinders, connections between said pistons and said angle plate, and means between the adjacent ends of opposed cylinders for supporting said pistons on their outer faces at all points between the adjacent ends of said cylinders to relieve the heads of said pistons from pressure due to centrifugal force.

1,307,481. TRACTOR. BLANCK E. CHANDLER, Eagle Rock, Calif. Filed Aug. 3, 1917. Serial No. 186,059. 3 Claims. (Cl. 186-10.)



1. The combination in a tractor, of a grid-form front driving wheel and a concentrically inclosed shell wheel, covering the intergrid spaces.

1,307,482. CAN-HOLDER. HENRY M. CHENE, Ferndale, Ark., assignor of one-half to Alexander R. Levy, Little Rock, Ark. Filed July 22, 1918. Serial No. 266,164. 2 Claims. (Cl. 58-1.)



1. A can holder comprising, in a one piece structure, a plate having an opening, there being first, second and third tongues about the edge of the opening, the first tongues being downwardly extended to form legs, the second tongues being downwardly and inwardly extended to fashion can supports, and the third tongues being upwardly extended to constitute can grips.

1,307,483. CORE-OVEN DOOR. FREDERICK A. COLEMAN, Cleveland Heights, Ohio, assignor to The Foundry Equipment Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 27, 1918. Serial No. 235,149. 5 Claims. (Cl. 110-172.)



1. The combination with a door and a doorway, of a rectangular frame pivotally carried by the doorway adjacent to one edge of the door, said frame having its long

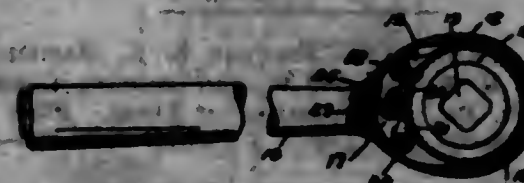
dimension vertical, means for pivoting the central portion of the door to the frame adjacent to the upper and lower corners of the frame, and means on the frame for supporting the door.

1,307,484. BRAKE-OPERATING MECHANISM. JOHN D. COMPTON, Indianapolis, Ind. Filed Apr. 22, 1918. Serial No. 230,245. 2 Claims. (Cl. 188-84.)



1. The combination with a car structure and a yoke fixedly connected to one end thereof and depending therefrom, of a shaft journaled in the yoke, a winding drum thereon, a worm wheel secured to the shaft, a manually operated shaft mounted on the car structure and having its lower end mounted for sliding movement within the yoke, a worm upon said shaft, a lever fulcrumed in the yoke and having a cam slot through which the shaft extends, said lever being provided with a weighted end for holding the cam slot normally positioned to maintain the worm in engagement with the wheel.

1,307,485. WRENCH. ANTHONY M. CONNA, Providence, R. I. Filed Jan. 31, 1918. Serial No. 214,873. Renewed Nov. 18, 1918. Serial No. 268,113. 3 Claims. (Cl. 61-61.)



1. A wrench comprising a handle, a hand portion carried by said handle having a work-operating member rotatably mounted therein said member being provided with close spaced peripheral teeth, and a plurality of pawls in said hand arranged to engage the teeth of said member progressively whereby the effective operating motion of the handle is reduced to the minimum.

1,307,486. ADJUSTABLE CAPITAL-MOLD. ALBERT J. DUNLAP, St. Paul, Minn., assignor, by mesne assignments, to The Guardian Savings & Trust Company, trustee, a Corporation of Ohio. Filed Jan. 2, 1917. Serial No. 140,154. 3 Claims. (Cl. 26-118.)



1. A column capital mold comprising an expandable top rim formed with a downwardly projecting flange, an in-

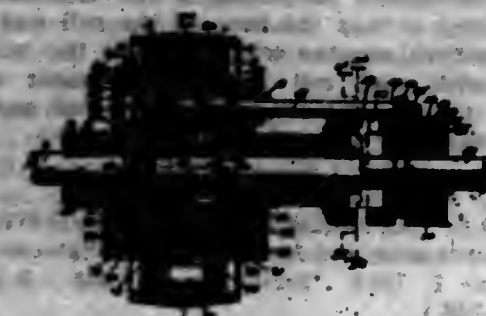
termediate section adjustably overlapping said flange, and an expandable, inwardly flaring, circular section adjustably overlapping said intermediate section, and supporting abutments secured underneath the upper edge of said intermediate section and constituting a rim therefor for the purpose set forth.

1,307,487. INTERNAL-COMBUSTION ENGINE. FREDERICK W. DOBBS, Sonoma, Calif. Filed Aug. 7, 1917. Serial No. 184,957. 6 Claims. (Cl. 121-120.)



1. In combination with a vehicle, of an explosive or internal combustion motor for driving the same, brake actuated means for controlling the speed of the vehicle, a valve for controlling the flow of fuel to the motor, a connection between the valve and brake actuating means whereby said valve is positioned to cut off the flow of fuel to the motor when the brakes are applied to cause the motor to be operated by the momentum of the vehicle to assist the brakes in retarding the movement thereof, and a spring associated with the valve for automatically restoring the same to open position to admit fuel to the motor after the brakes are applied.

1,307,488. VARIABLE-SPEED TRANSMISSION. HENRY U. DURANT, Los Angeles, Calif., assignor of two-thirds to Milo A. Baker and Fred L. Baker, Los Angeles, Calif. Filed Oct. 2, 1918. Serial No. 256,567. 16 Claims. (Cl. 74-34.)

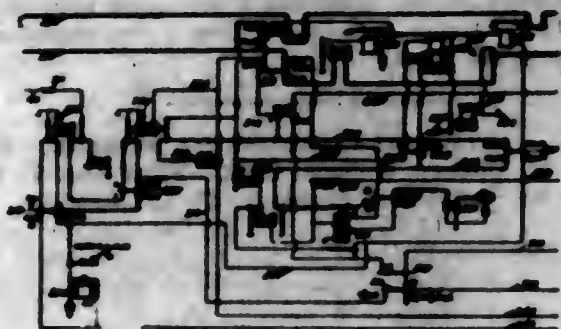


1. A variable speed transmission comprising a housing having a chamber axially thereof and another chamber eccentric of and joining the first named chamber, gear wheels in and substantially fitting the chambers and meshing with one another, there being a valve chamber in the housing and a port opening from the valve chamber to the junction point of the gear chambers, and a valve in the valve chamber, there being communication between the valve chamber and the axial gear chamber at a point removed from the first named port and there being a reservoir communicating with the eccentric gear chamber at the portion of said chamber farthest removed from the axis of the housing.

1,307,489. TELEPHONE-EXCHANGE SYSTEM. ALFRED H. DREW, Montclair, N. J., assignor, by mesne assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed June 7, 1915. Serial No. 22,737. 5 Claims. (Cl. 179-27.)

1. In a telephone system, incoming and outgoing lines, a selector switch, means for operating said switch to seize an outgoing line whether busy or idle, a talking connection established and maintained thereupon between

the calling incoming line and the called outgoing line, automatic means for applying signaling current to a



called outgoing line, and means for preventing the operation of said automatic means if said connection is extended to a busy outgoing line.

1,307,480. RAIL-ANCHOR. HORATIO G. GREEN, Washington, D. C. Filed Dec. 12, 1917. Serial No. 266,776. 27 Claims. (Cl. 238-321.)



23. An anticreep, comprising a rail embracing element extending around the base of the rail and a tie-engaging resilient member which engages the rail base, interlocks with said rail embracing element and is strained by the forced movement of said rail embracing element transversely upon the rail base.

1,307,491. ATTACHMENT FOR WIND-SHIELDS. HARRY GOLDSMITH and JOHN T. FUMBA, Syracuse, N. Y. Filed June 1, 1918. Serial No. 237,983. 3 Claims. (Cl. 21-148.)

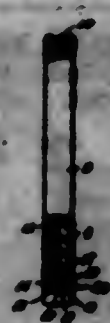


1. An attachment for wind shields comprising a horizontal bar adapted to rest upon the top rail of the shield, opposite upright bars attached to the ends of the horizontal bar and extending downwardly therefrom, and having their lower ends spring pressed against the lower edges of the shield, said bars constituting a frame, and a supplemental shield mounted on the frame to swing toward and from the main shield.

1,307,492. MAGAZINE CATCH AND RELEASE. GRANT HAMMOND, New Haven, Conn., assignor of one-third to Alvin C. Washburne, Pittsfield, Mass., and one-third to Frederick G. Chase, Dalton, Mass. Filed Dec. 1, 1917. Serial No. 264,264. 14 Claims. (Cl. 43-7.)

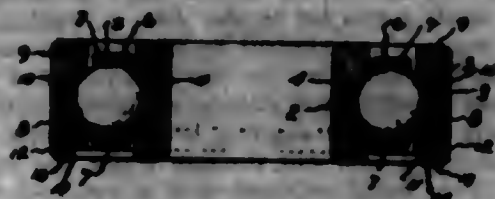
13. A stream having a magazine chamber therein, a catch to retain the magazine in said chamber, a mag-

azine containing a follower having cartridge feed movement therein away from said catch, and a connection attached to said follower and catch and arranged to per-



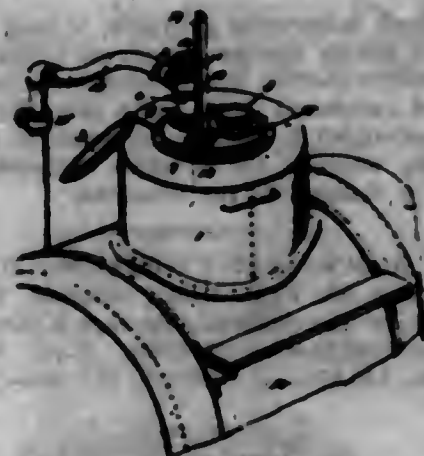
mit movement of the follower without operation of the catch until the follower has reached a predetermined position.

1,307,493. ANTIFRICTION-BEARING. RUSSELL W. HANSON, Hartford, Conn. Filed Nov. 27, 1918. Serial No. 264,232. 4 Claims. (Cl. 64-56.)



1. An anti-friction bearing comprising inner and outer race members, a series of rollers between the race members, the outer race member having an annular bead provided with a shoulder and an interrupted annular one-piece member driven in place past said bead and abutting against the shoulder thereof.

1,307,494. TANK-CAR. TIMOTHY S. K. HAWKINS, Bayonne, N. J., assignor to Gulf Refining Company, Pittsburgh, Pa., a Corporation of Texas. Filed Jan. 8, 1916. Serial No. 71,067. 7 Claims. (Cl. 238-24.)

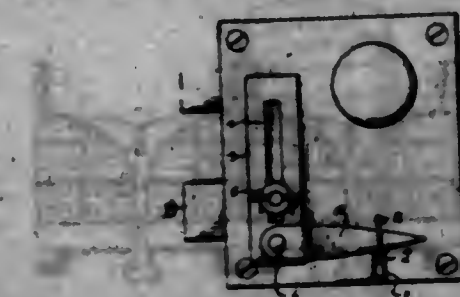


1. A cover for liquid containing receptacles comprising a head, a filling pipe and tube connected to the head, a float in the tube, a gage rod carried by the float for indicating when the tank car has been filled, and a screened vent pipe connected to the head for discharging the gases from the tank car and preventing admission of fire.

1,307,495. EXPLOSIVE COMPOUND. ROY LINCOLN HIND and ARTHUR J. BRUNS, Tennessee, Pa., assignors to Atlas Powder Company, Wilmington, Del., a Corporation of Delaware. Filed Nov. 1, 1918. Serial No. 260,651. 5 Claims. (Cl. 52-4.)

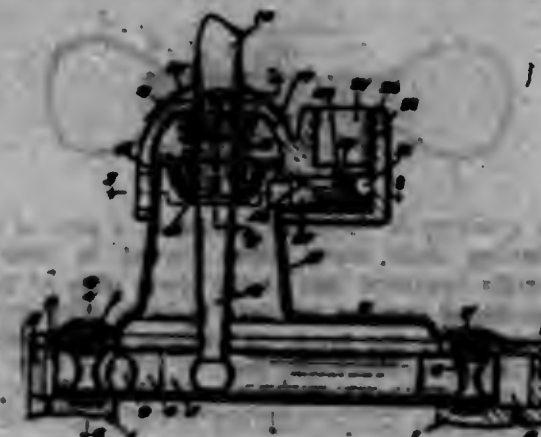
1. An explosive comprising copper sulfate and ammonium nitrate as its principal ingredient.

1,307,496. KEY-FASTENER. NORMAN E. WOLCOTT, Mendota, Mass. Filed Jan. 2, 1919. Serial No. 270,190. 1 Claim. (Cl. 76-65.)



In combination with a plate and a slidable bolt, said plate and the bolt being provided with registering openings when the bolt is in its locking position, a clamping member disposed through the openings of the plate and bolt for holding the bolt against retrograde movement, and a key engaging member held to the clamping by said clamping member.

1,307,497. LEVER-LOCK. GEORGE C. JANSSEN, Oakland, Calif. Filed Dec. 24, 1918. Serial No. 268,102. 7 Claims. (Cl. 74-55.)



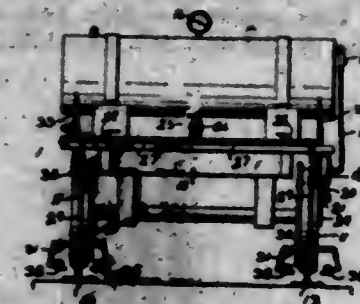
1. In combination with a lever, a tubular support through which the lower end thereof extends, the upper end of said support providing a fulcrum socket, a fulcrum cup provided with an opening through which the lever extends, said cup being receivable within said socket, said cup and socket providing a fulcrum for the lever, a cap attached to the tubular support and provided with an opening through which said lever extends and operates, and a spring interposed between the under-surface of said cup and said cap for maintaining said fulcrum members in engaged relation.

1,307,498. RAIL-OILING MACHINE. ROSS B. JONES, Cherokee, Iowa. Filed June 22, 1918. Serial No. 261,401. 4 Claims. (Cl. 134-2.)

1. A fish plate oiler comprising a wheeled truck, a tank mounted thereon, truck oiling pipes mounted upon the truck for vertical movement and having branches at their lower ends spaced from each other a distance greater than the head of a rail and adapted to straddle a rail and having spray nozzles discharging toward the rail

285 O. G.-25

straddled by the branches, said branches and nozzles when the oiling pipes are lowered being disposed below



the level of the truck wheels, means for compressing air within the tank, and manually controllable means for raising and lowering the truck oiling pipes.

1,307,499. CONTOUR-LATHING. EDWARD J. KINGS, Worcester, Mass. Filed Oct. 29, 1917. Serial No. 166,261. 18 Claims. (Cl. 142-13.)



1. In a contour turning machine, the combination of a table, a longitudinally movable carriage thereon capable of a transverse motion for supporting the work and a model, a freely rotatable adjustable wheel on which said model rests for supporting one edge of the carriage for controlling the transverse position thereof, a cutting saw located in the same position relative to the work as said model supporting wheel, said carriage having a pair of arms provided with bearings spaced apart, a shaft carried by said bearings, a rotary elongated drum mounted on fixed bearings parallel with the longitudinal axis of the carriage, a pulley fixed to said shaft, a belt on said pulley and drum, a belt tightening pulley on said carriage, and adjustable means supported by said arms on the carriage for engaging the belt where it passes over the tightening pulley and relieving the tension of the belt on the drum.

1,307,500. QUARTZ LAMP. FREDERICK G. KEYS, Boston, Mass., assignor to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed June 28, 1918. Serial No. 776,212. 9 Claims. (Cl. 210-1.)



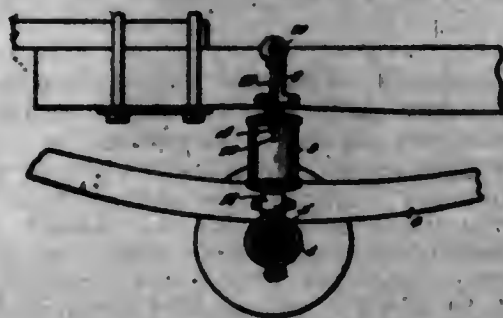
5. A sterilizing apparatus comprising a stationary surface exposed to the action of ultra violet radiation, the said surface being corrugated.

1,307,501. NUT FOR STRINGED INSTRUMENTS. WALTER I. KIRK, Chicago, Ill., assignor to Lyon & Healy, Chicago, Ill., a Corporation of Illinois. Continuation of application Serial No. 96,528, filed May 19, 1916. This application filed Apr. 4, 1917. Serial No. 159,660. 8 Claims. (Cl. 84-123.)



1. A nut for stringed instruments comprising a clip member adapted to fit over and to be supported by a projection on the instrument.

1,307,502. SPRING CONTROL AND SHOCK-ABSORBER FOR AUTOMOBILES. MARTIN N. KNUDSON, Walla Walla, Idaho, assignor of one-half to A. E. Caldwell, Twin Falls, Idaho. Filed Mar. 2, 1917. Serial No. 152,970. 1 Claim. (Cl. 21-165.)



A shock absorber comprising a casing containing a body of liquid, a cylinder arranged therein having its top closed and bottom open, and a port therein adjacent the top thereof, said cylinder being rigidly secured centrally within the casing and spaced a relatively large distance from the walls of the casing and having its bottom spaced a relatively small distance from the bottom of the casing, and a piston movable in the cylinder and provided with valve-controlled ports.

1,307,503. SUPPORTER. LOUIS C. LEAK, Waupun, Wis. Filed Feb. 13, 1919. Serial No. 276,940. 3 Claims. (Cl. 241-9.)



1. A device for the purpose set forth comprising a belt of textile fabric wider at its ends than at its middle, diverging fastening straps secured to the belt near the meeting ends thereof, reinforcing ribs disposed trans-

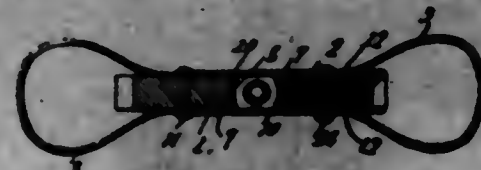
versely upon the belt at intervals through the length of the same, a strap secured longitudinally upon the belt immediately adjacent the upper edge thereof to be engaged with a garment, and binding secured along all edges of the belt and inclosing the upper edges of said strap and the ends of the ribs.

1,307,504. ENGINE-HOUSE. JOHN R. LEBERTY, Kansas City, Mo., and HARVEY HOWIN ARLAND, Chicago, Ill.; said ARLAND assignor of his right to Folsom-Arland Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 4, 1918. Serial No. 215,268. 5 Claims. (Cl. 72-1.)



1. A structure of the character described the same comprising stalls with dividing columns and longitudinal girders over the series of columns, and a roof comprising longitudinal and horizontal peak girders over the middle of the stalls spaced apart in pairs to form umbrella slots running the length of the roof, and water-shedding cover-slats extending between girders of neighboring pairs and inclined toward each other and meeting in a valley inclined lengthwise of the roof over the first-mentioned girders.

1,307,505. PIPE-HANDLING MEANS. WILLIAM W. MANNING, Mountair, N. Mex. Filed Aug. 12, 1918. Serial No. 249,570. 2 Claims. (Cl. 24-940.)



2. In a device of the class described, a pair of opposed jaws having their inner edges curved to form cams; downwardly convergent feet at the lower ends of the jaws, the feet being exposed to bear upon a support and to form rockers for the jaws; and means for pivotally connecting the jaws above the feet.

1,307,506. OIL-CAN. ARTHUR E. MATTHEWSON, Stockton, Calif. Filed Oct. 12, 1918. Serial No. 257,834. 2 Claims. (Cl. 221-45.)



1. An oil can comprising a body, a handle, the body being open at the bottom, and a convex bottom of flexible material secured at the edge thereof to the inside of the

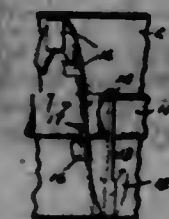
body, the convex bottom being adapted to be pressed inwardly to lie evenly against the sides of the can when the oil is emptied therefrom.

1,307,507. HIGH-POTENTIAL CONDENSER. DAVID T. MAY, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Nov. 2, 1917. Serial No. 200,077. 9 Claims. (Cl. 266-41.)



1. The combination with a high potential condenser comprising a dielectric having conducting plates on opposite sides thereof, of means including spark gaps perpendicular to said plates whereby injurious streamers are prevented from playing over the surface of said dielectric.

1,307,508. STEAM-COOKER. EDGAR T. MEAKIN, Berkeley, and FRANK E. DOUTH, San Francisco, Calif. Filed Feb. 8, 1918. Serial No. 215,570. 5 Claims. (Cl. 71-1.)



1. A steam cooker, comprising a drum for the reception of material to be cooked, a hollow rotatable shaft in said drum and provided with apertures in the wall thereof, a conveyor disposed upon said shaft, means on said conveyor for tumbling the material during the rotation of the conveyor, and means for supplying steam to and rotating said hollow shaft.

1,307,509. THRUST-BEARING. MELVIN MORRIS, Hensgar, Ala. Filed Aug. 28, 1917. Serial No. 188,684. 1 Claim. (Cl. 64-40.)



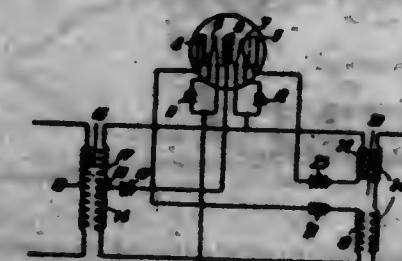
In a device of the class described, a frame, a shaft extending through said frame, a seal-cylindrical casing partially inclosing and supporting said shaft beyond the frame, an annular portion on said casing, a sleeve threaded in said annular portion, means for locking said sleeve against turning movement, a stem threaded into said sleeve, anti-friction holding devices between said stem and the end of said shaft, the end of said stem adapted to move said device, balls carried by said anti-friction devices and means for holding said stem against turning movement.

1,307,510. THERMIONIC TRANSLATING DEVICE. ALEXANDER MCLEAN NICOLSON, New York, N. Y., assignor, by means assignments, to Western Electric Company, Incorporated, a Corporation of New York. Filed Apr. 16, 1915. Serial No. 21,917. 16 Claims. (Cl. 280-27.)



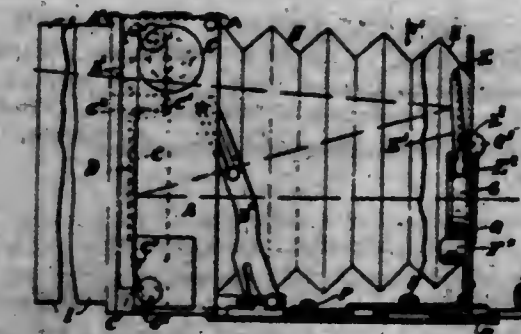
1. A device of the audion type comprising a thermionic cathode, an anode and an auxiliary electrode, means for supporting said auxiliary electrode, said cathode being filamentary in form, and a planary supporting frame therefor parallel to one of said electrodes and comprising spaced parallel members.

1,307,511. ELECTRIC-WAVE-REPEATING APPARATUS. ALEXANDER MCLEAN NICOLSON, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Oct. 26, 1916. Serial No. 127,916. 16 Claims. (Cl. 270-171.)



1. An evacuated vessel containing a plurality of space current paths having electrodes individual to each of said paths, and a controlling electrode common to said paths.

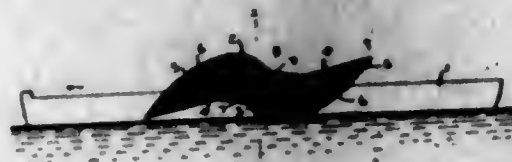
1,307,512. PHOTOGRAPHIC CAMERA. MAGNUS NIKELL, Stockholm, Sweden. Filed June 25, 1915. Serial No. 26,185. 9 Claims. (Cl. 95-42.)



1. A photographic camera having a viewing surface adapted to be brought into position in the rear of the interior of the camera opposite the lens and to show on said surface the image formed by said lens, a back to said camera having a viewing aperture and a focal plane roller blind shutter having a slit and so arranged that said slit covers both (a) to uncover the said viewing aperture and when the latter is covered (b) to then expose the sensitive surface while the opaque part of said

blind serves to prevent light reaching the sensitive surface through said viewing aperture while the latter is open and to close the latter while the exposure is given substantially as described.

1,307,513. FISHING APPLIANCE. HANS A. OLSON, Revere, Mass. Filed Sept. 9, 1918. Serial No. 253,153. 7 Claims. (Cl. 43-9.)



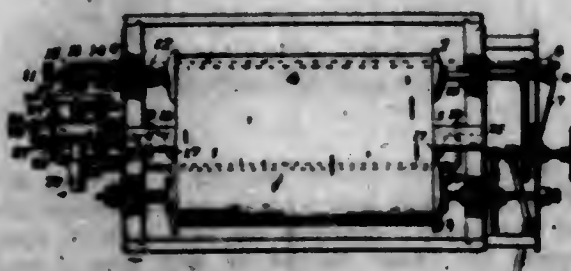
1. In a fishing appliance, the combination with a boat of a shaft extending transversely of the boat said shaft being anchored at one end and provided with swivel joints which permit the free end to be swung up and down, forward and backward and a fish scoop carried by and freely rotatable on the free end of the shaft and means associated with the scoop and adapted to be acted on by the water to assist in giving the scoop its rotative movement.

1,307,514. SPRAYING-NOZZLE. BENJAMIN G. PATTERSON, Oklahoma, Okla. Filed Mar. 7, 1918. Serial No. 220,945. 4 Claims. (Cl. 137-57.)



4. A spraying device consisting of a nozzle having a perforated diaphragm at its outer end, the perforations therethrough arranged in a continuous circle and inclined outwardly and forwardly with respect to the circular disposition of same, and a spreader member rotatably mounted in advance of the nozzle, said spreader of inverted cone-shape and having its outer surface provided with spiral ridges and intervening sloping valleys, said valleys sloping outwardly and terminating at the base of the cone in a continuous circular flange for directing a spray in an approximately horizontal direction.

1,307,515. TRACKING-CONTROL MECHANISM FOR PIANO-PLAYERS. CLAU E. PATTISON, Worcester, Mass., assignor to Iverson Piano Player Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 22, 1918. Serial No. 213,158. 8 Claims. (Cl. 84-161.)



1. Tracking control mechanism for piano players and the like, comprising a pair of flexible diaphragms operable

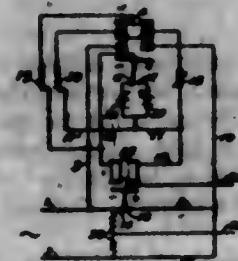
by a variation of air pressure on opposite sides thereof, means for actuating one of said diaphragms by the lateral deviation of the note sheet in one direction, means for actuating the other of said diaphragms by the lateral deviation of the note sheet in the opposite direction, and means operatively connected directly with each of said diaphragms for restoring the note sheet to its normal tracking position.

1,307,516. WIRE-SPICING TOOL. SOLOMON CHARLES PROSSER, Eaton Rapids, Mich. Filed July 13, 1918. Serial No. 244,752. 4 Claims. (Cl. 140-117.)



1. In a wire splicing tool, a body bar having a guide loop projecting from one side thereof to receive one of the wires to be spliced, said loop being provided with notches in the ends of its longitudinal side walls to receive the terminal loop of a second wire through which the first named wire is disposed, means mounted upon the tool for tightening the wires to be spliced, said tool being adapted for bodily movement to bend the first named wire around the loop of the second named wire and then turned about the second named wire to twist the end portion of said wire upon the body thereof.

1,307,517. RECTIFIER. PAUL M. RAINY, Glen Ridge, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Jan. 4, 1918. Serial No. 210,257. 6 Claims. (Cl. 175-365.)



1. In a current rectifier, a source of alternating currents, a first electroresponsive means operated by said alternating currents, sources of direct current, means responsive to said direct currents for aiding said alternating currents in operating said electroresponsive means, a second electroresponsive means controlled by said first electroresponsive means, and means controlled by said second electroresponsive means for rectifying said alternating currents into direct current.

1,307,518. SUBMARINE FENDER. MIRA SAFURAK, New York, N. Y. Filed June 20, 1918. Serial No. 240,005. 3 Claims. (Cl. 114-240.)

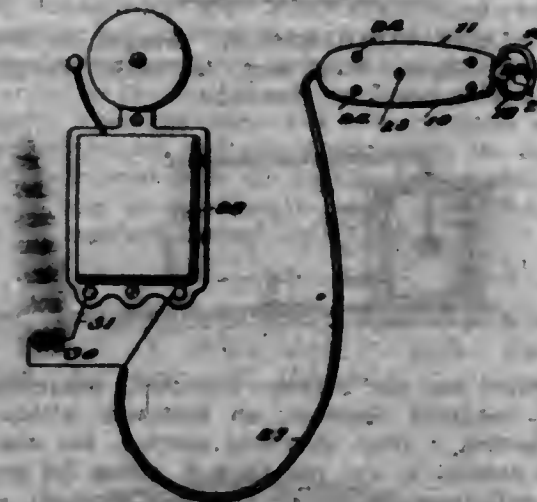
1. In a ship fender, the combination with a plurality of brackets mounted in vertically spaced relation upon the hull of the ship, tubular arms extending horizontally from said brackets, base slides in said tubular arms, means for limiting the motion of said bars in said arms,

tubular plates in which said bars are slidably engaged, coiled compression springs extending between said brackets



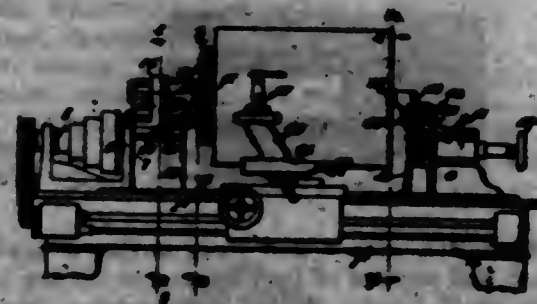
etc and said plates whereby the plates are pressed outwardly, and a net engaged at the outer ends of said bars adapted to receive the impact of a blow.

1,307,519. BOTTLE-CAP REMOVER AND ALARM. CHARLES F. SCARDENOVICH, Mount Gilboa, N. C. Filed July 12, 1918. Serial No. 244,561. 5 Claims. (Cl. 177-311.)



4. The combination with a bottle cap remover, of an alarm electrically connected therewith and adapted to be energized upon the application of the remover to a bottle cap.

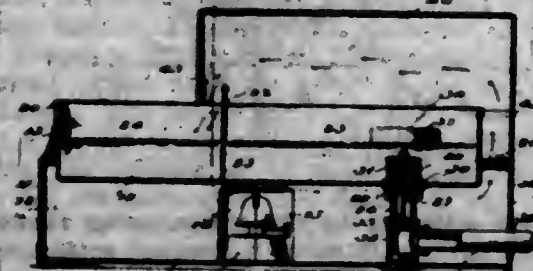
1,307,520. ATTACHMENT FOR LATHES. JOHN J. SCHUMANN, Cleveland, Ohio. Filed Aug. 10, 1918. Serial No. 249,247. 3 Claims. (Cl. 62-28.)



1. The combination with a lathe having a bed and headstock, of a hollow support carried by the lathe bed and including the end of the live spindle, an auxiliary live spindle journaled in said support at a point above

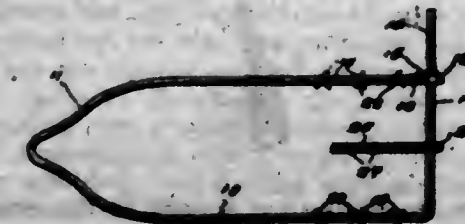
the first spindle, a pinion secured to said auxiliary spindle inside said support, a gear secured to the first spindle inside said support and located beneath said pinion, and an idle gear journaled inside said support and meshing with said gear and pinion.

1,307,521. STOCK-FOUNTAIN. ROBERT R. SHAFER, Crawfordville, Iowa. Filed May 28, 1918. Serial No. 236,997. 9 Claims. (Cl. 126-350.)



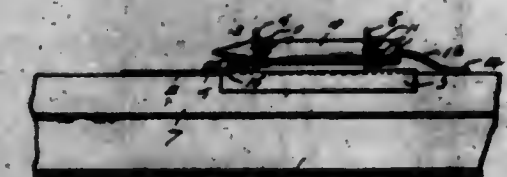
1. A stock fountain including a shell, a drinking pan supported therein and defining a combustion chamber within the shell having a flue passage leading therefrom, and a hood fitted upon the pan over said flue passage and opening into the pan.

1,307,522. FUR-STRETCHER. JOHN H. STONE, Midway, Wis. Filed Feb. 7, 1919. Serial No. 275,063. 1 Claim. (Cl. 149-21.)



In a stretcher of the character described, a frame adapted to be engaged in a belt and pivoted grips thereon, each including an arm having a stop thereon to engage the inner side of the frame, and an arm fixed relatively to the first, movable inwardly and outwardly of the frame for the purposes described.

1,307,523. EMERGENCY RAILROAD-SIGNAL. DORIS R. SULLIVAN, Longville, La., assignor of one-half to Joseph R. Grace, Longville, La. Filed May 16, 1917. Serial No. 168,908. 1 Claim. (Cl. 246-106.)

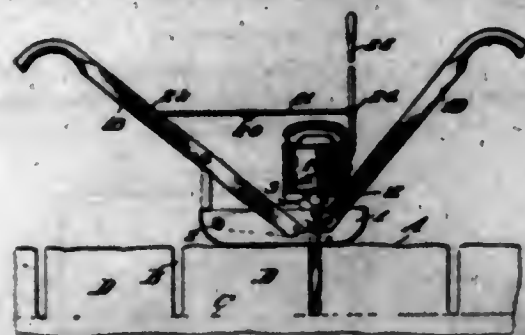


A railroad signal including a carriage provided at opposite sides with flanges adapted to engage the sides of a rail for retaining the carriage thereon, said carriage being provided with a front tapered supporting portion adapted to receive a torpedo, spaced supports provided with openings adapted to receive a rocket, said supports being also provided with prongs or projections arranged to engage the body of the rocket.

1,307,524. ICE-CUTTING MACHINE. HENRY L. F. TANNON, Rochester, N. Y. Filed Feb. 23, 1917. Serial No. 151,008. 3 Claims. (Cl. 262-30.)

1. In an ice cutting machine, the combination with a vehicle adapted to traverse the ice, a cutter carried

thereby near one end and projecting downwardly below the surface plane of the vehicle and means for driving the cutter, of a handle projecting from each end of the



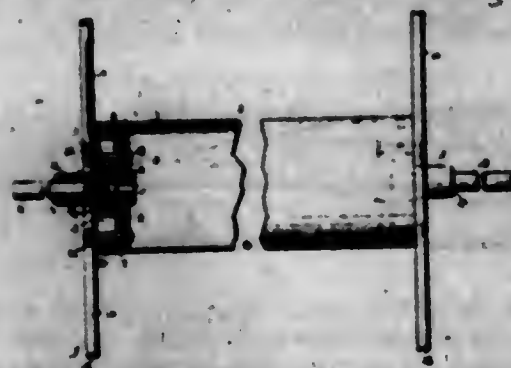
vehicle, that adjacent to the cutter being pivoted to swing into a position in which it does not project beyond the vehicle.

1,307,525. ICE-CUTTING TOOL. HENRY L. F. TARRANT, Rochester, N. Y. Filed Feb. 28, 1917. Serial No. 151,404. 2 Claims. (Cl. 262-33.)



1. A rotary ice cutting tool formed by the twisting of a flat body of substantially uniform thickness and cross sectional area, the periphery of the tool presenting the form of alternating longitudinal spiral rows of teeth and chip-clearing channels, the channels being curved in cross section to give a pronounced undercut clearance to the teeth and facilitate the discharge of the chips.

1,307,526. RHEL CONSTRUCTION. WALTER I. TUTTLE, Providence, R. I. Filed Feb. 29, 1916. Serial No. 81,067. 4 Claims. (Cl. 242-77.)



1. In reel construction, in combination, a sheet metal hub, a member fitted within one end of said hub, and having its outer portion substantially flush with the end thereof, and a central portion extending outwardly beyond said end, means securing said member within said hub, a head having its side resting against said member adjacent its axis and at the outer portions thereof, and longitudinal retaining means holding the said head to said member, said member being provided with means mounting it for rotary movement.

1,307,527. GLASS-WORKING. FRANK L. O. WAGGONER, Pittsburgh, Pa., assignor to Ball Brothers Glass Manufacturing Company, Muncie, Ind., a Corporation of Indiana. Filed July 30, 1914. Serial No. 254,884. 6 Claims. (Cl. 49-34.)



1. That improvement in the art of glass-working, which comprises the delivery of an overflowing fountain of molten metal preliminary to the application of a receptacle thereto, the temporary application thereto of the open end of a receptacle, and the subsequent removal of the receptacle and contained metal from the fountain.

1,307,528. LENS-COMPARATOR. ALBERT E. WELLS, Southbridge, Mass. Filed Sept. 15, 1916. Serial No. 120,412. 2 Claims. (Cl. 72-32.)



1. A device for the purpose described, comprising a thermally insulated chamber, an indicator within the chamber having a heat absorbing portion, the chamber having an opening at one side thereof, means for producing heat radiations, means for focusing the heat radiations through the opening in the chamber onto the heat absorbing portion of the indicator, and a holder adjacent the opening adapted to support a device to be tested in the path of the entering heat radiations to eliminate a portion thereof.

1,307,529. GUN-STOCK ATTACHMENT. JOSEPH W. WHEAT, Coffeyville, Kans. Filed Feb. 7, 1919. Serial No. 273,500. 1 Claim. (Cl. 42-74.)



The combination with a gun stock having a cavity in its rear end and sockets in its body at the bottom of the cavity, the stock having an air vent opening into said cavity and a rabbet around its rearward portion; of a butt plate secured to the rear end of the stock and having perforations opening into said cavity; a frame carried by this plate and fitting the cavity, the front end of the frame having holes opposite said sockets and the plate

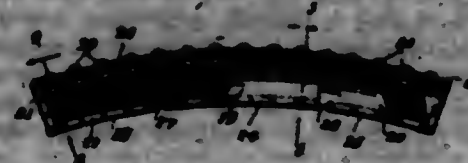
having holes allying therewith, a shoulder plate having a flange slidably mounted over the fixed plate and movable into said rabbet, a pair of plungers projecting from this plate through the holes in the fixed plate and the holes in the frame into said sockets, pins through these plungers, washers next the pins, and expansive springs coiled on the plungers between the washers and the inner end of the frame.

1,307,530. FOLDING TOOTH-BRUSH. ALBERT WOLF, Traverse City, Mich. Filed Sept. 6, 1917. Serial No. 160,043. 1 Claim. (Cl. 15-30.)



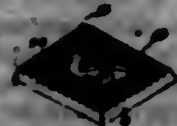
A tooth brush including thin complementary members hingedly connected at their longitudinal edges and having corresponding end portions thereof providing a brush head and opposite corresponding end portions a handle, brittle tufts carried by the brush head, the members being formed of hingedly connected inner and outer sections normally disposed end to end, and means connecting the outer sections at their outer ends for holding the members in position abutting at corresponding side faces thereof and locking the members against separation.

1,307,531. TIRE-PROTECTOR. MARVIN C. ALTMAYER, New York, N. Y. Filed Mar. 21, 1919. Serial No. 264,048. 3 Claims. (Cl. 153-14.)



1. A pneumatic tire armor or guard comprising a plurality of units each individually connected to securing rings located at the sides of the wheel, each of said units consisting of a plurality of collapsible sections to compensate for the expansion or contraction of the tire.

1,307,532. PRINTING APPARATUS. EDWIN E. ANSELL, deceased, Boston, Mass., by John E. Macy, administrator, Boston, Mass., assignor to Todd Protectograph Company, Rochester, N. Y., a Corporation of New York. Original application filed May 10, 1911. Serial No. 636,302. Divided and this application filed Apr. 22, 1917. Serial No. 165,210. 5 Claims. (Cl. 101-30.)



2. In a machine of the class described, the combination with a set of type forms each having its face cut by

shallow intersecting grooves to divide said face into a plurality of pyramidal frusta, of a platen having its impression surface cut by intersecting grooves deep enough to form a plurality of pyramidal points relatively spaced to register with the intersections of the grooves in the type forms, and means for establishing cooperative relationship between said platen and any desired type form.

1,307,533. AMMONIA AND TAR RECOVERY PROCESS. JOSEPH BACKUS, Pittsburgh, Pa., assignor to The Koppers Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 12, 1918. Serial No. 240,878. 12 Claims. (Cl. 23-21.)

1. In a process for the recovery of ammonia from producer-gas, the combination of steps that consist in: absorbing the ammonia from the dust-free and tar-free producer-gas by passing such gas, at nearly its saturation temperature, through an acid-wash; conveying the mother-liquor from such acid-wash to a saturation-bath; cooling and dehydrating the ammonia-free gas; and then passing such gas through said saturation-bath, to effect deposition of the ammonium sulfate; substantially as specified.

1,307,534. AMMONIA, TAR, AND BENZOL RECOVERY PROCESS. JOSEPH BACKUS, Pittsburgh, Pa., assignor to The Koppers Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 12, 1918. Serial No. 240,879. 5 Claims. (Cl. 23-21.)

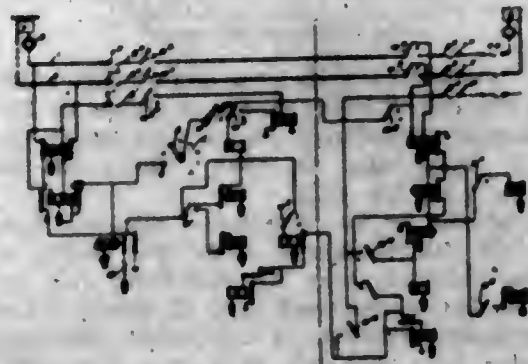
1. In a process for the recovery of tar and ammonia from coke-oven gas, the combination of steps that consist in: extracting the tar from the coke-oven gas hot; passing such hot gas through an acid-wash to absorb the ammonia of the gas; discharging the mother-liquor from such acid-wash into a saturation-bath; passing the tar-free and ammonia-free gas through a cooling and dehydrating operation; and passing such gas through said saturation-bath, to effect deposition of the ammonium sulfate; substantially as specified.

1,307,535. DISINFECTANT APPARATUS. EUDORPH J. CLANCASH, Philadelphia, Pa. Filed Apr. 17, 1919. Serial No. 260,672. 4 Claims. (Cl. 4-30.)



1. Apparatus of the character described including a casing having a cavity; a supply pipe for disinfecting material communicating with said cavity; a valve for cutting off the passage of said disinfecting material into said cavity; a port communicating with said cavity; an outlet pipe communicating with said port; a lever having a valve thereon adapted to close said port, said first valve having a collar connected thereto, said lever having a portion for engagement with said collar and a spring interposed between said latter portion of the lever and the first mentioned valve, whereby when said first mentioned valve is opened the lever will be actuated through the medium of said spring to move its valve into closing position with said port; and a cushion spring interposed between said first valve and the casing; substantially as described.

1,307,504. MACHINE-SWITCHING TELEPHONE SYSTEM. HENRY P. CLARKSON, Mount Vernon, and CHARLES L. GOODRUM, New York, N. Y., assignors to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 12, 1917. Serial No. 101,505. 12 Claims. (Cl. 179-18.)



1. In a telephone system, a telephone line, a two-movement non-numerical switching mechanism, a numerical switching mechanism, and means included in said non-numerical mechanism operable upon the completion of its first movement for bringing said numerical switching mechanism under the control of said line.

1,307,537. PIPE CONNECTION. CLAYTON BRADSHAW COLE, Birmingham, Ala. Filed Dec. 5, 1917. Serial No. 208,500. 1 Claim. (Cl. 285-86.)

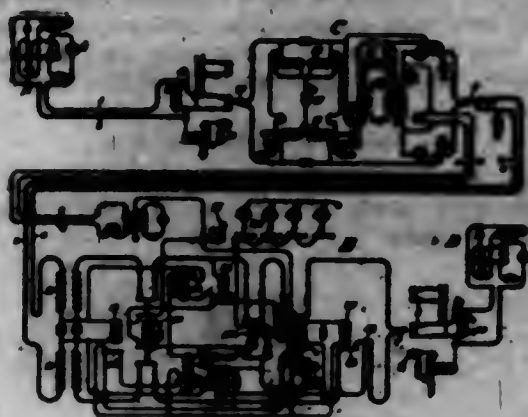


In a pipe connection of the character described, an inner joint member having one end tapered and externally threaded, an outer member having a corresponding end tapered and internally threaded, said members having enlarged threaded body portions adapted to screw together and draw their tapered portions into position to compress a pipe of pliable material between them, the said threads on said members being all of the same pitch, means to connect a pipe to the outer end of the inner member, and an annular beveled shoulder arranged on the inner member between its threaded portions and facing toward its taper end, said outer member having a circumferential recess of uniform width and of substantial depth between its threaded portions and adapted to assume position over but spaced from said beveled shoulder when the connection is in assembled position, the inner member being adapted to project sufficiently beyond the outer member to present a wrench grip, substantially as described.

1,307,538. TRUNK-CIRCUIT. HIRSH D. CURRIER, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 19, 1914. Serial No. 862,462. 19 Claims. (Cl. 179-29.)

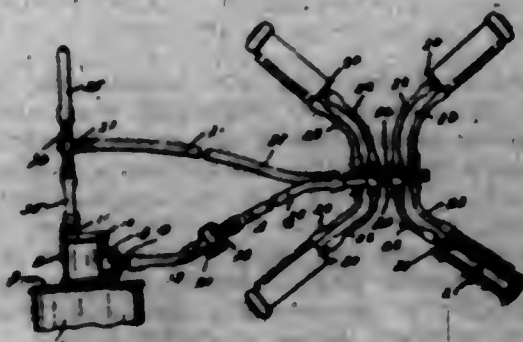
1. A telephone system including a calling and a called subscriber's telephone line, a link circuit for use in connecting said lines, terminals for said link circuit normally operatively associated therewith, and means operative prior to a response being had from the called sub-

scriber for operatively disconnecting said link circuit from the called subscriber's line, controlled solely by the



disconnection of one of the said link circuit terminals from the calling line.

1,307,539. MILKING APPARATUS. LAURIE DUNHAM, Minneapolis, Minn. Filed Apr. 9, 1918. Serial No. 227,423. 3 Claims. (Cl. 81-100.)



1. In a milking apparatus, the combination with a test cup having a flexible wall dividing the same into two chambers, of a milk chamber having a discharge passage equipped with a check valve, a milk conduit connecting the inner chamber of said test cup to said milk chamber, said conduit including a flexible milk tube and a check valve structure interposed in said tube, a pulsator air tube connected to said milk chamber, and an air conduit extended from the outer chamber of said test cup and subject to varying pressure produced through said pulsator tube.

1,307,540. PIPE-COUPLING. JOHN H. DOWMAN, Dayton, Ohio. Filed Apr. 16, 1918. Serial No. 269,808. 5 Claims. (Cl. 285-124.)



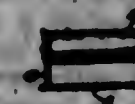
5. In a pipe coupling, the combination of a sleeve of relatively hard ductile metal of uniform diameter and having outer circumferential grooves, coupling members enclosing said sleeve and adapted to compress it longitudinally whereby beads are formed on the interior thereof in alignment with said grooves which are forced into softer metal tubing within said sleeve.

1,307,541. ATTACHMENT FOR MOVING-PICTURE MACHINES. ROBERT G. DOWMAN, South Bend, Ind., assignor of one-half to George H. Hines, South Bend, Ind. Filed Oct. 3, 1917. Serial No. 194,445. 1 Claim. (Cl. 88-17.)



The combination with a film box formed with a light-admitting opening and cooling plates secured thereto, of a shutter formed with slots to slidably engage the cooling-plate connecting means, a lever pivoted on the box and having one end adapted to be moved to and from a position beneath the lower edge of the shutter, an arm pivotally mounted in the box with one end formed for rolling contact with the film, the opposite end of the arm being adapted to engage and operate the lever upon breakage of the film.

1,307,542. GAUZE-DISPENSING DEVICE. GEORGE S. ELSON, St. Louis, Mo. Filed Dec. 18, 1916. Serial No. 157,682. 3 Claims. (Cl. 91-14.5.)



1. A device of the character described comprising a closed receptacle adapted to contain a quantity of liquid medicament, means for holding a roll of fabric mounted in said receptacle above said medicament, a pair of guide rolls mounted on the bottom of said receptacle one at each end thereof around which the fabric is adapted to be drawn from said roll end through said medicament, wringer rolls mounted in said receptacle adjacent the outlet, at the end of the receptacle opposite the roll of fabric and between which the fabric passes, and means mounted on the outside of said receptacle adjacent said opening for severing the fabric into desired lengths.

1,307,543. METALLIC SPRING-MATRESS. JOSEPH HERRMAN, Brooklyn, N. Y. Filed Mar. 13, 1918. Serial No. 222,109. 2 Claims. (Cl. 5-30.)

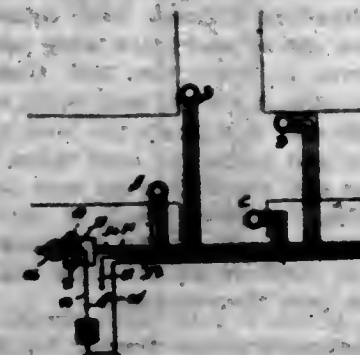
1. A bed-spring of the character described comprising a rigid carrying frame, coiled springs connected with the end members thereof, yieldable side-bars above the sides of said frame and connected by the outer ends of said coiled springs with the end members of said frame, and a fabric connected with the inner ends of the other of said coiled springs, said fabric comprising links connecting the same at its side edges with the said bars and links in a series of transverse rows, the links of each row having parallel side members, converging side members extending therefrom, eyes at the junction of the converging side members and hooks at the outer ends of the parallel side members, with the hooks of adjacent matching parallel side members of adjacent links engaged with the eyes of the links in the next adjoining row of links, and the links connecting the edges of said fabric with said side bars having hooked side members to engage the eyes in the ad-

joining side links of said rows of links, eyes to receive the hooked ends of side members of said rows of links and



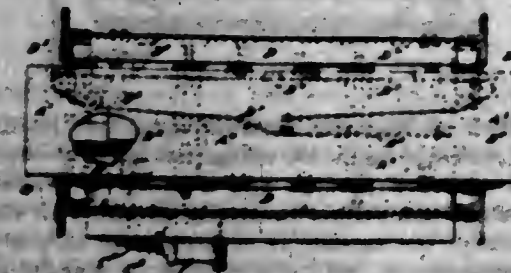
arms having hooked ends to engage holes in said side bars.

1,307,544. TRAFFIC-SIGNAL. OSCAR A. ENDMANN, Detroit, Mich. Filed Oct. 29, 1915. Serial No. 58,547. 6 Claims. (Cl. 177-330.)



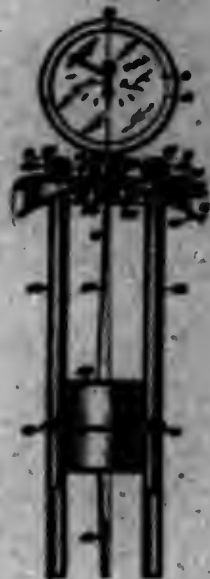
2. In a signaling device, a casing apertured upon opposite sides, a rotatable element therein having a pair of signals indicating movement and a pair indicating cessation of movement of traffic, a pair of solenoids for oppositely actuating the rotatable device, an energizing circuit for the said solenoids consisting of a circuit wire connected with one solenoid, a circuit wire connected to the other solenoid and a common return wire, a switch for closing the circuit first with one solenoid and then with the other, and a second switch within the case operated to break the circuit of energized solenoid subsequent to operation of the rotatable device thereby and closing the circuit to the other solenoid.

1,307,545. OUTRIGGER OPERATING AND LOCKING DEVICE FOR LOCOMOTIVE-CRANES AND THE LIKE. WALTER FARRIS, South Milwaukee, Wis., assignor to Bucyrus Company, South Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 1, 1917. Serial No. 151,901. 9 Claims. (Cl. 212-145.)



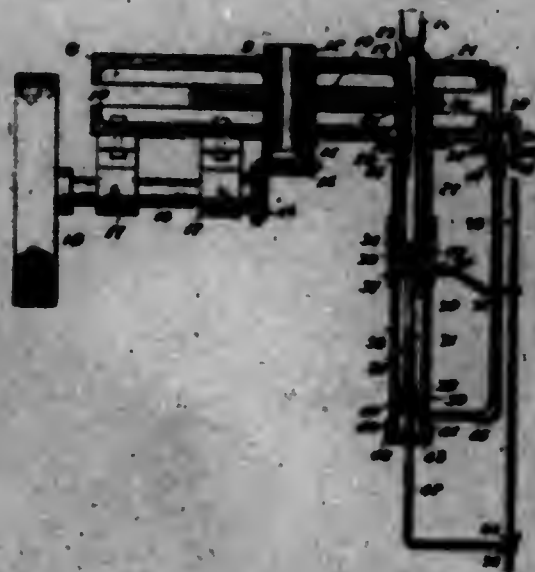
1. In a crane, an extensible jack arm supported by a roller and means for raising the axis of said roller to bring the upper surface of the jack arm against the frame of the crane to lock it in position.

1,907,540. GAGE. GEORGE P. GANNEY, Boston, Mass. Filed Mar. 28, 1918. Serial No. 224,312. 9 Claims. (Cl. 73-82.)



1. A gage for measuring the depth of liquids, comprising, in combination, a casing having a body with a neck projecting downward therefrom, a base for said neck, a collar secured to said base for connection with a tank, a pair of tubes extending through said collar and connected to said base, one of said tubes being adapted to receive fluid pressure to force the fluid from the tank through the other tube, a dial in said body, an index co-operating with said dial to indicate the level of the liquid, a float slidable on and guided by said tubes, a shaft rotated by said float and rising through said neck into the body of said casing, an index shaft in said body, and gearing connections for said shafts, said collar being of segmental form to conform to the tank and allow the float and tubes to pass therethrough.

1,907,547. DRILL-FEED MECHANISM. JOHN R. HASTY, San Bernardino, Calif. Filed Nov. 12, 1916. Serial No. 131,148. 6 Claims. (Cl. 77-82.)



1. Drill-feed mechanism, comprising a bed portion, a drill-chuck provided with an elongated spindle rotatably mounted in said bed portion and adapted to travel vertically therethrough, means rotatably mounted in the bed portion whereby the spindle is rotated, said means being in sliding engagement with the spindle, a spindle casing secured to the bed portion, an air cylinder secured to the end of said casing and provided with a piston reciprocally mounted in the cylinder and having ball and socket connection with the end of said spindle, means whereby rotation of the piston is prevented, and automatically

closing means for admitting air to said cylinder intermediate the end of the piston and the cylinder head when said means is in open position and to permit the air to escape from the cylinder when said means is in closed position, said last means being operatively connected with the piston.

1,907,548. HEAT-INSULATING COMPOSITION AND ARTICLES MADE THEREFROM. FRANK A. HEADSON, Milwaukee, Wis. Filed Oct. 2, 1918. Serial No. 254,500. 4 Claims. (Cl. 100-81.)

1. A heat-insulating composition consisting of finely divided calcined diatomaceous earth, finely divided calcined asbestos, and a binder consisting of fire-resisting material.

1,907,549. HEAT-INSULATING COMPOSITION AND ARTICLES MADE THEREFROM. FRANK A. HEADSON, Milwaukee, Wis. Filed Oct. 2, 1918. Serial No. 254,501. 3 Claims. (Cl. 100-81.)

1. A heat-insulating brick formed of a heat-resisting composition consisting of finely divided calcined diatomaceous earth and finely divided asbestos, the particles of diatomaceous earth and asbestos being in adhesive contact and forming a rigid body.

1,907,550. ILLUSTRATIVE PHONOGRAPH. WILLIAM C. HURN, Cincinnati, Ohio. Filed May 4, 1918. Serial No. 222,004. 1 Claim. (Cl. 40-28.)



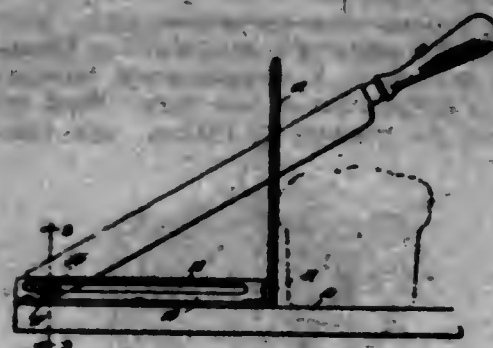
An illustrative phonograph consisting of a cabinet having a sound opening therein, a sight opening therein adjacent to the sound opening, a phonograph mechanism mounted in the cabinet in communication with the sound opening, a drawer located in the cabinet and having the interior thereof in communication with the sight opening, a picture display mechanism located in the drawer, a picture-bearing strip detachably connected with the mechanism and adapted to have the pictures thereon displayed successively through the sight opening upon operation of the mechanism, and means adapted to connect and disconnect the mechanism.

1,907,551. PIPE-FITTING. DAVID JACKSON, Toronto, Ontario, Canada. Filed July 19, 1918. Serial No. 245,057. 2 Claims. (Cl. 287-12.)



1. In a pipe fitting, a hollow circular base, a pipe opening through said base, a pipe support adapted to be projected from said base at any desired point, a threaded pin having its head counterbored in said pipe support and screwing into said base toward the center thereof for securing said pipe and a pipe screwing over said pipe support and abutting said base.

1,907,552. BREAD-CUTTER. ERICH JOHNSON, Cleveland, Ohio. Filed May 3, 1919. Serial No. 294,741. 3 Claims. (Cl. 140-12.)



1. A bread cutter comprising a board, an angular member thereon, one arm of which is slotted, and a vertical knife guide standing at the corner of said member, and a knife movable up or down beside said guide and having a sliding pivot working in the slot in said member.

1,907,553. GARMENT. HYLAS R. KIRCH, Decatur, Ill. Filed Mar. 7, 1917. Serial No. 182,905. 1 Claim. (Cl. 2-145.)



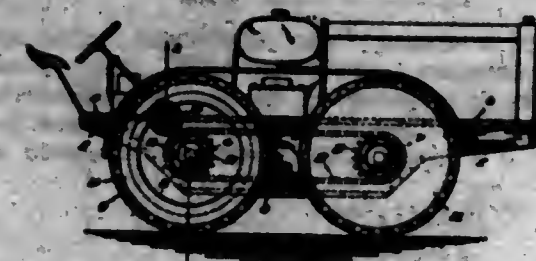
A garment of the character described, including in combination, a waist and a skirt, a belt member stitched to the waist of the garment for a larger part of its extent, but having free end portions within the garment and at the rear thereof, said free end portions of the belt being spaced apart and arranged to overlap so that they may be temporarily secured together, as when the garment is sold, and then may be fitted to the waist of the individual wearer and secured together to form a permanent fit.

1,907,554. FILM-REEL. SAMUEL KOHN, Chicago, Ill. Filed Feb. 12, 1919. Serial No. 276,804. 8 Claims. (Cl. 242-70.)



1. A film reel comprising a hub having an opening in the side thereof; a resilient film lock frictionally held in engagement with the hub with one end extending into the opening of said hub; and a member in said hub holding the resilient lock against longitudinal movement.

1,907,555. COMBINATION TRACTOR FRAME AND TRANSMISSION-HOUSING. JOHN MINOR KNOTT, Stockton, Calif. Filed Dec. 18, 1918. Serial No. 297,388. 4 Claims. (Cl. 180-21.)



1. The combination with a tractor having front and rear wheels connected in driving relation with each other by power transmission means, of hollow members forming the sides of the frame of the tractor, the transmission means being inclosed in the hollow members.

1,907,556. ELECTRIC HEATER. FRANK KUHN and JAY A. HAND, Detroit, Mich., assignors to American Electrical Heater Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 21, 1918. Serial No. 218,400. 1 Claim. (Cl. 210-45.)



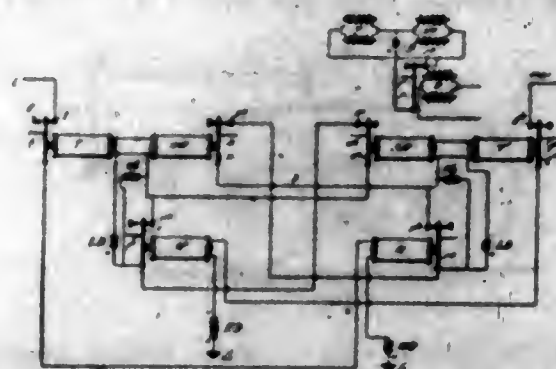
An electric heater, comprising a casing, and a unit detachably connected to said casing comprising a plurality of luminous heating elements, and a mounting for said elements peripherally flanged to engage the edges of the casing having a depressed central portion to receive said elements and to dispose the same within the casing, an air passage being formed above, below and at the rear of said depressed portion, the top and bottom flanges of the mounting being bricked to communicate with said air passage, a bar secured to the depressed portion beneath the same, and a plurality of socket members mounted upon said bar and engaged by said luminous elements.

1,907,557. VIOLIN-BOW-HAIR FASTENER. HANS LAMB, Milwaukee, Wis. Filed Aug. 30, 1917. Serial No. 188,905. 1 Claim. (Cl. 84-72.)



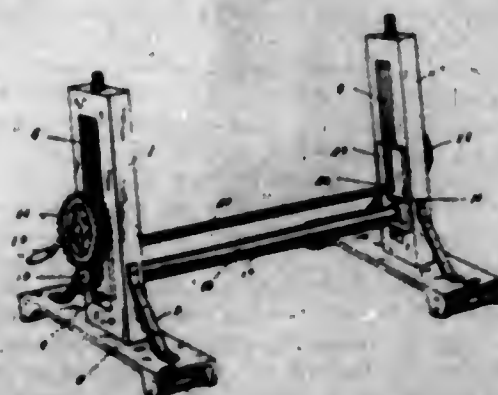
The combination with a bow shank and an end block portion carried thereby and provided with a transverse recess having an angular extension in the outer face portion of the block, of a jaw member disposed in the recess and pivoted to the block adjacent the inner end of the recess, bow hairs engageable between one side of said jaw member and the opposing wall of the recess and adapted to lie in the angular extension of said recess, a screw longitudinally threaded in the block member and having one end adapted for abutting engagement with the other side of the jaw member, and a movable cover for the outer face portion of the recess.

1,307,556. TELEGRAPH-REPEATER. CHARLES W. McKINNEY, Houston, Tex. Filed Feb. 27, 1918. Serial No. 219,300. 5 Claims. (Cl. 178-71.)



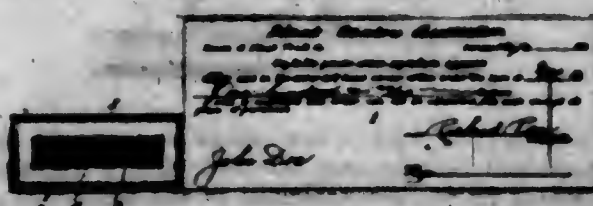
1. A telegraph repeater comprising two line relays, one for each side and each relay connected to the ground through a line battery; a transmitter relay, for each side, controlled through a local battery by the respective line relay; a short circuiting relay for short circuiting the contacts of the relay of the opposite side, the coils of the transmitter relay and of the short circuiting relay of each set being in parallel circuit with each other.

1,307,559. RUG-EXTRACTOR. HENRY RAYMOND McNEILLY, Toronto, Ontario, Canada. Filed Aug. 15, 1918. Serial No. 250,055. 3 Claims. (Cl. 242-90.)



1. In a rug extractor, the combination with a pair of movable standards slotted substantially throughout their length, of a roller detachably mounted in blocks slidably arranged in the slots in said standards, pins threading downwardly through the tops of said standards and carrying at their lower ends bevel gears, said gears being horizontally arranged and projecting through slots in said blocks, gear mechanisms operating said roller and operatively connected with said bevel gears for rotating said roller and said pins simultaneously.

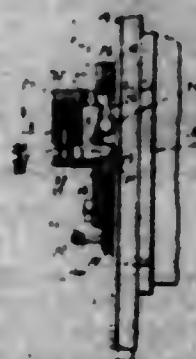
1,307,560. TRAVELER'S CHECK. JOHN F. McQUINCY, Kansas City, Mo. Filed July 17, 1916. Serial No. 109,813. 1 Claim. (Cl. 208-35.)



A traveler's check containing the customary data on its face and a place in the lower right hand corner for the payee's signature when the check is presented for payment and a place in the lower left hand corner for the payee's signature when the check is issued to him, said check also having a foldable extension at its lower left hand corner adapted to be folded over the payee's signature, said extension having an opaque panel to cover said

signature so that it cannot be deciphered by holding the check up to the light, and having a gummed surface inclosing said panel and adapted when moistened and folded down upon the face of the check to adhere to the same around the said signature.

1,307,561. CLOTH-CUTTING MACHINE. WILLIAM J. MARSHALL, Newark, N. J., assignor to H. Maimin Company, Inc., a Corporation of New York. Filed Feb. 21, 1919. Serial No. 278,540. 3 Claims. (Cl. 164-75.)

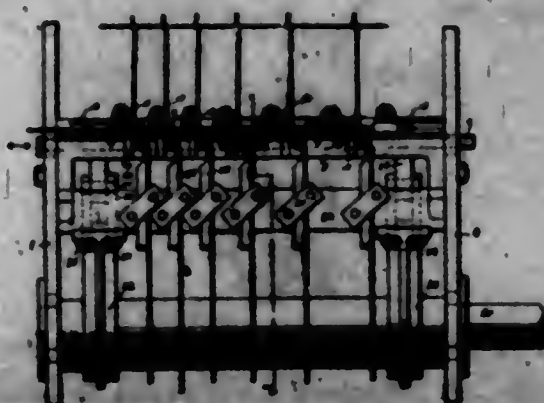


1. In a cloth cutting machine of the kind described, the combination of a track, a support slidably mounted on the track, knife guard members pivotally mounted on the support and carrying stripper foot members at their lower ends, a casing detachably secured to the support and provided with opposite inclined grooves forming a channel, a ball mounted in the channel formed by the grooves, a member slidably mounted in the casing and provided with an inclined portion adapted to cooperate with the ball to clamp it in the channel in engagement with the face of the track, the member being provided with an extension below the inclined portion for lifting the ball in the channel, and a spring adapted to act upon the member to hold the same in position to normally force the ball into engagement with the face of the track to retain the support in any desired position of adjustment thereon.

1,307,562. CARBON-REMOVER. ABRAHAM LOUIS MEYER and GILBERT O. BUNNISON, New Orleans, La. Filed Jan. 18, 1918. Serial No. 212,692. 3 Claims. (Cl. 87-5.)

2. A carbon removing compound comprising a benzoic oil solvent forming about half in volume of the compound, an alcoholic oil solvent forming the major portion of the remaining half in volume of the compound, a relatively small quantity of acetone, and a relatively small quantity of carbon-tetra-chloride.

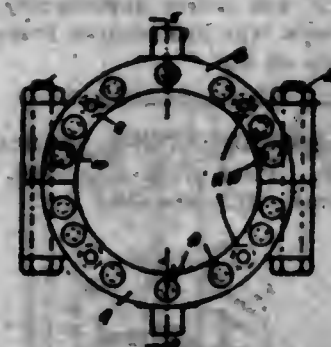
1,307,563. MACHINE FOR MANUFACTURING WIRE-FENCE FARRICE. WILLIAM H. SOMMER, Peoria, Ill., assignor, by mesne assignments, to The First Trust and Savings Company, Cleveland, Ohio, a Corporation of Ohio, and William H. Stone, Peoria, Ill., trustees. Filed Mar. 9, 1916. Serial No. 83,082. 16 Claims. (Cl. 140-14.)



1. In a wire fence machine, in combination, a wire guide, a looping member having a wire-revolving opening

movable around the axis of said guide, an operating means, and an eccentric connection between said looping member and said operating means.

1,307,564. BEARING-SURFACE. FRANK EARL BRUNY, Detroit, Mich. Filed Dec. 1, 1918. Serial No. 94,888. 2 Claims. (Cl. 99-55.)



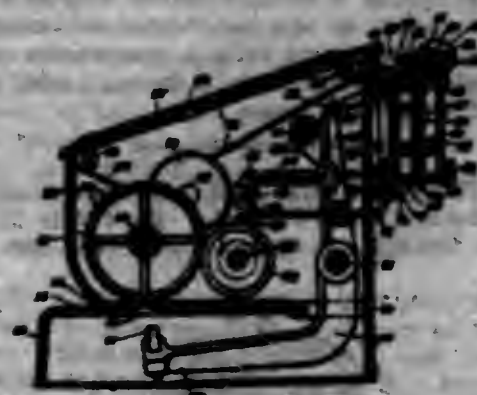
1. The method of constructing a self lubricating, non-swelling bearing surface, which consists of inserting pages of fibrous material impregnated with a lubricant, in a metal retainer, means for securing said page in said retainer by allowing said page to expand at both ends with freedom.

1,307,565. WATERPROOF RAILROAD-TIE. SAMUEL A. STONBRACK, Philadelphia, Pa. Filed Sept. 9, 1918. Serial No. 253,284. 5 Claims. (Cl. 238-61.)



2. A reinforced concrete tie including two concrete sections arranged longitudinally end to end; means interposed between the adjacent ends of said sections; and means having portions embedded within each of said sections and serving to tie said sections together, said tying means extending through a plane occupied by said interposed means, said interposed means tapering upwardly and downwardly, substantially as described.

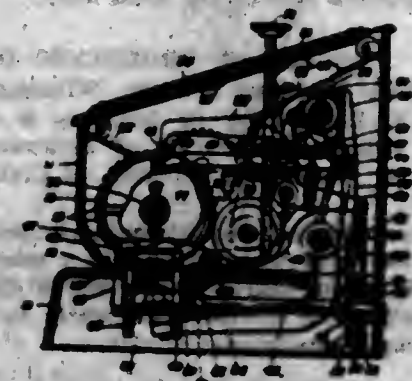
1,307,566. CHECKWRITER. CHARLES G. TIEREL, Rochester, N. Y., assignor, by mesne assignments, to Todd Protograph Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 18, 1915. Serial No. 56,529. 7 Claims. (Cl. 101-360.)



1. In a printing apparatus, a type carrier and a platen having a relative printing movement, a cam for imparting said movement, an element for applying ink to the type, a fountain ink container having means for supplying ink

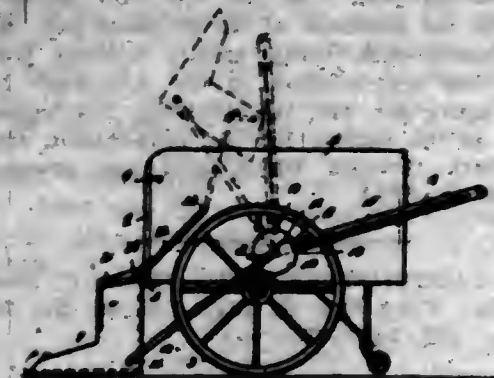
to said ink element, a plunger in the container, and means actuated by the said cam for effecting a relative movement of the container and plunger whereby to force ink to the ink element.

1,307,567. CHECKWRITER. CHARLES G. TIEREL, Rochester, N. Y., assignor, by mesne assignments, to Todd Protograph Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 18, 1915. Serial No. 61,897. 4 Claims. (Cl. 101-34.)



1. In a machine of the class described, the combination with a movable type carrier provided with type lines of different lengths movable selectively to a common printing position, of a platen, means for effecting a relative printing movement between the type carrier and platen, a cam rigid with the type carrier, having its periphery graduated to correspond to the lengths of the various type lines, means for feeding the work, devices actuated by the cam for determining the extent of the feed, and a stationary stop cooperating with the feeding means to positively limit the extent of feed.

1,307,568. STREET-CLEANING MACHINE. THOMAS WATKINSON, South Bend, Ind. Filed Jan. 20, 1919. Serial No. 273,974. 3 Claims. (Cl. 214-78.)



1. A wheeled cart including a dump box, a scraper, means fulcrumed on the cart jointly forming an angle lever, one arm of the said lever being connected with the scraper and the other forming a handle for manipulation of the cart, means permitting relative angular adjustment between the lever arms, and means for locking the lever arms against independent movement.

1,307,569. STRAINER. WALTER BRUCE WILLS, Baltimore, Md. Filed Dec. 6, 1918. Serial No. 265,514. 2 Claims. (Cl. 229-16.)



1. A strainer comprising a sheet metal band having a band at its upper edge and being interfolded and upturned

at its lower edge to form an upstanding annular hook, an open mesh body adapted to fit at its upper end in the lower end of the band, and a pair of sheet metal straps crossed beneath the bottom of the body and extending at opposite ends up the sides of the body, said body and said straps having their upper ends turned over outwardly and downwardly and engaged in the annular hook of the band with the mesh body in surface contact with the band on one side and with the straps on the other side, and with the down-turned ends of the straps interposed between the inner upturned portion of the band and the opposite side of the mesh body.

1,307,570. PROCESS OF PRODUCING DIALKYL-DIARYLUREAS. HANSER WINKEL, Wilmington, Del., assignor to E. I. du Pont de Nemours & Company, Wilmington, Del., a Corporation of Delaware. Filed Sept. 25, 1918. Serial No. 265,506. 6 Claims. (Cl. 28-34.)

1. The process of producing dialkyl-diarylureas which comprises treating with carbonyl chloride a mixture composed essentially of an alkylarylamine and a dialkylarylamine, while heating the mixture sufficiently to maintain the same in a liquid condition.

1,307,571. AMMONIA AND TAR RECOVERY PROCESS. JOSEPH VAN ACKEREN, Pittsburgh, Pa., assignor to The Koppers Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 12, 1918. Serial No. 249,331. 8 Claims. (Cl. 23-31.)

1. In a process for the recovery of ammonia from producer-gas and coke-oven gas simultaneously, the combination of steps that consists in: absorbing the ammonia from the dust-free and tar-free producer-gas, at nearly its saturation temperature, by an acid-wash; conveying the mother-liquor from such acid-wash to a saturation-bath; and passing the tar-free coke-oven gas, of relatively low temperature, through said saturation-bath, therein effecting the absorption of ammonia from said coke-oven gas and simultaneously effecting the deposition of ammonium sulfate derived from both such ammonium given up by the coke-oven gas and from the aforesaid mother-liquor charged with the ammonia of the producer-gas; the heat in the saturator-bath being mainly derived from the heating of the acid-solution in the acid-wash for the high-temperature gas, and the relatively low-temperature gas acting as the carrier for the evaporation from the saturation-bath through which said gas passes; substantially as specified.

1,307,572. LIGHTING-FIXTURE. HARRY C. ADAM, St. Louis, Mo. Filed Oct. 8, 1918. Serial No. 257,337. 4 Claims. (Cl. 240-78.)



2. A lighting fixture, comprising a diffusing bowl having a substantially hemispherical shaped lower portion and a substantially frusto-conical-shaped upper portion

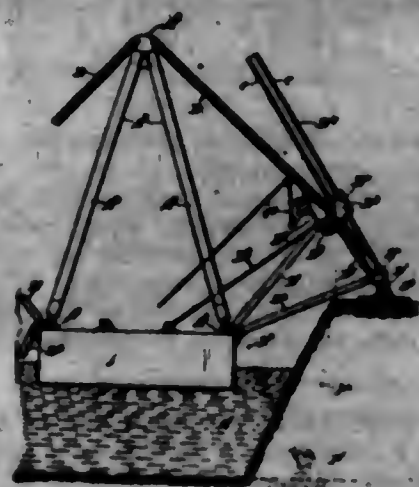
wherein base is of greater diameter than the lower portion of the bowl, the upper and lower portions of the bowl being translucent, an opaque shell that serves as a closure for the open upper end of the bowl, a lighting unit consisting of a concentrated filament incandescent lamp arranged between the shell and the bowl, with its filament positioned at or above the top edge portion of the bowl, and a substantially bell shaped reflector arranged inside of the shell in such a position with relation to the lighting unit that it will reflect downwardly through the bowl most of the rays that are emitted from the lighting unit above the angle of 90°.

1,307,573. LENS-MOUNTING. GUYTON A. RADEN, Rochester, N. Y. Filed July 27, 1916. Serial No. 111,061. 5 Claims. (Cl. 88-53.)



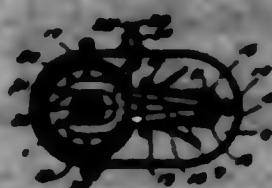
1. In combination with a lens frame formed with a recess, a lens mounting fitting in said recess and having attaching ears extending inwardly therefrom over opposite sides of the lens frame and also having temple attaching ears lying in the recess.

1,307,574. BANK-SFUD. EVANES E. W. M. RADEN, South Milwaukee, Wis., assignor to Bucyrus Company, South Milwaukee, Wis., a Corporation of Wisconsin. Filed Apr. 2, 1917. Serial No. 159,978. 2 Claims. (Cl. 37-12.)



1. A dredge having a main A frame, a spud supporting A frame erected on one leg thereof one member of said spud supporting frame being a compression member pivoted to the apex of the main A frame, a spud carried by said spud supporting frame.

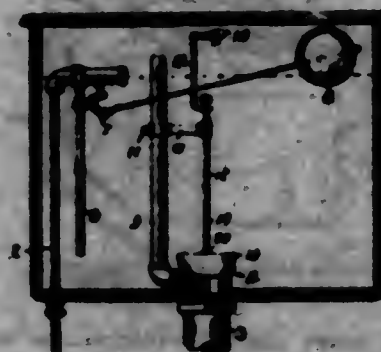
1,307,575. THEFT-ALARM FOR AUTOMOBILES. HIRSH A. BRALL, Kansas City, Mo. Filed July 22, 1918. Serial No. 246,997. 6 Claims. (Cl. 178-306.)



1. In a device of the class described, a circuit breaker including a pair of contacts having a normal tendency

to bear one against the other, a steering post, a contact spreader having a part between the contacts and means on said steering post for removably supporting the spreader.

1,307,576. FLUSH-VALVE. CLARENCE A. BURN, Detroit, Mich., assignor to The Kerckhoff Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 14, 1918. Serial No. 271,025. 6 Claims. (Cl. 4-8.)



1. An outlet valve for tanks or the like formed of a relatively stiff body of cast extending across the valve from side to side to form a closed upper wall and having its lower surface adapted to conform to an annular valve seat, there being a cavity of considerable size formed in said lower surface within the limits of the opening in said seat.

1,307,577. MACHINE FOR GROOVING AND FINISHING JEWEL-BEARINGS. FRANK H. CHAPMAN, Toledo, Ohio, assignor to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Oct. 13, 1917. Serial No. 196,370. 10 Claims. (Cl. 51-11.)



1. A machine of the character described, comprising an abrasive solution container, a plurality of cutting members secured therein, a plurality of holders for the articles to be cut, means for holding one of said holders upon each of said cutting members, and a pivotal connection between said last-named means and the holders whereby said holders are capable of self adjustment relatively to the cutting members.

1,307,578. CAPSTAN AND SHEAVE BLOCK. EDWARD E. CHERRY, Trenton, N. J., assignor of one-third to Wager Fisher, Philadelphia, Pa., and one-third to Louis H. Laurent, New York, N. Y. Filed Apr. 22, 1914. Serial No. 832,000. 4 Claims. (Cl. 254-66.)

1. In a device of the character stated, a body portion, a hook at one end thereof, a capstan and a sheave upon the body portion in tandem relation, the capstan being larger than the sheave and nearer the hook than the

sheave, a circumferential guard for the sheave adapted to protect a rope upon the sheave from interference by a



rope upon the capstan, and operating means for the capstan.

1,307,579. LENS. WILLIAM CHURCHILL and EMILIO PASCUCCHI, Corning, N. Y., assignors to Corning Glass Works, Corning, N. Y., a Corporation of New York. Filed Feb. 15, 1918. Serial No. 73,498. 1 Claim. (Cl. 240-48.4)



A signaling lens having a series of refracting zones, the principal focal points of said zones on one part of the lens being substantially the same for all the zones throughout such portion, and the principal focal points of said zones on a restricted sector of the lens being in the rear of the first named focal point and being different for the different zones in such sector.

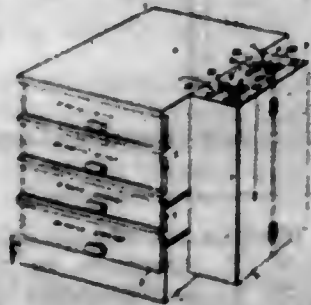
1,307,580. DIE-STOCK. FRITZ FERN, Basel, Switzerland. Filed Mar. 24, 1915. Serial No. 16,755. Renewed Nov. 29, 1918. Serial No. 264,719. 1 Claim. (Cl. 10-116.)



In a die stock of the character described, in combination, a ring having an exterior extension, a tubular handle secured to said extension, a disk rotatably mounted

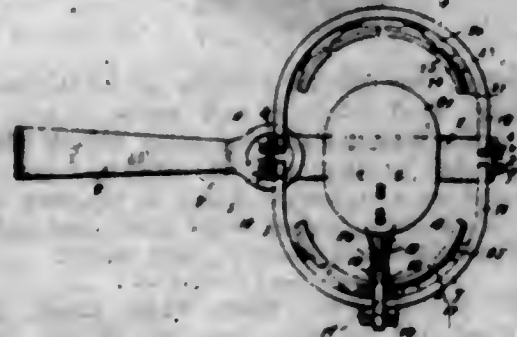
in said ring, an annulus having a square opening arranged in said ring, dies adjustably secured in said annulus and adapted to slide on each other and in said square opening, one of said dies being recessed, a pin secured to said disk projecting into the recess of one of said dies, a lever hinged to said disk and provided with a slot, a screw spindle secured to the ring, a nut on said spindle secured against rotation and stops on said disk cooperating with said nut for preventing a rotation of the disk apt to bring the dies out of engagement with each other, substantially as described and for the purpose set forth.

1,307,581. SAFETY CASH-CABINET. JOHN M. GALE, Eaton, Ohio. Filed Aug. 15, 1917. Serial No. 186,291. 11 Claims. (Cl. 45-94.)



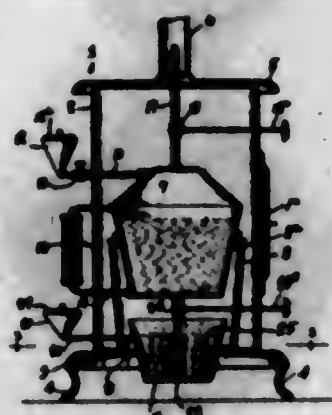
1. In a cabinet, the combination, with a drawer and a casing containing said drawer, of a detecting device, and connections whereby withdrawal of said drawer from said casing physically alters said detecting device.

1,307,582. TRAP. HOLMES G. GOSSEN and FRANCIS E. ADAMS, Oneida, N. Y., assignors to Triumph Trap Co., Inc., Oneida, N. Y., a Corporation of New York. Filed Nov. 1, 1917. Serial No. 199,795. 5 Claims. (Cl. 43-23.)



1. An animal trap, comprising a base plate, a pair of jaws pivotally mounted thereon, each of said jaws being provided with inwardly extending posts, and elongated gripping members carried upon each of said posts.

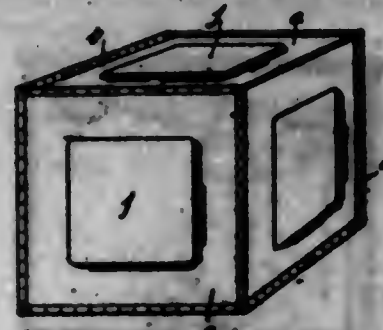
1,307,583. PETROLEUM-OIL STOVE. HENRY B. HAMMILL, Eldorado, Ill. Filed Dec. 27, 1918. Serial No. 268,489. 3 Claims. (Cl. 158-93.)



1. A stove or burner of the type described, including a holder separately positioned within the casing of the stove or burner, a fire-pot arranged with its upper portion within said casing and a tubular element depending

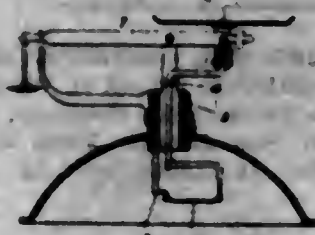
from and communicating with said holder and extending into and terminating at its lower end adjacent the bottom of said fire-pot, said tubular element being adapted to deliver the contents of said holder into said fire-pot and means correlated with said holder and fire-pot for producing a vacuum in the tubular element.

1,307,594. TANK AND LIKE RECEPTACLE. JAMES HULSH HUMPHRIES, London, England. Filed Mar. 19, 1917. Serial No. 155,686. 4 Claims. (Cl. 220-5.)



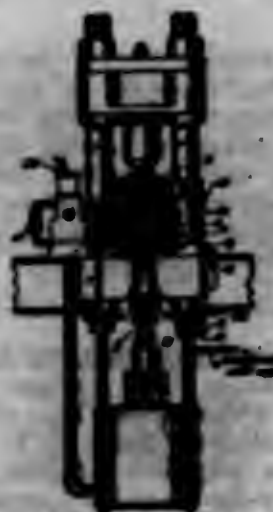
3. Improved tanks and like receptacles built up of a number of plates, each wall of a tank comprising a single plate and each of said plates being uniform in size and shape and having a uniform continuous surrounding flange at its margins, the whole of said flange being set at an angle of 135° to the outer plane of the plate.

1,307,595. ROTATABLE SCALE. TAMEI ICHIM, Tokyo, Japan. Filed Feb. 23, 1919. Serial No. 279,127. 2 Claims. (Cl. 206-49.)



1. A weighing scale comprising a hollow pedestal, a sleeve member rotatably mounted upon the said pedestal, a counterpoising beam mounted on the sleeve and guiding means extending through the bore of the said rotating sleeve and terminating into the hollow space of the pedestal, substantially as set forth and illustrated.

1,307,596. HYDRAULIC PRESS. FRANCIS E. KOCHENDORF, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 13, 1918. Serial No. 228,401. 5 Claims. (Cl. 138-10.)



1. In a hydraulic press, a movable ram, a water chamber beneath said ram, a feed pipe for supplying water to

said chamber, a valve in said feed pipe, a plunger actuated by said movable ram, and a water-on-and-off valve controlled by said plunger to determine the amount of water supplied to said chamber.

1,307,597. ELECTRICAL HEATING UNIT. FRANK KUHN and JAY A. HARD, Detroit, Mich., assignors to American Electrical Heater Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 14, 1917. Serial No. 143,179. 5 Claims. (Cl. 210-37.)



1. In an electrical heating unit, the combination with a refractory base having a grooved upper face, of a resistor located in said groove, and a lining for said groove of a refractory material having a greater heat conductivity than the body of the base.

1,307,598. APPARATUS FOR HYDROGENIZING OILS AND FATS. HOWARD LANE, Ashford, England. Filed Feb. 12, 1919. Serial No. 276,571. 5 Claims. (Cl. 87-12.)



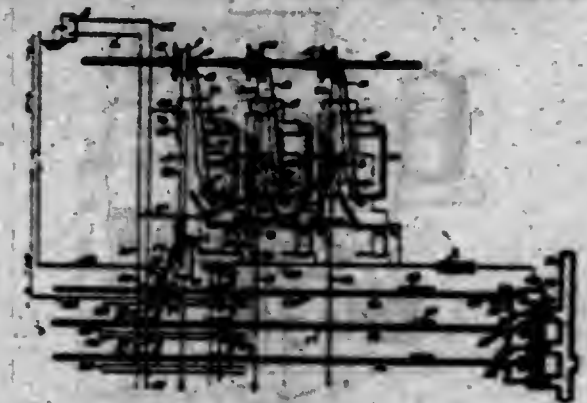
1. Apparatus for hydrogenating oils and fats comprising an inner vessel open at top and bottom, an outer vessel enclosing said inner vessel, valve controlled pipe connections to the outer vessel for the admission and withdrawal of oil and catalyst, for the admission of hydrogen, and for the communication of vacuum; a pump for circulating the oil and catalyst from the base of the inner vessel to the base of the outer vessel and thence to the top of the inner vessel upwardly through the space between the inner and outer vessels, means within the inner vessel for spraying the oil and catalyst, and means for heating the outer vessel.

1,307,599. AUTOMATIC TELEPHONE EXCHANGE. FRANK A. LUNDQVIST, New York, N. Y., assignor to Casper L. Redfield, trustee, Chicago, Ill. Filed Aug. 28, 1916. Serial No. 117,169. 26 Claims. (Cl. 179-27.5.)

1. In an automatic telephone exchange, a series of subscriber's lines, a series of trunks crossing the lines, contact terminals for lines and trunks at the crossing points, a device associated with each line and movable along a path parallel to the lines, a shaft associated with each

208 O. G.—36

trunk and having projections normally supported in the paths of said devices, and means by which upon a device



engaging a projection in its path both device and shaft will be moved to close the terminals at the crossing which corresponds to device and shaft.

1,307,599. PILE-DRIVER HAMMER. PETER H. MACKIE, Maxwellton, Wash. Filed May 22, 1917. Serial No. 170,188. 2 Claims. (Cl. 61-15.)



1. A pile driver hammer having a piston receiving bore extending downward from its upper end, a piston-like disk fitting said bore, a lifting rod connected with the disk and extending out of the base, a spring in said bore acting to hold the disk down, a collar defining the outer end of the bore and engaging the outer end of the spring, and means for locking the collar in place.

1,307,601. CREDIT-ACCOUNT REGISTER. HAAKON A. MANNING, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio. Filed May 11, 1920. Serial No. 68,761. 10 Claims. (Cl. 45-2.)

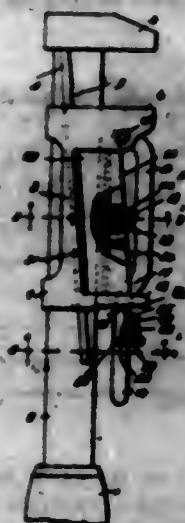


1. The combination with a filing unit comprising two sections so arranged that one section normally prevents access to the other, the said sections slidably connected whereby the former section may be moved to permit access to the latter, of means for normally preventing relative movement between the said sections.

1,307,602. WRENCH. ALBERT AUGUSTUS MOON, Newark, N. J. Filed Mar. 27, 1918. Serial No. 285,416. 3 Claims. (Cl. 81-142.)

1. A wrench comprising a shank having a fixed jaw; a movable jaw slidable on the shank and provided with teeth on its inner end; a retainer slidable in the movable jaw transversely of the shank, the shank and the retainer having interengaging elements; a lever pivoted to

the movable jaw and to the retainer; and a spring act-



ated latch mounted on the lever and movable longitudinally of the lever, the latch coacting with the teeth of the movable jaw.

1,307,503. ROOM-RACK FOR HOTELS AND THE LIKE. FREDERICK A. MÜSCHENHEIM and FREDERIC W. BLASDALE, New York, N. Y. Original application filed Jan. 12, 1918, Serial No. 211,862. Divided and this application filed Aug. 17, 1918. Serial No. 250,390. 2 Claims. (Cl. 116-31.)



1. A room rack, comprising a frame, a plurality of spaced vertical slots rigidly mounted in said frame at an inclination to its transverse axis, said slots being arranged in step-shaped relation, whereby the front upright rims of said slots remain uncovered, and a plurality of horizontal card holders mounted on said slots and extending across said exposed rims.

1,307,504. AUTOMATIC GUN. CLARE A. NEWMAN, New York, N. Y. Filed May 16, 1918. Serial No. 234,918. 11 Claims. (Cl. 89-11.)

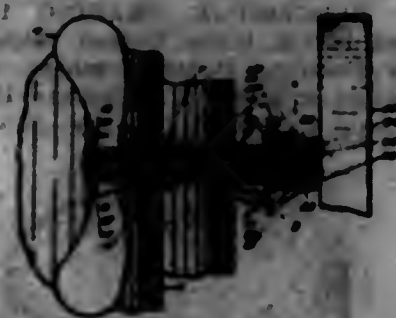


1. An automatic gun embodying therein a gun stock, a frame adapted to receive and retain the butts of a plurality of pistols carried thereby, a plurality of automatic magazine pistols mounted in said frame, a trigger mechanism carried by said stock, and connections between said trigger mechanism and the triggers of said pistols respectively.

1,307,505. FLUID-AGITATING MECHANISM. NIELS D. NIELSEN, Elyria, Ohio. Filed June 11, 1918. Serial No. 239,404. 2 Claims. (Cl. 259-109.)

2. In combination, a tank, a jacket around the tank and spaced therefrom, said tank and jacket having open-

ings in their adjacent walls in line with each other, a sleeve passing through said openings, a shaft in the sleeve having a reduced end extending into the tank and adapted to receive a stirring means, a collar on the shaft adapted to abut against the outer end of the sleeve, a cup co-



operating with the outer end of the sleeve adapted to clamp the collar thereagainst in one position to prevent rotation of the shaft and in other positions to permit free rotation while taking up the outward thrust of the shaft, and means for locking the cup in said latter position.

1,307,506. VEHICLE-SPRING. ERIC HERMAN OBERMAN, Waynesboro, Pa. Filed June 9, 1917. Serial No. 172,798. 1 Claim. (Cl. 267-27.)



A vehicle spring suspension including a spring connected at one end to the vehicle axle and pivoted at its remaining end to the vehicle chassis, and a second spring fixedly connected at one of its ends to the vehicle body and pivotally connected at its remaining end to said first spring at a point spaced from but in proximity to the pivotal connection of the same with the vehicle chassis.

1,307,507. PORTABLE CARRIER. NICK OSLERO, Sparrows Point, Md. Filed June 11, 1918. Serial No. 239,421. 3 Claims. (Cl. 224-8.)



1. A combined portable carrier and bag comprising a flexible body, supporting straps connected to each end of

said body, adjusting means at one end of said body, and means for connecting the side edges of said body together whereby the carrier is converted into a bag.

1,307,508. CAMERA ATTACHMENT. WILLIS E. PHILLIPS, Colbran, Colo., assignor to Douglas Henry, Seattle, Toronto, Canada. Filed Dec. 27, 1917. Serial No. 209,122. 14 Claims. (Cl. 88-1.)

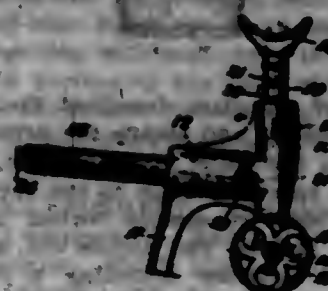


1. The combination with a camera, and the lens thereof, of a prism; a support therefor adjustably carried by said camera to permit of the change of position of said prism to any degree, supporting members carried one at each side of said prism and pivoted in said support to eccentrically mount said prism, and means for moving said supporting means so as to move said prism through an eccentric path.

1,307,509. PROCESS OF FORMING BURSTING CHARGES. CHESTER L. HENNE, Wilmington, Del., assignor to E. I. du Pont de Nemours & Company, Wilmington, Del., a Corporation of Delaware. Filed Aug. 17, 1918. Serial No. 250,393. 9 Claims. (Cl. 86-3.)

1. The process which comprises changing an explosive container with a difficulty fusible nitro body by mixing it with an easily fusible nitro body, and pouring the mixture into the container while the latter nitro body is in a molten condition.

1,307,500. AUTOMOBILE JACK. CHRISTIAN H. BOSE and ADAM HENNE, Milwaukee, Wis. Filed Sept. 20, 1917. Serial No. 189,902. 1 Claim. (Cl. 21-129.)

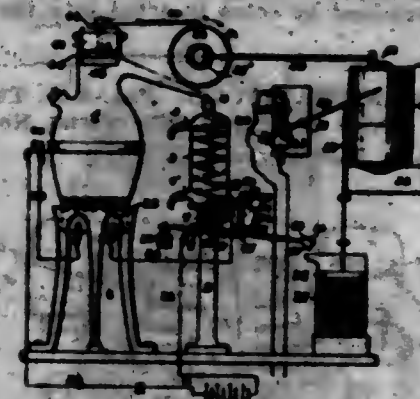


An automobile jack, comprising a jack member mounted on wheels and having a supporting leg, an axle engaging seat thereon, said jack member being provided with a handle socket having opposite key grooves, a tubular handle member fitting in the socket and provided with a slot reinforcing strip therein, and lugs formed on the handle member in the plane of the reinforcement and adapted to fit in the key grooves.

1,307,501. APPARATUS FOR TESTING COMPLEX LIQUIDS. ARTHUR T. SANDERS, Chittenden, Mass. Filed July 31, 1918. Serial No. 112,271. 3 Claims. (Cl. 234-34.)

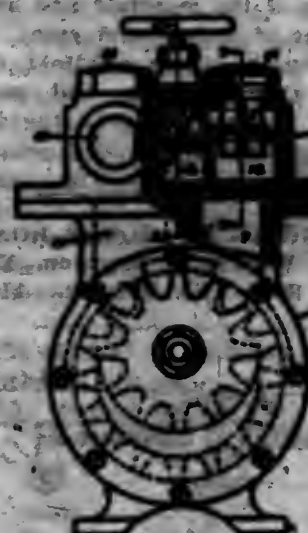
1. In an apparatus of the class described the combination of a still, a recording thermometer comprising a marker member (46) and a chart bearing member (26), said marker member being adapted to be controlled by the volatized contents of said still, a condenser, a receptacle for the condensed distillate, a recording element comprising a marker member (28) and a chart bearing member (29), said marker member (28) being adapted to be controlled by the flow of distillate, and a motor element oper-

atively connected with said chart bearing members (28 and 29) whereby said two chart bearing members may be



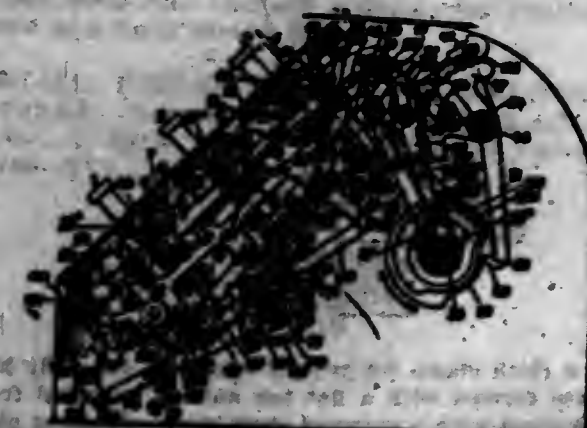
driven at predetermined speeds, all substantially as described.

1,307,502. AUTOMATIC REVERSING DEVICE FOR ROTARY PUMPS. JAMES O. SCHIRMER, Cleveland, Ohio, assignor to The Viking Pump Company, Cedar Falls, Iowa, a Corporation. Filed Dec. 2, 1918. Serial No. 264,961. 3 Claims. (Cl. 108-44.)



2. The combination with a reversible rotary pump the casing of which has a pair of inlet and outlet ports located side by side, of a box-like valve casing mounted on the pump casing and having passages at opposite sides thereof communicating with said ports and transverse inlet and outlet chambers at opposite ends thereof, a valve between each end of each chamber and each passage, and a central by-pass valve between said chambers, all of said valves being accessible at the top of said valve casing.

1,307,503. TICKET-PRINTING MACHINE. FRANCISCO SERRA, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (Incorporated in 1904.) Filed May 7, 1918. Serial No. 706,054. 20 Claims. (Cl. 194-2.)



24. In a machine of the class described the combination with a ticket issuing mechanism, adapted to issue a vary-

ing number of tickets, of a differentially movable device for locking the same, the extent of movement of said device being determined by coins inserted into the machine.

1,307,604. ENGINE-MANIFOLD. FRANK A. TRAHN, Detroit, Mich. Filed Oct. 24, 1917. Serial No. 198,287. 6 Claims. (Cl. 123-25.)



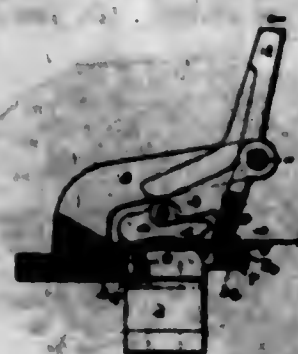
2. A manifold comprising a unitary hollow elongated member adapted to extend along the side of the cylinders of an engine substantially from end to end to form an exhaust passage therefor, said member forming within the exhaust passage a divided intake passage having a plurality of discharging openings adapted to deliver fuel mixture to the different cylinders, a steam generator within the confines of the manifold and having one wall exposed to the heat of the exhaust gases, said generator extending longitudinally of the manifold, means for supplying water to the generator, and passage forming means connecting the generator to the intake passage near the discharge openings.

1,307,605. SPRINGING OF MOTOR ROAD-VEHICLES. AXEL CHARLES WICKHAM, Brighton, England. Filed May 3, 1918. Serial No. 232,302. 11 Claims. (Cl. 267-27.)



1. The combination in a motor vehicle of a leaf spring, a movable member about which the spring leaves, and automatically operative means for changing the position of the said member relatively to the spring according to the load.

1,307,606. CLOTH-CLAMP. HUGO O. WINGARD, Philadelphia, Pa., assignor to H. W. Butherworth & Sons Company, a Corporation of Pennsylvania. Filed Jan. 14, 1918. Serial No. 211,764. 2 Claims. (Cl. 26-6.)



1. In a cloth clamp for textile machines, the body having a base formed with a flat top and an extended front edge, combined with a stamped sheet metal clamping plate having an extended flat surface resting upon the base and a front portion bent downward and backward to form a hook.

longitudinal groove which tightly receives the attached front edge of the base, means for connecting the rear portion of the clamping plate tightly with the base to prevent the plate lifting at the rear or shifting forward upon the base, and a clamping jaw hinged to the body above the clamping plate and adapted to contact therewith near its forward edge.

1,307,607. PROJECTILE. WILLIS A. WILKINS, Orange, Tex. Filed June 12, 1918. Serial No. 230,792. 9 Claims. (Cl. 102-32.)



1. In a projectile, an outer casing adapted to contain a main explosive charge, and an inner drum mounted in said casing and adapted to contain a supplemental explosive charge, said drum being supported in concentric spaced relation to the disk by anti-friction means so as to permit free rotation of the casing about the drum as a center.

1,307,608. VEGETABLE-BUCKET. JOHN P. WOODWARD, Seattle, Wash. Filed June 24, 1918. Serial No. 241,801. 1 Claim. (Cl. 230-64.)



In a device of the class described the combination of an open mesh bottom and means for permanently fastening the same to the walls of the bucket, the said mesh bottom being in spaced relation to the bottom edge of the bucket, and a solid removable bottom adapted to rest upon the mesh bottom, and means for holding the said solid bottom in position including a resilient washer around the periphery of the solid bottom and outwardly sprung spines projecting from the solid bottom and adapted to pass through the said mesh bottom.

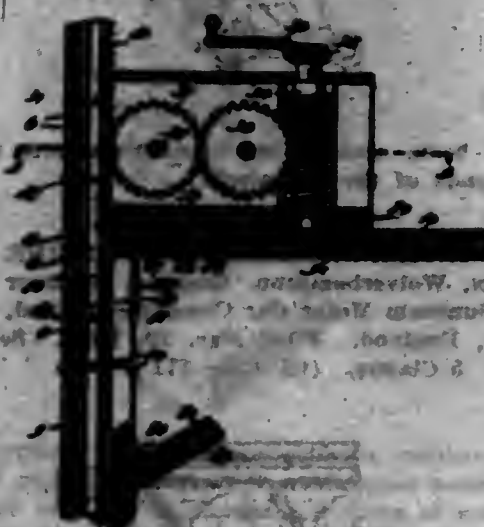
1,307,609. SENSITIVE WIRE-METER INLET CONTROL. DAVID ROBERT YARWALL, Philadelphia, Pa., assignor to Farnall-Waring Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 26, 1908. Serial No. 87,362. 4 Claims. (Cl. 127-62.)



1. In a device of the character stated, a wire meter comprising a wire chamber and a catch basin, having water inlet to the wire chamber and outlet from the catch basin.

basin, a seat in the catch basin, a grid valve in the inlet to the wire chamber having varied rate of change of opening with increased opening movement and connections between the grid valve and seat, opening the valve with downward movement of the seat and closing it with upward movement thereof.

1,307,610. BUILDING-SCAFFOLD. JOHN E. YEALEY, Ashland, Ohio. Filed May 16, 1918. Serial No. 235,018. 1 Claim. (Cl. 23-81.5)



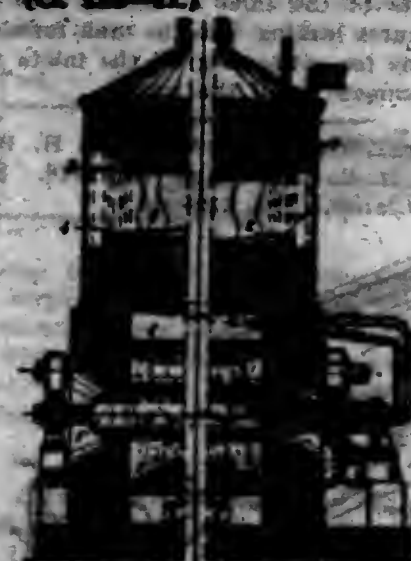
In a vertically adjustable foldable scaffold bracket, a vertical track having rack teeth, a vertical bar contacting slidably with the toothed side of said track, a horizontal bar pivoted at one end to the upper end of said vertical bar and adapted to support a scaffold board, an inclined brace bar pivoted at its upper end to the other end of said horizontal bar, the lower end of said vertical bar having a socket in which the lower end of said brace bar is received, said brace bar being removable from said socket when said horizontal bar is swung upwardly; a gear case rigidly mounted on and rising from said horizontal bar, said gear case having guide means slidable along said track, a gear in said case meshing with said rack teeth, and means for rotating said gear to adjust the bracket vertically along the track, said guide means and said gear engaging with said track to prevent upward swinging of said horizontal bar until the bracket is removed from the track and consequently preventing accidental removal of said brace bar from said socket.

1,307,611. VEHICLE-WHEEL. WILLIAM DEAR, Coventry, England, assignor to Edge-Whitworth Limited, Coventry, England. Filed Aug. 7, 1917. Serial No. 184,961. 11 Claims. (Cl. 21-60.)



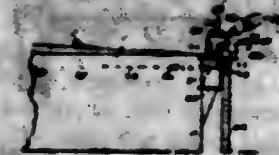
1. Spoke covering means for vehicle wheels comprising a flexible disk, a radially distortable, resilient ring carried thereby and inwardly turned and stiffening and retaining means for the disk carried by the wheel, substantially as described.

1,307,612. ART OF PRODUCING STEAM OF HIGH PRESSURE. JOHAN VIKTOR BARNSTROM, Stockholm, Sweden. Filed Dec. 23, 1914. Serial No. 578,907. 3 Claims. (Cl. 123-11.)



1. The art of producing steam of high pressure for power and heating purposes which consists in feeding a continuous supply of water usually to a hollow rotary tightly closed cylinder, subjecting said water to a centrifugal force which distributes it in an annular layer around the peripheral interior of said cylinder by rapid rotation thereof, subjecting said layer to a furnace heat imparted by conduction through the wall of said cylinder, the steam generated thereby being inclosed under high pressure within said cylinder and surrounded by the centrifugally and continuously formed water layer, and withdrawing steam at high pressure from the central zone of said cylinder.

1,307,613. AUTOMATIC FIRE-EXTINGUISHING SYSTEM. STEPHEN H. BROOKS, Cleveland, Ohio. Filed Dec. 20, 1915. Serial No. 67,946. 6 Claims. (Cl. 100-11.)



1. In automatic fire-extinguishing systems, a suitable tank for inflammable materials, a chemical container, automatically operated outlets within the tank, connections therefrom to the container, a fire extinguishing solution in the container, an independent gas holder connected therewith, an expelling gas in the holder adapted to subject the extinguishing solution in the container and in the connections between the outlets and the container to a predetermined constant pressure before and when flow in an outlet is automatically established at a set temperature, the relation between the exit of the outlets and the pressure maintained in the connections to such outlets being such that the extinguishing solution is expelled in a finely divided state.

1,307,614. FIRE-EXTINGUISHING INLET FOR FUEL-TANKS. STEPHEN H. BROOKS, Cleveland, Ohio. Filed Nov. 2, 1917. Serial No. 199,574. 6 Claims. (Cl. 100-11.)



4. In fire-extinguishing systems, a tank for inflammable materials having a series of openings through its top.

walls above the level of its contents, removable flanged inlets in such openings, means for attaching the same to the tank from the outside so as to leave no abrupt protruding parts of the inlet extending into the tank, restricted apertures leading into the tank formed in each inlet, and means for connecting all the inlets to a pressure system common to all the inlets.

1,907,615. FOOT-WARMER. CLARENCE H. BUCHANAN, Washington, D. C. Filed Aug. 21, 1918. Serial No. 250,806. 3 Claims. (Cl. 219-45.)



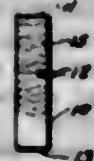
1. An electric heater, comprising a heatless receptacle having side and end walls, inwardly directed ledges formed at the upper edge of said walls, a heat absorbing cover secured upon said ledges, electric heating elements mounted in said receptacle, and an elongated transversely curved reflector mounted in said receptacle below said heating elements for reflecting the heat against said cover, said reflector having outwardly flared flanges secured to said ledges.

1,907,616. LOCOMOTIVE-TRUCK. ARTHUR C. BUNNEN, Schenectady, N. Y. Filed Feb. 1, 1919. Serial No. 274,806. 6 Claims. (Cl. 105-174.)



1. In a lateral motion truck, the combination of a truck frame; a swing bolster; and an interposed system of swing links, each provided with three pivotal members, all of which are operative, simultaneously, in transmitting to the swing bolster, the side thrust due to its lateral displacement.

1,907,617. ARTIFICIAL FLOWER. JOHN R. BUNNEN, Wilmington, Del. Filed Jan. 28, 1919. Serial No. 278,000. 3 Claims. (Cl. 41-13.)



1. An artificial flower including a single piece of material having cut petals; and a solid stem in which one end of the petals are integral with said stem; said petals, from their points of connection with the stem, flaring outwardly and being arranged in angular position with respect to the stem, substantially as described.

1,907,618. BRAKE-BEAM WITH REMOVABLE TRUNNION. THOMAS L. BURTON, St. Louis, Mo., assignor to The American Brake Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 18, 1918. Serial No. 120,227. 3 Claims. (Cl. 108-22.)

1. A brake beam having longitudinal openings formed in its ends, removable trunnions inserted in said open-

ings, said beam also having transverse slots at the ends, and fastening means therefor for holding the trunnions in



place, said beam also having other transverse slots at the inner ends of the trunnions.

1,907,619. INTERNAL-COMBUSTION ENGINE. LOUIS COATALAN, Wolverhampton, England, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Filed Mar. 20, 1917. Serial No. 156,140. 5 Claims. (Cl. 128-171.)



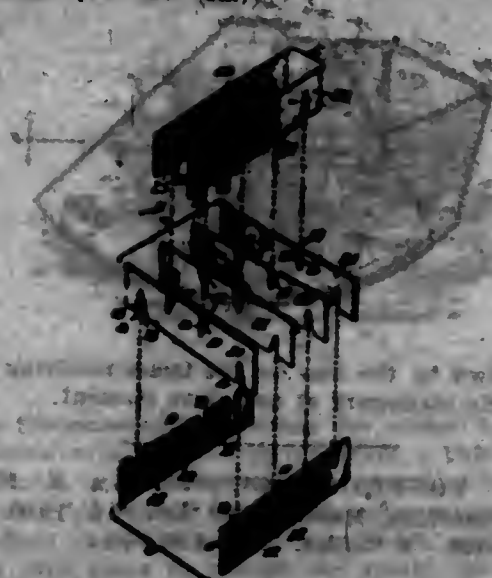
1. In combination with an internal combustion engine having a crank case at the lower part thereof, a carburetor a casing including the crank case and the carburetor, said casing depending below the crank casing and having an air inlet directed longitudinally and forwardly to receive air as the engine moves forward, substantially as described.

1,907,620. WIRE-WINDING MACHINE. NEWTON CRAIG, Boston, Mass. Filed Apr. 1, 1918. Serial No. 18,492. 40 Claims. (Cl. 242-13.)



1. An armature winding machine comprising means for supporting an armature, a wire winding member, and a guide or track arranged to constrain the movement of said member to a path conforming to the outline of the coil; said guide being adjustable so as to vary such path.

1,907,621. PARTITION MEMBER FOR CONTAINERS. FRANK E. DEVLIN, Marcellus, Ill., assignor to Howe and Davidson Company, Marcellus, Ill., a Corporation of New Jersey. Filed Dec. 7, 1918. Serial No. 118,793. 3 Claims. (Cl. 217-32.)



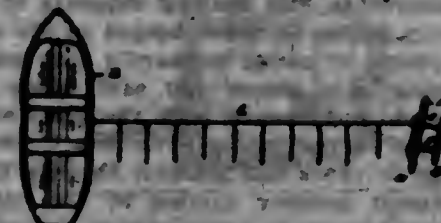
1. A partition member for containers, embracing a set of two flat partition strips having V-shaped notches opening through one of the longitudinal edges of said strips, a second set of two flat partition strips extending between the strips of said first set and having V-shaped notches opening through one of the longitudinal edges of said strips and adapted to have interlocking engagement with the notches in the strips of said first set, each notch in each strip having one edge perpendicular to the edge of the strip through which said notch opens, and one strip of each set being arranged in a position reverse to the other strip of the same set so that the perpendicular edges of the notches of the strips in each set face in opposite directions and engage the intersecting strips of the other set on opposite sides thereof.

1,907,622. MOTOR-VEHICLE. RAYMOND L. DICKINSON, Spokane, Wash., assignor of one-third to Andrew H. Jones, Spokane, Wash., and one-third to W. J. Michael, Portland, Ore. Filed Mar. 20, 1918. Serial No. 228,510. 2 Claims. (Cl. 21-150.)



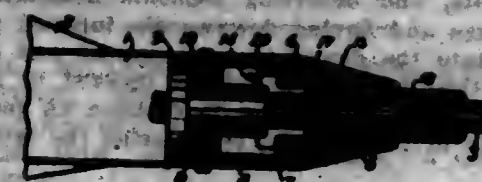
1. A tractor belt comprising a plurality of steel cables arranged in spaced pairs, links secured to said cables each comprising an outer truss plate and an inner gear plate, and said inner plate having an inwardly projecting integral lug cut out from each side of its center to form guides for the belt and to provide space for the teeth of a driving wheel.

1,907,623. FISHING APPARATUS. HARRY J. EDMONDSON, Spokane, Wash. Filed Sept. 30, 1918. Serial No. 236,200. 4 Claims. (Cl. 43-9.)



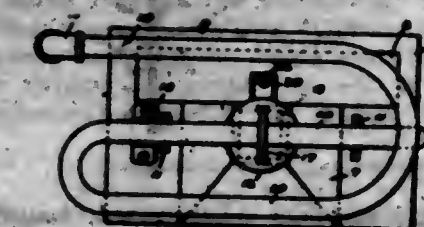
1. An outrigger comprising a pair of buoyant vessels with connecting means therebetween capable of adjustment for changing the relationship of the vessels, for the purpose described.

1,907,624. MARINE LOG. EDGAR WALL DOWNT, London, England, assignor to Thomas Walker & Son Limited, Birmingham, England. Filed Jan. 6, 1919. Serial No. 200,755. 15 Claims. (Cl. 72-122.)



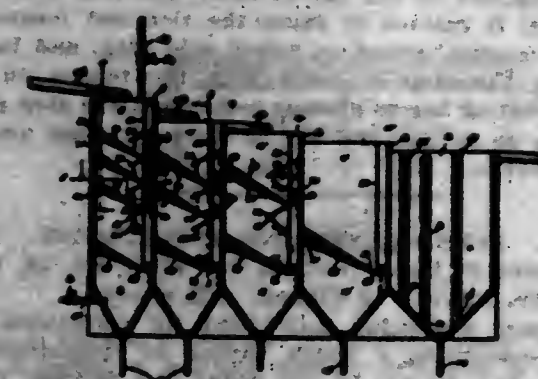
1. A marine log comprising a rotatable element, a registering device, a flexible connection for transmitting rotary movement between said rotatable element and said registering device, and means for preventing the rotary movement of the rotatable element being transmitted to the registering device at any desired time.

1,907,625. OIL-BURNER. WILLIAM K. ELLSWORTH, Bremerton, Wash. Filed Mar. 1, 1919. Serial No. 280,500. 1 Claim. (Cl. 158-64.)



In a device of the class described, an elongated base having a longitudinal priming pan formed therein at one side, a tapered mixing chamber carried by the base at its other side and between the ends thereof, the chamber having an outlet in its top and being provided in the side adjacent the center of the base with a slot located close to the bottom of the priming pan, a burner pipe extended longitudinally of the base, and embodying a middle portion located above the chamber outlet, a lower portion passing through the mixing chamber at one side of the slot, and two materially spaced upper portions located at opposite sides of and above the middle portion, the lower portion having a jet orifice disposed within the chamber, and a trough located partly in the chamber and extended outwardly through the slot, the outer end of the trough being secured to the base exteriorly of the chamber within the priming pan, the inner end of the trough lying below the jet orifice in the lower portion of the pipe, the trough being inclined transversely of the base toward the outer end thereof, and a deflector suspended from the middle portion of the burner pipe above the chamber outlet and between and below the two upper portions of said pipe so as to deflect the heat laterally toward said upper portions of the burner pipe before reaching the height of the latter.

1,907,626. ORE CLASSIFYING AND SEPARATING APPARATUS. LEWIS H. FALLEY, Kansas City, Mo. Filed July 2, 1918. Serial No. 243,055. 7 Claims. (Cl. 83-82.)



1. An ore separating and classifying apparatus comprising a settling tank, and a partition dividing said tank

into a downflow settling compartment and an upflow settling compartment having an outlet at its upper end, said partition having a plurality of openings at different elevations for providing communication between said compartments, and deflecting elements associated with said openings and having downwardly inclined portions extending into the downflow compartment and approximately vertical portions projecting upward in said upflow compartment in position to produce an immediate vertical flow of the material on entering the latter compartment.

1,307,627. WIND-SHIELD AND TOP SUPPORT. MICHAEL A. FRANK, Los Angeles, Calif. Filed Nov. 8, 1917. Serial No. 200,265. 1 Claim. (Cl. 21-144.)



An attachment for wind shield frames comprising upper and lower overlapping members provided with apertures on a line central with the adjoining edges of the shields, a pin on the upper frame extended through the apertures of said members for pivoting the same, a plate provided with an aperture through which said pin is extended, said plate formed with a downwardly extended rod and an upwardly extended offset rod, means for fastening said downwardly extended rod directly to the lower frame, and means for fastening the upwardly extended rod to the top of an automobile.

1,307,628. LOCK-OPERATED CIRCUIT-CLOSER. HERMAN GOTTFREDSON, New York, N. Y. Filed Feb. 17, 1919. Serial No. 277,407. 3 Claims. (Cl. 200-90.)



1. In a lock operated circuit-closer, a locking tongue or bolt, a bar to operate same, means to operate said bar, a rotary stop adjacent the bar having a slot therein, a tongue carried by the bar to enter said slot when the rotary stop is rotated to cause the slot and tongue on said bar to align, means to rotate said stop, and means carried by the stop to coast with the tongue on the tongue-operating bar to prevent rotation of the stop when the tongue on the bar and slot in the rotary stop are out of alignment.

1,307,629. SPEED-MEASURING INSTRUMENT. NORMAN BRIBBLEY HALL, Norfolk, Va. Filed Oct. 24, 1916. Serial No. 127,404. 9 Claims. (Cl. 88-1.)

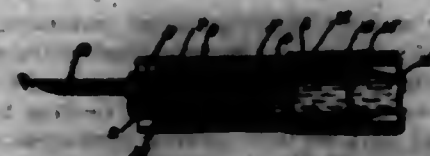
1. A speed measuring instrument for aeroplanes and the like, comprising a casing having an image-receiving surface, a lens carried by the casing and movable in an arc about the central portion of the image-receiving surface, and adapted to throw an image of the ground be-

neath the aeroplane on said surface, and means for varying the rate of movement of the lens so as to render the



image thrown by the lens on the image-receiving surface substantially stationary at any given moment.

1,307,630. FOUNTAIN-PEN. WILIAM A. HASKINS, West Somerville, Mass. Filed Nov. 14, 1918. Serial No. 131,329. 2 Claims. (Cl. 120-48.)



2. In a fountain pen, a tubular member having a valve seat, a pen bar adjustable in said member, a valve movable by said pen bar relative to said seat, and an internal stop ring threaded into said member in advance of said seat and adapted to prevent the adjustment of said pen bar beyond a predetermined limit.

1,307,631. ROTARY ENGINE AND PUMP. GEORGE LANDER JACOBS, Nellyville, Wia. Filed Dec. 27, 1917. Serial No. 209,972. 6 Claims. (Cl. 121-64.)



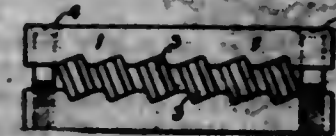
1. In a rotary device of the character described, the combination of a rotary circular piston, a shaft upon which said piston is secured, supports having bearings for said shaft, an oval casing within which said piston is concentrically disposed, covers secured to and closing the sides of said casing, portions of which covers and the casing are secured to said bearing supports to hold the same stationary, wings or vanes hinged to the outer surface of the piston to swing outwardly into engagement with the casing, said piston and said wings or vanes having fluid tight engagement with the inner surfaces of the said covers, curved guides extending inwardly from the said wings or vanes and movable through the piston, and an abutment member carried by the casing with which the several wings or vanes engage, one of said covers having an inner flange forming a cam within the piston and engaged by the inner free ends of the said wing guides.

1,307,632. TRANSMISSION-GEARING FOR MOTOR-VEHICLES. WILLIAM O. KERN, Seattle, Wash., assignor to Kuhn Tractor Truck Company, Seattle, Wash., a Corporation of Washington. Filed May 2, 1918. Serial No. 238,146. 4 Claims. (Cl. 74-55.)



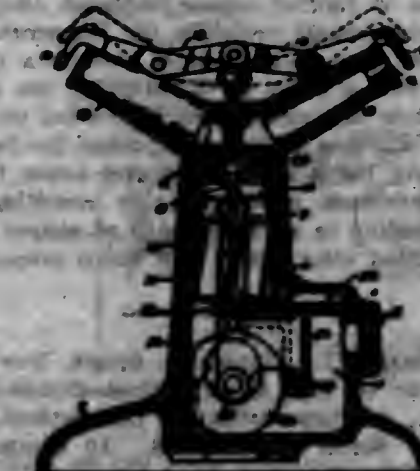
1. In transmission mechanism for motor vehicles the combination with a power driven shaft, a pair of axially aligned shafts, a shaft intermediate of said aligned shafts, speed changing gears for operatively connecting said power shaft and said intermediate shaft, and means to regulate said gears to change the rotary speed of said intermediate shaft, of clutches for coupling said aligned shafts with the intermediate shaft, and manually controlled means for regulating said clutches whereby both or either of said aligned shafts selectively may be driven from the intermediate shaft.

1,307,633. CUTTER FOR HELICAL WHEEL-TEETH. ARTHUR MAURICE MUGLEY, Sutton-Graven, near Kelghley, and SAM SUMMERS, Kelghley, England. Filed Sept. 13, 1918. Serial No. 238,964. 1 Claim. (Cl. 29-97.)



Cutters for helical wheel teeth comprising a series of interchangeable teeth of the rack type with holding bars therefor, said bars having their inner faces grooved to correspond with the pitch of the wheel teeth to be cut, the series of teeth being held within said grooves vertically in a cutting position and at an oblique angle to the length of the holding bars, substantially as described.

1,307,634. LAWN-SPRINKLER. FRANK L. MONSIE, Ithaca, N. Y. Filed Nov. 9, 1918. Serial No. 190,508. 8 Claims. (Cl. 137-155.)



1. In a lawn sprinkler, the combination of a rotatable head having one or more nozzles with a discharge opening, means operated by the flow of the water for revolving

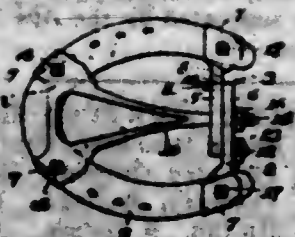
said head, a reciprocating stem located in the axis of said revolving head, driving mechanism operated by the flow of the water for reciprocating said stem, and means actuated by said stem for gradually varying the radial distance of discharge.

1,307,635. FILLING MATERIAL FOR ABSORPTION, REACTION, MIXING, AND COOLING TOWERS. HAROLD NIELSEN, Streatham, London, England. Filed Dec. 29, 1918. Serial No. 129,695. 3 Claims. (Cl. 261-65.)



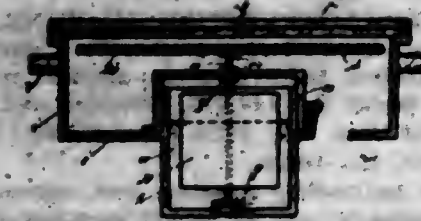
1. A filling element for absorption, reaction, mixing and cooling towers comprising a three-sided hollow body of refractory material the acting surfaces of which are helically twisted while the top and bottom edges are made horizontal to secure the regular superimposition thereof.

1,307,636. ATTACHMENT FOR HORSESHOES. ERICST NORD, Midland Park, N. J. Filed Dec. 19, 1918. Serial No. 267,431. 4 Claims. (Cl. 140-30.)



1. In an attachment for horseshoes, a heel member adapted to extend transversely beneath a horseshoe and comprising two sections, each section having an upwardly extending projection adapted to engage one side of a horseshoe, said sections having co-acting teeth preventing relative longitudinal displacement of the sections when clamped together, and said sections being adjustable relatively to each other to adjust said projections toward and from each other, means to clamp said sections in different positions of adjustment, a toe member having upwardly extending projections adapted to engage the forward portion of a horseshoe, and means to connect said members.

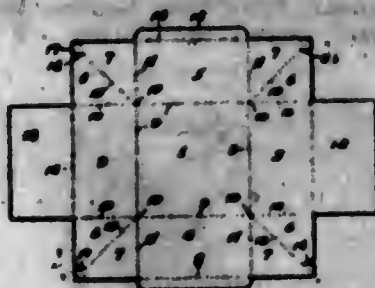
1,307,637. MARINER'S COMPASS. JOHAN WILHELM THROCKER OLIN, Marstrand, Sweden. Filed Dec. 6, 1917. Serial No. 205,604. 2 Claims. (Cl. 33-223.)



1. A mariner's compass comprising means for containing a liquid, a floatable member arranged in said liquid and supported thereby, a spindle carried by said floatable member and provided with a pivot at its upper end, upper

and lower bearings laterally engaging said spindle, a compass card pivotally supported upon the aforesaid pivot, and a magnetic system carried by said compass card.

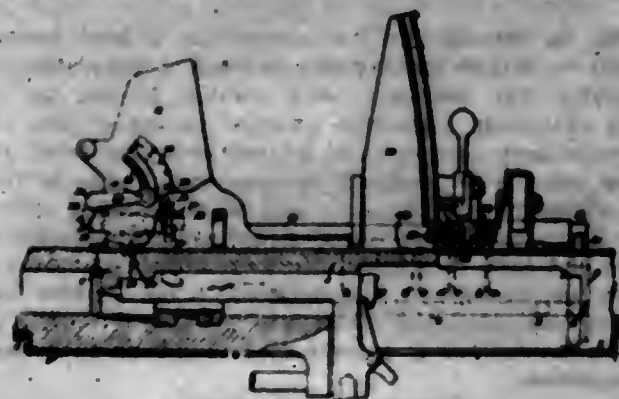
1,307,638. ONE-PIECE AUTOMATIC FOLDING CARTON. JAMES C. FRIDMAN, South Pasadena, Calif. Filed Aug. 22, 1916. Serial No. 116,652. 2 Claims. (Cl. 228-41.)



1. A carton composed of a creased sheet and comprising a bottom, two side walls, two end walls, and four corner folds; said folds connecting the adjacent edges of the side and end walls, and being creased diagonally, and said sheet being creased along the edges of the bottom section and the side and end walls; said corner folds being slitted from their edges to the respective diagonal creases to form fastening tags, one for each fold; and the tags on the opposite sides of an end wall being aligned with each other and fastened one upon the other to the end wall near the top thereof.

2. The single creased sheet carton provided at the top with narrow lips 15 folding over the corner folds 6, and overlapping tags 17; said lips 15 being supported by the tops of said folds and the bends of said tags; and the main cover flaps 13 supported by the lips 15 and closing the top of the carton.

1,307,639. AUTOMATIC TIME-FURN SETTER. ROBERT REDPATH and HENRY HELLAMMO, Coventry, England, assignors to The Coventry Ordnance Works Limited, Ordnance Works, Coventry, England. Filed Feb. 19, 1918. Serial No. 218,196. 9 Claims. (Cl. 80-1.)



1. In a gun, the combination of a longitudinally reciprocating breech block, a groove therein, a plunger entering the groove, means for feeding cartridges to the gun and a fuse setter actuated by the plunger.

1,307,640. BEET-HARVESTING MACHINE. CHARLES W. ROGERS, deceased; by Almira V. Rogers, administratrix, Marion, Ind. Original application filed Jan. 26, 1917, Serial No. 144,575. Divided and this application filed Mar. 20, 1918. Serial No. 223,645. 1 Claim. (Cl. 55-106.)

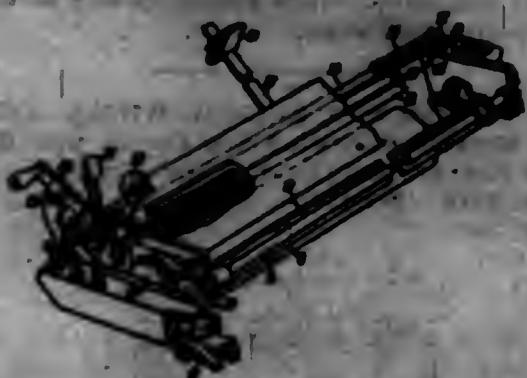
In a beet harvesting machine, beet uprooting mechanism comprising a pair of shovel members arranged to travel at opposite sides of the row of beets being harvested for producing furrows at said opposite sides of the row of beets, and beet engaging and lifting means comprising a pair of helically grooved rollers mounted at the rear of said shovel members and traversing the furrows produced by said shovel members, said rollers being

provided with deflecting gear members arranged to deflect the beets, as they are uprooted, over the rear ends



of said rollers and along the line of the row of beets being harvested.

1,307,641. TYPE-WRITING MACHINE. JAMES A. R. SMITH, Stamford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed May 14, 1916. Serial No. 234,417. 10 Claims. (Cl. 197-123.)



1. In a typewriting machine, the combination with a revolvable platen, of a paper-table at the introductory side of said platen, a blade at the delivery side of said platen, against which a web may be drawn to be covered, and a device to grip the web against the paper-table to hold the web while the front portion thereof is being covered by the blade.

1,307,642. METHOD OF MAKING COPPER-CADMIUM ALLOY. WALTER C. SMITH, Seattle, Wash., assignor to United States Smelting, Refining & Mining Company, a Corporation of Maine. Filed Aug. 18, 1916. Serial No. 248,924. 10 Claims. (Cl. 75-1.)

1. The method of making copper-cadmium alloy which consists in simultaneously reducing the temperature and the melting point of a molten copper bath to a temperature below the boiling point of cadmium by the addition thereto of cadmium in a solid state, thereafter continuing the addition of cadmium while maintaining the bath at a temperature above its melting point and below the boiling point of cadmium, solidifying the resulting alloy, and thereafter adding to a molten bath of copper a quantity of the solidified alloy which is a small proportion of the total bath.

1,307,643. RHODSTAT. HARRIS D. BROWN, New Haven, Conn., assignor to The A. C. Gilbert Company, New Haven, Conn., a Corporation of Connecticut. Filed Feb. 8, 1918. Serial No. 250,096. 10 Claims. (Cl. 219-48.)

1. A rhodstat, comprising a hollow receptacle, a plurality of flexible contact members insulated from each other and positioned one above the other within said receptacle, resistance means for electrically connecting the

disjoint contact members, comprising a non-insulated, relatively thin wire having one end connected to the bottom contact member and the other end connected to the top contact member, the intermediate portion of said wire being wound about said receptacle in spaced coils, each contact member being connected to one of said coils.



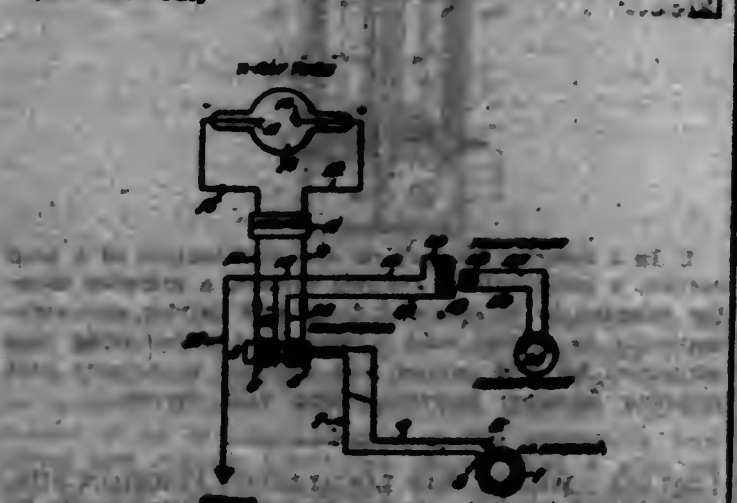
said spaced coils being connected to the intermediate contact members, and means for forcing said contact members into contact with each other, whereby said spaced coils will be successively short-circuited.

1,307,644. MEANS FOR LIGHTING AND EXTINGUISHING GAS LAMPS. FREDERICK JAMES SWANSON, Christchurch, New Zealand. Filed Oct. 20, 1915. Serial No. 58,882. 3 Claims. (Cl. 175-115.)



1. The combination with a gas burner and a valve controlling the supply of gas thereto, of means for opening said valve electromagnetically, and additional means operated automatically by said first named means for igniting the gas flowing from said burner, said additional means comprising a transformer, the secondary circuit of which includes a sparking device located adjacent the burner, the first named means operating to close the primary circuit of said transformer.

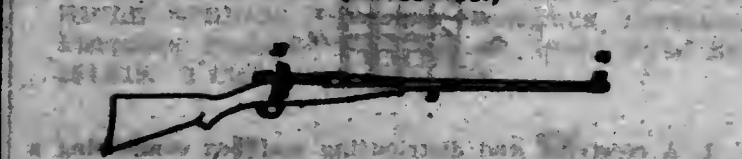
1,307,645. X-RAY-TUBE CURRENT-MEASURING SYSTEM. HARRY F. WATSON, Whitestone Landing, N. Y. Filed July 11, 1916. Serial No. 106,002. 1 Claim. (Cl. 171-66.)



In a system of the class described, a step-up transformer and means for energizing the same, a secondary in said transformer connected to an X-ray tube, a step-down transformer with one coil connected to leads taken from the center of the secondary of the said step-up

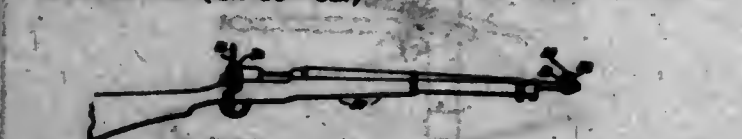
transformer, a low tension current coil in said step-down transformer and a meter connected therewith so that the volume of the current passing through the X-ray tube may be read on said meter.

1,307,646. SIGHT FOR FIREARMS. EARLE F. WATSON, Dumont, N. J. Filed Mar. 30, 1918. Serial No. 236,612. 10 Claims. (Cl. 32-33.)



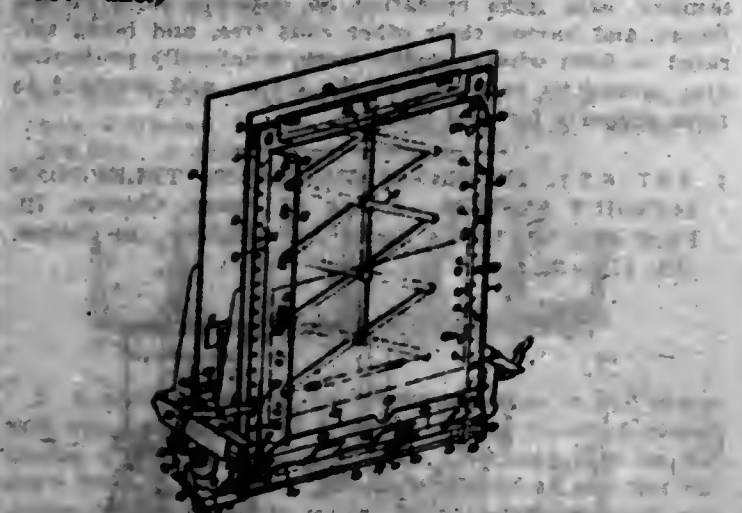
1. In combination, a firearm, front and rear day sights therefor, and respective attachments to serve as night sights, the front attachment comprising a single compact mass of self-luminous material to serve as the essential visible element thereof, and the rear attachment comprising a radio active self-luminous material symmetrically disposed with respect to the line of sight determined by said front night sight attachment, each attachment having a spring clip element adapted for securing it in place on the firearm by a mere push and by frictional engagement only and adapted for disengaging it from the firearm and removing it by an opposite pull.

1,307,647. SIGHT FOR FIREARMS. EARLE F. WATSON, Dumont, N. J. Filed Nov. 8, 1918. Serial No. 361,756. 14 Claims. (Cl. 32-32.)



1. In combination, a fire arm, a vertical frame near the breech, a sliding carriage on said frame adapted to be adjusted vertically thereon, said carriage comprising a part with an aperture for a day sight, and a member detachably connected with said carriage and adjustable therewith, said member having an aperture and luminous material disposed around it for a night sight.

1,307,648. TYPE-WRITER. JOHN A. WHEAT, New Orleans, La., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 20, 1917. Serial No. 197,548. 14 Claims. (Cl. 197-123.)



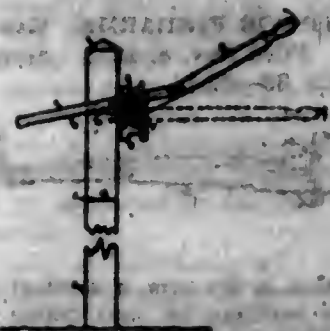
1. The combination with a platen, of a flexible supporting means passing around said platen, and a fold secured to said flexible supporting means so as to travel therewith around said platen, and including a back with flaps secured thereto to overlap the margins of the work-sheets placed upon the back, so as to maintain them in position in traveling around the platen.

1,307,540. RECEIVING AND DISTRIBUTING MAIL-BOX. FANNIS K. WHELAN, San Francisco, Cal. Filed Dec. 20, 1916. Serial No. 267,574. 3 Claims. (Cl. 232-24.)



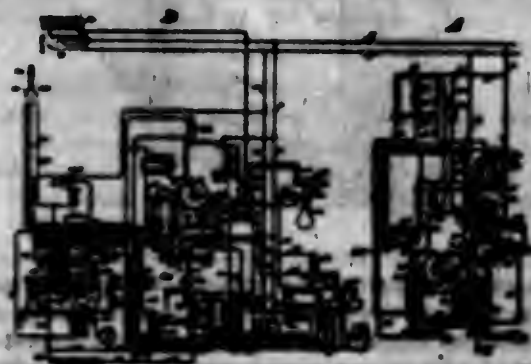
1. A receiving and distributing mail-box comprising a lower section fitted with individual open topped compartments each provided with an access door; an upper floored section completely overlying and hinged to the lower section and adapted when closed down thereon to cover the compartments of the lower section and when raised therefrom, to expose the open tops of said compartments, said upper section having a door for the collection of mail and a slot for its deposit; means for locking said door; and separate means for locking the upper section to the lower section.

1,307,550. WIRE-TIGHTENER. JAMES G. WILSON, Houston, Tex. Filed Aug. 18, 1917. Serial No. 157,000. 1 Claim. (Cl. 254-82.)



A wire tightener, including a U-shaped frame member, having an oblong slot therethrough, an arcuate bridge connecting legs of the frame, said bridge being spaced from the back of the frame and forming an opening therethrough, a handle, one end of which is inserted through said slot, a transverse pin extending through the inner end of said handle and opening, to prevent its detachment from the frame, said bridge forming a bearing for the inner end of the handle, a pair of links pivoted at one end to the handle in the rear of said frame member, said links operating on opposite sides of the frame, and having their other ends free, and being serrated to form wire engaging teeth, a laterally projecting arm carried by each side of the frame, and provided to form supports for said links.

1,307,551. INTERCOMMUNICATING TELEPHONE LOCKOUT SYSTEM. FRANK W. ADAMS, Chicago, Ill. Filed July 29, 1916. Serial No. 112,150. 10 Claims. (Cl. 179-32.)



1. In an intercommunicating telephone system the combination of a central station, multiple subscribers' sta-

tions, a pair of lines connecting said central station and said subscribers' stations, means at said central station for interrupting collecting current on said line when means at said central station for removing said collecting current from said line when, and circuit changing means at said central station whereby said collecting current may be removed at a later period in the cycle of the completed call where more than one party has been called than when only one party has been called.

1,307,552. SAFETY RAZOR. ABRAHAM J. BAYLUM, Kansas. Filed Mar. 5, 1915. Serial No. 220,528. 3 Claims. (Cl. 30-12.)



1. A safety razor including a segmental blade holder constructed from a single piece of material bent into substantially convex-concave form and having a longitudinally extending slot therethrough defining a blade receiving portion at one side of the slot and a guard at the opposite side of the slot, and yieldable means fixed upon the blade receiving portion and adapted to engage the inner margin of a cutting blade for securing the blade stationary upon the blade receiving portion against the inner side face thereof and projecting at its outer margin through said slot beneath the guard.

1,307,553. SUPPORTING AND HOISTING MECHANISM. ISRAEL BENJAMIN, Bath Beach, N. Y. Filed Jan. 23, 1917. Serial No. 144,008. 15 Claims. (Cl. 284-100.)

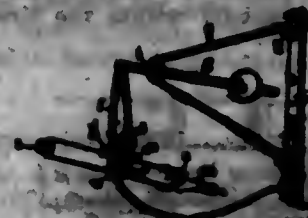


1. In a hoisting mechanism the combination of a load carrier, a substantially vertical column, a gripping member adapted to be operated from said carrier and automatically to engage said column, and a revolving cam supported by said carrier and adapted to actuate said gripping member, thereby lifting said carrier.

1,307,554. MEANS FOR LOCALIZING FOREIGN SUBSTANCES WHICH HAVE BECOME EMBEDDED IN THE HUMAN BODY. JEAN BENOIST, Bordeaux, France. Filed Aug. 10, 1915. Serial No. 48,725. 2 Claims. (Cl. 174-37.)

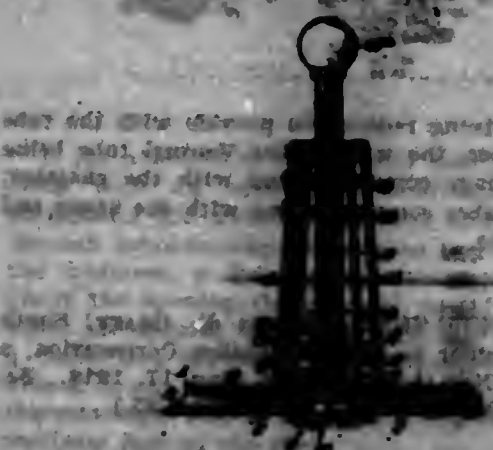
1. That improvement in the art of localizing foreign conducting substances embedded in the human body which comprises bringing an electromagnet near the body

In the vicinity of the body, and a variable electric current being sent through the body by a variable electric current.



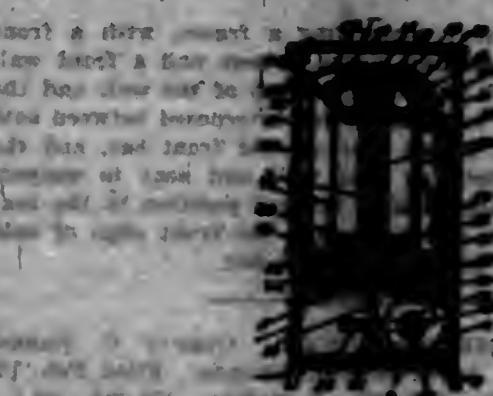
so as to cause the substance to vibrate by reason of the inductive action and then acting by touch the region of the flesh affected by such vibration.

1,307,555. COLLAPSIBLE SIGN AND LIGHTING POST. WILLIAM H. BAYNE, Washington, D.C. Filed Apr. 4, 1918. Serial No. 257,000. 4 Claims. (Cl. 40-145.)



1. A collapsible sign, for signs, lights, etc., made tubular in form and in sections, and a breakable coupling connecting said sections and including a breakable tube spanning the joint between the sections and maintaining said sections in proper position to each other, said tube being adapted to break when unusual strain is placed thereon.

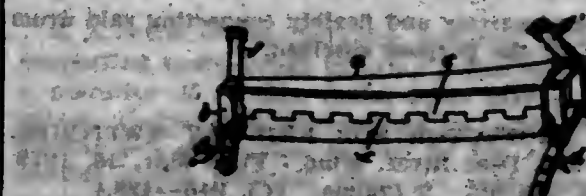
1,307,556. AIR-COOLING MACHINE. SANTIAGO CAMERON and DAVID B. CAMERON, Tucson, Ariz. Filed Aug. 2, 1917. Serial No. 154,140. 3 Claims. (Cl. 301-50.)



1. A device for the purpose described, adapted to be used in or before a current of air, and comprising a set of two opposed and parallel perforated tubular barrels horizontally disposed each upon and bearings and arranged so as to rotate thereon, a belt connecting said barrels and causing interaction thereof, and a gear on one of said barrels arranged for power transmission thereto; a set of two corresponding endless belts arranged so as to pass over and hang one from each of said barrels and, by contact therewith, made to travel over the perimeter both in such manner that the lower and free ends pass submerged through a liquid contact of the open tank, thus allowing and maintaining a supply moisture covering the belts and in quantitative degree

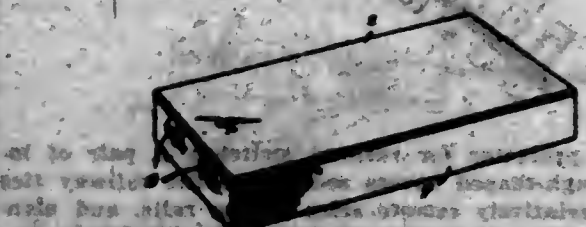
relative to the speed of their travel; and a set of two similar perforated tubular barrels horizontally disposed each between vertical end guides, and arranged so as to rotate thereon, and sustained one within each of the lower and free folds of said belts in such manner that they act as adjusters and tension idlers therefor.

1,307,557. FLEXIBLE COVER FOR LAMINATED VEHICLE SPRINGS. WILLIAM FREDERICK COTTELL, Fishponds, England. Filed Sept. 17, 1918. Serial No. 254,519. 1 Claim. (Cl. 267-20.)



Flexible covers for laminated vehicle springs, including in combination, a leather cover, a leather tube located in and at each end of said cover, a series of interengaging loops on the meeting edges of said cover, a thong threaded through said loops, and a tongue located inside and along one meeting edge of said cover.

1,307,558. PROCESS FOR SHARPENING RAZORS. EUGENE DION, Baltic, Conn. Filed July 17, 1917. Serial No. 151,148. 1 Claim. (Cl. 51-10.)



A process for preparing a honing surface for sharpening razors which consists in providing a relatively soft metallic slab and moistening the flat surface thereof, and then rubbing the said flat surface with a piece of abrasive material to remove grains of the material for forming a slit with the moisture on the surface of the slab and to force particles of the abrasive into the relatively soft surface of the slab.

1,307,559. [WITHDRAWN.]

1,307,560. EGG AND FRUIT CARTON. ORIN C. FENLASON, Raymond, Wash. Filed July 10, 1917. Serial No. 179,003. 6 Claims. (Cl. 217-65.)



2. A combining strip for ready insertion in cell cases, said strip being formed from an oblong blank of veneer having a pair of transverse score lines and bent on the score lines to provide a flat bottom member and flat imperforate inclined side walls rising therefrom, said bottom member having a central aperture.

1,307,561. DRY-CLEANING EXTRACTOR. WILLIAM PENCE, New York, N. Y. Filed Jan. 15, 1919. Serial No. 271,370. 3 Claims. (Cl. 44-45.)

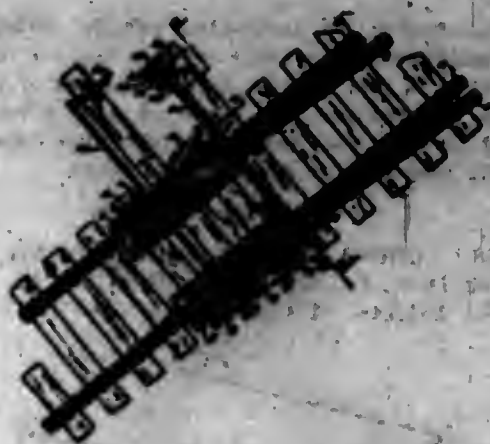
1. In a dry cleaning machine, a stationary casing, an extracting drum mounted to rotate inside the casing and

out of contact therewith at all points, means for supporting said drum including yielding insulating members and



means for conductively and flexibly connecting said drum and casing for the purpose specified.

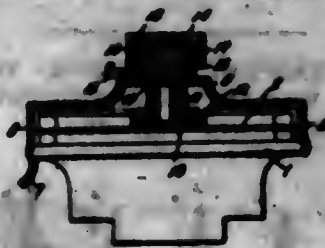
1,907,062. PROTECTOR FOR RAILWAY SWITCHES. Henry Foss, Deer River, Minn. Filed Mar. 26, 1919. Serial No. 285,205. 2 Claims. (Cl. 244-423.)



1. In a protector for railway switches, a pair of inverted trough-shaped covers secured to the railway ties upon the relatively remote sides of the rails, and manually operable means for moving said covers simultaneously to cause them to cover and uncover the rails substantially as set forth.

1,907,063. [WITHDRAWN.]

1,907,064. TONE-REGULATOR. GEORGE ARNOLD PHOENIX, Rosend Beach, Conn. Filed Aug. 6, 1918. Serial No. 248,491. 9 Claims. (Cl. 274-87.)

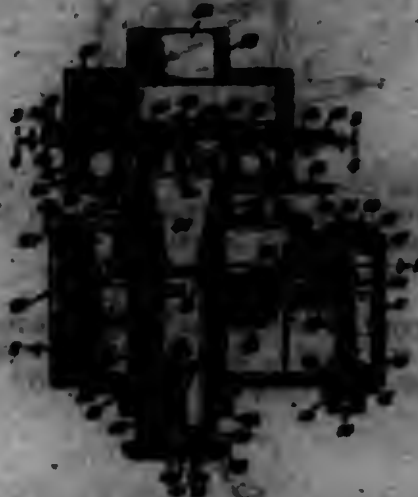


1. A device of the character described comprising a clamping plate, a slidable damper carried by said plate, a spring engaging said plate and bearing upon said damper for urging the damper in one direction, and means for limiting the movement of said damper in each direction.

1,907,065. CARBURETER. WALTER A. GUINN, Linden Heights, Ohio. Filed Dec. 12, 1918. Serial No. 138,488. 7 Claims. (Cl. 261-62.)

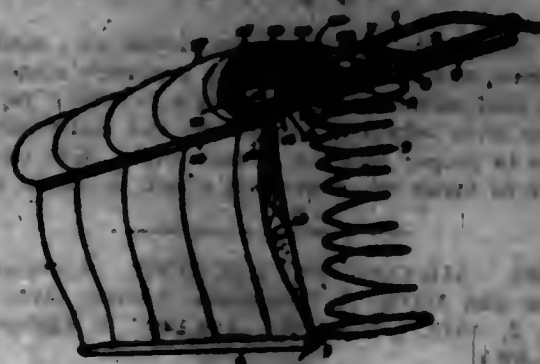
1. In a carburetor, a casing providing a Venturi tube projecting completely through the float chamber with its restricted portion adjacent the fluid level therein, a primary air supply nozzle adjustably mounted in the lower end of the Venturi tube and pro-

jecting below the float chamber whereby the inner end of said nozzle may be adjusted toward and away from the most restricted portion of the tube, the outer portion of the nozzle fitting snugly within the Venturi tube and



the inner portion being reduced to provide with the tube an annular chamber, the wall of the Venturi tube being formed with openings communicating with the chamber, and a mixing chamber communicating with the upper end of the Venturi tube.

1,907,066. VEHICLE-SEAT. EDWIN R. GRAY, South Bend, Ind., assignor to The Seashower Corporation, a Corporation of New Jersey. Filed Aug. 17, 1918. Serial No. 289,642. 2 Claims. (Cl. 100-25.)



11. A vehicle seat comprising a frame, with a front bar and rear supporting means, a seat and a front wall said seat and wall united at the top of the wall and the front edge of the seat and means interposed between said frame at a point to the rear of said front bar, and the point of union between said wall and seat to support said wall in a substantially vertical position to the rear of said front bar, and to tension the front edge of said seat beneath and behind said front bar.

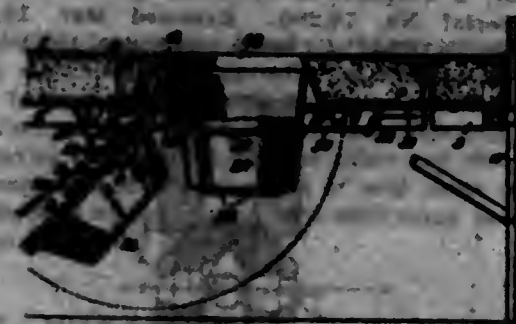
1,907,067. CORSET-FASTENER. GEORGE C. GUNN, Swift Current, Saskatchewan, Canada. Filed Feb. 17, 1919. Serial No. 277,408. 2 Claims. (Cl. 24-60.)



1. A corset fastener having a handle portion and clasp portion, the latter terminating in an operating end portion, said clasp portion and end portion being proportioned to extend through and said clasp portion to closely fit within the slot portion of a standard metal corset eye, when operatively positioned, said end portion extending at an angle to said clasp portion, having a

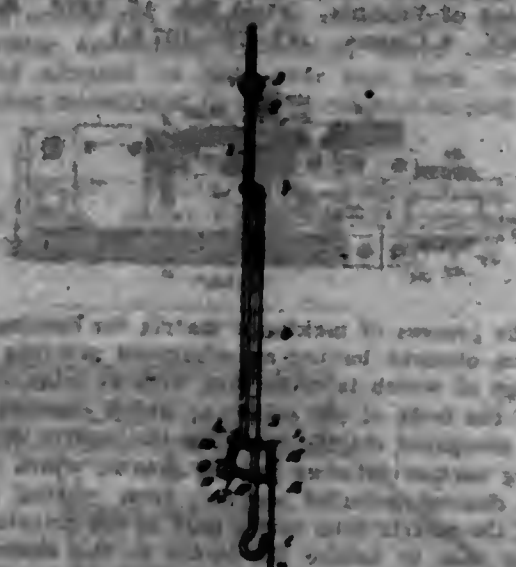
room to engage the head of a corset post and a matched end to engage the flange of the post, and said clasp portion being so curved as to cause the eye to slide easily over the same, toward the post and inwardly toward the body of the wearer, when the fastener is operatively positioned and is lying horizontally across the body.

1,907,068. INVALID-BED. JOHN JAY HENDERSON, Topeka, Kans. Filed May 14, 1917. Serial No. 160,512. 6 Claims. (Cl. 5-12.)



1. An attachment for invalid beds comprising a mattress with an opening therethrough, containing bed-springs for the mattress provided with an opening therethrough corresponding in position to the opening through the mattress, a flat metal frame fast to the mattress about the opening therethrough and fast to the springs about the opening in said springs, said frame constituting a connection between the mattress and springs, a door hinged at one side to the frame at one side of the opening therethrough, and a plug for the opening through the mattress fast to the door.

1,907,069. ADJUSTABLE MANGON. SAM M. HINO, Olean, Ohio. Filed May 23, 1918. Serial No. 60,374. Renewed May 6, 1919. Serial No. 285,108. 2 Claims. (Cl. 246-8.)



1. A mangon comprising a pair of slidably connected spaced rods, means for removably securing the upper end of one of said rods to a suitable support, a loop formed on the lower end of one of the rods and adapted to engage with the other rod, a loop formed upon the latter rod for encircling and engaging with the first rod, said loops serving to maintain the alignment of the two rods in their various adjusted positions, a locking bolt pivotally connected to one of the rods and adapted to encircle the other rod for holding the rods in their several adjusted positions, and means for releasing said locking bolt.

1,907,070. SHOES-CLEANING MACHINE. OLAF HOGSTAD, Detroit, Mich. Filed July 24, 1917. Serial No. 182,518. Renewed Nov. 21, 1918. Serial No. 282,622. 9 Claims. (Cl. 15-2.)



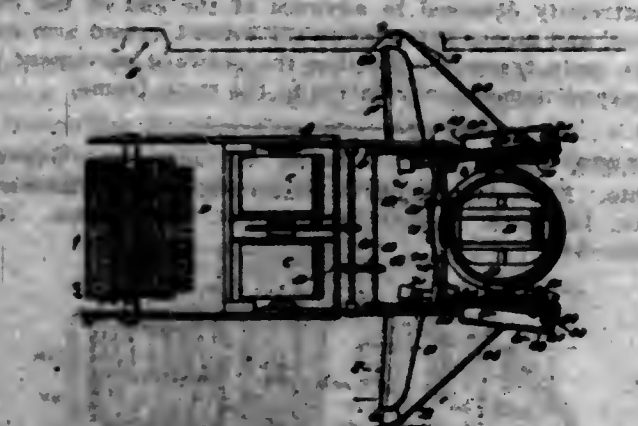
2. A device of the character described including spaced supporting posts, brush carrying plates mounted thereon, a plurality of tubular radial arms carried by the said plates, shafts slidably mounted in said arms, complementary sets of brushes carried by the said shafts, tangential shafts mounted upon the said plates, the tangential shafts of respective plates being connected for simultaneous rotation, pinions carried by the said tangential shafts and engaging the said first mentioned shafts for connecting the brushes of each set for simultaneous sliding movement, and means connecting the said plates for simultaneous rotation.

1,907,071. MATRIX-HOLDER FOR TYPE-CASTING MACHINES. MAURICE C. ISHMAN, Philadelphia, Pa., assignor to Linotype Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Nov. 20, 1918. Serial No. 284,817. 6 Claims. (Cl. 100-79.)



2. A matrix holder for the typesetting machines comprising a frame embodying a plurality of members one of which is provided with a matrix cell notched in one edge thereof and one of which is pivotally mounted for movement relatively to the other to permit of the insertion of the matrix into or its extraction from the cell.

1,907,072. AUTOMATIC CULTIVATOR ATTACHMENT FOR PLOW. OLIVER WARREN JOHNSON, Cleveland, Ohio. Filed Apr. 18, 1914. Serial No. 832,997. Renewed Nov. 23, 1918. Serial No. 282,626. 20 Claims. (Cl. 97-71.)



1. A cultivator including a main frame, an earth-working element carried by the frame and mounted for travel therewith in a fixed path, and cultivators pivotally mounted upon the frame at their inner ends for lateral movement and extending laterally on opposite sides of the frame, the cultivators being free and unsupported at their outer ends and each cultivator being independent of the other cultivator at all times and movable at its outer end laterally and longitudinally relative to the

main frame without changing the direction of travel of the main frame or of the other cultivator.

4. In a cultivator, a frame, a ground-treating member mounted for swinging movement on the frame, means for operating the ground-treating member, and a guide finger operatively connected at its inner end with the operating means and extending at all times in spaced relation to the free end of the ground-treating member, said guide finger being free except at its inner end and being actuated by contact with an obstruction to cause said operating means to retract the ground-treating member.

5. In a cultivator, a frame, a ground-treating member mounted for swinging movement on the frame, means for operating the ground-treating member, and a guide finger operatively connected at its inner end with the operating means and actuated by contact with an obstruction to cause said means to retract the ground-treating member, said guide finger being free except at its inner end and in advance of the ground-treating member.

6. A cultivator comprising a supporting frame, a laterally projecting rotatable cultivator shaft supported on said frame, and normally inactive power-driven means for automatically shifting the cultivator shaft inward upon the approach of the same toward an obstacle and then outward after the obstacle has been passed.

27. In a mechanism of the character described, a main frame, an arm pivoted thereto for movement in a horizontal plane, a cultivator mounted upon the extremity of the arm, a shaft passing through the arm, means mounted on the main frame for continuously rotating said shaft, a transmission shaft mounted upon the arm and constantly driven from the first named shaft, a level gear wheel mounted upon the transmission shaft, a clutch shaft mounted upon the arm at right angles to the transmission shaft and having oppositely disposed loose level gear wheels engaging the first named level gear wheel, oppositely disposed clutch members shiftably mounted upon the last named shaft and engageable each with its corresponding level gear wheel, a screw shaft, a nut through which the screw shaft passes, said screw shaft being connected to the clutch shaft by a universal joint, a T-shaped lever mounted upon the arm, clapper levers connected one to each clutch member, links connected between the arms of the T-shaped lever and said clutch levers whereby a full reciprocation of the T-shaped lever in one or the other direction will throw one or the other of the clutches in or out, a spring engaging said T-shaped lever and normally urging one of said clutches into engagement and the main arm of the T-shaped lever outward, a pivotally mounted arm extending approximately parallel to the first named arm, a link connecting said arm with the main arm of the T-shaped lever, an angular finger mounted upon said second named arm and having its extremity disposed in advance of the end of the cultivator, and means attached to the second named arm and to the main frame for limiting the outward movement of the second named arm relative to the main frame.

1,307,673. TRACTOR. OLIVER W. JOHNSON, Geneva, Ohio. Filed Aug. 10, 1915, Serial No. 44,895. Renewed Dec. 14, 1918. Serial No. 286,813. 29 Claims. (Cl. 180-54.)



1. In a tractor, the combination of a U-shaped main frame, a circular frame secured between the front ends

of said main frame, cross beams secured within the main frame to the forward portion thereof, longitudinal beams secured to and extending between the rearward cross beam and the rear end of the main frame, and an axle secured slightly to the said longitudinal beams and the ends of the main frame to tie the said parts together and resist additional strain on the frame.

1,307,674. UNIVERSAL JOINT. PAUL KUNEN, Garmisch-Partenkirchen, near Berlin, Germany, assignor to Siemens-Werk, Gesellschaft mit beschränkter Haftung, Berlin, Germany, a Corporation of Germany. Filed Jan. 25, 1916, (Serial No. 74,390. Renewed Mar. 10, 1919. Serial No. 281,394. 4 Claims. (Cl. 60-102.)



1. In a universal joint of the character described, the combination of a coupling member having flattened faces with a plurality of curved parts to be articulately connected and embracing said member, the faces of said parts having a hole in each prong, pivot pins extending outwardly into said holes, a means for forcing the pins outwardly and preventing them from being moved inwardly, substantially as described.

1,307,675. METHOD OF MAKING MATRICES FOR CASTING ELEMENTS OF PRINTING-FORMS. ANNE L. KNIGHT, Philadelphia, Pa., assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Feb. 15, 1918. Serial No. 217,263. 4 Claims. (Cl. 76-107.5.)



1. The process of making a matrix for casting a printing form element having an elongated printing face one side edge of which is coincident with an edge of the side face of the body of the element; which consists in forming an elongated matrix cavity in the matrix body with a printing surface forming face of greater width than that of the desired printing surface, then cutting away the side of the matrix body and a part of the printing surface forming face to reduce the latter to the desired width, and finally forming a permanent side wall for the matrix cavity with its inner face perpendicular to the printing surface forming face, and in a plane coincident with the plane in which the side of the element is to be formed.

1,307,676. MATRIX FOR CASTING ELEMENTS OF PRINTING-FORMS. ANNE L. KNIGHT, Philadelphia, Pa., assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Original application filed Feb. 15, 1918, Serial No. 217,263. Divided and this application filed Mar. 25, 1919. Serial No. 284,594. 2 Claims. (Cl. 200-64.)

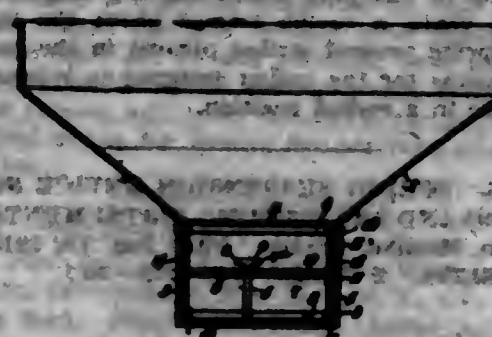
1. A matrix for casting printing form elements having a printing face coextensive with and underlying in the direction of the length of the element, consisting of a

matrix body having a matrix cavity therein with an elongated printing surface forming face, said cavity being open at one end to the full depth of the cavity and having a side wall which is perpendicular to the printing surface forming face and extending to the full depth of the cavity.



2. A matrix for casting said increment printer's strip material, consisting of a plurality of selected parts combined to form a matrix cavity having a bottom for forming the face of the strip material, the sides and one end of said cavity being closed and the other end thereof open for the exit of said material, one of said parts constituting a side wall of the cavity, said wall being perpendicular to the bottom of said cavity.

1,307,677. MILK-STRAINER. GEORGE AARON KOWAL, Montoursville, Pa. Filed Apr. 15, 1918. Serial No. 280,516. 4 Claims. (Cl. 210-16.)



1. A strainer comprising a body having a neck and a screen therefor, an inner open-ended cylindrical sleeve carrying a screen and adapted to slide within said neck, and an outer open-ended cylindrical sleeve carrying a screen and adapted to slide over said neck, the said screens being maintained in spaced relation to each other.

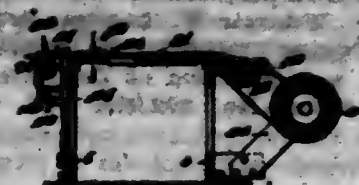
1,307,678. TRAP. FRANK KORN, Erling, Iowa. Filed Feb. 23, 1919. Serial No. 279,741. 4 Claims. (Cl. 40-34.)



1. A trap embodying a cage having an entrance, a trap door below the cage constituting one terminal of an electrical circuit and having a portion extending toward said entrance and adapted to swing downwardly away from the entrance, a second trap door mounted between the first mentioned door and entrance and having a portion extending away from the entrance and swingable downwardly away from the first mentioned door, and a flap suspended at the entrance having a lower tapered edge to bear on a rod extending through the entrance and constituting the other terminal of the electrical circuit.

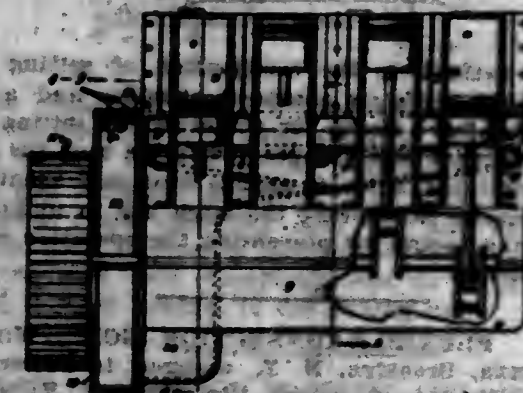
268 G. G.-57

1,307,679. AUTOGRAPHIC MANIPULATING AND CASH REGISTER. ALBERT KRAUTH, Hamilton, Ohio, assignor to Krauth & Benschhofen, a Firm consisting of Albert Krauth and Christian Benschhofen, Hamilton, Ohio. Reeling of application Serial No. 544,009, filed Apr. 11, 1916. This application filed Mar. 8, 1919. Serial No. 22,904. 3 Claims. (Cl. 281-11.)



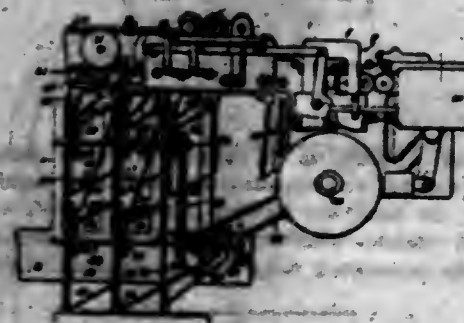
3. In a manipulating-machine comprising a suitable frame work including a strip of paper having a longitudinally disposed series of advancing perforations, a depressible pin situated at one end of the said frame work entering said perforations certain, means for withdrawing said pin from its paper engagement, and a pair of rolls cooperating for a partial revolution of one of them for advancing the strip therebetween and providing a non-strip engaging interior.

1,307,680. AIR-COOLED ENGINE. BENNETT B. KURN, Canton, Ohio. Filed Jan. 8, 1919. Serial No. 270,196. 7 Claims. (Cl. 122-171.)



1. In combination with the cylinders of an engine, a case forming a cooling chamber around the cylinders, means for moving air through the chamber, and a diaphragm in the case having differential apertures for determining the amount of air passing through different portions of the chamber.

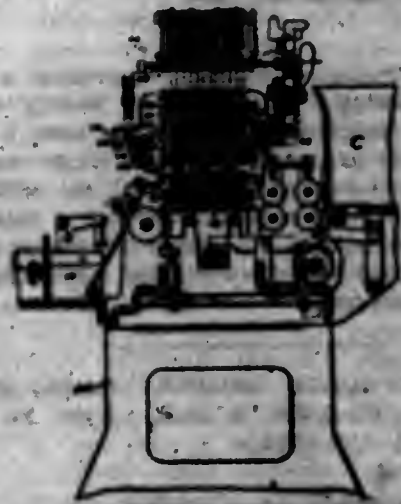
1,307,681. CARD-FEED-DELIVERY MECHANISM. WILLIAM W. LASKER, Brooklyn, N. Y., assignor to Powers Accounting Machine Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 5, 1918. Serial No. 118,372. 17 Claims. (Cl. 271-66.)



2. The combination with a plurality of deflector members positioned appropriately for directing articles and operating in a single horizontal plane, of a conveying mechanism operatively associated with said deflectors, said conveying mechanism comprising a single row of

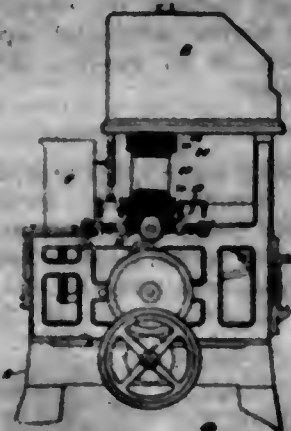
rolls, an endless member traveling around and being driven by said row of rolls, and a second row of rolls disposed between said deflector members adjacent to one another and juxtaposed relative to the rolls of said first mentioned row of rolls.

1,907,682. SET-BAR MECHANISM FOR PERFORATING-MACHINES. WILLIAM W. LARKIN, Brooklyn, N. Y., assignor to Powers Accounting Machine Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 20, 1917. Serial No. 202,908. 17 Claims. (Cl. 164-112.)



1. In a perforator, the combination of setting bars each provided with an abutment shoulder and a cam edge; a latch bar; means for actuating the setting bars whereby said cam edge engages and forces back the latch bar to permit the latter to engage over said shoulder; yieldable means for moving the latch bar to unlatching position; and means for preventing the operation of the yieldable means.

1,907,683. FLEXIBLE-CONNECTION BOX. WILLIAM W. LARKIN, Brooklyn, N. Y., assignor to Powers Accounting Machine Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 20, 1917. Serial No. 202,909. 16 Claims. (Cl. 286-56.)



1. In an apparatus of the character described, the combination of an accounting machine having control members; an analyzer having a plurality of setting members; and means whereby one of said members may be operatively connected with one of several other members.

1,907,684. APPARATUS FOR IGNITING GRENADES. FERNAND LAMBERT LEBLANC, Paris, France. Filed Mar. 7, 1919. Serial No. 281,244. 1 Claim. (Cl. 168-32.)

In a grenade, a tubular plug having the bore flared outwardly at its upper end, a plurality of spaced longitudi-

nally disposed ribs integral with the flared portion of the plug, the spaces between the ribs constituting vents for permitting the escape of gases, a fuse mounted in the lower portion of the bore, a detonator carried at the lower end of the plug, a percussion cap, mounted in



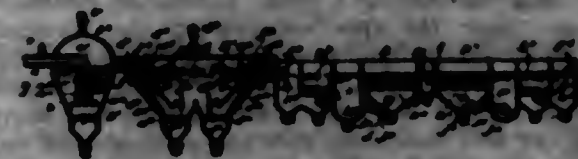
the top of the bore of the plug, a washer snugly fitted in the top of the plug above the cap and designed to close the vents, a casing formed about the top of the plug, a spring pressed striker pivoted in the casing, and closing means for the casing designed to releasably hold the striker in a cocked position.

1,907,685. SPRING SUSPENSION DEVICE FOR INDICATING AND REGISTERING INSTRUMENTS. RENE LEROUX, Mondon, France. Filed Jan. 19, 1918. Serial No. 212,794. 2 Claims. (Cl. 248-36.)



1. A spring suspension device for indicating or recording instruments comprising a collar, means for tightening said collar around the instrument, a series of lugs on said collar, a plate adapted to be secured to the vibratory support for the instrument and spiral springs connecting said lugs to said plate so that the collar and with it the instrument is elastically mounted on said support.

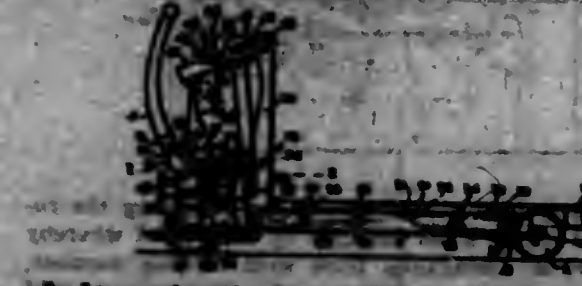
1,907,686. PROCESS FOR THE COMPLETE TREATMENT OF SEWAGE OR CONTAMINATED LIQUID. LOUIS LAMON, London, England, assignor to WILLIAM JOHN STEWART, London, England. Filed Sept. 5, 1918. Serial No. 282,786. 12 Claims. (Cl. 210-18.)



1. A method of rapidly treating sewage and other contaminated liquids consisting in breaking up any contained solid by turbulence created in the flowing liquid, eliminating the heavier particles by throwing them beyond a protective screen of baffles, dividing the current into

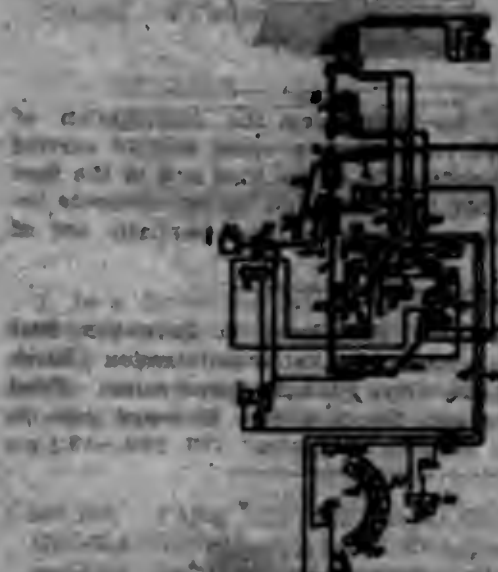
two streams, of which the one containing the greater mass of remaining particles is accelerated downward, while the other is retarded, resulting said streams and causing the combined stream to flow slowly upwardly, separating drawing off the particles of lower specific gravity than the sewage after such material has risen to the surface of the liquid and stirring the liquid to remove the remaining impurities.

1,907,687. HAND-TRUCK. RALPH M. LOVINOY, Meriden, N. H. Filed Nov. 27, 1914. Serial No. 874,108. 54 Claims. (Cl. 284-2.)



1. In an elevating truck comprising a main frame supported upon wheels and having a steering mechanism operable by a tongue connected thereto, a lever mounted on said frame, a platform supported at one end upon said lever, means operable by said lever simultaneously to raise the other end of said platform, pawl and ratchet mechanism operable by the vertical reciprocation of said tongue to advance said lever to elevate the platform step by step and means for locking the platform at each step of elevation.

1,907,688. TELEPHONE SYSTEM. FRANK A. LUNDGREN, New York, N. Y., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Dec. 2, 1916. Serial No. 194,571. 5 Claims. (Cl. 178-57A.)



1. In a telephone system, telephone lines, selective switches arranged to interconnect said lines, said switches being provided with a plurality of banks of fixed terminals and a set of brushes to travel over and make contact simultaneously with the terminals of each of said banks respectively, an impulse transmitter, means for connecting said impulse transmitter to any one of said switches, and means at each switch controlled by the first impulse transmitted thereto from said impulse transmitter for determining the particular set of brushes at said switch to be used.

1,907,689. PASTEURIZATION APPARATUS. ARTHUR F. MURRAY, Toledo, Ohio. Filed May 2, 1917. Serial No. 192,110. 4 Claims. (Cl. 220-97.)

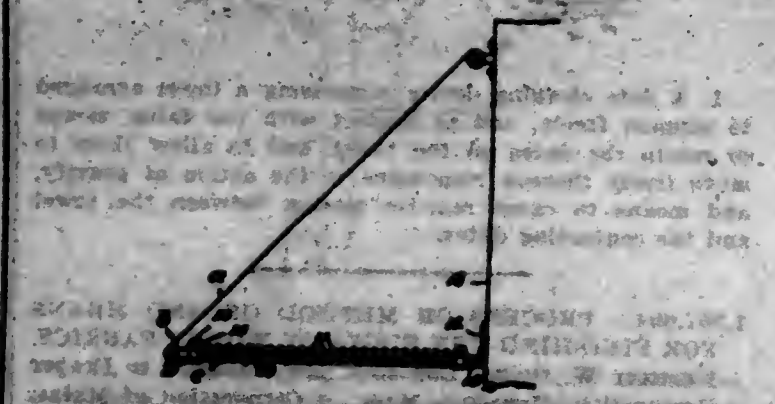
1. An endless conveyor of parallel rows of containers having tops, a housing providing lanes aligned with said

containers rows, and shower means for said relatively movable containers, said means having an impervious



portion enveloping the container tops to shield said tops during the travel of the containers therethrough.

1,907,690. AWNING-GUARD. FRANK W. NORTHBOLD, Quincy, Mass. Filed Feb. 21, 1919. Serial No. 278,948. 1 Claim. (Cl. 150-42.)



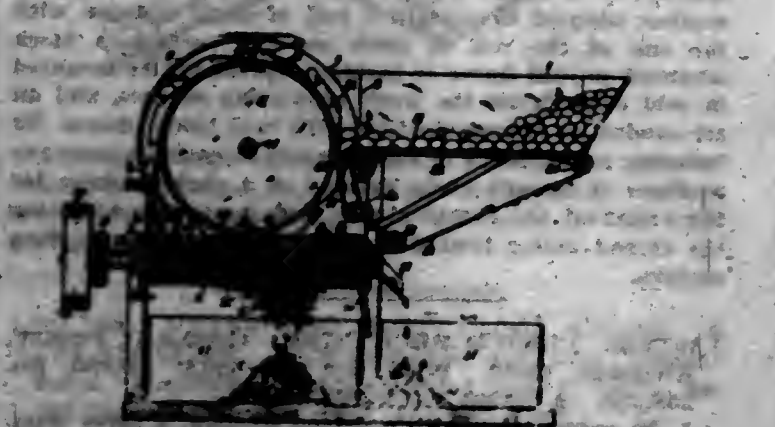
The combination with a rod of an awning frame, of a guard therefor comprising a curved metal member applied to said rod and having projections integral therewith and extended therefrom at an angle thereto, split clamping rings encircling said rod and engaging the curved metal member of said guard, and means for contracting said split clamping rings to secure the said guard in fixed relation to the awning rod.

1,907,691. DATE-FOOD PRODUCT AND METHOD OF MAKING THE SAME. JAMES H. NORTHBOLD, Indio, Calif. Filed Oct. 24, 1918. Serial No. 280,532. 9 Claims. (Cl. 90-11.)

1. The new food product set forth consisting of a conglomerate which is formed of the shredded and non ground pulp of dates.

2. The new food product set forth which consists of dry dates and other dates shredded together and formed into a conglomerate mass.

1,907,692. DATE-SHREDDER. JAMES H. NORTHBOLD, Indio, Calif. Filed Oct. 24, 1918. Serial No. 280,534. 24 Claims. (Cl. 140-5.)



1. A date shredding machine comprising two shredding surfaces spaced apart a distance less than the shortest

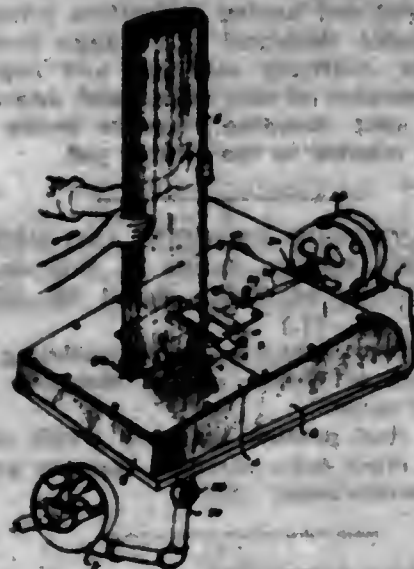
Chamber of the respective seeds of dates to be shredded, and sufficiently wide apart to form a way through which the pulp of the dates may pass in shreds, and means to remove the date pulp from the date seeds and to pass said pulp in shreds through said space.

1,307,693. MACHINE FOR CLEANING DATES. JAMES H. NORTON, JR., INDIAN, CALIF. Filed Oct. 24, 1918. Serial No. 289,693. 16 Claims. (Cl. 149-34.)



1. A date cleaning device comprising a towel arranged to support freely, and to contact with the dates, means to retain the dates on the towel, and to allow them to move freely thereon responsive to the action of gravity, and means to cause relative motion between the towel and the contacting dates.

1,307,694. PROCESS OR METHOD OF AND MEANS FOR FINISHING THE EDGES OF WOVEN FABRIC. HERBERT W. OWEN, LEVISTON, ME., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Dec. 6, 1918. Serial No. 295,691. 18 Claims. (Cl. 28-2.)



16. In a machine of the character described, the combination of a frame or casing having a work supporting surface adapted to sustain a roll of cloth endwise with the end of the roll of cloth on said surface, a block mounted on said frame or casing, a thread cutter mounted in said block below the work supporting surface, and an air conduit in communication with said block, means for inducing air currents in said conduit to position unwoven portions of threads along the end of a cloth package for the action of the thread cutter, and means for adjusting the thread cutter toward and from the work supporting surface.

1,307,695. CLUTCH MECHANISM. GEORGE D. PARKER, RIVERSIDE, CALIF. Filed Oct. 18, 1918. Serial No. 288,235. 4 Claims. (Cl. 192-8.)

1. In combination with a driven member, a drive member positioned thereon and freely rotatable relatively to the same, a clutch-pawl carried by the driven member and adapted for projecting outwardly beyond the surface

of the same into engagement with the driving member for uniting said members to cause a simultaneous rotation thereof, a clutch pawl release collar carried by the driven member and capable of movement to and from said pawl and of slight rotative movement on said member, said collar provided with a recess for the reception of a portion of said pawl when the same is in engaging position, said pawl adapted when received in said recess and on the rotation of its supporting member to contact



with the wall of said recess, means for retarding the rotation of said collar when engaged by said pawl whereby the said pawl is disengaged from said driving member, said retarding means rotating said collar about said driven member in a direction reverse to the rotation of said member on the disengagement of said pawl, and means for limiting the relative movement of said collar in either direction.

1,307,696. PACKING-RING. FARM R. PETERSON, SALT LAKE CITY, UTAH, assignor to Peterson-Harnden Clutch Company, Salt Lake City, Utah, a Corporation. Filed June 10, 1918. Serial No. 239,234. 3 Claims. (Cl. 64-24.)



1. In a packing for machinery the combination of three coating rings triangular in cross section carried in a channel cut eccentrically of the axis and in the face of one of the wearing elements, and spring elements behind said rings, adapted to press them partially out of said channel.

1,307,697. FLUID-CLUTCH. FARM R. PETERSON, SALT LAKE CITY, UTAH, assignor to Peterson-Harnden Clutch Company, Salt Lake City, Utah, a Corporation. Filed Mar. 26, 1918. Serial No. 224,009. Renewed Apr. 2, 1919. Serial No. 297,072. 1 Claim. (Cl. 192-18.)



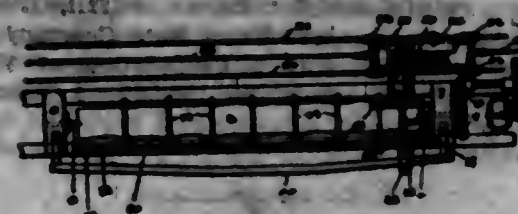
In a fluid clutch the combination of a casing connected with a driven shaft; a radially slotted rotor spaced from and concentrically operated within said casing; and connected with a driving shaft; a valve operable in the slot in said rotor to close the space between said rotor and the casing as desired, and having an opening in said valve; a slide valve to close the opening in said valve; and means to move said valve on said valve to said rotor.

1,307,698. MATRIX-HOLDER FOR TYPE-CASTING MACHINES. FRANK HIRSHAN PETERSON, HOLLY, ENGLAND, assignor to Linotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Oct. 20, 1917. Serial No. 197,698. 6 Claims. (Cl. 180-73.)



1. A matrix holder for type casting machines embodying a frame provided with stationary gaging projections at right angles to each other, a plunger provided with a matrix engaging clamping jaw, a spring acting directly upon said plunger for yieldably maintaining said jaw in advanced position, a lever provided with matrix engaging clamping jaw and a spring acting directly upon said lever for yieldably maintaining said last mentioned jaw in advanced position.

1,307,699. SPAR-FORMING MACHINE. SUMASTIAN PEX-MALA, PORTLAND, OREG. Filed Mar. 11, 1918. Serial No. 221,947. 4 Claims. (Cl. 143-1.)



1. In a device for cutting spars from a log, means for rotatively mounting said log; means for simultaneously cutting a plurality of angular scarfs in said log; and a rotary cutter longitudinally movable along said log, and rotating upon an axis perpendicular to the axis of said log.

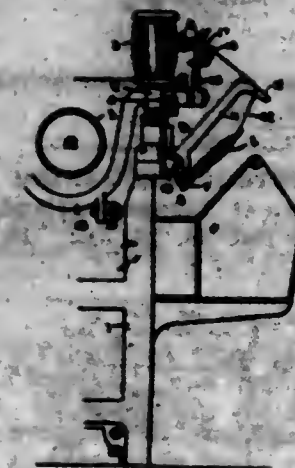
1,307,700. YARN SUPPORT AND GUIDE FOR WINDING-MACHINES. ALONZO R. RHOADES, HOPEDALE, MASS., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Oct. 5, 1918. Serial No. 288,949. 4 Claims. (Cl. 342-197.)



1. In a spooler, a support for bobbins having a filling wind comprising a stand having a spindle for the bobbins and a guide pivotedly mounted on said stand normally

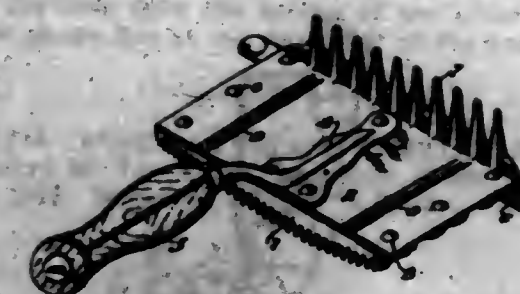
positioned to direct the running strand substantially axially of said bobbin but capable of being swung from said position to permit the doffing of the bobbin, said guide tending under the action of gravity to return to normal position.

1,307,701. YARN TENSION FOR WINDING-MACHINES. ALONZO R. RHOADES, HOPEDALE, MASS., assignor to Draper Corporation, Hopedale, Mass., a Corporation of Maine. Filed Oct. 5, 1918. Serial No. 288,947. 7 Claims. (Cl. 28-30.)



1. In a yarn winding machine comprising means for rotating a yarn receiving means to draw yarn from a yarn supplying means carried by a stationary support, a traverse rail, means located between the traverse rail and the yarn receiving means, and closely adjacent the latter, acting to apply a uniform tension to the short portion of the running strand being traversed, whereby the uniform tension will be imposed upon the strand as it is wound upon the yarn receiving means, irrespective of variations in the tension upon the yarn between the traverse rail and the yarn supplying means.

1,307,702. CURRYCOMB. JOSEPH J. ROSSMAN and FARNACK J. CASANOVA, BROOKLYN, N. Y., assignors to New York Stamping Company, Brooklyn, N. Y., a Corporation of New York. Filed July 29, 1918. Serial No. 247,189. 2 Claims. (Cl. 119-85.)

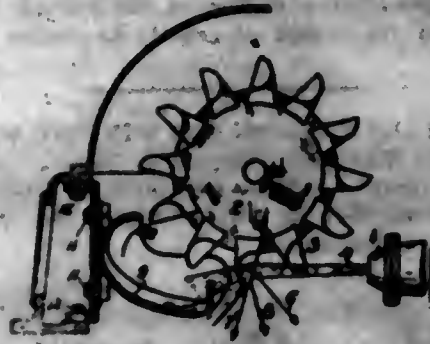


1. A curry comb having teeth for combing the mane arranged at front of the comb, said teeth being concave-convex in cross-section and having their leading ends curved or rounded.

1,307,703. MEANS FOR PREVENTING RACING IN JET-TURBINES. PAUL BACHMANN and LEIF MIDTSTROM, CHRISTIANA, NORWAY. Filed Dec. 4, 1917. Serial No. 295,460. 1 Claim. (Cl. 253-24.)

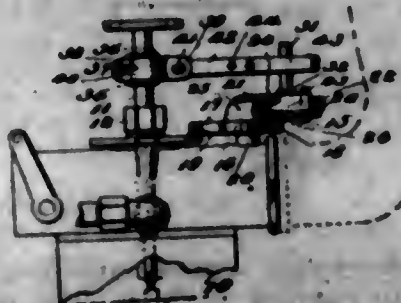
In a water turbine, the combination with a rotary vane member, and a means for projecting a jet of water onto said vane; of an adjustable deflecting member extending

into the path of the jet and adapted to reverse the direction of flow of the latter onto said vane after the water



has passed the vane, thereby counteracting the effect of the jet on the vane.

1,307,704. CONTROL MECHANISM FOR CARBURETERS. EDWARD O. SATTER, Oakland, Cal. Filed Apr. 29, 1918. Serial No. 281,512. 10 Claims. (Cl. 74-5.)



2. A device of the character described including a supporting member adapted for rigid connection to the throttle valve lever of a carburetor extending longitudinally of the lever, an arm adapted for attachment to a carburetor fuel valve, and means carried by said supporting member and coacting with said arm to form an operative connection therebetween for swinging the arm from said member, said means being slidably adjustable upon the member for varying the travel of the arm.

1,307,705. STEAM-CONDENSER OF THE JET OR CONTACT TYPE. ARTHUR EDWIN LEIGH SCARER, Ashton-upon-Mersey, England, assignor to The British Westinghouse Electric & Manufacturing Company, Limited, London, England. Filed May 1, 1916. Serial No. 94,797. 4 Claims. (Cl. 261-31.)



1. A condensing apparatus, comprising two condensers each receiving fluid to be condensed at different pressures, means for delivering condensing liquid from one condenser to the other, a multi-stage air extraction device, and means for placing the stages of said device in communication with said condensers.

1,307,706. TANK-HEATER JOINT. WILLIAM E. SCHAEFFER, Duluth, Minn. Filed Sept. 15, 1916. Serial No. 120,224. 1 Claim. (Cl. 285-140.)

In a device of the kind described, body portions having parallel exterior flanges, respectively, a ring, flanged and

another shape in cross-section, said ring fitting within and overlapping said sections, the ring flange projecting outwardly between said body flanges, rings arranged successively on opposite sides of the ring flange and spaced therefrom, said rings being cut away on their inner faces to receive the body flanges, and a cement or equivalent filling placed between said rings and said ring flange.



1,307,707. CLAMP FOR SURVEYORS' HAND-CHAINS. KARL C. SCHMIDT and HENRY G. LYNN, Grand Verbe, N. D. Filed Mar. 12, 1917. Serial No. 154,490. 11 Claims. (Cl. 224-45.)



3. A clamp structure comprising a series of leaves or plates and means for holding them in elastically yieldable face to face engagement, the plates of the series each having a receiving portion for retaining an article lodged therein.

1,307,708. CHECK-BOOK. HENRY SMITH, Richmond, Va., assignor to Standard Check Book Company, Incorporated, Richmond, Va., a Corporation of Virginia. Filed Apr. 4, 1917. Serial No. 150,000. 1 Claim. (Cl. 261-15.)



A check book comprising a back, a pad of sheets mounted on the back, each sheet perforated to form a stub and a check, said sheets secured together and to the back along their upper edges, a cover, and a flexible web secured to the respective ends of the back and the cover to form a hinge whereby the cover may be folded over upon the pad and may be swung free of the stubs to allow the stubs to be folded upwardly for easy inspection of the stubs.

1,307,709. SHADE-GUIDE. WESLEY L. SMITH, Pittsburgh, Pa. Filed July 18, 1918. Serial No. 245,575. 9 Claims. (Cl. 35-14.)

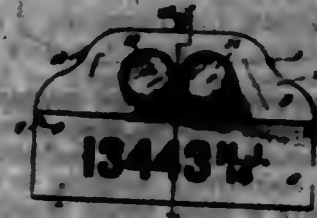
1. In a device for displaying a number of shades of tooth repair material, a body member, a number of inde-

pendently sealed, transparent receptacles projecting from said body member, a sample of repair material in each receptacle, and means for preventing operation of the locking means for the large locker when all of the locks of the smaller lockers are in locked position.



receptacle, and transparent liquid in each receptacle surrounding said material.

1,307,710. SIGNALING MEANS. WALLACE TAYLOR, Joseph Mills, and HENRY BUNSON, Newark, N. J. Filed Nov. 27, 1918. Serial No. 130,743. 1 Claim. (Cl. 240-11.)



In signaling means, the combination of a casing adapted to have a license tag secured to its lower inner edge, said casing being provided with two spaced openings through its front plate and a longitudinally extending slot through its bottom plate adjacent the inner edge thereof, means for regulating the effective width of said slot, means mounted in said opening through the front plate of the casing, a shutter pivotally secured to the front plate of the casing adjacent said means, means for normally holding the shutter in position to cover one of said openings, means for moving the shutter into position to cover the other said opening, an indicating lamp mounted upon the casing, and a lamp provided therewithin.

1,307,711. COMPRESSION-STRIP. HENRY V. TOWNE, Detroit, Mich. Filed Sept. 25, 1918. Serial No. 265,800. 3 Claims. (Cl. 265-120.)

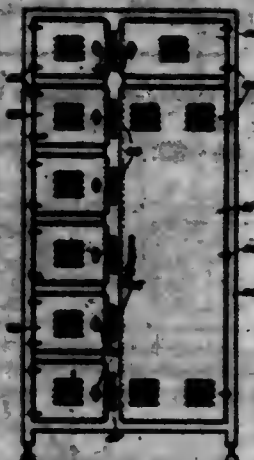


2. In a housing, the combination with a section and a second section formed of a stamping and having a marginal portion secured to said first-mentioned section at spaced points, of a reinforcing strip formed of a stamping, bearing against said marginal portion intermediate said spaced points.

1,307,712. COMBINATION-LOCKER. WARREN H. VANCE, Chicago Heights, Ill., assignor to Duward Steel Locker Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 15, 1919. Serial No. 277,228. 12 Claims. (Cl. 70-79.)

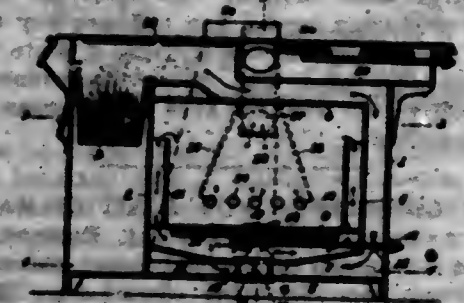
1. In a structure of the character described the combination of a number of relatively small lockers and a relatively larger locker, appropriately arranged individual locking means for locking each of the small lockers and

locking means for the large locker operable from the outside of the locker, and means for preventing operation of the locking means for the large locker when all of the locks of the smaller lockers are in locked position.



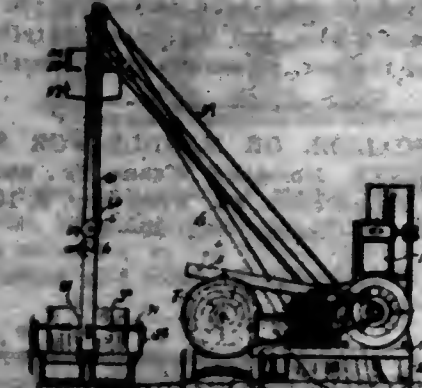
of the locking means of the large locker when all of the locks of the smaller lockers are in locked position.

1,307,713. COMBINATION COAL AND GAS RANGE. JOHN C. VAN RIPER, JR., and STEPHEN A. PARTSCHAU, South Bend, Ind., assignors to Banner Gas Range Works, South Bend, Ind., a Corporation of Indiana. Filed June 8, 1918. Serial No. 239,000. 3 Claims. (Cl. 120-98.)



1. A combination coal and gas range, comprising a casing, spaced partitions and upper and lower plates connecting the same to form an oven space, a fire pot arranged beyond the oven space, an escape flue communicating with the space below the lower plate, an oven arranged within and spaced from the walls of the oven space and open at top, an auxiliary flue in the escape flue, said auxiliary flue being in open communication with the oven from the bottom of the latter and open to the escape flue at the upper end of the auxiliary flue only.

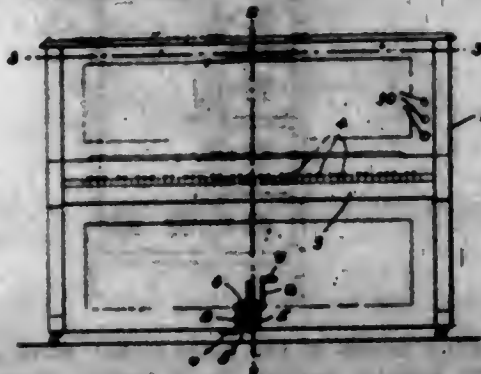
1,307,714. WOOD SAWING AND SPLITTING MACHINE. LEONARD M. VAN DYKE, Chevelah, Wash. Filed July 11, 1918. Serial No. 244,803. 3 Claims. (Cl. 144-3.)



1. In a sawing machine the combination with a platform and sawing mechanism, and a log hauling device

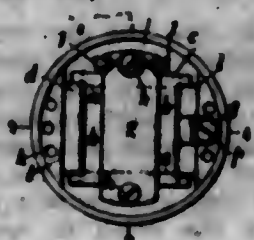
thereof, of an anchoring device comprising pivoted braced adapted to co-act with a tree stump and provided at the free ends with toothed wheels to bite into the stump, and means for locking the wheels in position.

1,907,715. REED-ORGAN. FRANK WASCHER, Hamtramck, Mich. Filed May 10, 1918. Serial No. 233,680. 1 Claim. (Cl. 84-35.)



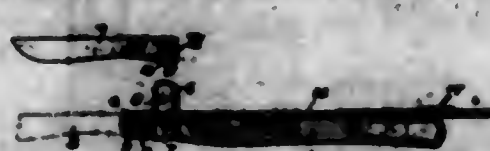
In a reed organ of the character described, the combination with a reservoir for containing fluid under pressure, a bellows and operating means therefor, of a chamber for receiving the fluid from said reservoir upon the operation of said bellows, sound producing means, said chamber communicating with said sound producing means, and valves between said reservoir and said chamber for controlling the amount of fluid admitted to said chamber and thereby the volume of the sound produced, other valves between said chamber and reservoir and above said sound producing means, one for each key of the organ, each comprising an offset stem, a plate, a facing material for the same, and means for connecting the stems of said valves with the keys of the organ, substantially as described.

1,907,716. CONDENSER FOR IGNITION-MAGNETS. ERNEST ANSLY WATSON, Coventry, England, assignor to The M-L Magneto Syndicate Limited, Coventry, England. Filed June 5, 1918. Serial No. 233,802. 3 Claims. (Cl. 250-41.)



1. In condensers for ignition magnets, the combination comprising alternate conducting and insulating sheets, the alternate conducting sheets projecting beyond the conducting sheets at edges which are at right angles, metal clips embracing a pair of opposite edges of the conducting and insulating sheets, a metal box formed with a pair of parallel sides between which said clips are tightly fitted, a metal band embracing the other pair of edges of said sheets, and insulating material between said band and the box, substantially as described.

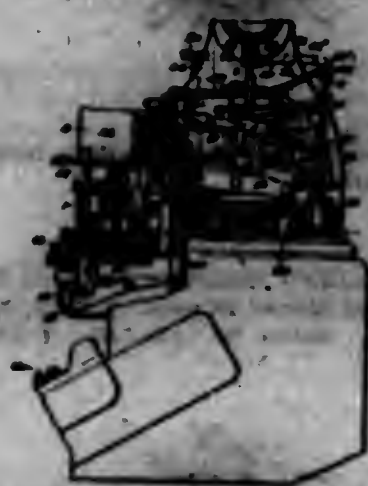
1,907,717. SCALPEL OR HANDLE FOR SURGICAL INSTRUMENTS. HERMANN WISSEN, Sr., and CHARLES H. WOLFF, Philadelphia, Pa. Filed Nov. 6, 1916. Serial No. 129,705. 9 Claims. (Cl. 50-2.)



1. A device of the character described comprising a handle, a blade, means for attaching the blade to the

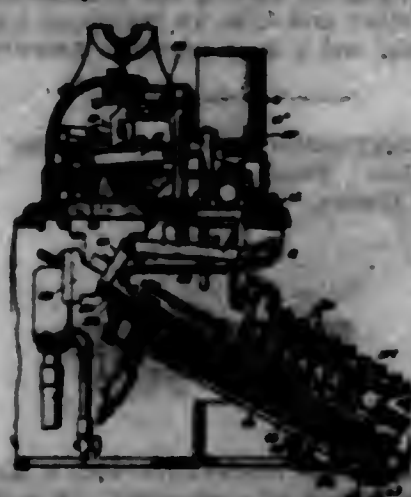
handle, and a brace bar slidably attached to the handle and movable with relation to the blade to engage the top edge of the blade throughout the major part of its length to prevent flexing thereof when in use.

1,907,718. TYPOGRAPHIC COMPOSING-MACHINE. WILLIAM WISSE, London, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Dec. 8, 1917. Serial No. 205,615. 4 Claims. (Cl. 104-112.)



1. In a typographic composing machine provided with type signal producing devices, space signal producing devices, line measuring mechanism including a units rack, and means for operatively coupling a type signal producing device with a space signal producing device, and in combination therewith a slidably mounted screw abutment for the units rack and a device connected with said coupling means for advancing the position of said abutment simultaneously with the coupling of the type and transfer signal producing devices.

1,907,719. KEYBOARD COMPOSING-MACHINE. JOHN WILLIAMS BARNHART and MAURICE C. LEMAY, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Dec. 4, 1917. Serial No. 205,807. 26 Claims. (Cl. 104-112.)

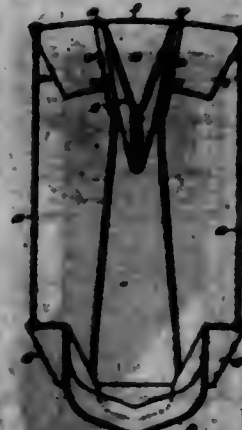


1. A typographic composing machine comprising a keyboard, means actuated from keys thereof for producing signals, means actuated from said signal producing means for measuring the set values of said signals, and supplementary measuring means also actuated from said signal producing means for varying the measurements of said measuring means.

1,907,720. AIRPLANE. FRANK J. HANMAN, Detroit, Mich., assignor of one-third to Delbert M. White and one-third to Harry M. Lee, Detroit, Mich. Filed Jan. 4, 1918. Serial No. 205,890. 4 Claims. (Cl. 204-22.)

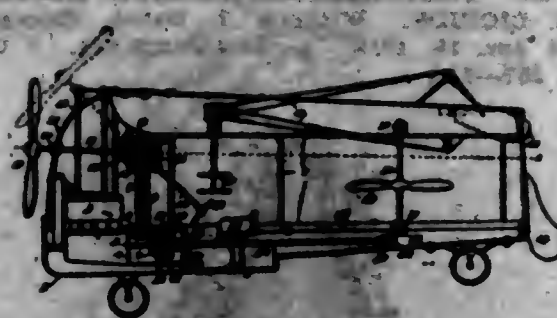
1. An airplane structure comprising a main supporting plane having a relatively narrow body portion centrally

extending rearwardly therefrom, and a trough-like rib extending longitudinally of said body portion and trans-



versely of said main plane and secured to said main and body members to form in conjunction therewith an air channel open at opposite ends thereof.

1,907,731. PROPELLER MECHANISM FOR AIR-PLANES. FRANK J. HANMAN, Detroit, Mich., assignor of one-third to Harry M. Lee and one-third to Delbert M. White, Detroit, Mich. Filed Jan. 17, 1918. Serial No. 215,821. 9 Claims. (Cl. 244-65.)



2. In an airplane, the combination with the plane and body thereof, of an engine mounted thereon, a vertical shaft driven by the engine, a rock shaft transverse to said vertical shaft, a propeller shaft transverse to said rock shaft and journaled at one end therein, means for guiding the propeller shaft in an angular movement actuable by the rock shaft, a driving connection between said vertical shaft and the propeller shaft operative in all positions of the latter, and means for actuating the rock shaft.

1,907,722. GUARD. LINUS E. DORR, Trojan, S. D. Filed Feb. 28, 1919. Serial No. 279,363. 7 Claims. (Cl. 224-20.)



2. In a device of the character described the combination with a member having a series of aligned closely related vertical pockets formed therein, means for securing said member to the edge of the running board of a motor vehicle and a plurality of members of inverted U shape, the lower ends of which are adapted to enter said pockets.

1,907,723. VEHICLE. MORDECAI S. BROWN, Brooklyn, N. Y. Filed Jan. 19, 1918. Serial No. 212,812. 2 Claims. (Cl. 21-34.)

1. In a vehicle, the combination of a series of upright beams spaced at intervals and having central lower depressions for an axle and lower outside members,

axles passing through the depressions, steering knuckles at the end of the axles, motors on the steering knuckles,



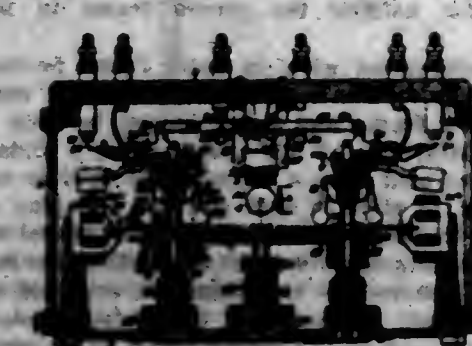
wheels, elevated portions to the upper sides of the frames and constituting head room for the axles, and seats on the elevated portions.

1,907,724. APPARATUS FOR CRACKING HYDROCARBONS. JOHN W. COAST, Jr., Tulsa, Okla., assignor to The Process Company, Tulsa, Okla., a Corporation of Maryland. Filed Oct. 6, 1917. Serial No. 195,006. 4 Claims. (Cl. 100-4.)



2. In an apparatus for cracking hydrocarbons, a fire-heated cracking still, a continuous endless sweeping device mounted in said still and engaging the bottom thereof, means for transmitting power to said continuous endless sweeping device, means for removing coke-forming matter from the upper portion of said endless sweeping device, and a coke-receiving device surrounded by said endless sweeping device to receive the coke-forming matter passing from the upper portion of the sweeping device.

1,907,725. RELAY. HENRY E. COE, Wilkesburg, Pa., assignor to The Union Switch & Signal Company, Swinsvale, Pa., a Corporation of Pennsylvania. Filed Sept. 12, 1917. Serial No. 190,842. 14 Claims. (Cl. 170-261.)



1. A relay comprising a motor rotatable in opposite directions, two centrifuges one or the other of which is rotated according as the motor rotates in one direction or the other, and contacts controlled by said centrifuges.

1,907,726. SCREEN CONSTRUCTION. WILLIAM N. CHAFFIN, Lexington, Ky. Filed Mar. 31, 1919. Serial No. 266,337. 5 Claims. (Cl. 180-14.)

1. In a screen construction, a frame, a screen carried thereby, a plate bent at its center to form a tube and

having its ends brought together and riveted to the frame, said tube having a central slot on one side thereof, a slidable cylindrical pivot rod disposed in each end of said tube, and a set screw carried by the inner end of each of the pivot rods and arranged to project through the central slot in said tube for clamping the rods to the tube.



2. The combination with an outer frame having sockets, of a screen frame comprising a suspension plate bent at its center to form a tube, and having its ends brought together and secured to the screen bearing portion, a slidable cylindrical rod disposed at each end of said tube, the ends of the rod being arranged to enter the socket, and a set screw carried by the inner end of each rod for clamping the rod to the tube.

3. The combination with a frame having sockets, of a screen construction comprising a frame, a screen carried by the frame, a plate bent at its center to form a cylindrical tube, and having its ends brought together and riveted to said frame, said tube having a longitudinal slot, a cylindrical rod disposed in each end of said tube, and slidable therein, the outer ends of said rod being arranged to enter said sockets, a set screw secured to the inner end of each of said rods and arranged to project through said slot for securing the rod to the tube, and a chain attached to said set screws.

4. The combination with an outer frame having sockets, of a screen frame, a plate secured to the upper end of said screen frame and being looped to form a tube having a central slot at one side thereof, a slidable rod in each end of said tube, a set screw secured to each rod and arranged to slide in said slot for clamping the rod to the tube, the end of each rod being arranged to enter one of the sockets for pivotally suspending the screen, and a pivoted arm secured to the frame at one end and arranged to engage a portion of the outer frame at the other end for holding the screen frame in an open position.

5. The combination with an outer frame having sockets, of a screen frame, a plate secured to the upper end of said screen frame and being looped to form a tube having a central slot at one side thereof, a slidable rod in each end of said tube, a set screw secured to each rod and arranged to slide in said slot for clamping the rod to the tube, the end of each rod being arranged to enter one of the sockets for pivotally suspending the screen, a pivoted arm secured to the frame at one end and arranged to engage a portion of the outer frame at the other end for holding the screen frame in an open position, and means at the bottom of the frame for locking the latter to the outer frame.

1,907,727. TAKE-UP DEVICE FOR ENGINE-ROOM TELEGRAPHS. FRANK JOSEPH DAVIS, San Francisco, Calif., assignor to Bethlehem Shipbuilding Corporation, Ltd., Bethlehem, Pa., a Corporation of Pennsylvania. Filed Jan. 4, 1919. Serial No. 260,641. 7 Claims. (Cl. 116-31.)

5. In a take-up device for engine room telegraph systems, a stationary back plate, a front plate slidably

mounted thereupon, an engine room telegraph receiver mounted on the lower portion of said front plate, abutments secured to the tops of said plates, rods having their upper ends secured to the upper of said abutments



and their lower ends passing freely through the lower of said abutments, coiled springs surrounding said rods and having their lower ends supported on said lower abutments, and nuts carried by said rods above said springs for adjusting the tension of the latter.

1,907,728. TEMPERATURE-CHANGING APPARATUS FOR LIQUIDS. WILLIAM J. DAVIS, Chicago, Ill. Filed Apr. 18, 1918. Serial No. 229,844. 7 Claims. (Cl. 207-11.)



2. In a device of the class described, a combination with a suitably supported, generally cylindrical outer casing closed at the bottom and provided with a head having a sealing flange at the top, of a plurality of generally similar thin metallic cylinders nested therein and separated from the adjacent cylinders, the alternate cylinders beginning with the one next to the casing being open at the bottom for the purpose described, and each of said cylinders being provided with a head having a sealing flange and apertures for connections, and means for clamping all of said heads together to form a series of concentric annular passages, substantially as and for the purpose described.

1,907,729. WINDOW-SHADE. JESSE DUNN, Floral Park, N. Y., assignor of one-half to Walter S. Barnes, New York, N. Y. Filed Oct. 20, 1918. Serial No. 260,750. 7 Claims. (Cl. 156-57.)

2. In an improved window shade, in combination, a spring roller, carrying a shade, a window frame, means for mounting said roller in a fixed position intermediate the top and bottom of the window frame, vertical guide

means at the sides of the said window frame, a plain roller slidably engaged with said guide means and located above said spring roller, whereby the shade may pass over



said plain roller and depend below said spring roller, means for anchoring said shade at its lower end, and means for moving said plain roller vertically with the upper portion of said shade.

1,907,730. TIRE. MAX FREEDMAN, Brookline, Mass. Filed Oct. 1, 1918. Serial No. 22,417. 6 Claims. (Cl. 182-8.)



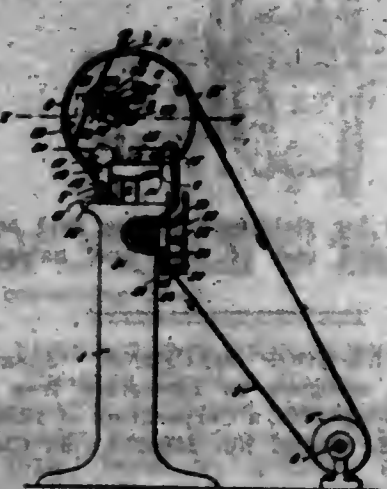
1. A built up tire, comprising a plurality of radially spaced apart segmental metallic ring bands, the inner of said bands being also spaced away from the wheel rim, means for holding said bands resiliently spaced from each other and also resiliently spaced from the wheel rim, and means for holding the segments of each of said bands in yielding slidable relation with one another.

1,907,731. AUTOMOBILE-FAN BELT. CHARLES C. GATES, Denver, Colo., assignor, by mesne assignments, to The Gates Rubber Company, Denver, Colo., a Corporation of Colorado. Filed Sept. 27, 1917. Serial No. 162,827. 9 Claims. (Cl. 74-55.)



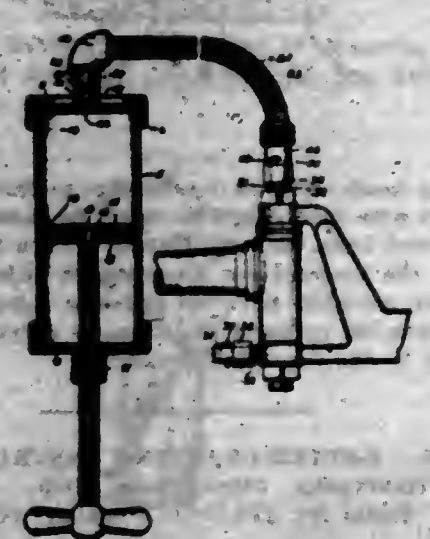
1. A belt comprising superposed layers of rubberized woven fabric whose warp and weft are diagonal to its length, said belt being vulcanized in endless annular form.

1,907,732. FLESHING-MACHINE. WILLIAM G. GIBBINS, St. Louis, Mo.; Henry Gibbins executor of said William G. Gibbins, deceased. Filed Apr. 12, 1916. Serial No. 99,892. 1 Claim. (Cl. 146-18.)



In a fleshing machine, a fleshing knife, rotary members supporting said knife, a shaft at the axis of one of said rotary members, a peripheral guard adjacent to said knife, and a side guard comprising a carrier section having an opening for the reception of said shaft, a support to which said carrier section is hinged, means for adjusting said carrier section about the axis of its hinge, a guard section carried by said carrier section, and means for adjusting said guard section toward and away from said peripheral guard.

1,907,733. LUBRICATING APPARATUS. ARTHUR V. GULLACCE, Chicago, Ill. Filed Feb. 11, 1918. Serial No. 216,504. 6 Claims. (Cl. 184-14.)



1. The combination with a grease pump having a discharge opening and a flexible discharge conduit provided at one end with a straight coupling and at the other end with an L-shaped coupling, of a grease cup and means on said grease pump and grease cup for co-acting with said couplings to interchangeably connect either end of said conduit with said pump and cup respectively.

1,907,734. LUBRICATING MEANS. ARTHUR V. GULLACCE, Chicago, Ill. Filed Dec. 21, 1918. Serial No. 267,502. 10 Claims. (Cl. 184-105.)

4. The combination with a hollow coupling member having a spring-pressed closure, of a pump, a discharge conduit having one end secured to the outlet of said pump, a second hollow coupling member for receiving the closed end of said first named coupling member secured

to the other end of said conduit, a perforated sealing disk mounted to reciprocate in the bore of said coupling member.



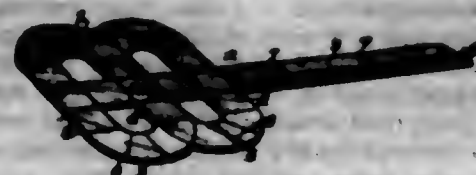
ber, and means for yieldingly urging said sealing disk against the closed end of said first named coupling member.

1,307,735. WIRE-HOOP MACHINE. JOSEPH HARK, Chicago, Ill., assignor to Interstate Iron and Steel Company, Chicago, Ill., a Corporation of Illinois. Filed June 11, 1918. Serial No. 239,370. 33 Claims. (Cl. 140-66.)



1. In a hoop machine, mechanism to form and splice a length of wire into hoop-like form, mechanism to strip a spliced hoop from the hoop-former, a horn having one end adjacent the hoop-former, an expander adjacent the horn, a pair of movable arms on opposite sides of the horn, and mechanism to move the arms to carry a hoop along the horn to the expander.

1,307,736. LETTER-DRAFTING INSTRUMENT. WILLIAM HAPPINOW, Birmingham, Mich. Filed Jan. 31, 1919. Serial No. 272,356. 1 Claim. (Cl. 32-174.)



A letter and numeral drafting instrument substantially like a T-square consisting of a blade, having a head at one end with parts cut out to form a plurality of cross branches with mutually joined and rounded closed ends, to form pencil guides for the construction of various parts of letters and numerals, said blade and head being of a uniform width throughout and provided with graduations.

1,307,737. METAL-PROTECTED RUBBER HORN. WILLIAM E. HILGEMANN, Chicago, Ill. Filed Sept. 5, 1916. Serial No. 118,313. 3 Claims. (Cl. 30-30.)



1. The combination with a rubber horn disk having a nail hole therein, of a cylindrical member closed at one end by a flexibly connected washer to be engaged by a screw or nail.

1,307,738. BAKED CARBON ARTICLE. ARTHUR T. HINCKLEY, Niagara Falls, N. Y., assignor, by mesne assignments, to National Carbon Company, Inc., a Corporation of New York. Filed Jan. 9, 1917. Serial No. 141,478. 2 Claims. (Cl. 204-29.)

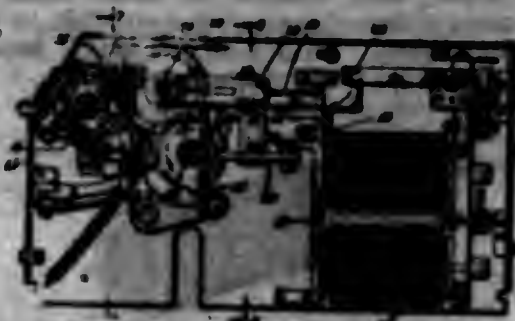
2. The process of forming a carbon article which consists in suspending colloidal carbon in water, adding the water suspension to a liquid carbonaceous binder, heating to drive off the water, mixing said binder containing the colloidal suspension of carbon with powdered or granular carbon and baking to decompose and set the binder.

1,307,739. PROCESS OF FORMING AMMONIA-AIR MIXTURE. LOUIS C. JONES, Syracuse, N. Y., assignor to Somet-Solvay Company, Solvay, N. Y., a Corporation of New York. Filed Aug. 1, 1918. Serial No. 247,937. 3 Claims. (Cl. 32-21.)



1. The process of forming a mixture of ammonia and air which consists in causing preheated air to bubble up through a counter current of ammonia solution.

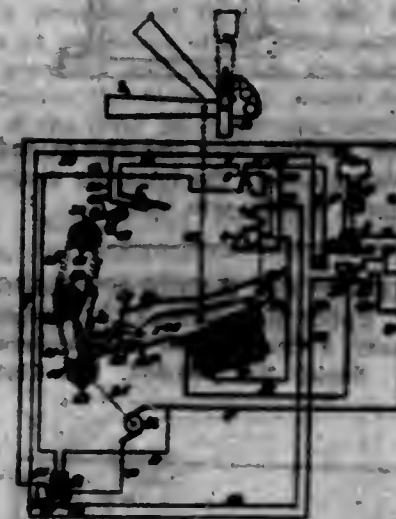
1,307,740. TABULATING-MACHINE. CLAIR DENNISON LAKE, Birmingham, N. Y. Filed Aug. 10, 1918. Serial No. 250,104. 3 Claims. (Cl. 235-62.)



1. In a tabulating apparatus the combination with control wheels and magnets adapted to be included in a part of circuits established by brushes passing over perforations in a card, of means controlled by said magnets for turning the said control wheels through arcs con-

sponding to the position of the perforations in the card, means for locking the said controlled means in the positions to which it is brought by the action of the magnets, circuit controllers in that portion of the active circuit which includes the counter magnets, operated by the movement of the controlled means before the brushes leave the perforations, and means controlled by the counter mechanism for restoring the parts to normal condition at the end of each cycle of operation.

1,307,741. RAILWAY-SIGNAL. LEON V. LEWIS, Edgewood borough, Pa., assignor to The Union Switch & Signal Company, Scranton, Pa., a Corporation of Pennsylvania. Filed Aug. 2, 1918. Serial No. 248,062. 4 Claims. (Cl. 240-323.)



1. A railway signal comprising a semaphore biased to stop position, a motor for moving said semaphore to a proceed position, means including a magnet for connecting said motor with said semaphore and for holding the semaphore in the proceed position, a source of current, a relay for connecting said motor with said source or for disconnecting it therefrom according as the relay is energized or deenergized, means controlled by said relay for connecting said magnet with said source of current when the relay is energized and with a part only of said source when the relay is deenergized, and means controlled by the signal for deenergizing said relay when the semaphore reaches said proceed position.

1,307,742. OBTAINING OF UNIDIRECTIONAL HIGH-TENSION DISCHARGES. OLIVIA JOSEPH LOREN and LEONEL LOREN, Edgworth, Birmingham, England. Filed Dec. 12, 1912. Serial No. 806,000. 4 Claims. (Cl. 175-364.)



1. The combination with a source of high electro-motive force and a work circuit adapted to operate at the upper portion of the current wave, of a vacuum valve, and mechanical means interposed between said source and said work circuit in series with said vacuum valve for breaking the circuit therethrough during periods of stress upon the valve at potentials lower than that of said work circuit.

1,307,743. UNIVERSAL JOINT. GEORGE A. MCCOMBS, Hartford, Conn., assignor to The Hartford Automotive Parts Company, Hartford, Conn., a Corporation of Connecticut. Filed Sept. 12, 1917. Serial No. 191,122. 12 Claims. (Cl. 64-102.)

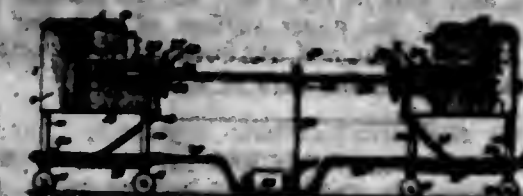
1. In a device of the character described, cooperating shaft members provided with pairs of diametrically op-

posite horns, a connecting block provided with lengthwise slots having parallel sidewalls within which said horns are fitted, and means separable from and movable with



said horns and interposed between said horns and connecting block for maintaining the engagement of said horns and connecting block.

1,307,744. FURNACE FOR ANNEALING CONDENSER-TUBES. CHARLES THOMAS MACILL, San Francisco, Calif., assignor to Bethlehem Shipbuilding Corporation, Ltd., Bethlehem, Pa., a Corporation of Delaware. Filed Jan. 2, 1919. Serial No. 270,120. 9 Claims. (Cl. 263-2.)



1. An annealing furnace, comprising furnace units, each unit having a longitudinally extending annealing chamber, and an open side to receive an end of a tube, means to heat said chambers, a tube conveyor, and means cooperating with said tubes during their travel through the furnace to revolve them at predetermined intervals and thereby insure the uniform and simultaneous annealing of both ends of the tubes.

1,307,745. PERCOLATOR. HENRY D. MARCUS, Passaic, N. J. Filed July 11, 1918. Serial No. 244,348. 4 Claims. (Cl. 53-3.)



1. A percolator comprising a hollow cylindrical body having beaded ends and perforate parallel walls, a cover engageable therewith, resilient supports engageable with said body, adjacent to one of its beaded ends, and transversely extending elements formed integrally with the free ends of said supports adapted to be resiliently engaged with a supporting means.

1,307,746. LIGHT-DIMMER. HARRY E. MAY, Sedalia, Mo., assignor, by direct and mesne assignments, of one-half to Holmes Hall and one-fourth to W. D. O'Banion, Sedalia, Mo. Filed Feb. 25, 1918. Serial No. 218,906. 1 Claim. (Cl. 240-484.)

The combination of a reflector, an annular frame in the forward end of the reflector, a plurality of parallel spaced bars extending horizontally across the frame, the body portion of each bar being rearwardly and upwardly inclined and the rear extremity of each bar being bent upwardly and rearwardly at a greater angle than the body

portion, the rear upper edge of each bar being above the plane of the bottom forward edge of the next bar above,



the side edges of the bars tapering inwardly and terminating at their rear edges inside the plane of the inner surface of the annular frame to form openings between the bars on each side of the frame for the passage of direct rays of light, the upper surface of each bar being colored to dim the light and the lower surface acting as reflectors to distribute the rays of light.

1,307,747. EXCAVATOR-BUCKET. EUGENE J. MOYNIHAN, San Francisco, Calif. Filed July 12, 1918. Serial No. 245,775. 3 Claims. (Cl. 33-34.)



1. The combination with a receptacle of a grating hingedly mounted therein to divide said receptacle into upper and lower compartments; and a door hingedly mounted upon the receptacle to close the lower compartment.

1,307,748. ELECTRIC SWITCH. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Original application filed Aug. 28, 1912, Serial No. 717,065. Divided and this application filed July 2, 1916. Serial No. 107,311. 17 Claims. (Cl. 175-322.)

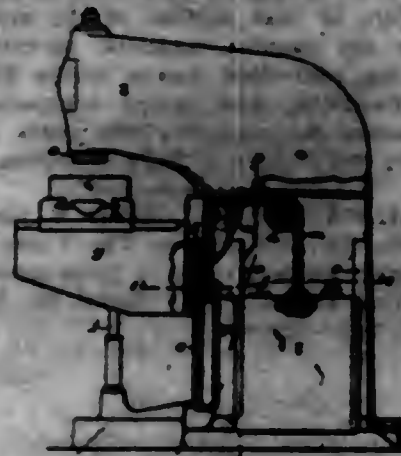


1. In combination, a switch mechanism, a two part longitudinally divided cylindrical shell enclosing the same, and a plurality of detachable caps for locking the parts of the shell together, said caps having conductor openings therein.

1,307,749. MILLING MACHINE. FRED A. PARSONS, Milwaukee, Wis., assignor to The Thompson Manufacturing Co., West Allis, Wis., a Corporation of Wisconsin. Filed Sept. 5, 1916. Serial No. 112,008. 2 Claims. (Cl. 90-18.)

1. In a milling machine the combination of a hollow column having a vertical slot closed at the back and sides by an inwardly offset wall, a sheave mounted in the column above the slot, a vertically adjustable work sup-

port guided on the column and having a part projecting into said slot, a counterbalance within the column, and a



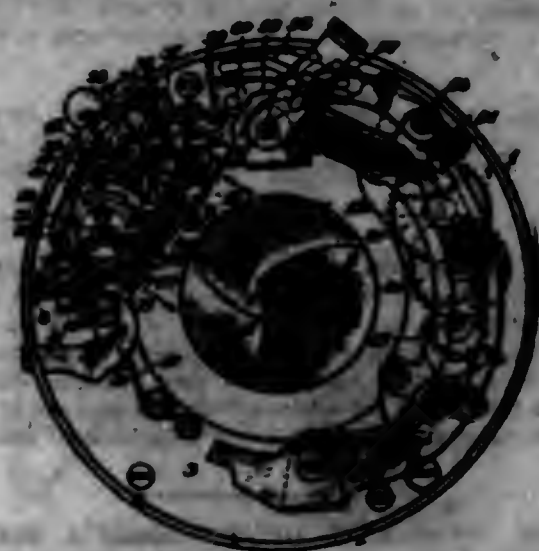
flexible connection passing over the sheave and attached to the counterbalance and to the inwardly projecting part of the work support, within said slot.

1,307,750. PROCESS OF MANUFACTURING FILMS. RAY F. FRYER, Upper Montclair, N. J., assignor to The Barrett Company, a Corporation of New Jersey. Filed Oct. 2, 1917. Serial No. 205,057. 10 Claims. (Cl. 92-33.)



1. The process of manufacturing films and the like, which comprises the steps of forming a moist sheet of paper-making material containing incorporated therein fusible waterproofing material in comminuted form, and thereafter passing the moist sheet through a heated gaseous drying medium.

1,307,751. PHOTOGRAPHIC SHUTTER. FRANKLIN A. G. FARRAR, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 5, 1919. Serial No. 257,784. 20 Claims. (Cl. 95-42.)



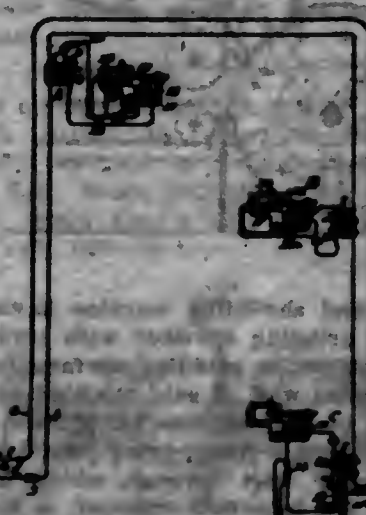
1. In a photographic shutter, the combination with a plurality of symmetrically opening blades and an actuating ring therefor, of a rotary driving member having an eccentric, and an eccentric strap on the latter connected to the ring.

1,307,752. LIFT-FRAMES. CARLOS M. FAIRIE, Long Beach, Calif. Filed Dec. 26, 1918. Serial No. 202,804. 2 Claims. (Cl. 9-18.)



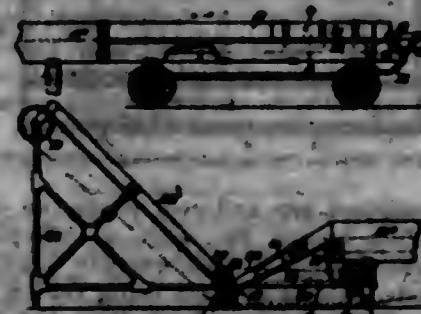
2. A device of the character specified comprising a plate, a frame secured to the under face of the plate, a propeller shaft journaled at the rear of the frame and carrying a propeller at its outer end, a lever mounted to vibrate at the front of the frame and having flexible members provided with stirrups for engagement by the feet to vibrate the lever, and means controlled by the vibration of the lever for imparting continuous movement in one direction to the propeller.

1,307,753. SIGNALING SYSTEM. CHARLES SWANLEY BROWN, JR., Indianapolis, Ind., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Aug. 27, 1917. Serial No. 188,982. 1 Claim. (Cl. 175-2.)



In a system of the character described the combination with a substitution signal receiving device having an armature, a normally closed local circuit including said signal receiving device, a resistance in said circuit, a battery in said circuit, a relay for controlling said circuit having an armature, and means under the control of the armature of said relay for short circuiting said resistance when said local circuit is open.

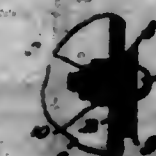
1,307,754. APPARATUS FOR CURING, TRANSPORTING, AND STACKING HAY. EDWARD J. RICHARDSON, Windsor, Vt., assignor of one-third to Samuel A. Richardson, Springfield, Vt. Filed Mar. 6, 1917. Serial No. 153,857. 5 Claims. (Cl. 94-12.)



1. The improvement in hay-curing apparatus, consisting of an elongated drying chamber, means for heating

said chamber, a cooling chamber, an elevator, an endless screened carrier, and means for moving said carrier along the said drying and cooling chambers and elevator.

1,307,755. PLUG FOR LIQUID CONTAINERS. JOHN H. ROSS, Kansas City, Mo. Filed Apr. 3, 1918. Serial No. 227,367. 1 Claim. (Cl. 230-34.)



A device of the character described, comprising a pliable metal sleeve for placement in the aperture of a sheet metal tank and provided at its outer end with a marginal flange having a member projecting therefrom to prevent it from turning in the aperture, an internally-threaded wedge member independent of said sleeve and its flange, and a screw abutting the flanged end of the sleeve and threaded into said wedge member to draw the same into the sleeve and expand the latter and cause it to completely close the aperture in the tank, substantially as described.

1,307,756. CONTROL MECHANISM FOR HYDRAULIC ELEVATORS. EDWARD B. BOVEN, Binghamton, N. Y., assignor of one-half to George A. Reynolds and Samuel W. Reynolds, Binghamton, N. Y. Original application filed Dec. 27, 1912, Serial No. 728,900. Divided and this application filed Nov. 2, 1916. Serial No. 129,005. 6 Claims. (Cl. 167-28.)

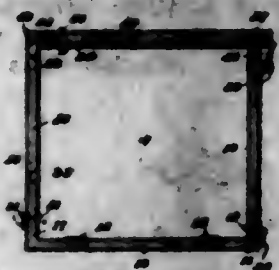


1. Controlling mechanism for elevators comprising, in combination, a main valve, a water-motor for operating said valve, a supplemental valve normally cutting off the water supply to the motor, means operable from different landing for adjusting the supplemental valve to permit the flow of water to said motor, and means actuated by the main valve for cutting off the water supply to the supplemental valve when the main valve is opened, the first named means being self-restoring and acting to restore the supplemental valve to its normal position when the water supply is cut off therefrom by the second named means.

1,307,757. FOLDABLE BOX. VINCENZO RUCCINNO, Wheeling, W. Va. Filed Nov. 16, 1918. Serial No. 262,828. 3 Claims. (Cl. 217-15.)

1. A box comprising a bottom having a front flange and a rear ledge mounted thereon, a front and a rear side for the box hinged for inward folding respectively upon said flange and ledge, ends hinged upon the ends of said bottom normally positioned between said sides adapted for inward folding between the said flange and ledge, a

rib hinged to the top of said rear side having marginal grooves overlying the upper edges of said ends when the box is set up for use, a lid hinged to the forward edge of said rib having marginal grooves overlying the upper



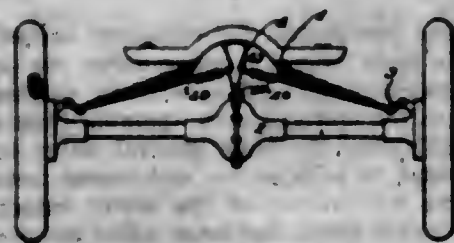
edges of the ends and the other side of the box when closed, and retaining means connected between said ledge and lid and between said flange and rib when the box is in its knocked-down folded position.

1,307,763. AUTOMOBILE-HEADLIGHT. CHAS. A. SANDERSON, Minnesota, Mich. Filed July 20, 1918. Serial No. 240,884. 1 Claim. (Cl. 240-81.)



In a device of the class described, a bracket having a horizontal yoke, a headlight having transverse journals in the yoke arms and an arm depending rigidly from one transverse and inclined slightly forward when the headlight glass stands vertically, yieldable means turning the headlight normally upward, a stop checking this movement when the glass reaches a vertical position, a cable leading from the lower end of said arm rearwardly, and a cable guide located on one arm of the yoke in such position that the cable between the guide and lamp arm stands at an acute angle to the length of the last-named arm, for the purpose set forth.

1,307,750. SHOCK-ABSORBER. NATHAN SCHACHTER, Chicago, Ill. Filed Sept. 4, 1917. Serial No. 189,583. 10 Claims. (Cl. 207-19.)



1. A shock absorber comprising a flexible web, lever members secured thereto and pulling springs connected to said levers.

1,307,760. WHEAT-SCOURING MACHINE. MATIAS SCHIEBERDEIN, St. Louis, Mo. Filed Dec. 14, 1918. Serial No. 200,781. 5 Claims. (Cl. 82-90.)

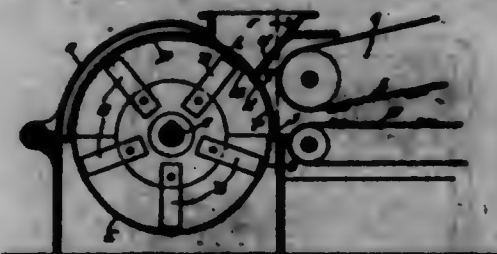
3. In a grain-scouring machine, a scourer comprising a shaft, disks mounted thereon and spaced apart, said disks having outer flanges and central hubs, rings mounted rotatably on the hubs adjacent the disks, beater arms leading tangentially from the rings and hinged

thereto and operating freely through the flanges, and projecting a suitable distance beyond the same, and



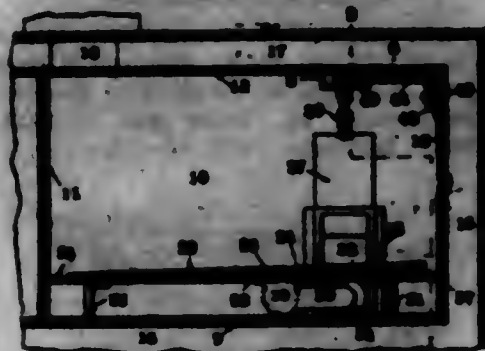
means disposed along the shaft for imparting rotary movements to the rings and consequent radial adjustments to the free ends of the beater arms.

1,307,761. GRINDER AND SHREDDER. HARRY J. SHULTON, St. Louis, Mo. Filed Feb. 1, 1919. Serial No. 274,880. 4 Claims. (Cl. 88-31.)



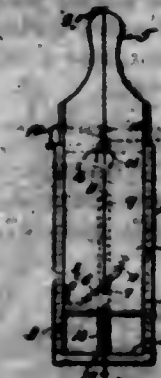
1. A grinding and shredding machine having a housing containing a grinding chamber with revoluble hammers mounted therein, a grinding surface forming the upper circumferential wall of said chamber and made in two sections, one of said sections being fixed in position and the other of said sections being adjustable circumferentially, a supply duct through which free flowing material may be fed into said chamber, a feed channel for fibrous material and means whereby said adjustable section may be positioned so as to prevent the passage of material into said chamber from said supply duct or from said channel as may be desired.

1,307,762. COMBINED GAS AND COAL RANGE. OTTO SINGLER, Belleville, Ill. Filed June 8, 1916. Serial No. 102,424. 7 Claims. (Cl. 126-94.)



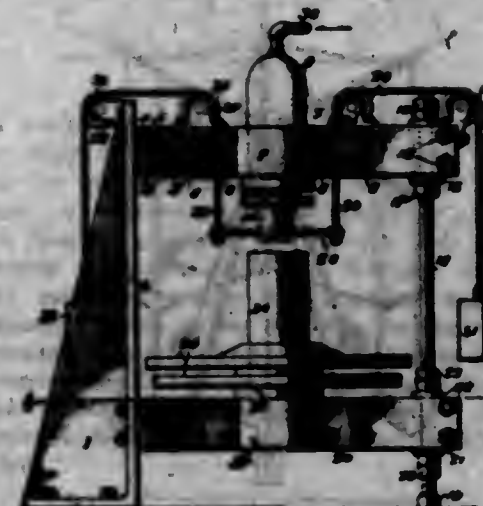
2. In a combined gas and coal range, an oven having a flue extending around the same, a baffle-plate in said oven, a burner situated substantially centrally under said baffle-plate, said baffle-plate being thicker at one end than at the other, and an outlet from the oven to the flue arranged adjacent to the thick end of said baffle plate.

1,307,763. ANIMAL-TRAP. JOSEPH STRANDBERG, Rush-wick, Minn. Filed Apr. 15, 1919. Serial No. 291,044. 2 Claims. (Cl. 43-10.)



1. An animal trap comprising a box having an opening, a slidable cover adjustable in the opening, a spring secured to one of the inner walls of the box and having its free end engaging a lug on the slidable cover, a bait bar vertically disposed in the box and having its upper end extending through an aperture in the top of the box, said cover and the upper end of the bait bar being provided with notches for the reception of ends of a bar whereby the cover will be held in open position against the action of the spring, said bait bar being so mounted in the box that a pull upon the lower end thereof will release the bar which engages the notches of the bait bar and the cover thereby allowing the cover to be closed by the spring.

1,307,764. HYDRAULIC PRESS FOR TURBINE-WHEELS. GILES VALENTINE SULLIVAN, San Francisco, Calif., assignor to Bethlehem Shipbuilding Corporation, Ltd., South Bethlehem, Pa., a Corporation of Delaware. Filed Nov. 8, 1918. Serial No. 261,625. 5 Claims. (Cl. 138-10.)

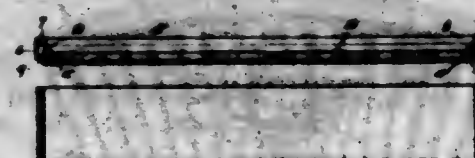


1. In a hydraulic press for turbine wheels and the like, an upright, an upper laterally extending ram supporting frame composed of a pair of plates having flanges secured to said upright, a plurality of bolts extending through said plates, the intermediate portions of the latter being bowed outwardly to form a clamping device for a ram cylinder, a ram cylinder and ram supported between said plates, a lower laterally extending frame, composed of a pair of plates having flanges secured to the lower portion of said upright, a tie rod passing between the outer ends of said upper and lower frames, and nuts on said tie rod above and below said frames for effecting the adjustment of the latter.

1,307,765. BINDING AND HEADING BAND FOR BARRELS, BOXES, AND THE LIKE. GEORGE W. SWIFT, Jr., Bordentown, N. J. Filed Dec. 4, 1918. Serial No. 208,228. 3 Claims. (Cl. 217-78.)

1. A closure binding and heading band comprising a single integral piece of sheet metal shaped to form an

inwardly presented channel portion to receive a closure head, a downwardly presented channel portion to receive a closure wall, and an inwardly inclined wall join-



ing said channel portions, the walls of the inwardly presented channel portion extending at right angles to the walls of the downwardly presented channel portion.

1,307,766. EXPLOSIVE COMPOSITION. WENDELL R. SWIFT, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a Corporation of Delaware. Filed Jan. 31, 1918. Serial No. 214,637. 6 Claims. (Cl. 52-3.)

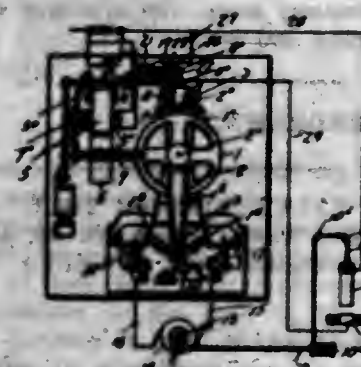
1. A high explosive composition containing nitrocellulose of a high degree of nitration, nitroglycerin, and wood pulp.

1,307,767. WALL CONSTRUCTION. EDWARD N. WOOD, Chicago, Ill. Filed Jan. 10, 1916. Serial No. 71,240. 8 Claims. (Cl. 72-39.)



8. A bonding block of substantially rectangular form, all but one of whose faces are flat, the one face being uniformly transversely undulated to form a depression alternating with a complementary non-overhanging projection, each extending entirely across the block.

1,307,768. AUTOMATIC LOCKING DEVICE FOR ELECTRIC-FURNACE REGULATORS OF THE THURY TYPE. JOHN YOUNG, Welland, Ontario, Canada. Filed Jan. 11, 1919. Serial No. 270,765. 2 Claims. (Cl. 204-84.)



2. In a Thury regulator, the combination with the balanced beam thereof, of an electro-magnet bridging the electric circuit leading to the electrodes, a swinging armature co-acting therewith, resilient means for forcing the armature outwardly when the magnet is deenergized, and means carried by the free end of the armature for engaging the balanced lever to hold it in the neutral position upon the deenergizing of the magnet.

1,307,760. INNER TUBE. FRANK E. BUEHLER, Akron, Ohio. Filed Sept. 17, 1918. Serial No. 284,486. 4 Claims. (Cl. 152-8.)



1. In a device of the class described, a felly; a rim on the felly and having an opening; a tube in the felly and provided with a flange seated on the felly and located in the opening of the rim; a winding shaft journaled in the tube and slidable longitudinally therein; a beveled gear wheel on the intermediate portion of the winding shaft; a compression spring about the winding shaft and abutting at its ends against the gear wheel and against the flange; a support through which the outer end of the winding shaft is journaled; a securing device on the outer end of the winding shaft and engaging the support to hold the winding shaft therein for rotation; beveled pinions journaled on the ends of the support and meshing into the beveled gear wheel; a helical spring having its ends assembled with the beveled pinions; and a casing connected with the rim and cooperating with the helical spring.

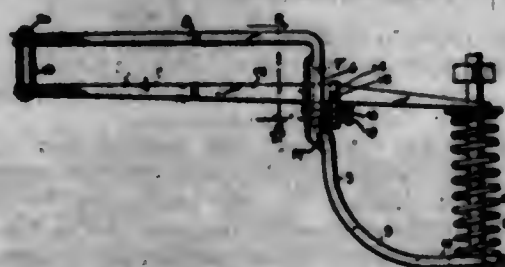
1,307,770. INNER TUBE. FRANK E. BUEHLER, Akron, Ohio. Filed Sept. 17, 1918. Serial No. 284,487. 3 Claims. (Cl. 152-8.)



2. In a device of the class described, an inner tube; screws oppositely threaded at their ends into opposed portions of the tube; sprocket wheels on the screws; a sprocket chain trained about the sprocket wheels; and means for operating one screw.

1,307,771. [WITHDRAWN.]

1,307,772. VALVE-LIFTING TOOL. IRA RALPH BUCHANAN, Yelm, Wash. Filed Oct. 22, 1918. Serial No. 280,282. 3 Claims. (Cl. 29-57.1.)



1. A valve lifting tool including a body bar having an angular intermediate portion and a foot plate extending

in one direction from said intermediate portion recessed to receive the valve spring washer, a handle extending in a relatively opposite direction from the intermediate portion of the body bar, said medial portion of the body bar having a slot therein, a valve spring compressing lever extending through said slot, and a fulcrum for said lever mounted upon the body bar.

1,307,773. MAGNETIC HEATER. CHARLES E. CUSHMAN, Barre, Vt. Filed May 31, 1918. Serial No. 237,560. 3 Claims. (Cl. 219-47.)



1. A heater comprising a U-shaped body frame formed of pipe sections, a plurality of cores extending transversely between and having their ends connected with the sides of said frame and electric conducting coils wound on said cores.

1,307,774. SWING. JOSEPH B. DUNLAP, Tulsa, Okla. Filed Sept. 11, 1918. Serial No. 283,546. 1 Claim. (Cl. 46-27.)

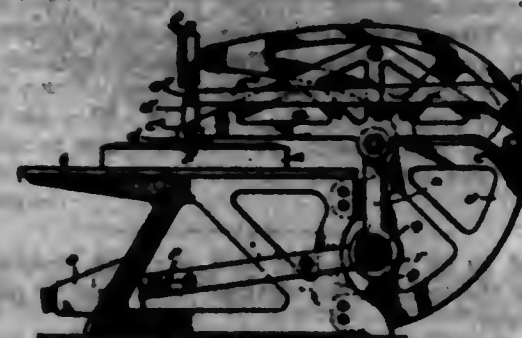


A swing comprising a fixed support, and a movable portion, the fixed support carrying a nut, and the movable portion a screw engaging the nut and adapted to be rotated by vertical movement of the screw with respect to the nut, said nut being rotatable with respect to the fixed support freely in one direction and prevented from rotation in the opposite direction, and a counterweight for returning the screw and movable portion to elevated position when the swing is unloaded.

1,307,775. MEASURING INSTRUMENT. HORACE W. HACKER, Chicago, Ill. Filed June 20, 1918. Serial No. 241,061. 4 Claims. (Cl. 205-16.)

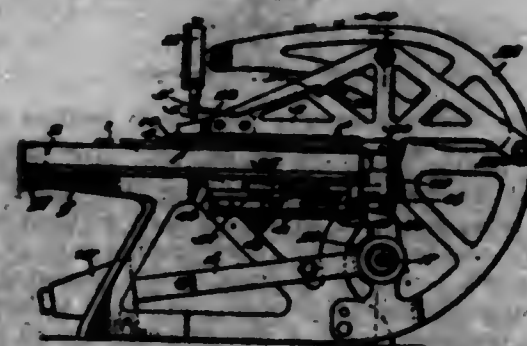
1. A machine for measuring the working thickness of objects subject to heavy working pressure including an element for engaging one side of an object that is to be measured; a follower for engaging an opposite side of the object; means for applying heavy working-like pressure to the object through the intermediation of said fol-

lower and object engaging element; positive means for maintaining the object engaging faces of the object engaging element and follower in parallelism including two essentially parallel pivotally supported carriers essen-



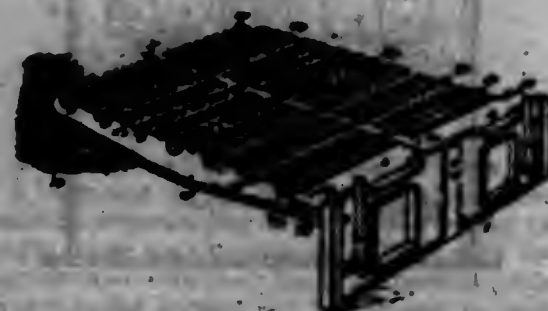
tially of equal length upon which said follower is pivoted; and a micrometric gage having an actuating element provided with means for causing it to move toward the object as the object is depressed to measure the working height of the object.

1,307,776. MEASURING INSTRUMENT. HORACE W. HACKER, Chicago, Ill. Filed June 20, 1918. Serial No. 241,062. 22 Claims. (Cl. 205-16.)



1. A machine for measuring the working thickness of objects subject to heavy working pressure including an element for engaging one side of an object that is to be measured; a follower structure including a cushion that bears a face for engaging an opposite side of the object and which cushion makes the follower structure universally movable; means for applying heavy working-like pressure to the object through the intermediation of said follower structure and object engaging element; and a micrometric gage having an actuating element provided with means for causing it to move toward the object as the object is depressed to measure the working height of the object.

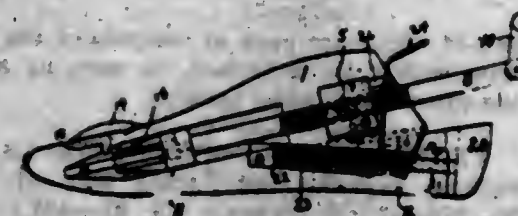
1,307,777. SHAKER-GRATE. CHARLES W. HALL, Key-stone, W. Va. Filed Mar. 14, 1918. Serial No. 222,207. 5 Claims. (Cl. 126-176.)



1. In a furnace, the combination with a front, of a dead plate secured to the inner side of the furnace front and provided in its upper face at its forward edge with spaced seats opening therethrough, transverse beams ar-

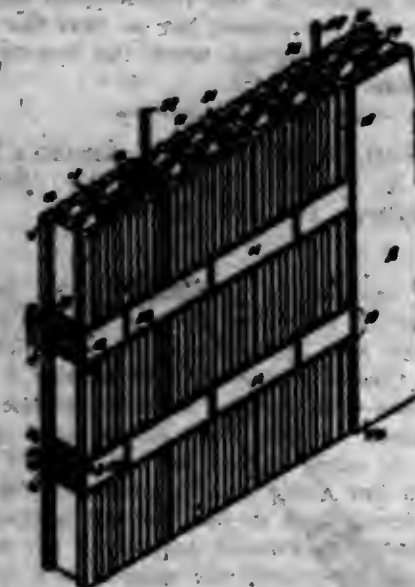
ranged beneath the seats, bearing bars having reduced portions fitting within the seats and provided with vertical shoulders bearing against the adjacent beams, and grate sections journaled in said bearing bars.

1,307,778. SHOE-STRETCHER. WALTER HOLUB, La Salle, Ill. Filed Dec. 5, 1917. Serial No. 208,522. 3 Claims. (Cl. 13-181.)



1. In a shoe stretcher, a body divided longitudinally into two parts, a plate having an aperture loosely mounted on the rear of said body parts, a rod passing through said aperture, teeth formed on said rod, a heel portion mounted on one end of said rod, with resilient means on the other end for keeping said heel part normally against said body parts, mechanical means for spreading the forward end of said body parts and for moving said heel part away from said body parts, and mechanism for locking said heel part at a predetermined point.

1,307,779. FIREPROOF TILE WALL. HENRY V. JOHNSON, Chicago, Ill. Filed Apr. 23, 1914. Serial No. 823,240. 1 Claim. (Cl. 72-30.)



In a hollow tile wall, the combination of a plurality of hollow tiles arranged in courses and with the voids extending vertically and interspersed courses of hollow tiles arranged with the voids extending horizontally, the individual tiles of said last mentioned courses being staggered with respect to the tiles of the first mentioned courses and recessed in from an end to register with the bonds between tile above and beneath said recessed tile and reinforcing rods extending vertically through said recesses and between the tile having the voids extending vertically.

1,307,780. MANIFOLD HEATER. CHARLES M. KENDALL, Illiopolis, Ill. Filed Mar. 17, 1919. Serial No. 283,608. 3 Claims. (Cl. 205-5.)

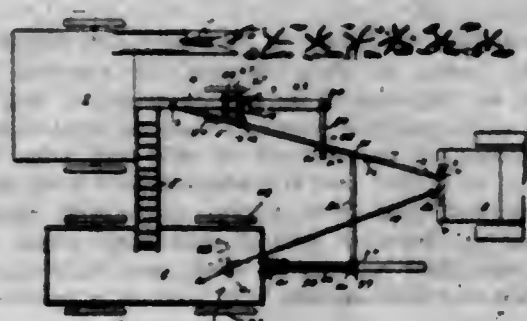
1. A heater of the class described, comprising a block having communicating longitudinal and transverse grooves, both of which are open at one side of the block.

2. A heater of the class described comprising a block having communicating longitudinal and transverse



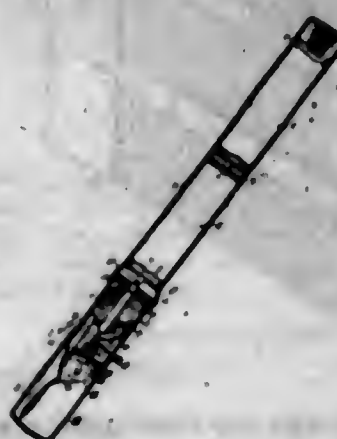
grooves, both of which are open at one side of the block, the transverse groove being formed, in part, by a hook having a lug provided with an opening.

1,307,781. VEHICLE-TOWING MECHANISM. SAMUEL E. LAWRENCE, Saybrook, Ill. Filed Feb. 11, 1919. Serial No. 276,307. 3 Claims. (Cl. 21-137.)



1. A vehicle towing device comprising a bar and a flexible chain or cable having one of their ends adjustably connected to the rear end of a towing vehicle, their other ends connected to two parallel disposed vehicles to be towed in parallel relation to each other, pivoted bars pivotally connected to the tongues of the vehicles and adjustably connected to the first mentioned bar so that the tongues of the vehicles will be turned when the towing vehicle turns to either side.

1,307,782. TRENCH FOUNTAIN-PEN. ABRAHAM LAWRENCE, Brooklyn, N. Y. Filed June 20, 1918. Serial No. 241,002. 3 Claims. (Cl. 240-3.4.)

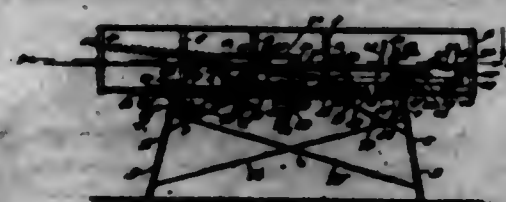


1. An apparatus as characterized comprising a pen section embodying an ink reservoir, pen, and ink-feeding attachment therefor; a magazine handle adapted to contain a series of electric cells to form a battery; an electric lamp socket disposed in said pen section below said pen; an electric jumper extending through the center of said reservoir for forming electric contact with the center terminal of said battery when said magazine is attached in service to said pen section; and a lamp mounted in said socket in juxtaposed relation to said jumper.

1,307,783. MAIL-CARRIER-DISCHARGING GUN. ARNOLD LUTCHER, Great Bend, Kans. Filed Nov. 27, 1918. Serial No. 264,421. 8 Claims. (Cl. 104-147.)

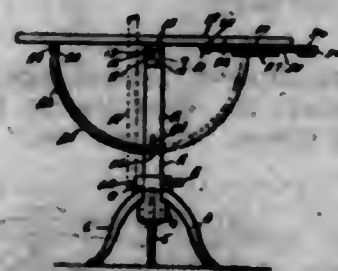
1. In a mail carrier discharging gun, the combination with a supporting frame provided with parallel side guide

tracks, of a carriage on said guide tracks, spring tensioning means therefor, a trolley wire, a carrier thereon and



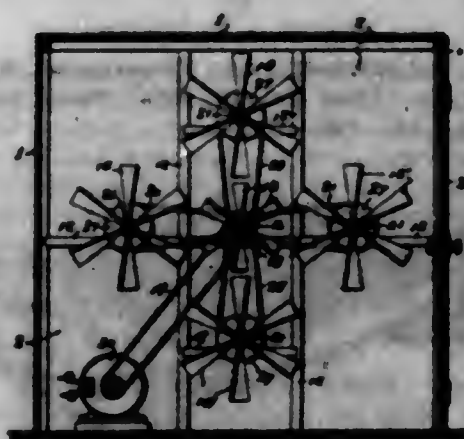
adapted to be received in said carriage, holding means to hold the carriage set against the action of its tensioning means.

1,307,784. FOLDING TABLE. JOSEPH L. MACKAY, Fowler, Ill. Filed Sept. 3, 1918. Serial No. 262,364. 1 Claim. (Cl. 45-100.)



In a folding table, the combination with an extensible pedestal having a tubular section, the upper ends of which being split and having its split portions extending laterally and terminating in upstanding ears, of an elongated block L-shaped in cross section engaging on said split parts and secured between the ears, a U-shaped plate having depending ears, a rod passing through both sets of ears eccentrically, a table top, an elongated block L-shaped in cross section secured to the under face of the table top and to which said U-shaped plate is secured, whereby when the table top is moved to a horizontal position, the adjacent parts of said L-shaped block will contact and limit the table top in its position horizontally, and means for holding the table top in different adjusted positions.

1,307,785. DRIER FOR MACARONI, &c. PAUL DE MARTINI, Jamaica, N. Y. Filed Jan. 3, 1919. Serial No. 270,132. 3 Claims. (Cl. 34-19.)



6. In an apparatus of the kind described, a chamber, means for supporting material within said chamber in exposure to the influence of air currents directed there-through, means for producing said air currents comprising a central transversely rotatable fan, a plurality of out-

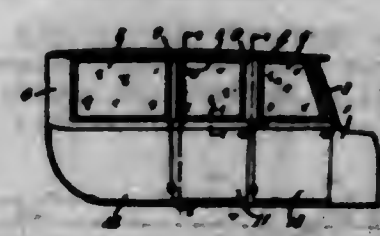
lying transversely rotatable fans surrounding said central fan, said outlying fans being larger in diameter than said central fan, transmission mechanism for rotating said central fan, additional transmission mechanism for simultaneously rotating said outlying fans at slower speed than said central fan, and means connected with the ends of said chamber for controlling and regulating the flow of air to confine such flow to desired points within the limits of the entire end areas of said chamber comprising a plurality of independently operable hinged panels, said panels in the aggregate closing the entire end areas of said chamber.

1,307,786. METHOD OF MAKING TURBINE-NOZZLE STRUCTURES. JOHN F. MERTEN, Philadelphia, Pa., assignor to The William Cramp & Sons Ship & Engine Building Company, a Corporation of Pennsylvania. Filed May 18, 1918. Serial No. 235,275. 12 Claims. (Cl. 29-148.)



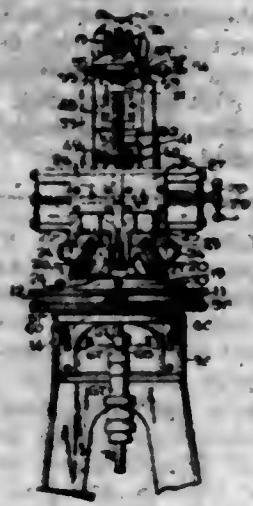
9. The method of making a turbine nozzle structure, which consists in forming an inner ring blank and an outer ring blank, then in a boring mill circumferentially slotting the inner blank on the inside and the outer blank on the outside and forming nozzle lining surfaces by further boring with a tool engaging both said blanks and fed between them in a direction oblique and non-intersecting to the axis of the mill, then slotting the nozzle lining faces of the rings in the same last mentioned direction making these slots of a depth to intersect the circumferential slots, fitting straight parallel edged blades in the oblique slots, and riveting over the edges of the blades where they project into the circumferential slots so as to unite the rings and blades in a rigid nozzle structure.

1,307,787. VEHICLE-BODY. CHARLES A. MINNA, Kalamazoo, Mich., assignor to Limousine Top Co., Kalamazoo, Mich. Filed Oct. 5, 1917. Serial No. 194,954. 4 Claims. (Cl. 21-32.)



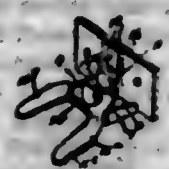
1. In a structure of the class described, the combination of a body and top, a removable, upright, dovetailed male coupling members set into recesses in the ends of said upright, their body portion being flush with the ends of the upright and with their engaging portion projecting, coacting dovetailed sockets set in recesses in said body and top flush with the surfaces thereof, the dovetailed engaging parts of said coupling members being inwardly tapered, and spindles disposed longitudinally through said male coupling members and provided with latches at their inner ends adapted when in one position to engage the inner ends of the female coupling members.

1,307,788. METHOD AND MACHINE FOR THE MANUFACTURE OF ASBESTOS GASKETS. EDWARD NALL, Akron, Ohio; Edith A. Nall, executrix of said Edward Nall, deceased, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Feb. 15, 1917. Serial No. 148,890. 9 Claims. (Cl. 10-2.)



1. The method of forming a gasket which includes the operation of continuously rolling and pressing plastic material within the channel of a mold until the material has assumed the shape and size of the mold.

1,307,789. GATE-LATCH. LINWOOD J. H. NEWMAN, Burke, Va. Filed Mar. 24, 1919. Serial No. 284,763. 1 Claim. (Cl. 70-23.)



A gate latch comprising an angular keeper plate secured to a post, said keeper plate being provided with a horizontal arm, said horizontal arm having upstanding flanges, a bifurcated horizontally loosely pivoted gate engaging member carried by the arm and having an upstanding arm at its rear end in engagement with a bracket carried by the keeper plate so as to limit the downward movement of the outer end of the bifurcated gate engaging member and an arm carried by the bracket overlying the bifurcated member and limiting its upward movement and causing the bifurcated member to twist as either side thereof is raised and positioned so that as the gate is moved the bifurcated member will clear the flanges of the arm of the keeper plate.

1,307,790. DETACHABLE PLOWSHARE EDGE. PETER AUGUSTER NORMQUIST, Ogden, Utah. Filed Oct. 30, 1917. Serial No. 199,322. Renewed Mar. 15, 1919. Serial No. 282,964. 1 Claim. (Cl. 97-22.)



The combination with a plow share, the lower contiguous edge having a longitudinally extending centrally disposed reduced extension tongue gradually tapered in cross section downwardly and forwardly, of a de-

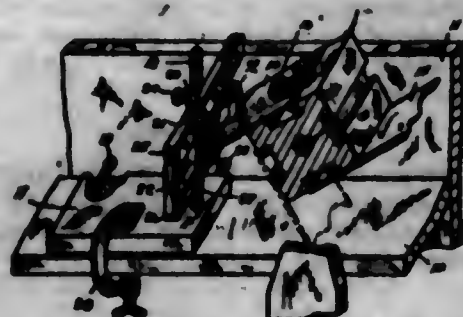
tachable plow share cutting strip having a cutting edge, the inner portion of said strip having a longitudinally extending recess correspondingly tapered in cross section with said tongue and adapted to receive said tongue, the upper and lower walls of the recess and the tapered tongue having registering tapered openings, tapered retaining pins in said registering openings, said plow share adjacent where the tongue projects therefrom having beveled undercut shoulders above and below the tongue and extending longitudinally, the inner edges of the upper and lower walls of the recess being oppositely beveled corresponding with and engaging the under cut beveled shoulders, whereby the plow share cutting strip may be additionally secured in place.

1,307,791. IMPULSE-STARTER. PONTUS OSTENAS, Santa Clara county, Calif. Filed Apr. 2, 1919. Serial No. 267,147. 11 Claims. (Cl. 123-149.)



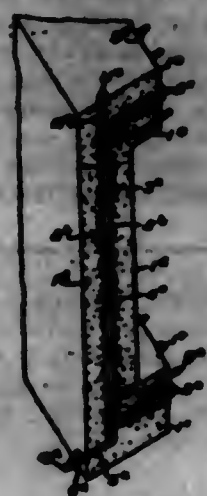
10. An impulse starter for electric generators, comprising resiliently connected driving and driven members operatively mounted with relation to each other, means for locking said driven member against rotation, means operated by said driving member for unlocking said driven member at a predetermined period, a resilient connection between said driven member and the rotor of said generator, means for locking said driven member and said rotor in predetermined relation to each other to secure normal advanced sparking action, means for unlocking said driven member and said rotor prior to the unlocking of said driven member by said driving member, means for positioning said rotor when unlocked in a predetermined position with relation to said driven member to secure retarded sparking action, means for automatically positioning said rotor in a predetermined position with relation to said driven member whereby a normal advanced sparking action is secured, and means for automatically locking said rotor in said advanced position.

1,307,792. STICKER. GEORGE G. ROOKLEDER, San Gabriel, Calif. Filed Oct. 21, 1918. Serial No. 266,189. 4 Claims. (Cl. 23-185.)



1. A knife setting gage for stickers comprising, a base block adapted to fit the machine table; clamping bars mounted upon the base block and adapted for vertical adjustment, one of the clamping bars being provided with a measuring surface; and clamping jaws extending past the measuring surface, so that a pattern mold may be placed against the measuring surface and adjusted to a proper position and held in place by the clamping jaws.

1,307,793. PROCESS OF WALL CONSTRUCTION. GUSTAV O. SCHULZ, Boston, Mass. Filed Feb. 12, 1919. Serial No. 270,511. 11 Claims. (Cl. 25-124.)



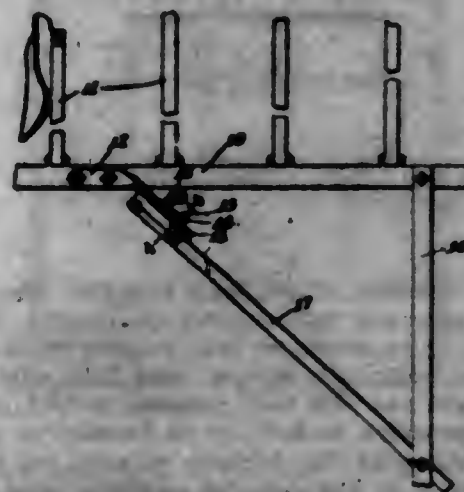
1. That process of wall or like construction comprising the following steps; first, establishing a hollow core in concrete or cementitious material, second, creating a vacuum within said core, and, third, hermetically sealing the said core.

1,307,794. THROTTLE-CONTROLLING APPARATUS. WILLARD T. SHARR, New York, N. Y. Filed Feb. 28, 1918. Serial No. 270,083. 6 Claims. (Cl. 74-61.)



1. A throttle-controlling apparatus for automobiles comprising a brake lever, a connection to the throttle-valve, a foot-rest supported independently of the brake lever, and means whereby said connection will be advanced when the foot on the foot-rest acts on the lever to operate the brake lever for setting the brake mechanism.

1,307,795. DRAFT ADJUSTMENT FOR PLOW. RICHARD S. SMITH, Pittsburg, Kans. Filed Dec. 18, 1918. Serial No. 267,353. 1 Claim. (Cl. 97-60.)



An adjusting means for a tractor plow including a bracket carried by the plow, a lever pivotally connected to the bracket at a point adjacent its end, a draw bar

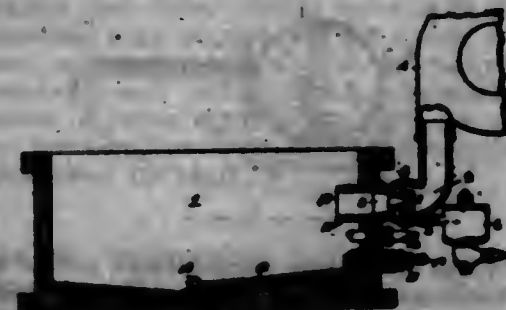
carried by the plow and extending forwardly therefrom, a rearwardly and laterally inclined bar connected to the forward end of the draw bar and extending to a point adjacent the bracket, a rack segment secured to the said end of the inclined bar and having a depending tab to which the lower extremity of the lever is pivotally connected, and means on the lever for engaging the segment to hold the lever and inclined bar in different adjusted positions.

1,307,796. CONCRETE-BLOCK MACHINE. THOMAS A. SPRAY and CORNELIUS E. UMANOWSKI, Indianapolis, Ind. Filed Sept. 7, 1918. Serial No. 253,975. 4 Claims. (Cl. 25-45.)



1. In a plastic material forming machine, a supporting frame-work, a block forming mold detachably connected to said frame-work, a horizontal shaft carried by said frame-work, a plurality of compressing and lifting levers fixedly attached to said shaft, a single handle operating said levers, a plurality of lifting dogs each with a plurality of stud engaging recesses, cross heads pivotally connected to said dogs, lifting rods adjustably secured to said cross heads, guides in said frames for said rods, side bars pivotally connected to said compressing and lifting levers at one extremity thereof, a compression head pivotally connected to the opposite end of said side bars, a pallet detachably secured to said compression head, guides secured to said frame and said mold to co-act with said side bars, a plurality of studs in compressing and lifting levers and means for selectively engaging said studs to said recesses in said lifting dogs, substantially as and for the purpose described.

1,307,797. LIQUID-FUEL IGNITER AND BURNER. JOHN SQUINN, Grosse Point Park, Mich., and CALVIN P. KING, Chicago, Ill. Filed Dec. 17, 1918. Serial No. 267,125. 3 Claims. (Cl. 155-26.)



1. An igniter and burner for liquid fuel comprising an atomizer and a heating device positioned to receive liquid fuel from the atomizer and to vaporize it independently of the heat generated by the burning of the fuel.

1,307,798. FULL-CIRCLE COLLAPSIBLE RETREAD-MOLD. PAUL MAX STEPHAN, San Francisco, Calif. Filed July 19, 1918. Serial No. 245,630. 3 Claims. (Cl. 18-12.)



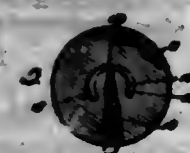
1. In a retread mold, a pair of superimposed tire encircling members each of semi-circular form, said members being hinged together at one of their ends and being arranged vertically so that their ends meet in a horizontal plane, each member having a semi-circular chamber therein, a steam supply pipe leading from one end of the chamber of the lower member to the adjacent end of the chamber of the upper member, a drain pipe leading from said end of the chamber of the upper member to said end of the chamber of the lower member, a drain pipe leading downwardly from the other end of the chamber of the upper member into said first-named drain pipe, and a drain pipe extending into the chamber of the lower member at the lowest point of the chamber.

1,307,799. BALL-BEARING. SVEN GUSTAF WINOQUIST, Gottenborg, Sweden, assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden. Original application filed Aug. 28, 1907. Serial No. 300,416. Divided and this application filed Jan. 19, 1918. Serial No. 312,735. 11 Claims. (Cl. 64-34.)



1. A ball bearing having more than two ball series and a track for the same, the transversal profile of which is curve shaped with the center point situated on the center line of the shaft, the outer bearing part and the inner bearing part being each integrally formed from a single piece of metal and adjustable to each other or turnable in a plane containing the axis of the shaft and around the said center point, substantially as described and shown in the drawings.

1,307,800. RESILIENT TIRE-CORE. JACOB J. WOHLGEMUTH and FORD LULLY, Chicago, Ill., assignors to Lafayette Rubber Company, Chicago, Ill., a Corporation of South Dakota. Filed Sept. 28, 1918. Serial No. 256,015. 6 Claims. (Cl. 153-5.)



1. A tire core comprising an elongated resilient member having an opening horn-like shaped in cross-section of each member extending throughout the length of the

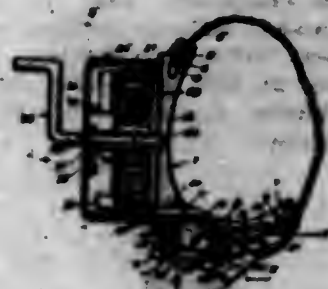
latter and a groove extending from the central portion of said opening to the periphery of said member, and a wedge member in and filling said groove, said horseshoe-shaped opening being considerably wider at its edge portions than at its central portion.

1,307,801. DRIP-TROUGH FOR AUTOMOBILES. JOHN T. ALLMAND, Detroit, Mich., assignor to Fisher Body Corporation, Detroit, Mich., a Corporation of New York. Filed Apr. 12, 1918. Serial No. 228,240. 2 Claims. (Cl. 21-62.)



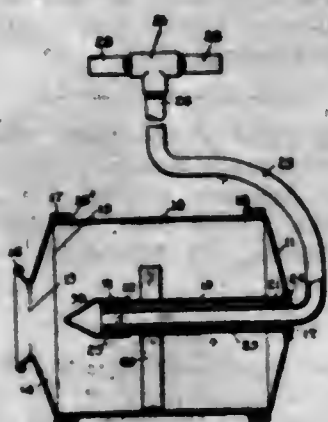
1. A drip trough for automobiles, comprising a skelp of relatively heavy metal formed at one side into a trough with a corrugated bottom, the corrugation running longitudinally of the trough and at the opposite side formed into a strip doubled upon itself which can be attached to the side of an automobile to form a hanger for the trough.

1,307,802. THEFT-ALARM FOR AUTOMOBILES. EDWARD G. BADER, Los Angeles, Calif. Filed Apr. 3, 1919. Serial No. 287,189. 3 Claims. (Cl. 116-1.)



3. A theft alarm for automobiles comprising a body adapted to be clamped around a felly and tire and locked, and spring actuated alarm mechanism carried by the body and normally held inactive, and means for releasing the spring actuated alarm mechanism by the rotation of the wheel.

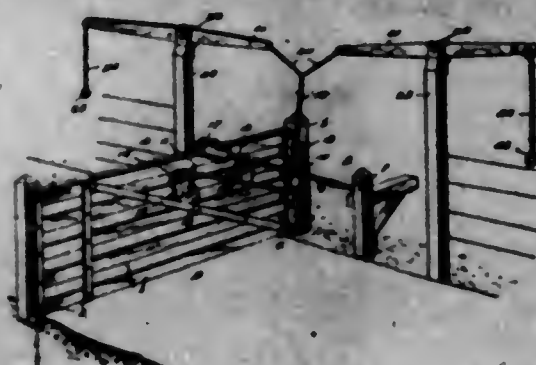
1,307,803. CONCRETE MIXER AND CONVEYER. DOMENITH C. BABOLO and ISAAC K. SHIMO, Fillmore, Calif. Filed Nov. 14, 1918. Serial No. 362,511. 1 Claim. (Cl. 83-73.)



A concrete mixer and carrier comprising a cylindrical shell, a bulging end wall rigidly closing one end of the cylinder, a conical end piece fixed to the other end of the cylinder and having a large central opening, three fixed

upon the ends of the cylinder, a bearing tube fixed to the bulging end wall and extending inwardly at the axial center of the cylinder, braces supporting the inner end of the bearing tube, and a shaft rotatably mounted in the bearing tube and extending outwardly through the bulging end wall and then extending radially beyond the tires, then inwardly to the longitudinal center of the cylinder and then radially outwardly to form a handle.

1,307,804. GATE-OPERATING MECHANISM. IRA D. BATH, West Jefferson, Ohio. Filed Aug. 19, 1918. Serial No. 250,458. 1 Claim. (Cl. 38-59.)



The combination with a gate mounted for swinging movement and situated, when in closed position, to extend transversely of a roadway, of means for effecting the opening and closing of said gate comprising a member pivotally connected at one end for oscillatory movement with a fixed anchorage located adjacent the roadway, a weight carried by the opposite end of said member, a depending bracket carried by said member intermediate its ends, a link pivotally connected to the lower end of said bracket at one end and at its other end to said gate, a depending structure carried by said member intermediate its weighted end and said bracket to engage the link intermediate its ends to prevent elevation of the end of the link connected with said bracket when the gate is in closed position by a push upon the gate, and means located adjacent the roadway for elevating the weighted end of said member whereby opening movement is imparted to the gate through the link.

1,307,805. VARNISH AND PROCESS OF MAKING THE SAME. ZAKARIA N. DUDMAN, Los Angeles, Calif., assignor of one-half to Herman C. Schmidt, Los Angeles, Calif. Filed Jan. 29, 1919. Serial No. 278,958. 2 Claims. (Cl. 184-28.)

1. A varnish comprising bottled linseed oil, rosin varnish, benzine, coal oil, Japan, litharge and water.

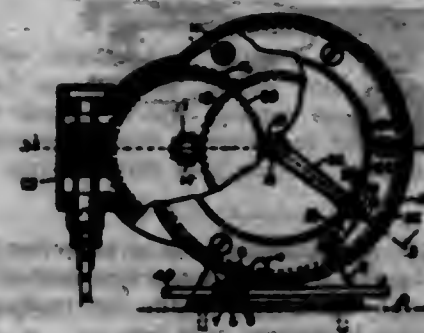
1,307,806. AEROPLANE. GLENN A. DUNN, Kansas City, Mo. Filed Jan. 16, 1919. Serial No. 271,578. 3 Claims. (Cl. 244-25.)



1. An aeroplane comprising crossed rings, one of which is disposed transversely of the machine, a ring arranged for rotation within the transversely disposed ring, a vertical shaft secured at its upper and lower ends in said rotatable ring, a series of cylinders arranged and adapted to rotate around said shaft in a plane at right angles to the axis of said shaft, the bottoms of said cylinders being similarly inclined transversely of their axis, a propeller

gears to and adapted to be driven by the cylinders when the same are rotated, and means for imparting turning movement in one direction or the other to said rotatable ring to effect tilting of the motor and the shaft toward one side or the other.

1,307,807. AUTOMATIC TRAIN-STOP. BERT CARLISLE, Santa Ana, Calif. Filed Feb. 21, 1918. Serial No. 218,464. 2 Claims. (Cl. 246-6.)



1. An automatic train stop construction comprising the combination with a pipe leading from the compressed air tank of the air brake system, of a stop cock incorporated into the pipe, an operating lever fixed upon the stem of the stop cock, a gage base mounted adjacent to the stop cock, a gear case extending upwardly from the gage base, a train of gearing mounted in the gear case and having a shaft extending forwardly, a gage front mounted around the shaft, an indicator arm loosely mounted upon the shaft, a disk fixed upon the shaft in front of the gage front and having an annular flange extending from its edge, a return bend upon the end of the indicator arm forming a slot in which the flange moves, a clamping screw inserted through the return bend to clamp the arm to the flange, a pointer extending from the outer end of the return bend to the graduations upon the gage front, an arm extending from the return bend at right angles and adapted to engage under the operating lever to move the stop cock from its closed position to its open position, and means for operating the train of gearing from a car wheel axle.

1,307,808. TABLE OPENING AND CLOSING DEVICE. SAMUEL ADOLPHUS CLARK, Seattle, Wash. Filed May 21, 1918. Serial No. 237,514. 3 Claims. (Cl. 45-112.)



1. An extension table comprising a pair of sections, aligned guide ways carried by each section extending along the central longitudinal axis thereof, a substantially rectangular open frame slidably mounted in the guide ways, depending arms carried by the central portion of the frame, a shaft rotatably carried by the arms, a rack bar carried by each section and arranged in superimposed relation, a pinion keyed to the shaft and arranged to engage the rack bars, and operating handles formed on the terminals of the shaft.

1,307,809. CUSHIONED WHEEL. ALFRED S. DUFFY, Marquette, Wis., and FRANCIS MEAD, Chicago, Ill. Filed May 3, 1916. Serial No. 95,111. 2 Claims. (Cl. 189-26.)

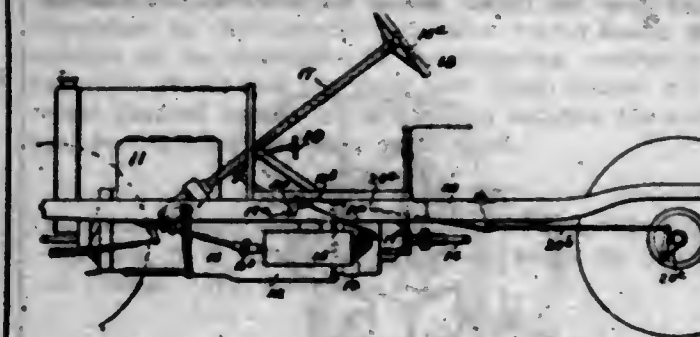
1. A vehicle wheel including the combination with, inner and outer rims and cushioning means interposed therebetween of side flanges secured to one of the rims and contacting with the sides of the cushioning means,

said flanges being spaced from the other rim to permit relative lateral movement of the rims, and spacing



members rigidly connecting opposed portions of the flanges whereby to distribute through both flanges lateral stress applied to either flange.

1,307,810. VEHICLE CONTROL. JUSTUS B. ERTZ, Cleveland, Ohio. Filed Apr. 3, 1918. Serial No. 288,522. 4 Claims. (Cl. 172-179.)



4. Means for controlling the transmission of power in a motor vehicle having a propelling mechanism including an electrical unit, said means comprising a controller having a drum, hand operated mechanism for normally turning said drum from and to off position, braking mechanism, and foot controlled mechanism for operating the braking mechanism and for shifting the drum independently of the hand operated mechanism.

1,307,811. SHOE-TURNING MACHINE. ANDREW EPPLE, Lynn, and WALTER V. NEAL, Boston, Mass., assignors to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 13, 1918. Serial No. 228,366. 12 Claims. (Cl. 12-57.)



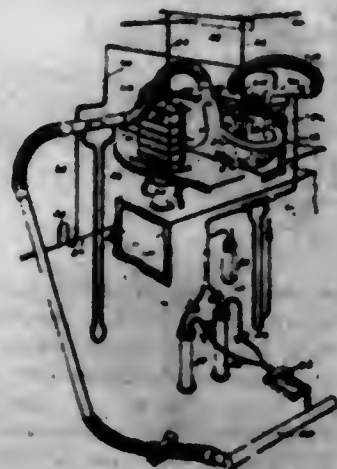
3. A shoe turning machine having, in combination, a turning post, means for holding the toe end of a shoe stationary at one side of the post, means for drawing the heel end of the shoe downwardly, and connected mechanism for simultaneously moving the turning post in the same direction at a slower rate of speed.

1,307,812. METHOD OF AND APPARATUS FOR MAKING PHONOGRAPH-RECORDS. JOHN V. ERICKSON, Scranton, Pa. Filed July 3, 1918. Serial No. 243,131. 24 Claims. (Cl. 18-5.3)



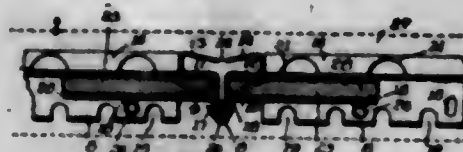
1. The process of handling hot plastic material between dies to secure a product of a given uniform thickness which consists in pressing the material relatively thicker near the middle than the proportionate thickness of the middle of the product sought.

1,307,813. METHOD AND APPARATUS FOR TESTING CANISTERS. ARNO C. FIELDS, Pittsburgh, Pa. Filed Jan. 10, 1919. Serial No. 270,000. 21 Claims. (Cl. 23-3.)



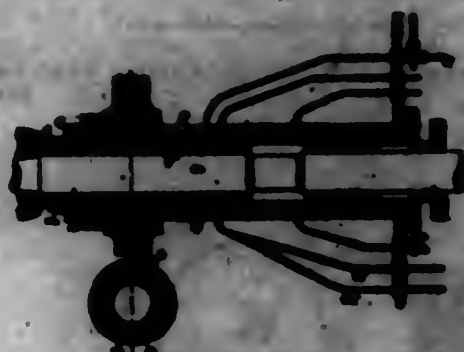
1. In a method of simultaneously testing a plurality of gas treating canisters, passing gas through said canisters in multiple arrangement.

1,307,814. PLASTER-BOARD SUPPORT. ERNEST E. FLETCHER, Chicago, Ill. Filed July 7, 1917. Serial No. 170,132. Renewed Apr. 21, 1918. Serial No. 291,723. 1 Claim. (Cl. 72-115.)



A supporting and reinforcing element for plastic wall structures of T cross-section formed by bending a band of sheet metal along longitudinal lines to form a web section of two parallel but spaced apart walls and flange sections of parallel but spaced apart walls, the opposed walls of said web section having transversely extending elongated slots through which nails may be driven at angles with said web section to secure plaster board against said web and flange sections, and openings through said web and flange sections for the entrance of plaster between said walls.

1,307,815. STERN-TUBE AND ITS STUFFING-BOX. JUNJI FUKAO, Kobe, Japan. Filed May 3, 1918. Serial No. 223,301. 8 Claims. (Cl. 200-27.)



1. In a ship, the combination with a propeller shaft, of means carried by the ship for supporting said shaft, a stuffing box for said shaft, and means for leading into the ship liquid which leaks into said box.

1,307,816. MICROMETER. JULIO F. GARDIN, Washington, D. C. Filed June 3, 1918. Serial No. 237,900. 9 Claims. (Cl. 33-164.)



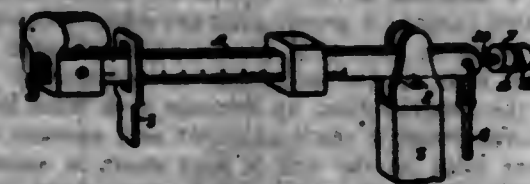
1. A micrometer including tubular telescopically engaged complementary members, one of said members having a threaded rod extending within the other member, and an adjustable element carried by the latter member adapted for sliding engagement with the threads of said rod to lock said members in their adjusted positions.

1,307,817. FIRE-SCREEN. WINFELD A. GRAYBEE, Lansing, N. C. Filed Mar. 24, 1918. Serial No. 284,565. 6 Claims. (Cl. 120-302.)



1. The combination of a horizontal supporting member having means for attachment to a fire-place, a fire-screen, and supporting arms for the screen pivotally connected thereto, and detachably connected to the supporting member to fold along the screen when detached from the supporting member.

1,307,818. SCALE-POISE. JAMES R. JACKSON, Oakland, Calif., assignor of one-half to Ray Mawala, San Francisco, Calif. Filed June 2, 1917. Serial No. 172,415. Renewed Nov. 3, 1918. Serial No. 281,714. 5 Claims. (Cl. 200-40.)



1. The combination with a scale beam, of a poise mounted on the end of the beam, and having notches formed therein a cam member carried by the beam, and a key-actuated lock adapted to turn the cam into and out of register with said notches formed in the poise.

1,307,819. DRIVING MECHANISM. RAYMOND JANNEY, New York, N. Y., assignor to The Waterbury Tool Company, Waterbury, Conn., a Corporation of Connecticut. Filed Feb. 3, 1917. Serial No. 144,504. 10 Claims. (Cl. 60-68.)



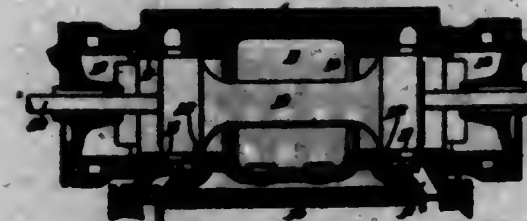
1. The combination of a plurality of hydraulic motors, a variable-stroke multiple-cylinder pump in communication with, and for effecting the action of, each motor, a controlling member for each pump to secure opposite motions of the pistons thereof and to also vary the strokes of said pistons in opposite directions, means for acting on both controlling members to vary the strokes of the pumps together, and means for acting on both controlling members to vary the strokes of the pumps in opposite directions.

1,307,820. MACHINE FOR OPERATING ON SOLES. ALBERT R. JOHNSON, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 25, 1916. Serial No. 122,076. Renewed Oct. 18, 1918. Serial No. 258,758. 13 Claims. (Cl. 12-30.)



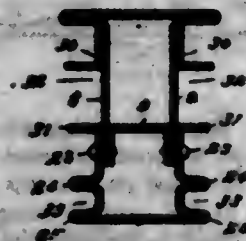
1. A machine for effecting the marginal portion of soles, having, in combination, cooperating molding rolls for engaging opposite sides of the sole near its margin; a roll having angularly arranged faces for engaging one side and the edge of the sole; means for pressing said rolls together to mold the sole into the angle formed by said faces; and means for driving the rolls.

1,307,821. STEAM-ENGINE. WILLIAM F. KIRBY, Jr., Altoona, Pa. Filed Apr. 4, 1918. Serial No. 23,800. 1 Claim. (Cl. 100-5.)



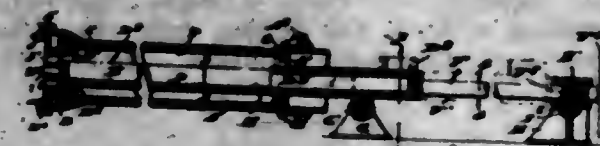
In a valve construction for steam engines having a valve chamber, a main port connecting the said chamber and the cylinder, and a slidable valve controlling said port; improved means for supplying steam to the engine cylinder after cut-off at the main port and for automatically decreasing the said supply of steam as the engine speed increases, consisting of an auxiliary port-opening in advance of the admission edges of the main port-opening and separate therefrom, said auxiliary port-opening being small relative to the main port-opening, its dimension in the direction of valve travel being short relative to the dimension in the direction transverse to the valve travel and the main port being formed with a recess adapted to afford a connection between the auxiliary port-opening and the main port.

1,307,822. POST FOR WINDOWS. PETER M. KLING, Laconia, N. H. Filed Sept. 5, 1917. Serial No. 189,741. 4 Claims. (Cl. 100-75.)



1. The combination with the side wall of a car, of a twin T post extending vertically of said side wall and comprising a flat plate portion presented outwardly, spaced parallel flanges extending longitudinally of said post and presented inwardly from said flat plate portion and normally thereto, said flanges being spaced inwardly from the lateral edges of said flat plate portion.

1,307,823. CHARGING APPARATUS FOR CENTRIFUGAL CASTING-MACHINES. JAMES B. LADD, Ardmore, Pa., assignor to United States Cast Iron Pipe & Foundry Company, Burlington, N. J., a Corporation of New Jersey. Filed Nov. 1, 1918. Serial No. 280,659. 5 Claims. (Cl. 22-65.)



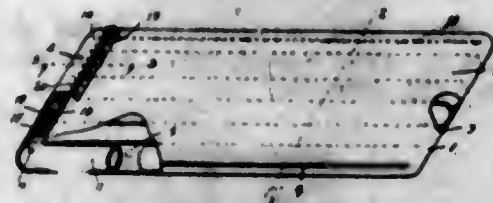
1. In centrifugal casting apparatus, the combination with a rotatable mold, of a charging trough and means for moving it axially of the mold into and out of the latter comprising a stationary support adjacent the mold and a roller journaled thereon on which the trough rests, and a second stationary support more remote from the mold, and cooperating gear members carried by the trough and said second support for moving said trough axially of the mold.

1,307,824. METHOD OF MAKING SCREENS FOR USE IN PRODUCING HALF-TONE NEGATIVES. WERNER ROBERT BRUCH LARSEN, Copenhagen, Denmark. Filed Sept. 9, 1918. Serial No. 253,902. 1 Claim. (Cl. 95-81.)



Method of producing drawn screens in which crosses of the opaque lines have a transparent area, consisting in preparing two line screens having the same line distance, ruling both of them with clear lines cutting the lines of the line screens at an angle of 45° and applying one of the said line screens on the other in such a manner that the two sets of lines on the two line screens will cut each other at right angles, the intersections of the said clear lines falling in the crosses of the opaque lines of the two line screens substantially as set forth.

1,307,825. SURF-MATRESS. HARRY B. MARSHALL, Long Beach, Calif. Filed Sept. 11, 1918. Serial No. 253,612. 1 Claim. (Cl. 9-13.)



A pneumatic surf matress comprising, a piece of suitable canvas cut to the desired size and folded upon itself to form a seamless rounded end, a top, a bottom and an open end, the edges of the canvas being stitched together along the sides and there being vertical longitudinally extending partitions of canvas inserted between the top and bottom and evenly spaced apart to form inner tube chambers, and there being ropes secured along the side seams to form handholds; pneumatic inner tubes in the inner tube chambers and having air inlet valves at the open end; the bottom being somewhat longer than the top and the material of the bottom being folded upon itself transversely and sewed together so as to form a double thickness outer flap and a single thickness inner flap; a separate piece of material secured near the edge of the top to form a second outer flap and a second inner flap; lacing securing the inner flaps together so that the air valves are accessible between the edges of the flaps through the lacing; and lacing securing the outer flaps together to cover the first lacing.

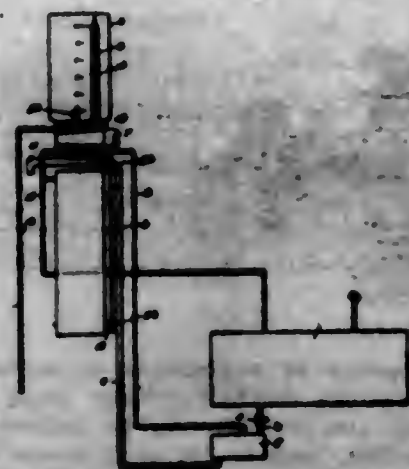
1,307,826. AEROPLANE. CHRIS MATTHEWS, San Pedro, and CHARLES S. HALL, Los Angeles, Calif. Filed Oct. 24, 1918. Serial No. 250,488. 2 Claims. (Cl. 244-15.)



1. The combination with an aeroplane, having a body equipped with an engine and wing planes of a lifting

propeller comprising, an extension shaft adapted to be coupled to the aeroplane engine shaft, a vertical shaft adjacent said extension shaft, a bearing bracket in which said extension shaft and vertical shaft are journaled, a lifting propeller fixed to the upper end of said vertical shaft and a steering device comprising swivel members each of which include a groove ring provided with rollers which are fixed to the wing planes and a beaded ring fixed to the body of the aeroplane in cooperative relation with the grooved ring, an arcuate rack fixed in one of the grooved rings, a shaft adjacent said arcuate rack, a bevel gear fixed on the end of said shaft in operative relation with said rack, and a hand wheel fixed to the opposite end of said shaft, said lifting propeller operating to lift the aeroplane, and said steering device being adapted to tilt the wing planes longitudinally in cooperation with said lifting propeller when making a turn.

1,307,827. LIQUID STORAGE AND DELIVERY APPARATUS. JOHN M. MILLER, Sewickley, Pa., assignor to Hepburn Walker, Sewickley, Pa. Filed Jan. 9, 1918. Serial No. 211,037. 10 Claims. (Cl. 221-100.)



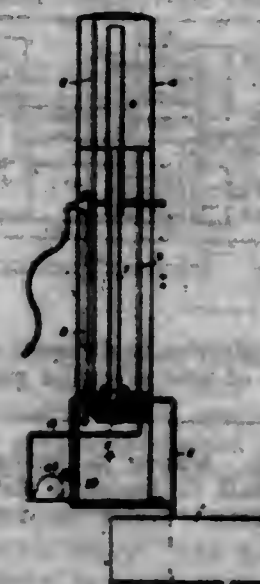
9. In a liquid storage and delivery apparatus, the combination of a storage reservoir, a measuring tank, a filling conduit connecting said reservoir with said tank, a delivery conduit leading from said tank, a source of air pressure, conduits leading from said pressure source to said reservoir and tank, valve ports and a single valve-operating element for controlling first the flow of compressed air to said reservoir and the flow of liquid from said reservoir to said tank, and secondly the flow of compressed air to said tank and the flow of liquid from said tank through said delivery conduit.

10. In a liquid storage and delivery apparatus, the combination with a storage reservoir, a measuring tank, a filling conduit connecting said reservoir with said tank, and a discharge conduit; of a return measuring tank, conduits connecting said return measuring tank with said measuring tank and with said reservoir, a registering device, and a seat actuated mechanism in said return measuring tank for operating said registering device to register the volume of liquid returned to said reservoir after a measured volume of liquid has been removed from said measuring tank through the discharge conduit.

1,307,828. LIQUID STORAGE AND DELIVERY APPARATUS. JOHN M. MILLER, Sewickley, Pa., assignor to Hepburn Walker, Sewickley, Pa. Filed Jan. 9, 1918. Serial No. 211,038. 6 Claims. (Cl. 221-100.)

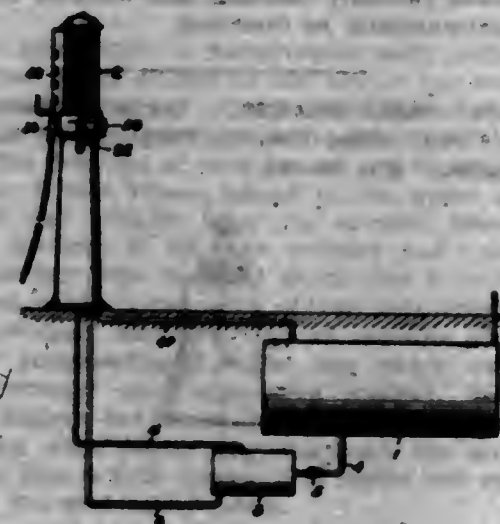
1. In a liquid vending apparatus, the combination of a storage reservoir, a measuring tank, a rotatable vertically adjustable discharge pipe in said tank, a valve connected to said pipe, a delivery conduit connected to said

valve, and a return conduit connecting said valve with said reservoir, said valve being operable by the rotation



of said pipe and being adapted to place said tank in communication with said delivery or return conduits.

1,307,829. LIQUID STORAGE AND DELIVERY APPARATUS. JOHN M. MILLER, Sewickley, Pa., assignor to Hepburn Walker, Sewickley, Pa. Filed Sept. 6, 1918. Serial No. 252,555. 13 Claims. (Cl. 221-100.)

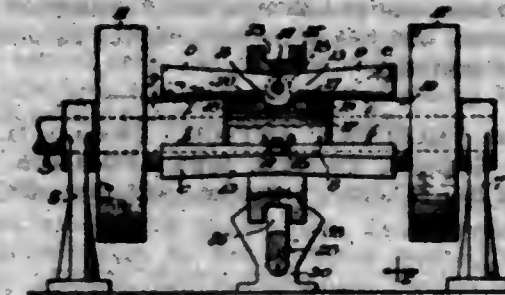


1. In a liquid storage and delivery apparatus, the combination of a storage reservoir, a measuring tank, a filling conduit connecting said reservoir with said tank, a delivery conduit leading from said tank, a return conduit leading from said tank to said reservoir, means for controlling the flow of liquid from said reservoir to said tank and from the tank through the delivery and return conduits, and means coordinated with the movement of said flow-controlling means for registering subsequent to the discharge of the liquid from the measuring tank such portion of the volume of the liquid from the measuring tank as may be discharged through said delivery pipe.

1,307,830. CLUTCH. JOHN MANNING, Chicago, Ill. Filed Apr. 22, 1918. Serial No. 220,907. 7 Claims. (Cl. 193-1.)

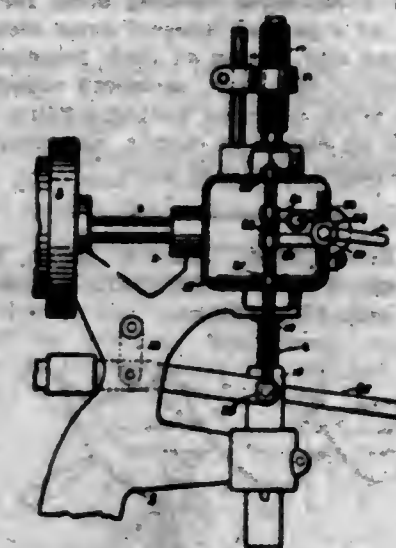
1. In clutch mechanism, the combination of a driving member, a member to be driven having a clutch hub against said driving member, wedge shaped clutch levers pivoted at their apices to said driving member and ex-

tending therefrom to engage said clutch hub, and a clutch collar surrounding said clutch levers and adapted to be



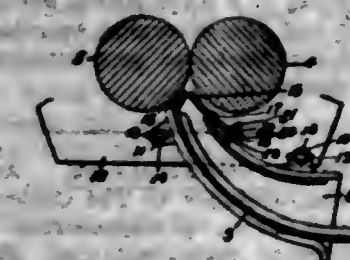
shifted along said levers to clamp them into frictional engagement with said clutch hub whereby to connect said hub and said driving wheel.

1,307,831. DRILLING AND TAPPING MACHINE. ARTHUR C. PLATT, Cincinnati, Ohio. Filed May 2, 1917. Serial No. 165,931. 2 Claims. (Cl. 10-129.)



2. In a drilling or tapping machine, a casing embracing the spindle (in part) with reversing gears and an intervening adjustable clutch, operated by a fork; a spring upon the fork-shaft normally holding it in lowest position; an external crank-arm on said shaft extending substantially parallel with the fork and provided with a disk or collar having a peripheral abutment, a trip-arm pivoted to the casing substantially parallel with the crank-arm and resting at one end upon the disk, a trip-rod parallel with and connected at one end to the spindle and partaking of its longitudinal movement and extending at the other through the said crank arm and said trip-arm; a spring upon said trip-rod between and bearing against said arms, and adjustable stops secured upon said trip-rod above and below said arms.

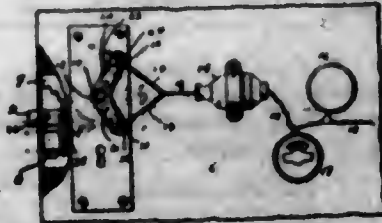
1,307,832. APPARATUS FOR COATING METAL SHEETS. EDGAR G. PORTER, Woodlawn, Pa. Filed Mar. 22, 1918. Serial No. 224,065. 1 Claim. (Cl. 91-80.4.)



In apparatus for coating metal sheets, the combination with a coating-pot adapted to contain a bath of the coat-

ing substance, of a pair of relatively adjustable guiding aprons provided with lips adapted to bear upon the opposite surfaces of the coated sheet as it emerges from the bath, at least one of said lips, being adjustable relatively to its apron, and means for securing the adjustable lip in adjusted position.

1,307,833. ELECTRIC SWITCH. CHARLES D. RAY and FRED KORNBERG, Le Mars, Iowa. Filed Feb. 10, 1917. Serial No. 147,739. 2 Claims. (Cl. 200-30.)



1. The combination with a swinging closure having a latch-bolt and a flat-sided turning stem for controlling the latch-bolt, of a pair of integral arms disposed in different directions and having at their junction a flat-sided opening to receive the stem, members adjustable transversely of the arms, a device having a retracting part to open and close an electrical circuit, and flexible links between said members and said part.

1,307,834. PROPELLER. JOHN C. RYAN, Toronto, Ontario, Canada. Filed Jan. 19, 1917. Serial No. 148,994. 3 Claims. (Cl. 170-156.)



1. A propeller, comprising, a shaft, and a plurality of spirally formed vanes arranged in pairs, the plane surface of the forward ends of each successive pair being arranged to intersect the plane surface of the rearward ends of the preceding pair of vanes.

1,307,835. SHOCK-ABSORBER. NATHAN SCHACHTER, Chicago, Ill. Filed Jan. 8, 1917. Serial No. 141,908. 5 Claims. (Cl. 207-27.)

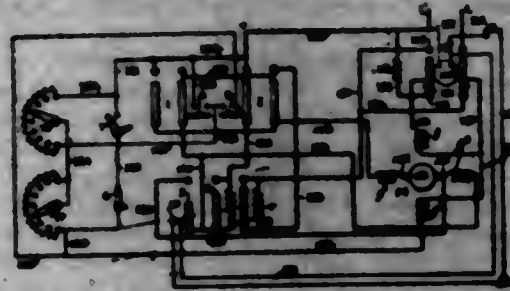


1. The combination with two relatively movable vehicle parts, of a shock absorbing spring connecting said parts and consisting of a plate spring having the circular bight portion 6 and the diverging longitudinally curved tapered arm 10 arranged and proportioned substantially as shown and described.

1,307,836. MOTOR-CONTROLLER. ARTHUR SIMON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 2, 1915. Serial No. 239. 21 Claims. (Cl. 172-340.)

1. In a motor controller, in combination, reversing means, normally effective field weakening means and

means associated with said reversing means for rendering said field weakening means ineffective during motor start-



ing and thereafter effective to different degrees determinable by the setting of said reversing means.

1,307,837. BRUSH. JOSEPH G. STANBURY, Clove, Ill., assignor of one-half to Joseph J. Hoboken, Clove, Ill. Filed June 10, 1918. Serial No. 102,999. 5 Claims. (Cl. 15-30.)



1. A brush comprising two brush sections, and means for positively holding said sections in different relative positions consisting of cooperating means on said sections and means yieldably drawing said sections into engagement, substantially as described.

1,307,838. SALT-SHAKER. LOUIS WHEBLICH, Stratford, Conn. Filed Feb. 18, 1919. Serial No. 277,908. 4 Claims. (Cl. 68-45.)

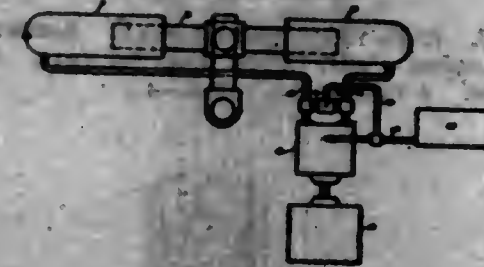


1. A salt shaker comprising an agitator, an impervious cap having a central opening, a plug in said opening having longitudinal channels, an agitator lying in one of the channels and having an angle arm, and rings driven over the plug by which the agitator is retained in place thereon.

1,307,839. BACK-PRESSURE RELEASE-VALVE. HARRY D. WILLIAMS, Wallingford, Conn., assignor to The Waterbury Tool Co., Waterbury, Conn., a Corporation. Filed Aug. 21, 1918. Serial No. 289,940. 2 Claims. (Cl. 90-52.)

1. The combination with a hydraulic motor, a pump connected with opposite ends of the motor and an oil

expansion tank connected with said pump, of a back-pressure release valve located between the pump and the hydraulic motor, said pump comprising a casing connected with opposite sides of the pump and with the oil expansion tank, said release valve comprising a casing, a



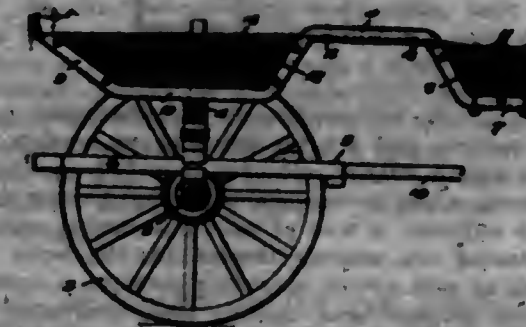
longitudinally movable piston, heads on the opposite ends of the piston, seats for said heads, said piston formed with longitudinal ports, said casing also formed with an annular groove intersected by said port, said groove communicating with the oil-expansion tank.

1,307,840. FOLDING SEAT. LEO L. WILLIAMS, Cleveland, Ohio, assignor, by means assignments, to WILLIAM B. REMBERT, New Haven, Conn. Filed May 17, 1918. Serial No. 708,219. 5 Claims. (Cl. 21-43.)



5. In an automobile, a disappearing seat, comprising a seat carrier fixedly hinged at one end in line with the aforementioned recess and of an area sufficient to close said recess, a seat supporting upright hinged to the said carrier at the free end of said carrier and foldable upon said carrier, a seat frame hinged to the upper end of the upright and foldable upon the upright, means for supporting the seat in its open position and organized and disappearing with the seat parts, and a seat back pivotally mounted to the rear of the seat frame and foldable thereupon, combined with an opposite seat containing the aforementioned recess into which the hereinabove mentioned seat supporting upright, the seat frame, the support for the seat in its open position and the seat back when folded may disappear, the seat carrier at such time wholly closing said recess and concealing therein the said folded parts.

1,307,841. HAY-RACK END-PIECE. ANDREW B. ANDERSON and JOHN L. FERNANDEZ, Lake Mills, Iowa. Filed May 1, 1918. Serial No. 221,902. 3 Claims. (Cl. 21-74.)



3. The combination, with a rack side sills, of bars having ends at one end for the forward ends of said side sills and secured thereto, said bars having arched portions against which the ends of said sills are seated

and said bars having horizontal portions forming a continuation of said arched portions and adapted to be seated on the axle bolsters, said horizontal portions terminating in upwardly turned ends having a cross bar between them, filler plates fitting the recesses between said upwardly turned ends and said arched portions and secured to said bars and on a level substantially with the top of said arched portions and said sills.

1,307,842. SEWING-MACHINE. FREDERICK JOHN TURNER BELL and HARDY CECIL BELL, Ashton-under-Lyne, England, assignors to Twin Bobbin Sewing Machine Company Limited, Ashton-under-Lyne, England. Filed Aug. 3, 1918. Serial No. 42,878. 9 Claims. (Cl. 112-22.)



2. In a sewing machine of the class wherein a rotary shuttle is driven by driving pins engaging holes in the shuttle, the combination of a rotary shuttle with flexible bifurcated driving pins engaging said shuttle, a shaft for said driving pins and a support for said shaft having parts carried thereby for supporting said shuttle.

1,307,843. BOTTLE-CAPPING MACHINE. THOMAS B. BELL, Baltimore, Md., assignor, by means assignments, of one-half to John L. Whitehurst, Baltimore, Md. Filed Mar. 2, 1917. Serial No. 152,183. 21 Claims. (Cl. 93-1.)

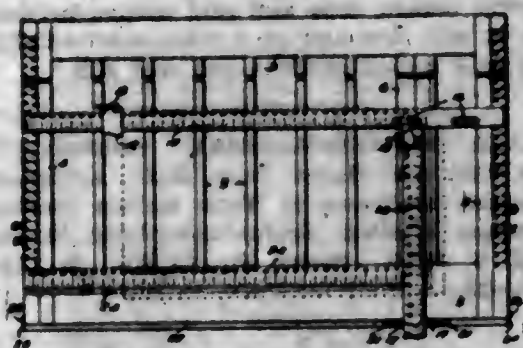


4. In a machine for capping bottles, an internal cutting die and an external cutting die, means for feeding a web of paper between the dies, plaiting fingers with the external die, a plaiting ring with the internal die, a bottle support, means for moving the cutting dies to cause the internal die to pass into the external cutting die, covering a blank from the paper and causing the plaiting fingers to cooperate with the plaiting die, plaiting the edge of the blank forming it into a skirt, and means for moving the bottle support causing it to thrust the bottle neck through the plaiting ring removing the cap from engagement with the ring.

1,307,844. CUTTING-BOARD. FRANK C. BENNETT, Jamestown, N. D. Filed Feb. 8, 1918. Serial No. 216,000. 12 Claims. (Cl. 33-80.)

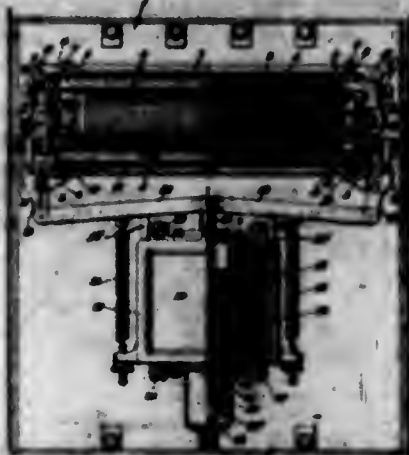
1. A cutting board comprising side and end rails and cross bars between them forming supports for a sheet of

glass to be cut, one of said cross bars having a surface on which the cutting operation is performed, said end rails having graduations thereon, a bar having an adjustable connection with said end rails over said graduation.



tions and against which the sheet to be cut is seated, and a guide for the cutter mounted over said cutting surface bar and having means for mounting one end on said adjustable bar.

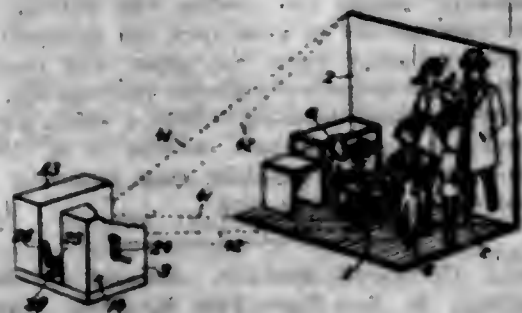
1,307,845. ELECTRIC REGULATOR. WILLIAM F. BOUCHÉ, Buffalo, and CARL HARTMANN, Lancaster, N. Y., assignors to Gould Coupler Company, a Corporation of New York. Filed Mar. 15, 1916. Serial No. 84,817. 20 Claims. (Cl. 171-229.)



5. A regulator comprising a pile of resistance electrodes, members adapted to operate on each end of said pile to vary the resistance thereof, and relatively movable supporting means for said members, permitting their movement with respect to the pile without varying its resistance.

17. The combination with a regulating element the effect of which is altered by variations in pressure thereupon, of pressure controlling means operating upon each end of said element, a toggle joint uniting and cooperating with said means, and electromagnetic means for moving the knuckle of said joint.

1,307,846. METHOD OF PRODUCING MOVING PICTURES. LURA S. BRAINERD, Meriden, Conn. Filed June 9, 1915. Serial No. 33,102. 3 Claims. (Cl. 88-16.)



1. The process of producing a film for moving pictures that consists in arranging a stage in front of a screen,

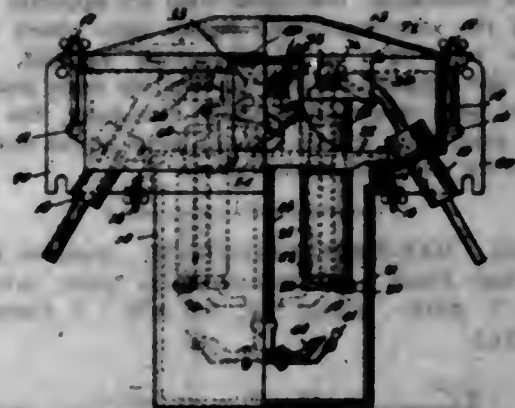
placing a projecting apparatus and camera, introducing objects onto said stage in front of the screen while the camera is in operation, and, without stopping the operation of the camera, changing the condition of the projecting apparatus.

1,307,847. ELECTRIC WELL-DRILL. ROBERT R. BAAY, Los Angeles, Calif. Filed Jan. 22, 1918. Serial No. 213,166. 4 Claims. (Cl. 285-4.)



1. A well drill comprising a casing, a motor therein, a drill shaft having journaled bearings in said casing, a reduction gear between said shaft and motor and means to maintain a gas under pressure within said casing at the same pressure as the water pressure outside the casing at different levels.

1,307,848. ELECTRIC SWITCH. GEORGE A. BURNHAM, Saugus, Mass., assignor to Sears B. Condit, Jr., Brookline, Mass. Filed Feb. 5, 1916. Serial No. 76,249. 5 Claims. (Cl. 175-282.)



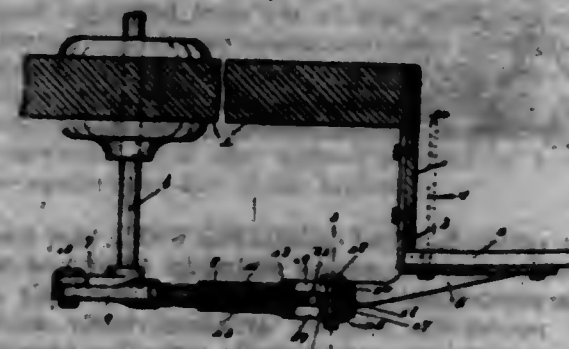
1. In an electric switch, an enclosing case comprising a top portion, and a cover for said top portion, a switch unit arranged within said case, a switch operating member having a handle engageable portion having an opening therein adjacent a wall of said top-portion, said top-portion having an opening therein in alignment with the opening in said switch operating member, a crank handle extended through said opening and detachably engaging said switch operating member for the operation of the switch, and said cover having an extension projecting over and shielding the opening in said top-portion from the weather and normally preventing the removal of said detachable handle.

1,307,849. STEAM-RADIATOR FOR TRACTION-RAILWAY CARS. FRANK F. COOCH, Boston, and RICHARD F. WHITCHER, Melrose, Mass. Filed Apr. 1, 1918. Serial No. 235,917. 3 Claims. (Cl. 257-154.)



1. A steam radiator for railway cars provided with a substantially horizontal upper header having a steam inlet and with a lower header having a water outlet, the latter being located at the lowest portion of the radiator, said lower header having water conducting means leading to said outlet and inclined at an angle sufficiently great to insure gravity flow of water from all parts of the radiator to said outlet when the car is on a grade of maximum inclination and irrespective of which end of the car may be the higher, said headers having means whereby the radiator may be attached to the side wall of a car.

1,307,850. CAR-STEP-OPERATING MECHANISM. JOSEPH A. COLLIN, Cohoes, N. Y., assignor of one-half to Rudolph Roulier, Cohoes, N. Y.; Julia Collin administratrix of said Joseph A. Collin, deceased. Filed Apr. 5, 1918. Serial No. 228,927. 2 Claims. (Cl. 105-447.)



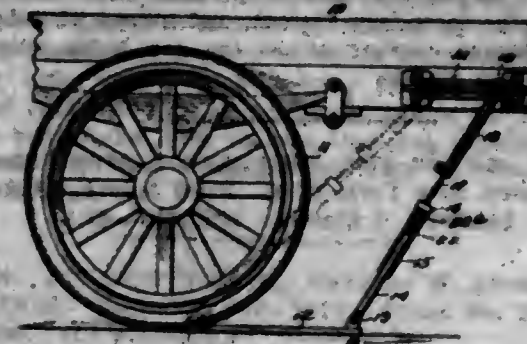
1. The combination with a car-body; and a movable member operatively connected with car-door-operating mechanism mounted upon said body; of a car-step pivotally mounted upon said body; a bracket connected with said step for raising and lowering the same; and a link-connection between said bracket and said movable member of the car-door-operating mechanism, said link-connection having adjacent to said bracket a hollow member containing a plunger-slideway and a slide-block-slideway; a slide-block movable in said slide-block-slideway; a pivotal connection between said slide-block and said bracket; a coil-spring contained within said hollow member; and a plunger movable in said plunger-slideway and yieldingly supported by said spring against longitudinal thrust of said slide-block.

1,307,851. STARTING DEVICE FOR MIXED MOTOR-VEHICLES. JOSEPH E. COCHRAN, West Somerville, Mass. Filed June 10, 1918. Serial No. 239,235. 3 Claims. (Cl. 21-125.)

1. A shoe for cooperation with the wheel of a motor vehicle to facilitate starting the vehicle, means connected

263 O. G.-39

with said shoe for coupling it to the body of the vehicle, and means for exerting a pushing action on the shoe to



tend to insert its rear edge between the wheel and the ground.

1,307,852. RAIL. JAMES E. CUNNINGHAM, Decatur, Ill. Filed Dec. 26, 1917. Serial No. 208,780. 1 Claim. (Cl. 238-142.)

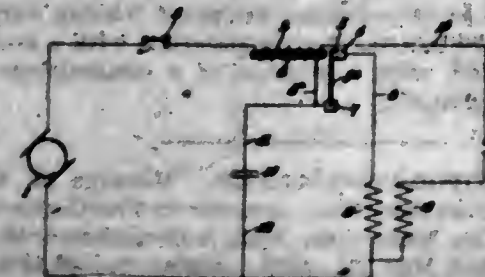


In a rail, a pair of sections each having head, web and base portions, the head portions having vertical abutting inner faces which project beyond the web portions, and the base portions having inner sides with free and permanent space between said inner sides, the inner side faces of the base portions being disposed outwardly beyond the meeting line of the inner faces of the head portions, the webs having free and permanent space therebetween and throughout their inner faces, a chair on which the base portions seat, said chair extending across said free and permanent space between the inner sides of the base portions, bolts to secure the sections together, and means to hold the base portions in rigid position on the chair.

1,307,853. PROCESS OF ALLOYING ZINC WITH IRON OR STEEL. BENJAMIN F. DIMM, Erie, Pa., assignor to Charles A. Dimm, trustee. Filed Feb. 19, 1914. Serial No. 819,662. 5 Claims. (Cl. 61-70.1.)

2. The process of mixing, combining and incorporating zinc with iron or steel, which consists in heating zinc coated iron or steel to a temperature of about 600° Fahrenheit for a time period sufficient to change the appearance and structure of the coating, to wit: a period of about six hours for the thinnest coating and a longer time for thicker coating in proportion to the additional thickness, and then recasting with tin or zinc.

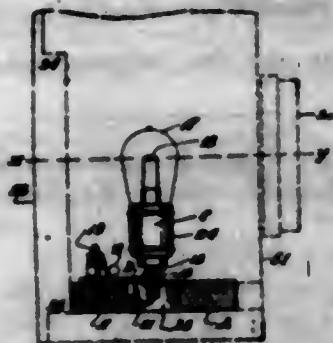
1,307,854. ELECTRICAL-DISCHARGE-PRODUCING DEVICE. WILLIAM DUBILIER and PHILIP DUBILIER, New York, N. Y. Filed Aug. 15, 1916. Serial No. 116,106. 12 Claims. (Cl. 123-148.)



1. The combination with an induction coil system having an air gap in the secondary circuit of means for in-

interrupting the primary circuit to bridge said gap with the secondary current, means whereby the primary current flows across the gap when the same has been bridged by the secondary current, and means whereby the flow of primary current across the gap holds open the initial primary circuit.

1,307,855. MEANS FOR FOCUSING LAMPS. EDWARD A. EVERETT, New York, N. Y. Filed July 1, 1918. Serial No. 242,899. 3 Claims. (Cl. 240-41.)



1. In combination, a lens, an electrically lighted lamp, a supporting piece for said lamp, an insulated base block to which said supporting piece is adjustably secured, a plurality of spaced terminals on said base block and conductors from said terminals to said lamp, means for positioning said lamp vertically and horizontally without disturbing its connection, and an opening in said base block for limiting its position horizontally.

1,307,856. CIRCUIT-CONTROLLING BUTTON. WILLIAM A. FREDERICK, Boston, Mass. Filed Feb. 7, 1918. Serial No. 215,741. 2 Claims. (Cl. 175-306.)



2. A device of the character described, comprising a cap having an integral slidingly connected foot piece, an insulating ring in said cap, a pair of contact strips for wire connections separately connected to said ring, and a bridging contact for said strips, said strips being permanently laterally spaced whereby a circuit can be established only by the operative interposition of said bridging contact between said strips.

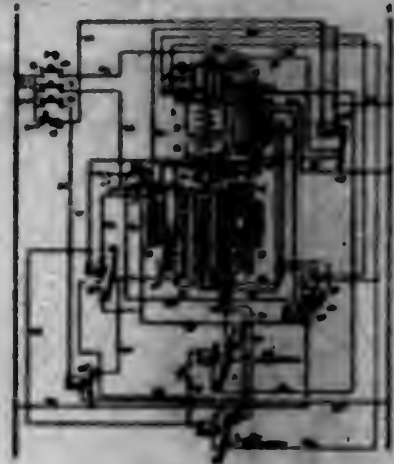
1,307,857. FRICTION-SURFACE. HENRY FRON, Chapel-en-le-Prith, England. Filed May 15, 1914. Serial No. 838,871. 6 Claims. (Cl. 91-93.)

1. The process of producing fire-proof friction surfaces which comprises treating fibrous materials with a metallic sulfate and then with a solution of a cementitious material in a drying oil.

1,307,858. MOTOR-CONTROLLER. MAURICE M. GOLDENSTEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed May 23, 1916. Serial No. 99,107. 21 Claims. (Cl. 173-179.)

11. In a controller for a plurality of motors, in combination, separate motor controlling switches having

power operating means, a device movable to effect operation of said switches progressively and means to effect



return movement of said device automatically upon failure of any one of said switches to respond thereto.

1,307,859. MOTOR-VEHICLE JACK. LAWRENCE E. HANSEN, Sioux City, Iowa, assignor of three-fourths to Henry Schmitt, Jr., Sioux City, Iowa. Filed May 20, 1916. Serial No. 98,791. 2 Claims. (Cl. 254-91.)

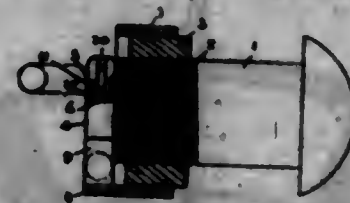


1. In a vehicle-jack, the combination with a base frame, and vehicle-supporting means including front and rear rock-arms pivoted on the frame to swing vertically and normally rearwardly inclined, of arms rigidly secured to the front rock-arms and normally extending upwardly, and latch mechanism to prevent retrograde movement of the rock-arms when swung upwardly, including a bell-crank so pivoted to said second arms that one arm thereof depends and the other extends forwardly, and a member carried by the base releasably engageable by the depending arm, and an element to coact with the forwardly extending bell-crank arm to release the depending arm and lift said second arms.

1,307,860. PROCESS OF MORDANTING BY MEANS OF CALCIUM ANTIMONY TARTRATE. SYDNEY M. HENRICH, New York, N. Y. Filed Apr. 30, 1917. Serial No. 146,367. 4 Claims. (Cl. 8-12.)

2. The method of producing the solution of calcium acid tartrate of antimony consisting in first boiling fused calcium chlorid with tartaric acid in excess, then boiling to eliminate the hydrochloric acid produced, adding bicarbonate of soda to neutralize any remaining hydrochloric acid, then purifying the product obtained therefrom, and thereupon adding the requisite amount of antimony acid and boiling, and testing for the percentage of antimony acid until a fifty per cent. content of antimony acid is obtained.

1,307,861. NUT-LOCK. FRANCESCO IMMO, Toronto, Ontario, Canada. Filed May 6, 1918. Serial No. 363,813. Renewed Feb. 17, 1919. Serial No. 377,046. 4 Claims. (Cl. 151-29.)



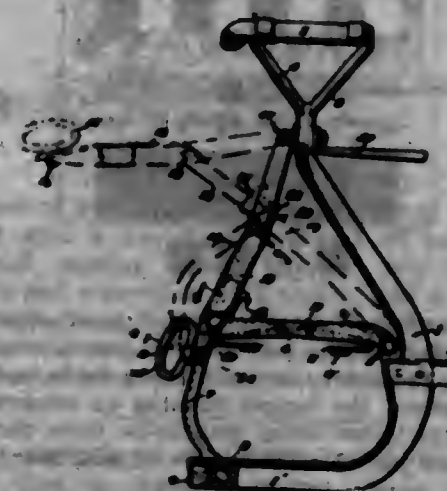
1. In a nut lock, the combination with a bolt having flattened sides and a transverse slot between said sides, of a member non-rotatably engaging the perimeter of the nut and having extension members engaging the flattened sides of said bolt and formed with slotted orifices registering with said slot in the bolt, and a fastening member adapted to enter said slotted orifices and to be turned to a locking position.

1,307,862. GUARD FOR PIGE. WILLIAM D. JAMES, Fort Atkinson, Wis., assignor to James Manufacturing Company, Fort Atkinson, Wis., a Corporation of Wisconsin. Filed June 12, 1916. Serial No. 103,073. 7 Claims. (Cl. 116-18.)



1. In a device of the described class, the combination with the walls of an enclosure, of a horizontally extending guard supported from one of said walls, and rigidly held thereby against downward movement from a normal pig protecting position, substantially in the plane of its connection with the wall, said member having hinged connection with the enclosure, adapted to permit it to swing upwardly from said normal position to a raised position against the wall of the enclosure.

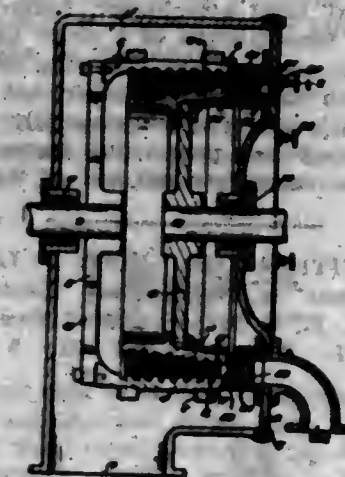
1,307,863. TIRE-CARRIER. GEORGE C. JENSEN, Oakland, Calif. Filed Sept. 10, 1917. Serial No. 190,423. 3 Claims. (Cl. 234-29.)



1. A tire carrier comprising a plurality of stationary supporting members, certain of the members adapted for engaging with the rim of the positioned tire to support the same, another of the members extending under the tire on the positioned rim, a clamping member fulcrumed

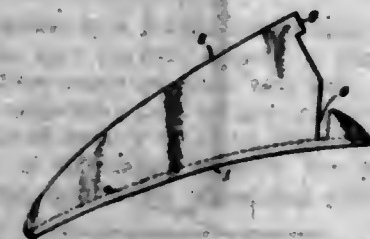
for pivotal movement into engagement with the rim of the positioned tire to draw the same into engagement with the first mentioned supporting members, said clamping member capable of locked engagement at its free end with the supporting member to which it is fulcrumed, a lever, a link connecting said lever intermediate of its ends and said clamping member, and means for securing the free end of the lever to said clamping member when the same is in locked engagement with its cooperating supporting member.

1,307,864. STEAM-TURBINE. CHARLES W. JONES, Oakland, Calif. Filed Mar. 19, 1918. Serial No. 232,290. 1 Claim. (Cl. 60-103.)



An axial flow turbine comprising a casing open at one side, a closure plate for closing said opening, a pair of concentrically disposed oppositely rotatable rotors mounted within said casing and supported by separate aligned shafts extending exteriorly of the casing in opposite directions, one passing through the casing wall and the other passing through said closure plate, the peripheral edges of said rotors at the inlet side of said turbine lying in parallel spaced relation and providing between the same a fluid expansion chamber open at its opposite sides and increasing in area toward the discharge side thereof, impact and reaction blades carried by the cooperating surfaces of the respective rotors and extending into said chamber with the ends of oppositely disposed blades overlapping, a channelled annular member carried on the inner side of said closure plate opposite the spaced peripheral edges of said rotors and lying in close proximity to said spaced edges at the inlet side of said chamber, a plurality of independent nozzles carried by said annular member and arranged circumferentially thereof in spaced relation with their discharge ends projecting between the spaced peripheral edges of said rotor and arranged tangentially to said blades, and a valve for controlling each nozzle.

1,307,865. FITTING FOR FASTENING REINFORCEMENT-BELTS TO WOODEN PIPES OR TUBES. ALFRED KIELLAND, Trenchum, Norway. Filed Mar. 13, 1919. Serial No. 232,522. 6 Claims. (Cl. 217-95.)



1. In a device for the purpose specified, the combination with a shoe comprising a base member and lateral flanges, of a locking plate removably supported by said shoe, said locking plate provided with a plurality of openings for the reception of both ends of a belt or band.

1,307,866. ARTIFICIAL-HAND ATTACHMENT. ALBERT H. LARSON, Toronto, Ontario, Canada. Filed Mar. 14, 1918. Serial No. 322,471. 7 Claims. (Cl. 2-12.)



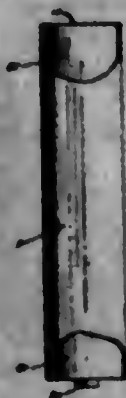
1. An artificial hand attachment, comprising, a hook of substantially three-fourths of a circle having a shank arranged close to one end and extending substantially at right angles with said end, the other end of said hook being turned in a direction substantially parallel with the shank and projecting past a line drawn parallel with the shank at the inner terminal end of the hook.

1,307,867. IGNITION-COIL. EARLE P. LEE, Rochester, N. Y., assignor to North East Electric Company, Rochester, N. Y., a Corporation of New York. Filed July 23, 1917. Serial No. 188,302. 5 Claims. (Cl. 175-359.)



2. An ignition-coil comprising a primary winding; a high-tension secondary winding; and a connection, between the primary winding and one terminal of the secondary winding, of a resistance high enough to prevent substantial flow of primary current but low enough to permit the discharge of static charges between the two windings.

1,307,868. FLASH-LIGHT BATTERY. ARTHUR S. LYNN, Bridgeport, Conn. Filed Aug. 11, 1917. Serial No. 185,684. 3 Claims. (Cl. 304-32.)



1. As an article of manufacture positive electrode element for flash light batteries comprising a tubular body of drawn sheet zinc having integral bottom and side walls.

1,307,869. ELECTRIC-FITTING CONNECTION. JOHN A. MCKAY, Toronto, Ontario, Canada. Filed Oct. 18, 1917. Serial No. 197,485. 5 Claims. (Cl. 177-380.)



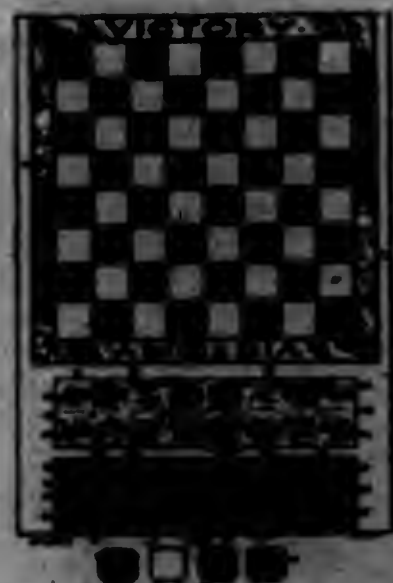
2. An electrical fitting connection comprising a fixture having an insulated inclined socket, an insulated member pivotally supported from the fitting and having a pin adapted to be inserted into said inclined socket.

1,307,870. EMBLEMATIC BUTTON AND PROCESS OF MAKING IT. EDWARD T. MASON, New York, N. Y. Filed Nov. 5, 1918. Serial No. 261,215. 8 Claims. (Cl. 24-100.)



4. A button comprising a backing sheet, a pin extending through said backing sheet and having its head and a portion of its shank projecting above its surface bent downwardly and embedded in said sheet to anchor the pin against lateral displacement.

1,307,871. GAME APPARATUS. DAVID MONTGOMERY MILLER, Brooklyn, N. Y. Filed Sept. 25, 1918. Serial No. 286,614. 6 Claims. (Cl. 46-44.)

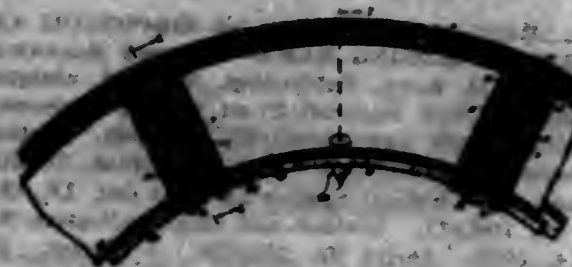


1. As an article of manufacture, a game apparatus for playing checkers, chess and similar games, comprising a sheet having produced thereon playing fields and two sets of playing pieces, the former forming an integral playing board and the latter being detachable from the sheet to be set up and played on the fields of said board.

1,307,872. RIM AND TIRE. WILLIAM R. MILLER, Hoboken, N. J. Filed July 9, 1918. Serial No. 244,696. 7 Claims. (Cl. 189-22.)

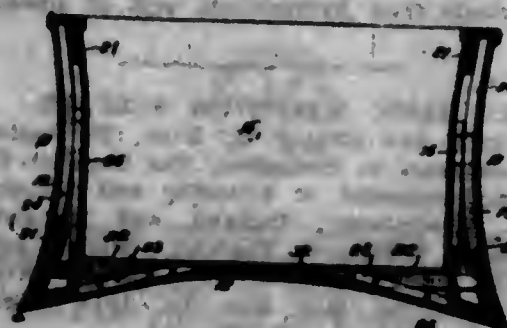
1. A combined tire and rim comprising a shell having an annular interior continuous cavity, a rim for receiving

the base of the shoe, a plurality of spaced independently inflatable inner tubes arranged in said shoe, and cushioning blocks connected to said rim arranged between the respective inner tubes, said cushioning blocks being made



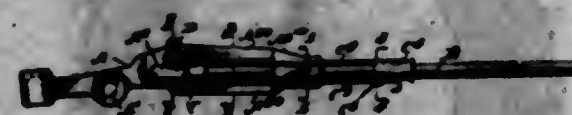
of a size to extend to a point near the shoe whereby the inner tubes will support the shoe as long as inflated and the cushioning blocks will support the shoe when the inner tubes are deflated.

1,307,873. BOAT. FRANK O. MITCHELL, Park Ridge, N. J. Filed May 1, 1919. Serial No. 263,902. 7 Claims. (Cl. 114-68.5.)



1. A boat of the character described having substantially parallel sides which are extended downwardly and outwardly along their lower portions from bow to stern, the lower edges of said sides being set outwardly beyond the plane of the upper edge of said sides and meeting the bottom of the boat at an angle.

1,307,874. BEATER-STICK SUPPORT. RALPH OLSEN, New York, N. Y., assignor to Frederick Olson Company, New York, N. Y., a Corporation of New York. Filed Sept. 4, 1918. Serial No. 282,612. 5 Claims. (Cl. 15-2.)



1. A beater holder formed with a socket for a beater stick and with a bearing in advance of said socket, a beater stick passing loosely through said bearing and having its end secured in said socket, and a beater stick support comprising resilient flexible portions extending parallel to the beater stick through said bearing along side the beater stick and fixed to said holder.

1,307,875. METHOD OF EFFECTING HUMIDIFICATION. LEO H. PARKER, Boston, Mass., assignor to Spray Engineering Company, Boston, Mass., a Corporation of Massachusetts. Filed Feb. 4, 1918. Serial No. 246,426. 5 Claims. (Cl. 157-30.)

1. That method of effecting humidification which comprises conducting by capillarity a film of water between two surfaces so closely in contact as to establish a film of water by capillarity therebetween, propelling a film

backing and discharging said substantially transverse to the established film, effecting the backing and discharge



of said film by the action of the propelled fluid and finally effecting the humidification of the air into which the material of the film is discharged.

1,307,876. FIREPROOF DOOR OR SHUTTER. WILLIAM H. PATTERSON, New Orleans, La. Filed Nov. 29, 1918. Serial No. 184,085. 2 Claims. (Cl. 189-46.)



1. A fire-proof door or shutter comprising a frame having side stiles and base and crown bars; and spaced walls of corrugated sheet-metal arranged in said frame and connected therewith; each of said walls being formed of sections the adjacent portions of which are interlocked and connected together by the interlocking, whereby expansion bars are formed in the walls, in combination with a reinforcing strip, of sheet-metal bent upon itself, extending between and connected to opposite frame portions and interposed between and connected to the spaced sheet-metal walls.

1,307,877. DOOR-SUPPORT. MICKLE HERRMAN PAUL, Hickory, Md. Filed May 2, 1917. Serial No. 165,890. 1 Claim. (Cl. 16-90.)

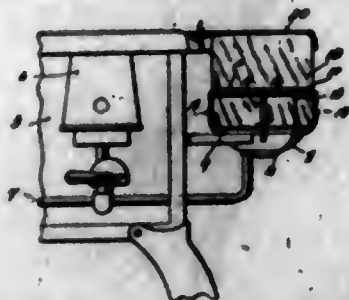


The combination, in a multiple door supporting bracket, of a frame, an axle carried thereby, a plurality of door supporting rollers mounted upon said axle, and a spacing roller between adjoining door supporting rollers, said spacing roller being of greater diameter than the door supporting rollers so as to project between the adjoining doors and prevent the same from contacting with one another.

1,307,878. RESERVOIR FOR OIL-STOVES. ROBERT FENNER, Milwaukee, Wis. Filed Nov. 7, 1918. Serial No. 261,478. 3 Claims. (Cl. 168-41.)

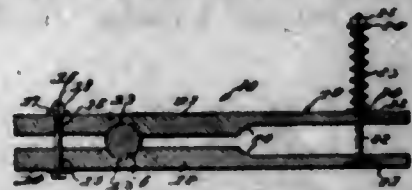
1. A reservoir of the class described including a main support, an auxiliary receptacle carried thereby, arms extending upwardly from said auxiliary receptacle, an an-

nular seating band carried by said arms, a main receptacle insertible in said seating band, and support members



carried by the intermediate portion of the periphery of the main receptacle to seat on said band.

1,307,879. HARVESTER-REEL-TENSIONING CLAMP. JOSEPH REINHOLD, Carrington, N. D. Filed Feb. 4, 1919. Serial No. 274,909. 2 Claims. (Cl. 74-12.)



2. The combination with a harvester reel shaft and a supporting frame through which the shaft is journaled, of a clamp embodying a pair of complementary members having transverse grooves in their adjacent faces and near one end, a connection between the short portions of the members, the outer portion of one of the members being arranged in abutting relation with the reel frame, an elongated bolt loosely arranged through the long portions of the members, a spring disposed about the projecting end of the bolt, and an adjusting element engaged on the bolt for regulating the tension of the spring and controlling the frictional engagement between the members and the shaft.

1,307,880. PERMANENT WAY OF RAILWAYS AND TRAMWAYS. JOHN ARTHUR ROBERTS, Liverpool, England, assignor to United Alkali Company Limited, Liverpool, England. Filed Sept. 13, 1918. Serial No. 253,903. 4 Claims. (Cl. 238-170.)



1. The combination with a concrete railway sleeper, of a rail chair comprising a fixed part permanently secured to the sleeper and channeled to receive the rail carrier, and an independent part fitting freely within the channel of the fixed part and constituting the rail carrier, said carrier having a foot piece adapted to underlie and support the rail and an integral side piece adapted to engage one side of the rail and to bear against one side of the channel in the fixed part, together with an independent cushioning member interposed between the foot piece of the rail carrier and the bottom of the channel in the fixed part.

1,307,881. MANUFACTURE OF A NEW COMPOUND OF ZIRCONIUM AND ITS APPLICATION IN THE PRODUCTION OF PURE ZIRCONIA. WALTER ROSENHAIN and ERNEST HARRY ROSE, Teddington, England, assignors to themselves, The Imperial Trust for the Encouragement of Scientific and Industrial Research, Westminster, London, England, and Richard Tetley Glasbrook, Teddington, England. Filed Oct. 12, 1917. Serial No. 199,471. 3 Claims. (Cl. 23-12.)

1. The manufacture of a basic zirconium sulfate by adding an alkali to an acid solution containing zirconium

sulfate until the acidity of the solution has been so far reduced that a permanent white precipitate begins to form and then allowing precipitation to continue without the further addition of alkali.

1,307,882. BASIC OXYCHLORIDE OF ZIRCONIUM AND PROCESS OF MAKING SAME. WALTER ROSENHAIN and ERNEST H. ROSE, Teddington, England, assignors to themselves, The Imperial Trust for the Encouragement of Scientific and Industrial Research, Westminster, England, and Richard Tetley Glasbrook, Teddington, England. Original application filed Oct. 12, 1917. Serial No. 199,471. Divided and this application filed Nov. 14, 1918. Serial No. 262,528. 3 Claims. (Cl. 23-12.)

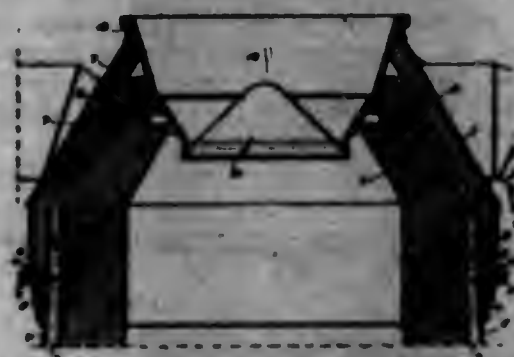
1. As a new article of manufacture a basic oxychloride of zirconium which has the chemical formula $ZrO_2Cl_2 \cdot 2H_2O$, and which dissolves in water, the solution yielding a precipitate of basic zirconium sulfate on addition of sulfuric acid.

2. A process for producing basic oxychloride of zirconium of the chemical formula $ZrO_2Cl_2 \cdot 2H_2O$, which process consists in dissolving zirconium hydroxide in a mixture of equal volumes of water and hydrochloric acid of specific gravity 1.15, concentrating the solution until, on cooling, crystals form abundantly, and re-crystallizing these crystals from hydrochloric acid of specific gravity 1.08.

1,307,883. BASIC ZIRCONIUM SULFATE. WALTER ROSENHAIN and ERNEST H. ROSE, Teddington, England, assignors to themselves, The Imperial Trust for the Encouragement of Scientific and Industrial Research, Westminster, England, and Richard Tetley Glasbrook, Teddington, England. Original application filed Oct. 12, 1917. Serial No. 199,471. Divided and this application filed Nov. 14, 1918. Serial No. 262,527. 3 Claims. (Cl. 23-12.)

1. As a new article of manufacture a basic sulfate of zirconium which has the chemical formula $5ZrO_3 \cdot 2SO_3 \cdot 14H_2O$ and is sparingly soluble in water.

1,307,884. BLAST-FURNACE TOP. HOWIN G. RUSE, Philadelphia, Pa. Filed July 16, 1918. Serial No. 245,127. 10 Claims. (Cl. 266-51.)



1. The combination with the lining and shell of a blast furnace of a dome having its cylindrical part outside the substantially cylindrical surface defined by said shell; and means for movably supporting said dome from the top of the shell.

1,307,885. RAIL-JOINT. EMIL A. RUTENHAUSEN, Aurora, Ill. Filed Nov. 9, 1918. Serial No. 120,484. 13 Claims. (Cl. 288-300.)

1. A rail joint comprising a base plate provided on its upper surface with a rail seat, marginal flanges thereon provided with grooves in their adjacent sides, wedge members adapted to be inserted between the upper side of said grooves and the upper sides of the rail bases, said wedge members comprising a first wedge member having transverse wedging surfaces and which terminates short

of the bottom of the groove which it engages, and a second wedge member comprising a longitudinal wedging surface on its lateral edge, and said base plate being provided at the bottom of the groove which receives said second wedge member with a corresponding longitudinal



wedging surface adapted to contact and co-act with the longitudinal wedging surface on said second wedge member and to force the opposite edge of the rail base and the first wedge member laterally into the groove engaged thereby, substantially as described.

1,307,886. PROCESS OF PRODUCING VARIOUSLY-COLORED DECORATIVE DISKS OR SLABS. A BRAUN SCHULZ, Budapest, Hungary, assignor of one-half to Ferdinand Herrath, Jr., Budapest, Hungary. Filed July 20, 1914. Serial No. 851,977. 5 Claims. (Cl. 18-48.8.)



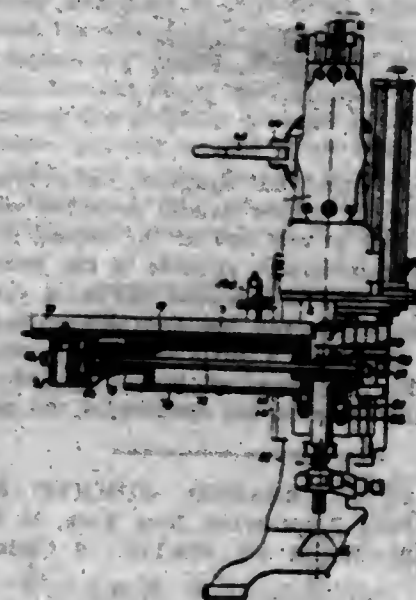
1. A process of producing decorative slabs of plastic materials, which consists in rolling together several colored plastic masses to produce differently colored plastic sticks and arranging the sticks so formed side by side around a central core made of a plastic stick until the central core is surrounded by said sticks on its whole circumference, then rolling, with a gentle pressure, the bundle so obtained until the whole is united into a substantially cylindrical body, and finally cutting said cylindrical body perpendicularly to its axis, into slabs.

1,307,887. TIMBER-TONGE. JAMES JACQUES VERMETER and ALEXANDER W. WHITE, Odessa, Wis. Filed Oct. 24, 1918. Serial No. 259,473. 1 Claim. (Cl. 57-9.)



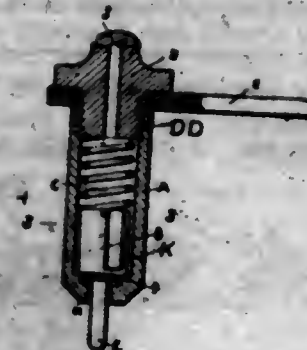
Tongs embodying a curved yoke having a central angular aperture, jaws pivoted to the ends of the yoke and having portions extending at an angle within the yoke, a stem of angular cross section sliding through said aperture and having a head within the yoke curved to fit the yoke, said head having a slot and transverse pins extending through the slot, and said portions of the jaws extending within said slot and having slots engaging said pins.

1,307,888. CAN-CLOSING MACHINE. IVAR F. WARNE, Syracuse, N. Y., assignor to Continental Can Company, Inc., Syracuse, N. Y., a Corporation of New York. Filed Aug. 18, 1915. Serial No. 46,182. 14 Claims. (Cl. 113-14.)



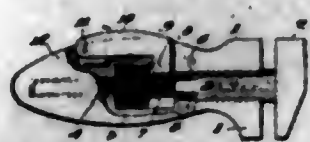
1. A can closing machine including in combination, a supporting frame, a seaming head mounted on said supporting frame to rotate in a fixed position thereon, seaming rolls carried by said seaming head, a main horizontal shaft for rotating said seaming head, a vertical shaft mounted in said frame and operated from said main shaft through a reducing gear, a fixed can end support beneath said seaming head having a tapered opening therethrough for rounding up and centering the can body, and a can end seat on its upper face, means operated by said vertical shaft for controlling the seaming rolls, means movable about the center of said vertical shaft as an axis for placing a can end on said seat, a can body support beneath the seaming head, and means operated by said vertical shaft for raising and lowering said can body support.

1,307,889. OILING DEVICE. EINAR AAGS WINHOLT, Springfield, Ill. Filed Jan. 14, 1919. Serial No. 271,124. 4 Claims. (Cl. 184-100.)



1. A device of the character described comprising a pipe, a casing detachably mounted thereon and provided with an annular seat and with a substantially star-shaped opening exposed below said seat, and a valve located within said casing and provided with an annular portion for engaging said seat; said valve being further provided with a tripping rod extending through said opening, said valve being further provided with a plurality of passages extending parallel with its axis in order to facilitate the discharge of liquid through said passages and through said opening, said passages being above the seat of said valve.

1,307,800. THUMB-NUT SPANNER. GUSTAVE BARBER, Paris, France. Filed Apr. 12, 1917. Serial No. 161,666. 2 Claims. (Cl. 81-107.)



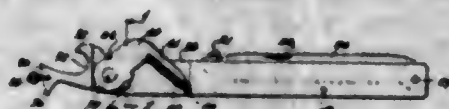
2. An improved thumb nut spanner, comprising a stationary jaw having a hollow handle provided with a recess and an opening at one end of the recess, a movable jaw having a threaded shank slidable in the movable jaw and handle, a nut on the threaded shank, a spring surrounding the shank between the nut and projections on the stationary jaw, and a pivoted and spring pressed pawl mounted in the recess of the handle and provided with a nose projecting into the opening of the handle.

1,307,801. HAND-OPERATED GUMMED-BINDING SEALER. AARON BERKOWITZ, New York, N. Y. Filed Aug. 30, 1918. Serial No. 252,112. 6 Claims. (Cl. 210-2.)



1. The combination with a main frame adapted to carry a supply of binding gummed on one surface, and means to moisten the binding as it is drawn through the frame, of a guiding member carried by the main frame serving to guide the frame along the edge of the box or package to insure the application of the binding with its longitudinal center along the edge of said corner, and means to automatically apply a printed legend along one edge of the binding strip simultaneously with the application thereof along the corner of the box or package.

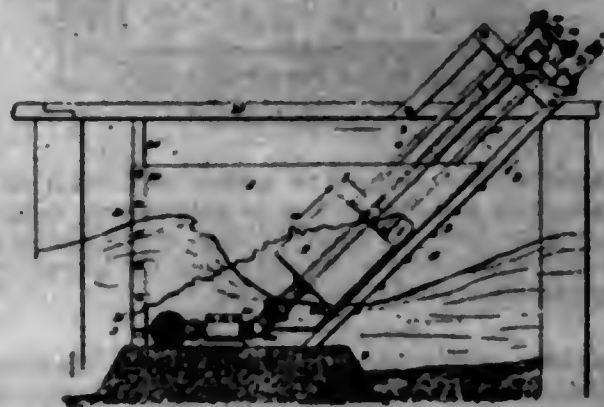
1,307,802. CAN-OPENER. MAXIM M. BRY, West Moose Jaw, Saskatchewan, Canada. Filed May 10, 1918. Serial No. 233,684. 1 Claim. (Cl. 30-3.)



In an implement of the character described, the combination with a recessed handle body and a projection on its outer extremity, of a cutter blade shank provided with opposed recesses, pivoted on said body, a blade having a beveled cutter portion formed at a right angle to said shank, a pin on said body adapted to be alternately engaged in said recesses of the shank, a coiled compression spring contained within a bore of said handle engaging with one of its ends said pin, and a fixed plate in said bore adapted to be engaged by the other end of said spring, said spring holding said pin projected for preventing rotation of the cutter shank within the recess of said body but allowing a rotation of said shank around its pivot upon the depression of said pin, said

pin adapted to engage the opposite recess in said shank after its depression under the action of said spring for holding the cutter shank rigidly extended.

1,307,803. SURF-MOTOR. JOHN E. BICKEL, Philadelphia, Pa. Filed Sept. 5, 1918. Serial No. 262,726. 5 Claims. (Cl. 230-32.)



1. A surf power mechanism, comprising a pump whose stock is supported inclined to the vertical, a seat slidable on the stock, a connection between the seat and the pump piston, and means for concentrating the inflowing wave or surf against the seat, as it is being impelled upwardly, the said means comprising a conduit, the bottom of which inclines parallel with the inclined stock and whose sides extend rearwardly beyond the seat and whose top is open, to thereby concentrate the incoming waves or surf forces against and around the seat and allow abnormal inflowing waves or surf forces to expend themselves before the seat reaches the limit of its lifted movement.

1,307,804. SPARK-PLUG. JOHN BLONSTER and JOSEPH SCHABEN, Algona, Iowa. Filed Aug. 6, 1918. Serial No. 248,967. 2 Claims. (Cl. 122-100.)



1. A spark plug having a pair of tubular air entry electrodes having their active ends confronting each other, and check valves for said electrodes.

1,307,805. PISTON. GUSTAVE EMILE CHÉREU, Paris, France. Filed Aug. 24, 1917. Serial No. 168,045. 3 Claims. (Cl. 103-63.)

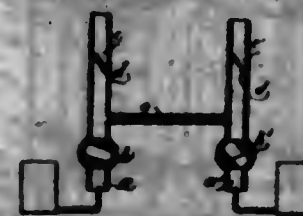
1. An internal combustion engine of the type described comprising a working cylinder having a piston to reciprocate therein and also having an annular chamber surrounding a portion thereof and forming with the latter an annular pump cylinder provided with an ingress port, a communicating port also being formed between the upper portion of said chamber and the cylinder, a piston mounted to reciprocate in said annular chamber and having a main annular groove in the upper portion

thereof continued downwardly into a second annular groove of smaller depth than the main annular groove, and an automatically operating annular valve engaging the said main annular groove and having contact with



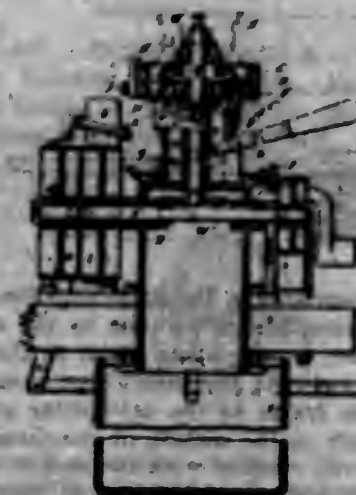
the wall of the annular chamber to control the port in the latter and communication thereof with the port between the annular chamber and the cylinder, the piston in the annular chamber also having one or more conduits opening into the main annular groove.

1,307,806. EXPLOSION-ENGINE. EMMANUEL LOUIS PAUL COLASBON, Paris, France, assignor to Henry Crochat, Paris, France. Filed Oct. 22, 1918. Serial No. 250,219. 2 Claims. (Cl. 122-52.)



1. An installation comprising either several internal combustion engines or a single engine divided into independently fuel-fed elements, in which each engine or engine element is supplied by an independent carburetor provided with a throttle which is not controlled automatically by the corresponding engine or engine element, characterized by the suction pipes of the various carburetors being connected together on the engine side of the throttle.

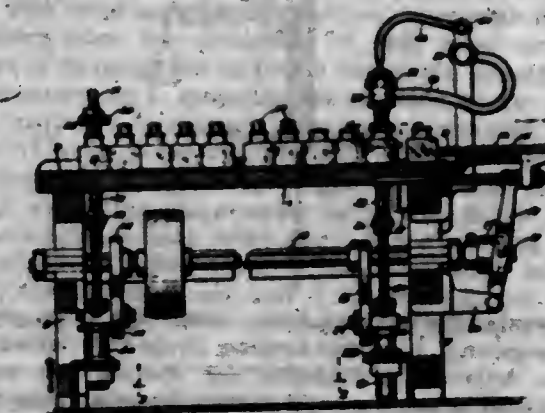
1,307,807. COUNTERSINKING-MACHINE. GEORGE V. CURTIS, Springfield, Mass., assignor to Bosch Machine Tool Company, a Corporation of Massachusetts. Filed July 24, 1917. Serial No. 162,414. 1 Claim. (Cl. 77-26.)



In a machine for countersinking holes in wheel hubs or the like, an upright hollow cylindrical supporting

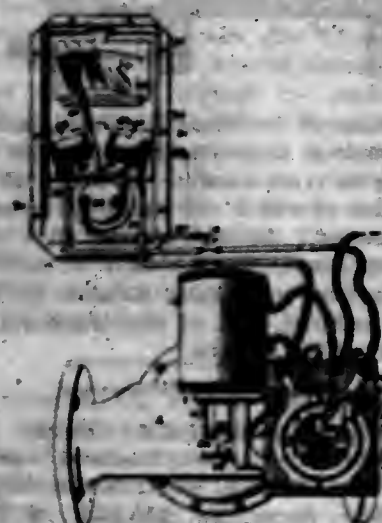
frame, a work carrier mounted for both rotary and axial movement on said supporting frame, said work carrier being formed with a slot arranged to coact with a block carried by said supporting frame whereby a rotary movement of the carrier will also cause it to move axially on the cylindrical supporting frame, a number of countersinking tools arranged in directions diverging from an axis, pistons for said tools mounted in fixed positions on the said supporting frame, a common gear for driving said pistons located above said pistons, a shaft for said gear extending downwardly through the said hollow supporting frame, gearing located below said frame for driving said shaft and a cam located within the supporting frame and slidable axially on said shaft for moving said countersinking tools into and out of engagement with the work.

1,307,808. BOTTLE FILLING AND CORKING MACHINE. LEONHARD DAUM, Brooklyn, N. Y. Filed Mar. 23, 1918. Serial No. 224,260. 2 Claims. (Cl. 236-28.)



1. A bottle-filling and corking machine comprising a trough having a side opening, means for feeding bottles through the side opening, a member mounted to slide in and out of the trough transversely of the opening, means for moving said sliding member intermittently whereby the bottles within the trough are moved intermittently, a filling device disposed above the trough in the path of the moving bottles, means for bringing the filling device into engagement with the bottles, means for corking the bottles in spaced relation to the filling means, and means for actuating said sliding member and said filling and corking means.

1,307,809. ELECTRICALLY-OPERATED VALVE. JAMES EDWARD DAVIDSON and CURTIS HOLLAND, Butte, Mont. Filed Oct. 16, 1918. Serial No. 126,435. 5 Claims. (Cl. 137-189.)



1. In a device of the character described; the combination of a valve body having a valve seat, an axially

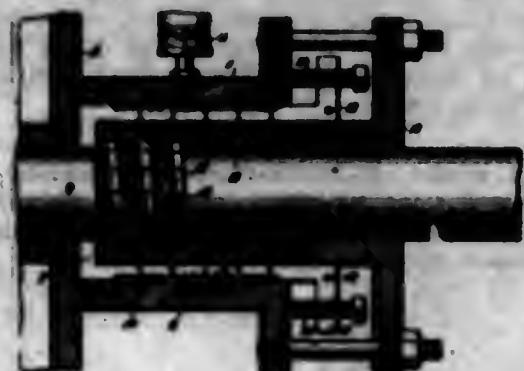
mounted gear valve on the valve seat, a shaft, a pinion on the shaft in engagement with the gear valve, a ratchet on the shaft, a driving arm mounted on the shaft adjacent to the ratchet, a pawl fulcrumed on the driving arm, a spring joined to the pawl and to the driving arm to hold the pawl in engagement with the ratchet, a link pivoted on the fulcrum pin of the pawl, a solenoid magnet having a core pivoted to the link, said core being composed of laminations, a normally open electrical circuit in series with the solenoid, a source of electrical energy in said circuit, and a switch for closing the circuit thereby attracting the core.

1,307,900. WASHER-FEEDING MACHINE. CHARLES J. De MUTH, Pittsburgh, Pa., assignor to Simon Grossman, Pittsburgh, Pa. Filed Jan. 18, 1918. Serial No. 212,445. 2 Claims. (Cl. 218-2.1.)



1. A washer-feeding machine, consisting of a gravity supply magazine, a washer-feeding chute into which said magazine delivers, a projector for moving the washer singly in said chute, an anvil carried by said chute to receive the washer, a weighted lever fulcrumed upon the magazine and having its free arm engaging said projector, and means for moving said arm of the lever to operate said projector.

1,307,901. ROD-PACKING. LOUIS J. FARLAND and LOUIS F. BONNET, Au Sable Forks, N. Y. Filed May 6, 1918. Serial No. 282,880. 3 Claims. (Cl. 296-33.)



1. In a packing of the class described, a helical packing member, a helical supporting member for said packing member having in cross section the shape of a trapezoid, the parallel sides of which are parallel to the axis of the supporting member, the shorter parallel side of said trapezoid being nearer to the axis of said supporting member, said helical supporting member having a groove on the larger parallel side of the trapezoid, and radial perforations from the groove.

1,307,902. STRESS-RECORDER. HARRY JOHN FRISDAY, Upper Tooting, London, England, assignor of one-half to Frederick Palmer, Westminster, England. Filed Oct. 14, 1918. Serial No. 358,064. 9 Claims. (Cl. 294-1.)

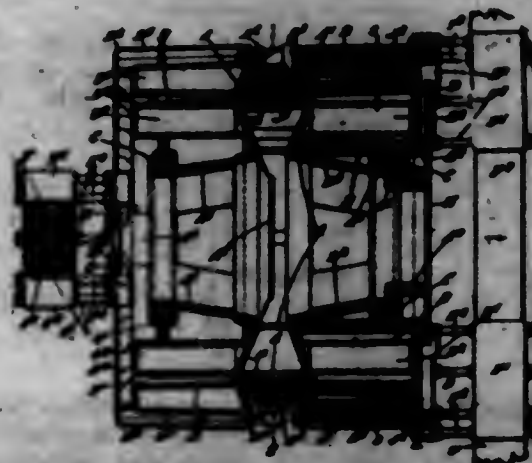
7. An instrument comprising a casing tube, means for supporting the same, a source of light arranged in the

casing tube, a projector having a slit for the passage of rays from the source of light, a movable mirror to reflect such rays, a member associated with said mirror adapted to be applied to the body tested, a screen having a slit transverse to the slit in the projector, means for passing a sensitized surface across the screen slit for the purpose



of obtaining a photographic record on the sensitized surface of the stresses in the body tested, in combination with a stationary mirror to reflect certain of the rays of the source of light to the screen slit for the purpose specified, and means for intermittently interrupting the rays reflected from the fixed mirror.

1,307,903. ROTARY ENGINE. EDWARD HENRY FRISBY, London, England. Filed Feb. 8, 1919. Serial No. 274,771. 24 Claims. (Cl. 128-6.)



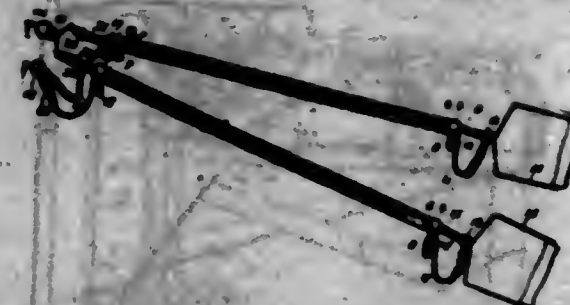
1. In a rotary engine, a station member, diametrically opposite pairs of fixed pistons on said stationary member, a rotary member for forming a casing for said stationary member, an annular chamber in said rotary member to receive said pairs of pistons, movable abutments on said rotary member, means carried by the rotary member for connecting the said abutments together and means forming part of the stationary member for engaging with and moving the said means which connect the abutments together.

1,307,904. TRACTOR. CARL GASECORY, Petaluma, Calif. Filed July 24, 1918. Serial No. 246,547. 3 Claims. (Cl. 980-9.)



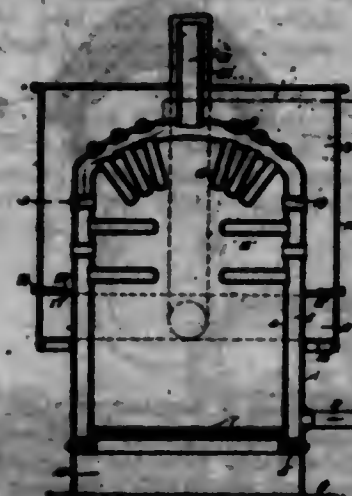
1. A tractor comprising a frame having two longitudinal sections, a caterpillar mechanism in the rear of one section of the frame, a supporting wheel in the other section of the frame opposite the caterpillar, a motor in the same section of the frame as the caterpillar and in front of the same, a shaft in the section of the frame with the supporting wheel and coupled with the motor, a transmission mechanism in rear of said shaft and operated thereby, controlling levers for the transmission mechanism, gearing between the transmission mechanism and one of the shafts of the caterpillar, and a steering wheel in the front of the frame.

1,307,905. EXERCISER. ABRAHAM A. HENDRICKSON, Westwood, N. J. Filed Feb. 20, 1919. Serial No. 278,182. 8 Claims. (Cl. 46-69.)



1. In an exerciser, a coil spring having open ends, a cord extending through the spring and out through its open ends, and means to secure the cord relatively to the terminals of the spring, the terminals of the cord extending out at the ends of the spring beyond the said means.

1,307,906. FURNACE. WILLIAM J. KENNEDY, Jersey City, N. J. Filed July 12, 1918. Serial No. 244,772. 4 Claims. (Cl. 122-105.)



1. A furnace comprising a body formed with a water chamber, means for supporting a fire in said body, a plurality of heat pipes extending through said water chamber to a point exterior of the body whereby the smoke and other burnt products of combustion may pass from the fire on the fire supporting means through said water chamber, a hood surrounding the upper part of said body into which the burnt products of combustion are discharged, a smoke pipe connected with said hood at substantially the lowest point, and a plurality of spaced dampers for regulating the draft from the hood and the smoke pipe.

1,307,907. FRENCH-WELT-KNITTING MACHINE. WALTER LARKIN, Philadelphia, Pa., assignor to H. Brinton Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 9, 1917. Serial No. 201,003. 9 Claims. (Cl. 66-22.)



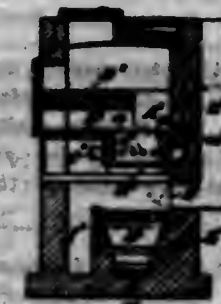
2. The method which consists in operating on two threads to knit a rib fabric; thereafter operating on the threads to knit two plain portions constituting the walls of a French welt; drawing slack in one of the threads; and immediately thereafter operating on said thread to again knit a rib fabric.

1,307,908. CAN RECEPTACLE AND OPENER. JOHN D. LAUBMAN, Lake Hopatcong, N. J. Filed Mar. 12, 1919. Serial No. 262,078. 1 Claim. (Cl. 65-61.)



A device of the character described comprising a handled receptacle adapted to receive a can, a flanged cover for said receptacle hinged thereon, a tubular member extending from the underside of said cover adjacent its point of hinging and having a sharp can penetrating end, a substantially L-shaped spout disposed within said cover and having a discharge end extending through the flange thereof at a point diametrically opposite said point of hinging and said tubular member, the other end of said spout extending downwardly below the flange of and at right angles to said cover and being diagonally cut away to provide a point adapted for penetrating engagement with the top of a can, and a bracing member extending from said cover and connected with said spout.

1,307,909. REFUSE-DESTRUCTOR FURNACE. HENRY NORMAN LEMAX, Wallasey, England. Filed Feb. 11, 1918. Serial No. 77,728. 6 Claims. (Cl. 110-8.)



1. In a refuse destructor, the combination of a main chamber, a combustion compartment within the same having substantially vertical walls and of substantially uniform horizontal area, a pit located below the combustion compartment extending beyond the main chamber and communicating with the outer atmosphere, said pit adapted to contain water to form a water seal between the inside and outside of the main chamber, and means including a movable hearth adapted normally to close the bottom of said compartment whereby clinker accumulated in the combustion compartment may be intermittently released and deposited in one mass into said pit and thereby be quenched.

1,307,910. SPARKING PLUG FOR EXPLOSION MOTORS IN GENERAL. JULIEN FRODOUARD LEBLANCQ, Billancourt, France. Filed May 2, 1918. Serial No. 232,888. 5 Claims. (Cl. 123-100.)

1. A sparking plug for explosion motors in general, characterized by a wide, thin and perforated cooling cup arranged at the upper part of the central electrode and by a wide and perforated cooling casing made of insulating

ing material surrounding the said electrode, this sparking plug comprising also a removable cap and means allow-



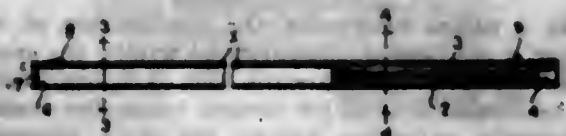
ing to separate readily the body of the plug from the cap.

1,307,911. TOOL-RETAINER. WILLIAM H. LEONARD and SULLIVAN V. JOHNSON, Denver, Colo., assignors to The Denver Rock Drill Manufacturing Company, Denver, Colo., a Corporation of Colorado. Filed May 26, 1917. Serial No. 170,977. 17 Claims. (Cl. 121-20.)



1. In apparatus of the character set forth, the combination with a tool holder, of a tool retainer bodily movable longitudinally of the tool holder, and means operating transversely of the tool holder for yieldingly resisting the bodily longitudinal movement of the tool retainer.

1,307,912. FIREARM-SIGHT. GEORGE N. LOWE, Watervliet, N. Y. Filed Nov. 5, 1918. Serial No. 261,282. 3 Claims. (Cl. 33-50.)

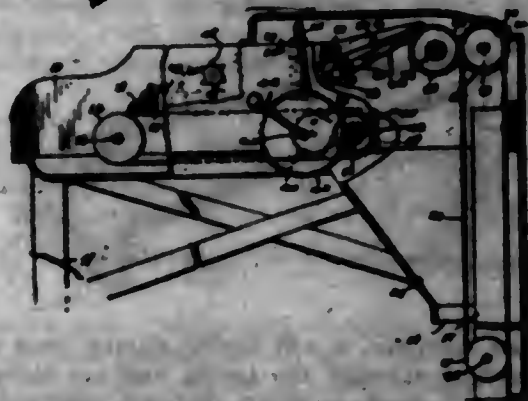


1. The combination with a firearm, of a sight tube attached thereto in parallel relation therewith and of a length approximately equal to the length of the barrel of said firearm, a core inserted removably in the rear end of said sight tube and having a central longitudinal bore of less diameter than the internal bore of said sight tube, and a forward sight in the forward end portion of said sight tube.

1,307,913. VOTING-MACHINE. DANIEL P. MCCARTHY, Paris, Ill. Filed Jan. 5, 1918. Serial No. 210,478. 4 Claims. (Cl. 238-51.)

1. In a voting machine, a supporting frame, vote registering mechanisms carried thereby, a carrier movable in said frame, pins loosely mounted in said carrier, and means for operating the carrier so as to bring the pins

thereof into engagement with the respective vote registering mechanisms for actuating the same, said means



being adapted to cause discharge of the pins from the carrier after actuation of the registering mechanisms.

1,307,914. DRAFT-YOKE FOR OXEN AND CATTLE. CAROLINA McLAUGHLIN, St. Louis, Mo. Filed July 6, 1918. Serial No. 243,645. 3 Claims. (Cl. 54-77.)



1. A yoke comprising a member of rigid material having a bowed intermediate portion and outstanding end portions, a cable slidably mounted upon the yoke, hame plates connected with the cable, a loop of rigid material connecting the hame plates together, and traces attached to the member.

1,307,915. VALVE. EMIL MALDS, Portland, Oreg. Filed Mar. 30, 1918. Serial No. 225,708. 6 Claims. (Cl. 281-48.)

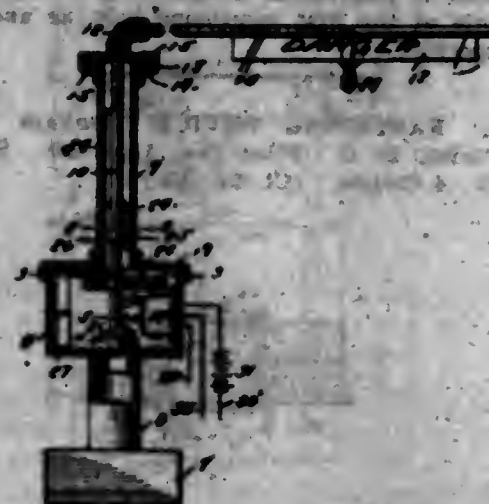


1. A valve structure including a casing having an internal chamber and inlet and outlet ports communicating therewith, a seat formed in said casing, a valve movable against said seat, a stem carried by the valve, a screw threaded rod fitted in said casing, a sleeve mounted upon said rod and rotatable within the casing, said rod being rotatable in said sleeve, means to normally retain said sleeve against rotary movement with relation to said casing, and means carried by said sleeve releasably engaging said stem for adjusting the latter together with the valve.

1,307,916. RAILROAD-CROSSING SIGNAL. JAMES HENRY MANSAN, New Hampton, Iowa. Filed Jan. 22, 1918. Serial No. 74,980. 1 Claim. (Cl. 116-22.)

1. In a railway crossing signal, a casing, a tubular post extending upwardly from the casing, an annular bearing

member at the upper end of the tubular post, a shaft within the tubular post and having bearing engagement in the casing, a tubular elbow member having one end portion threadably receiving the upper end of the shaft,



a signal arm threaded in the other end of the elbow member, a lateral flange on the first specified end of the elbow member in bearing connection with the bearing member of the post, and means within the casing for rotating the shaft in opposite directions.

1,307,917. GEARLESS TRANSMISSION AND DIFFERENTIAL MECHANISM. THOMAS E. MILLARD, BURTON H. OSTERHOUDT, and CORBY E. CHENEY, Bloomfield, Iowa. Filed Oct. 30, 1917. Serial No. 190,234. 3 Claims. (Cl. 60-53.)



1. In a hydraulic transmission casing, a revoluble driving member, a transmission casing, a rotor eccentrically mounted in said casing and being detachably coupled with the driving member, said casing having a pair of ports extending in parallelism from the chamber of the casing and offset on either side of the center of the rotor, said rotor having a transversely disposed pocket, a piston in said pocket comprising two sections, and adapted to move alternately inwardly and outwardly, and toward each other simultaneously, whereby the fluid or hydraulic means is forced out through one port and allowed to enter through the opposite port, and means for changing the course of the hydraulic means, said last named means comprising a casing below the transmission casing provided with a valve blade chamber in communication with said ports, said last named casing having a bearing, a disk in said bearing and carrying a valve blade operable in the valve blade chamber, said last named casing having a pair of passages for conveying hydraulic means into and from the valve blade chamber, and means to be manually actuated for adjusting the valve blade for changing the course of said hydraulic means.

1,307,918. PLOW. ALEXANDER MITCHELL, Pueblo, Colo. Filed July 8, 1918. Serial No. 243,834. 4 Claims. (Cl. 180-41.)

1. The combination of a main frame, an arched axle secured upon the main frame and having a spindle at one side to carry a wheel, the opposite side of the arched axle being arcuate, a socket member slidably mounted

upon the arcuate portion of the arched axle, a wheel carried by said socket member, and means for shifting



said socket member whereby the wheel carried thereby may be set at various heights.

1,307,919. WASHING-MACHINE. FRANCIS M. MULLIGAN, Roseman, Mont., assignor of one-fourth to John S. Halsey, Roseman, Mont. Filed June 14, 1918. Serial No. 240,038. 1 Claim. (Cl. 63-18.)



A washing machine comprising a supporting frame, a cylindrical casing pivotally mounted upon said frame and capable of being moved to either a horizontal or vertical position, a clothes receiving drum mounted to revolve within said cylindrical casing, mechanism for rotating the drum, said mechanism including a shaft extending transversely of the casing upon the outside thereof, a driven shaft, engaging clutches located upon the ends of the casing carried shaft and the driven shaft, whereby the shafts will be connected when the casing is in a vertical position and disconnected when in a horizontal position and means for automatically reversing the direction of rotation of the driven shaft.

1,307,920. UTILIZATION OF CEMENT-KILN DUST. RAYMOND J. NASTELL, Los Angeles, Calif., assignor to International Precipitation Company, Los Angeles, Calif., a Corporation of California. Filed Jan. 15, 1917. Serial No. 142,552. 3 Claims. (Cl. 23-22.)

2. The process of treating cement kiln dust containing potassium compound and free lime, which consists in mixing said kiln dust with water, and passing hot kiln gases containing carbon dioxide through the mixture of kiln dust and water in such manner and for sufficient time to increase the solubility of the potassium compound present, to carbonate any free lime present and to evaporate the water by the heat of said kiln gases.

1,307,921. DIVING-ARMOR. ERNEST NIEHOFF, Brooklyn, N. Y. Filed June 10, 1918. Serial No. 239,195. Renewed Mar. 31, 1919. Serial No. 284,177. 9 Claims. (Cl. 61-30.)



1. A diving armor comprising a jointed metallic suit, a water-proof flexible suit inclosing it, a helmet project-

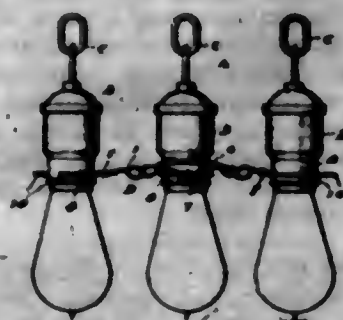
ing from the metal suit through the flexible suit, and a flexible element between the two suits and having anti-friction means disposed around the joints of the metal suit.

1,307,922. CUE TIP AND FERRULE. ALVIN O. OLAPSON, Scooby, Mont., assignor of one-half to George A. Brockway, Scooby, Mont. Filed Aug. 10, 1918. Serial No. 249,343. 2 Claims. (Cl. 46-9.)



1. A cue tip comprising a ferrule secured upon the end of a cue and provided at its outer end with a rectangular recess, a tip member formed of two sections disposed upon the outer end of said ferrule, a spring member extending from said tip member and frictionally engageable within said rectangular recess, said spring member having its ends extending through one section of said tip member and extending divergently partially through said other section.

1,307,923. SPACER FOR PENDANT ELECTRIC LIGHTS. ALBERT POWELL, New Britain, Conn. Filed Oct. 29, 1918. Serial No. 260,120. 3 Claims. (Cl. 240-78.)



1. In an electric lighting fixture, the combination with a plurality of flexibly suspended sockets, of a spacing member comprising a plurality of arms having their outer ends formed as resilient clamping members detachably engageable with said sockets for holding said sockets in spaced relation.

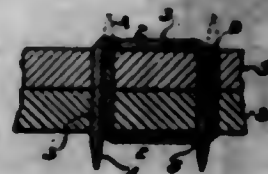
1,307,924. NUT-LOCK. ALONZO V. POWELL, Bowling Green, Ohio. Filed July 2, 1918. Serial No. 243,070. 4 Claims. (Cl. 181-82.)



4. In a device of the class described, the combination with a rail joint, bolts extending through the joint, the heads of the bolts being arranged alternately in relation to each other, the shanks of the bolts adjacent to the heads thereof being formed elliptical in cross section, a relatively thick washer on the bolts, nuts turned on the ends of the bolts, a plate having a slot therein of greater width than the washer on the bolts and heads so that the same can readily slide on the washer, one end of the

plate being provided with a pair of spaced arms to engage the nut of the bolt adjacent to the first mentioned bolt, a radially extending tongue on the washer, an inwardly extending recess formed in the upper wall of the slot adapted to receive the tongue to prevent movement of the plate of the first mentioned bolt, as and for the purpose specified.

1,307,925. FASTENING DEVICE. DENNIS QUINLAN, Blue Plains, D. C. Filed Jan. 15, 1919. Serial No. 271,310. 4 Claims. (Cl. 24-32.)



2. A claspure consisting of a pair of duplicate and interchangeable wire staples each having a straight cross bar which is perforated on an axis parallel to the legs of the staple, the perforation having one side in the plane of the inside surface of one of the legs so that said surface will act as a guide for a complementary unit of similar character when the units are being assembled.

1,307,926. RECEPTACLE. RICHARD E. REYNOLDS, Bristol, Tenn., assignor to Reynolds Corporation, Incorporated, Bristol, Tenn., a Corporation of Tennessee. Filed Mar. 2, 1918. Serial No. 220,034. 5 Claims. (Cl. 229-12.)

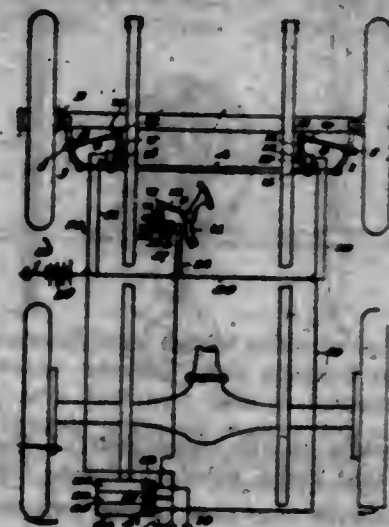


1. A receptacle comprising an end piece or disk having a plurality of connected peripheral exterior stepped seats for the ends of telescopic shells, the outer shell being clamped by a band to its seat, the seats having cylindrical portions of different diameter to fit respective shell members.

1,307,927. CIRCUIT-CLOSER FOR AUTOMOBILE SIGNALS. GRANT C. ROBINSON, Detroit, Mich. Filed Nov. 18, 1916. Serial No. 181,534. 1 Claim. (Cl. 178-306.)

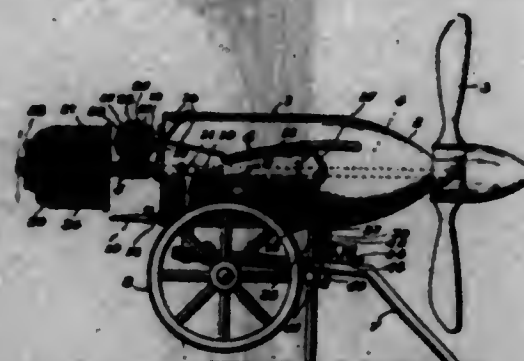
A circuit closer for the electrical signal system for automobiles comprising a switch box, a pair of contacts in said box connected with the circuit, a push button in said box engaging one of said contacts, a pair of ears on the box, a link pivoted to the ears and having a finger for

operating the button, a sleeve pivotally connected to the link, a rod adjustably connected with said sleeve, a U



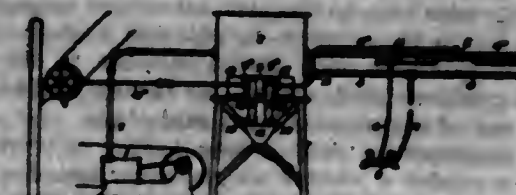
shaped clip pivoted to the rod and means for adjustably securing the clip to a movable part of the automobile.

1,307,928. AERIAL TORPEDO. GIUSEPPE ROSSI, Natick, R. I. Filed Nov. 9, 1918. Serial No. 261,820. 5 Claims. (Cl. 244-1.)



1. In an aerial torpedo, the combination of a supporting base, a torpedo body supported thereby, a tractor propeller at the forward extremity of said body, a propeller shaft extending centrally and longitudinally through said body, supporting wings projecting from said body, wing destroying bombs located adjacent to said wings, a time fuse for said bombs, an explosive powder actuated motor on the rear end of said propeller shaft, and means controlled by said motor for igniting said time fuse after a predetermined lapse of time.

1,307,929. MILKING-MACHINE. RICHARD NORTHEY SAUNDERS, Auckland, New Zealand. Filed Apr. 15, 1916. Serial No. 91,466. 4 Claims. (Cl. 81-73.)

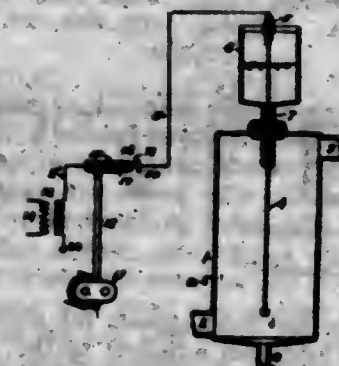


1. In machine milking apparatus, means for releasing the milk from the vacuum of the plant, comprising a milk receiver; a vertical valve face with a single port therein, and a slot on each side of said port, secured to the side of said milk receiver at the bottom thereof; a vertical valve working on said valve face; two inclined milk chambers mounted on said valve, and adapted to be placed separately in communication with the port in the valve face.

2. In machine milking apparatus, a test cup, consisting of a casing comprising two telescoping portions, the outside periphery of the inner portion being provided with a series of grooves which are adapted to receive a rubber ring for the purpose of keeping the casing extended.

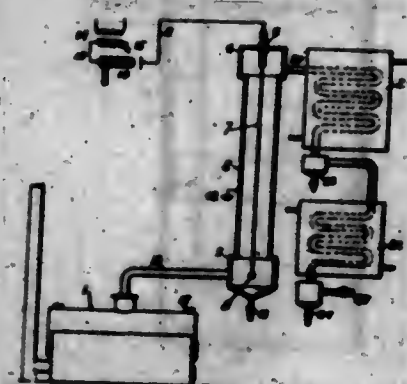
4. In machine milking apparatus, a test cup claw fitted at both ends with an arcuate tap, the sides of the plug of which are parallel, and adapted to control the flow of the milk through the claw.

1,307,930. PROCESS AND APPARATUS FOR ELECTRICALLY ACCELERATING CHEMICAL REACTIONS. WALTER AUGUST SCHMIDT and EDSON RAY WOLCOTT, Los Angeles, Calif., assignors to International Precipitation Company, Los Angeles, Calif., a Corporation of California. Filed May 24, 1915. Serial No. 230,037. 12 Claims. (Cl. 204-31.)



1. The process of accelerating chemical changes in substances which consists in subjecting the substance to the action of an electric discharge produced by sudden impulses, each of such high potential that it would, if continued, break down the dielectric resistance of the substance, but such impulses being of such short duration as to prevent such break down.

1,307,931. PROCESS OF TREATING PETROLEUM. WALTER AUGUST SCHMIDT and EDSON RAY WOLCOTT, Los Angeles, Calif., assignors to International Precipitation Company, Los Angeles, Calif., a Corporation of California. Original application filed May 24, 1915, Serial No. 230,037. Divided and this application filed Mar. 27, 1917. Serial No. 157,812. 5 Claims. (Cl. 204-31.)



1. The process which consists in heating a liquid hydrocarbon to produce hydrocarbon vapor, subjecting such vapor to the action of corona discharge to crack the hydrocarbon, and condensing the resulting vapors to produce liquid products different from the original hydrocarbon.

1,307,932. TURNSTILE. AUGUST L. SCHULTZ, Cleveland, Ohio. Filed Apr. 1, 1916. Serial No. 92,198. 14 Claims. (Cl. 194-61.)

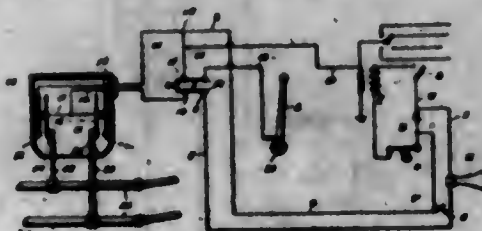
1. In combination, is a turn stile, a frame, a pressure plate rotatable thereon, spaced arms extending horizontally therefrom, a coin holder provided with spaced

coin receiving openings and rotatable in said frame, a locking device for said coin holder, said pressure plate engaging and operating to depress the coin in said coin



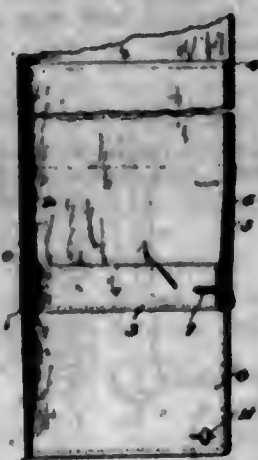
holder and thereby to release said locking device from said coin holder, and means for rotating said coin holder when released.

1,307,933. AUTOMOBILE-THEFT SIGNAL. ANTONIO J. SILVA, Santa Maria, Calif. Filed Aug. 31, 1917. Serial No. 180,191. 1 Claim. (Cl. 200-27.)



A circuit closer for theft signals for automobiles, comprising a casing arranged adjacent to the gear shifting rods of the automobile, spaced plates arranged therein and each connected to the same circuit conductor, plates pivotally mounted in spaced relation to the first-mentioned plates and each connected to the other circuit conductor, gear shifting rods and a member connected to each gear shifting rod and arranged adjacent one of the pivoted plates beyond the pivot thereof, whereby in the movement of either rod a plate is moved to complete a circuit.

1,307,934. REVERSIBLE CUFF. FREDERICK STANDISH, Shelton, Conn. Filed Jan. 17, 1919. Serial No. 271,743. 1 Claim. (Cl. 2-79.)

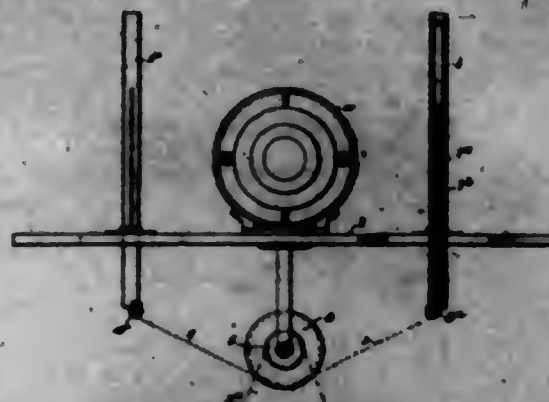


The combination with a shirt sleeve, of an apron secured at its upper end to the inside of the shirt sleeve, and having its lower end free of the shirt sleeve, a cuff having one-half housed between the apron and the shirt sleeve, and means for attaching the cuff to the shirt sleeve.

1,307,935. MAGNETIC COMPASS. SIDNEY GEORGE STARLING, Forest Gate, and ARTHUR JOSEPH HUGHES, London, England, assignors to Henry Hughes and Son Ltd., London, England, a Corporation of England. Filed Jan. 25, 1917. Serial No. 144,521. 3 Claims. (Cl. 33-225.)

1. The herein described mode of correcting semi-circular errors in a magnetic compass due to lateral turning

movements, which consists in producing a magnetic field, the component of which in the plane of the card is in a



direction opposite to the component of the earth's vertical field in that plane, substantially as described.

1,307,936. WINDOW-STRAP CLUTCH. ERNEST J. STROMSTRAN, Detroit, Mich. Filed July 25, 1917. Serial No. 182,701. Renewed May 10, 1919. Serial No. 296,167. 4 Claims. (Cl. 21-125.)



1. In combination with a door having a vertical slot therein to receive a slidable window and a downwardly inclined slot below the top of the door to communicate with said vertical slot, of a strap connected to said window and passing over the top of said door, then down the side of the door and through the inclined slot, and means arranged between the inclined slot and the top of the door for engagement with the strap to retain said window in adjusted position.

2. In combination with a door having a vertical slot therein to receive a slidable window and a transverse slot to communicate with said vertical slot, of a strap connected to said window and passing over the top of said door and to the transverse slot, a casing secured to the door between the transverse slot and the top of the door, a normally downwardly inclined clutch member pivoted therein and having its lower end engaging the strap to retain the window in adjusted position, spring means for retaining said clutch member in its normal inclined position, and means for swinging the clutch member out of engagement with said strap.

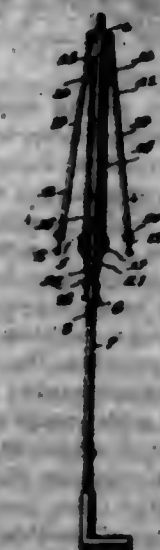
4. In combination with a door having a vertical slot therein to receive a window and a transverse slot to communicate with said vertical slot, of a strap connected to said window and passing over the top of said door and through the transverse slot, a casing secured to said door between the transverse slot and the top of the door, a normally downwardly inclined clutch member pivoted therein and having its lower end engaging the strap to retain the window in adjusted position, spring means for retaining said clutch member in its normal inclined position, a push button slidably mounted in said casing, and a spring normally retaining said push button in engagement with the clutch member.

1,307,937. INTERCHANGEABLE-TOOL HOLDER. WILLIAM F. BRAUER, Chicago, Ill. Filed June 16, 1917. Serial No. 175,950. 1 Claim. (Cl. 279-29.)



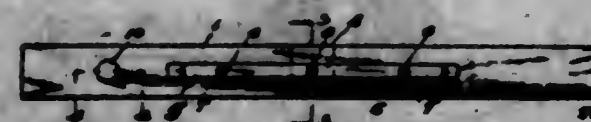
An interchangeable tool holder comprising a socket portion having means whereby it is adapted to receive the shank portion of a tool and hold it against rotation, a plurality of tiltable gripping means adapted when in operative position to prevent longitudinal movement of the tool shank, and a collar adapted when actuated to restore said gripping means to permit withdrawal of said tool, said collar having an annular holder-encircling extension whereby it may be effectively manipulated.

1,307,938. FOLDABLE UMBRELLA. FREDERICK E. STRICKLAND, Alexandria, La. Filed Oct. 13, 1916. Serial No. 125,468. 1 Claim. (Cl. 135-23.)



A foldable umbrella comprising a shaft, a runner sleeve tapered longitudinally and slidably mounted on the shaft, a frame pivotally connected at one end to the shaft, said frame comprising a pair of telescopic upper and lower rib sections, the lowermost rib section of the umbrella being provided with spaced lugs, the uppermost rib section being provided with a stop and with longitudinal flanges engaged by the edges of the lower section, stretchers connected at one end between the lugs of the lowermost rib section and at their opposite ends to the runner sleeve, and a cup-shaped ferrule having a tapered bore frictionally engaging with the runner sleeve and adjustably mounted thereon for effecting the opening and closing movements of the ribs, the said cup-shaped ferrule adapted when the rib sections are telescoped to be adjusted above the pivotal point of connection of the stretchers with said runner sleeve, substantially as and for the purposes specified.

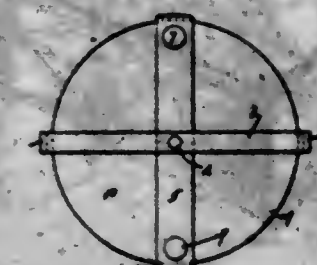
1,307,939. PLASTERER'S DABBY. ALFRED TAGGART, Baltimore, Md. Filed Aug. 21, 1918. Serial No. 250,835. 1 Claim. (Cl. 72-136.)



A dabby, comprising two sections, the adjacent ends of which are reduced in size, a shell within which said

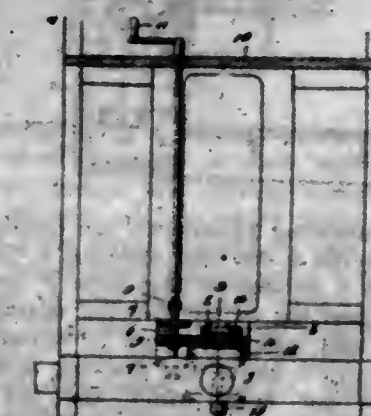
reduced portions telescope, a locking block fastened to said sections and abridging the meeting ends thereof and said shell, a bolt passing through registering apertures in the shell and engaging said block, a nut engaging said bolt and countersunk in a recess in the block.

1,307,940. CAN OPENER AND SEALER. ROBERT G. THOMPSON, Seattle, Wash. Filed Jan. 11, 1917. Serial No. 141,730. 1 Claim. (Cl. 220-51.)



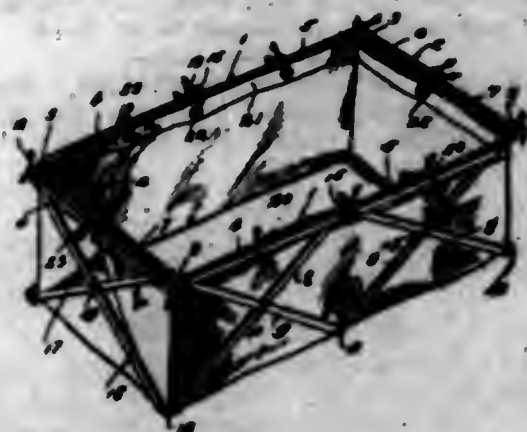
In a removably attachable can opener and sealer the combination of a clamp member formed with a slightly depressed center, a flat spring member pivotally and centrally secured to the lower side of said clamp, semi-circularly curved outstanding extensions extending downwardly at either end of said clamp, whereby when the clamp member is secured to a can top the curved portion of the extensions will clear and extend considerably beyond the rim of the can and when not in place on a can will permit the spring member of the can opener to swing to a position directly beneath the said clamp member, downwardly extending piercing points mounted on either end of the flat spring member and extending above the upper side of the said flat spring members to the level of the uppermost portion of the outer ends of the said clamp, whereby when the piercing points are forced through the top of the can the tops of the said piercing points and the outer ends of the clamp will form four level supporting points upon which another can may be placed.

1,307,941. ENGINE-STARTER. HARRY M. TOWNSEND, Minatare, Nebr. Filed May 4, 1918. Serial No. 282,594. 2 Claims. (Cl. 185-39.)



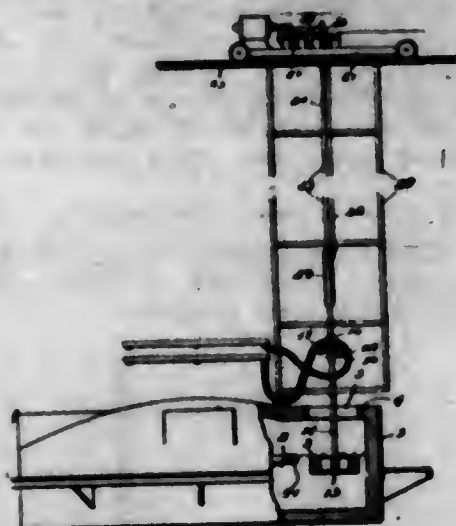
1. The combination with an engine shaft, of a ratchet wheel fast thereon, a starting shaft located in longitudinal alignment with said engine shaft, an energy storing spring having one end secured to a fixed point and the other extremity secured to said starting shaft, a gear on said starting shaft, a pawl carried by said gear and shiftable into and out of engagement with said ratchet wheel, a countershaft substantially parallel to the engine shaft and slidable longitudinally, a gear fast on said countershaft and adapted to mesh with the gear on the starting shaft, said gear on the countershaft being slidable therewith into and out of mesh with the gear on the starting shaft, and means for detachably holding said pawl out of engagement with the ratchet wheel to prevent the spring from unwinding, the pawl being released from said means by movement of the gear by which the pawl is carried.

1,307,942. FOLDABLE BATH-TUB. EDWARD VOIGT, St. Louis, Mo. Filed July 31, 1918. Serial No. 347,821. 3 Claims. (Cl. 4-27.)



1. A collapsible bath tub comprising a frame composed of two sets of L-shaped corner members for the upper and lower corners of the tub, sectional end and side bars pivoted to the arms of the upper corner members, lazy tong structures forming side and end members and connecting the upper and lower corner members, means for holding said structures in open operative position, and a foldable flexible container supported by said frame.

1,307,943. GLASS-DRAWING APPARATUS. WILLIAM WESTBURY, Okmulgee, Okla. Filed Oct. 5, 1917. Serial No. 194,495. 2 Claims. (Cl. 46-17.)

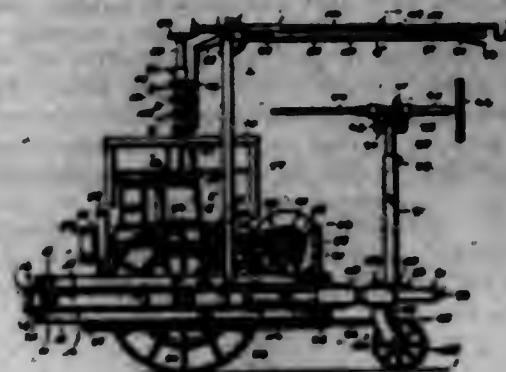


1. In a glass drawing apparatus, the combination of a glass furnace having a drawing opening, a closed bottom pot tiltable upon a horizontal axis from a normally horizontal drawing position to an inverted draining position and vice versa, and adapted, when in drawing position, to occupy and project above the drawing opening, and a support for the pot upon which the pot is tiltable mounted, said support being movable vertically for bodily raising and lowering the pot without reversal, whereby the pot may be bodily lowered and submerged into the body of glass in the furnace to take up a charge of glass without tilting the same for a dipping action, and whereby the pot may also be tilted at a level out of the plane of the drawing opening for a draining action.

1,307,944. TRACTION-ENGINE. JAMES A. WATSON, Marion, Ind. Filed Dec. 14, 1917. Serial No. 307,167. 6 Claims. (Cl. 180-17.)

3. In a traction engine, a wheel supported main frame, a circular frame surrounding the main frame and carried thereby, means whereby the main frame may be axially rotated within the circular frame, a motor carried by the main frame and having a driven shaft, a countershaft having clutch controlled gearing for transmitting motion

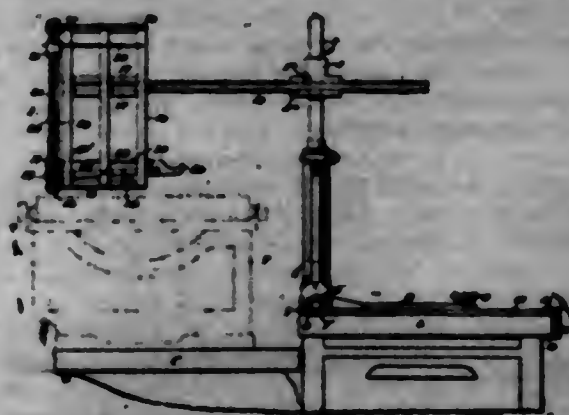
to the traction wheels supporting the main frame and a clutch controlled reversing gear, means including a friction clutch for transmitting motion from the motor shaft to the countershaft, shipping levers for actuating the traction clutch and clutches controlling the reversing gear and the means for transmitting motion to the traction wheels, springs whereby each of said shipping levers will be actuated in one direction and means for actuating each of said shipping levers against its actuating spring, said means including a post rising from the main frame, collars fitted for slidable movement on said post, suitably guided flexible connecting means between said collars and the respective clutch levers, and means for moving the collars and for controlling the movement and adjustment thereof.



5. In a traction engine of the class described, a steering gear including a steering chain, a sprocket wheel over which said chain is trained, a vertically disposed revolvable member carrying said sprocket wheel, telescoping extension members, one of which carries a beveled gear and another of which carries a fork, a tubular member revolvable in the fork and carrying a beveled gear meshing with the first-mentioned beveled gear, an extension member slidable in the tubular member and having a hand wheel, and means for securing the telescoping members in position at various adjustments; in combination with an adjustably supported slide carrying the revolvable member on which the sprocket wheel is secured, and means for adjusting the slide to tighten the steering chain.

6. In a traction engine, the combination of a main frame having a plurality of vertically-disposed anti-friction members arranged in a horizontal plane, wheels supporting said main frame, means for propelling the main frame, and a circular frame comprising upper and lower spaced members between which the vertical anti-friction members of the main frame are received and guided, and horizontal contact wheels carried by the main frame and constantly abutting on the inner surfaces of the circular frame members and having circumferential flanges extending between said members.

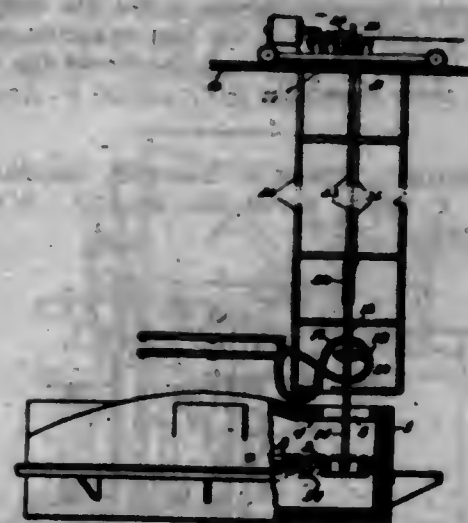
1,307,945. COPY-HOLDER. HERMAN L. WELCH, El Centro, Calif. Filed June 21, 1917. Serial No. 176,199. 7 Claims. (Cl. 45-80.)



1. A copy holder, adapted for attachment to a desk, comprising an upright, a copy carrier attached thereto,

a base for the upright having rests, one of which is longitudinally adjustable in said base and adapted to be arranged parallel along one edge of the desk and the other of which is adjustable and adapted to extend transversely thereto to the side of the desk, and means for embracing the transverse rest to the edge of the desk and prevent tilting.

1,307,946. PROCESS FOR DRAWING GLASS CYLINDERS. WILLIAM WESTBURY, Okmulgee, Okla. Filed Oct. 5, 1917. Serial No. 194,497. 2 Claims. (Cl. 46-53.1.)



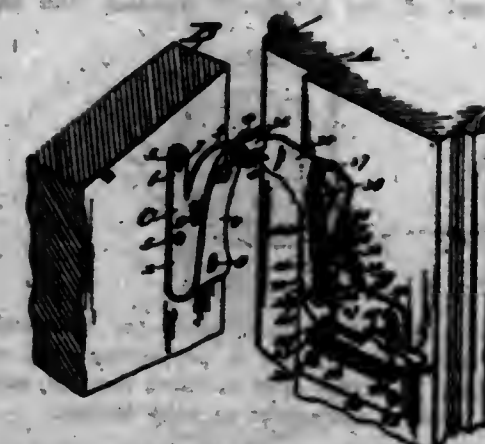
1. The process of drawing glass cylinders through the instrumentality of a glass melting furnace having a drawing opening, and a closed bottom pot tiltable upon a horizontal axis from a normal horizontal drawing position to an inverted draining position, and vice versa, which consists in lowering the pot in a direct vertical path and while in drawing position until submerged in the body of molten glass in the furnace, and so as to allow the glass to flow into the pot cavity, then raising the pot in a direct vertical path until it occupies the drawing opening, with its upper surface projecting slightly above the level of said opening, drawing the cylinder from the charge of glass in the pot, then moving the pot to a different horizontal level clear of the drawing opening, then tilting the pot to dispose the said pot chamber in an inverted position, and disposing the pot while in such position at a proper level to expose the aftermath in said pot chamber to the heat of the furnace for the melting of the aftermath and its drainage back into the furnace.

1,307,947. DUST AND VALVE CAP. RALPH O. WILLIAMS, Vicksburg, Mich. Filed Dec. 8, 1918. Serial No. 365,547. 1 Claim. (Cl. 153-12.)



A device of the class described comprising a rubber cap having a perforated partition adjacent its closed end forming an air chamber and means for securing the cap to the rim with the end of the stem in said partition.

1,307,948. DOOR-CHECK. EDWARD M. WOODWORTH, Detroit, Mich. Filed Nov. 2, 1917. Serial No. 190,923. 4 Claims. (Cl. 16-44.)



4. A device of the kind set forth comprising a door member having two resilient arms in spaced relation to each other, a jamb member composed of a base plate, an upstanding arm yieldingly mounted in an upright position on the base plate, a lever swingingly supported at the upper end of the arm, a roller carried at the free end of the lever, and a spring tensioned between the lever and the arm, whereby the lever is held in either of two positions with respect to the arm to permit the roller to enter between the two resilient arms of the door member and engage the door member at the bottom thereof.

1,307,949. MEDICINE-CABINET. HARRY GEORGE ALBACH, Brooklyn, N. Y. Filed Dec. 21, 1915. Serial No. 63,078. 1 Claim. (Cl. 211-7.)



A cabinet including a casing having a top, sides and a bottom, a shelf mounted in said casing for forming a compartment therein and having downwardly extending flanges at its ends of less width than the sides of said casing, trimming strips secured to said sides and having their inner edges extending inwardly thereof, angle strips also secured to said sides and interposed between said flanges and trimming strips and forming guide grooves in conjunction with the latter, a door mounted in said guide grooves, shouldered strips also secured to said sides above said angle strips, shelves adjustably mounted on the shoulders of the last named strips, and a door hinged to one of said trimming strips for closing said casing.

1,307,950. AUTOMATIC DRAFT-REGULATOR. THOMAS E. ARNOLD, Sandy, Utah, assignor of one-third to Walter W. Moore and one-third to Albert L. Anderberg, Salt Lake City, Utah. Filed Dec. 27, 1918. Serial No. 366,569. 3 Claims. (Cl. 236-2.)

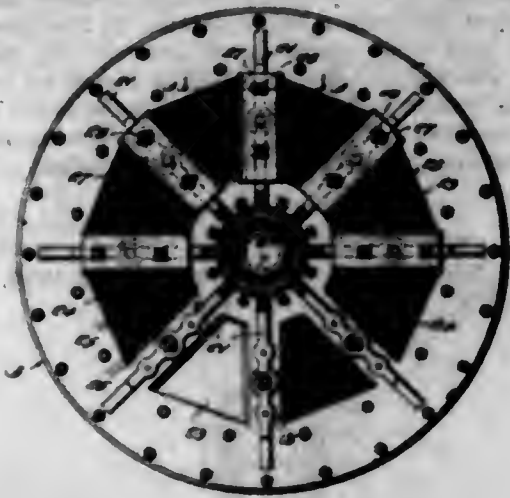
1. In an automatic draft regulator, a plate having means for securing it to a stove pipe and provided with an opening, an arched cowl inclining downwardly and outwardly from the upper end and sides of said opening, said cowl having an open lower end inclining downwardly to said plate and terminating at the lower end of said opening, the portion of the plate directly below said opening inclining upwardly and inwardly and forming the lower end wall of said opening, a flange extending in-

wardly from said open lower end of said arched cowl, a damper within said cowl and normally contacting with the inner side of said flange, a rock shaft parallel with said lower end of the aforesaid opening, and carrying



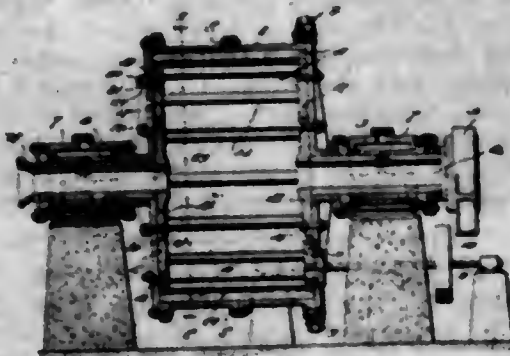
said damper, a weight on said shaft for controlling the opening of said damper, and a projecting stop on said damper adapted to strike said inclined part of said plate to limit the opening movement of said damper.

1,307,951. BALL-MILL. JOHN R. BALL, Durango, Colo. Filed Sept. 5, 1918. Serial No. 252,743. 2 Claims. (Cl. 83-9.)



1. In a screen, the combination with a cylinder having radial reinforcing ribs on the outer side of one of its end walls and discharge openings between said ribs; of screens in said openings, radially disposed channel bars whose side flanges straddle said ribs and bear against said screens to hold them in place, and means for securing said bars to said cylinder end.

1,307,952. BALL-MILL LINER. JOHN R. BALL, Durango, Colo. Filed Sept. 10, 1918. Serial No. 254,783. 2 Claims. (Cl. 83-9.)



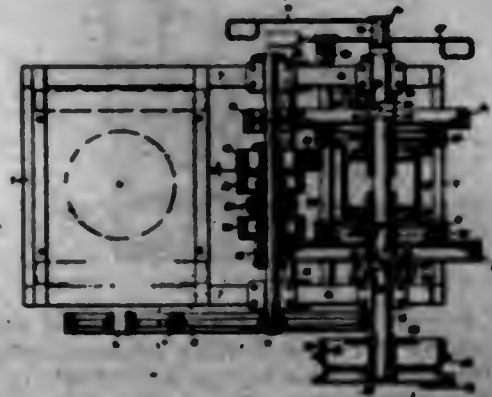
1. In a ball mill, the combination with a rotary cylinder having a grinding chamber therein; of an internally ribbed lining lying flat against and unsecured to the peripheral wall of said chamber, other linings for the ends of said chamber lying flat against said ends and having peripheral notches receiving the ribs of said wall lining to prevent circumferential creeping of the latter, and means securing said end linings to the ends of said chamber, said end linings being the sole securing means for said ribbed wall lining.

1,307,953. KNIFE-SHARPENER. EUGENE T. BLANCHARD, New Orleans, La. Filed July 18, 1918. Serial No. 264,742. 1 Claim. (Cl. 16-64.)



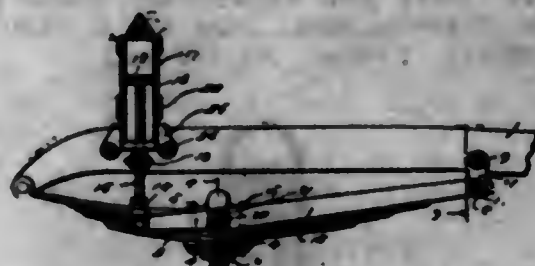
A device of the class described comprising a pair of blocks hinged together and having recesses at the upper parts of the meeting faces, blades in said recesses having their ends bent at right angles, said ends at one end of the block having recesses therein, a flat file carried by each blade, the small ends of the files engaging said recesses, and a bolt passing through the blocks for adjustably securing them together.

1,307,954. HOIST. CYRUS S. BOWMAN, Omaha, Nebr. Filed May 7, 1918. Serial No. 233,173. 6 Claims. (Cl. 284-185.)



1. In a hoisting apparatus, a rotary drum shaft, a rotary drum loose on the said shaft, driving members located at opposite sides of the drum and provided with means for engaging the same to rotate the said drum, one of the driving members being slidably interlocked with the drum shaft, a power shaft, a gear fixed to the power shaft and meshing with the other driving member for rotating the same in a forward direction, and direct and indirect gearing having means for connecting the slidably interlocked driving member with the power shaft for rotating the same in either direction.

1,307,955. SHOCK-ABSORBER. LOUIS C. BRAUER and JULIUS H. BRAUER, Hobart, Ind. Filed June 10, 1918. Serial No. 240,784. 4 Claims. (Cl. 267-2.)



2. In combination, a chassis, a spring pivoted at its ends to the chassis, a lever pivoted at one end to one end of the spring, a retarding device pivoted to the chassis and to the other end of the lever, and a crank pivoted to the spring and to the lever intermediate the ends thereof.

1,307,956. ADJUSTABLE CORN-HUSKING TABLE. WILLIAM G. BUDLEY, Mercer, Pa. Filed Jan. 30, 1918. Serial No. 272,977. 2 Claims. (Cl. 120-5.)

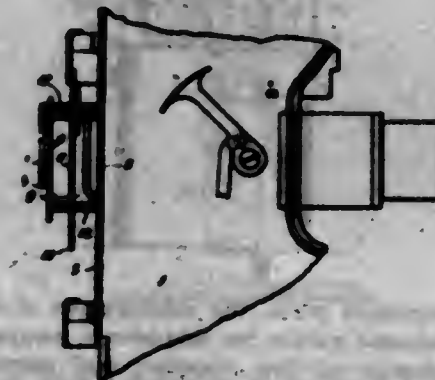
1. In a corn husking table, a platform supported in spaced relation to the ground and including spaced bars, a frame slidably supported by said bars and movable to

across the same, with the upper and lower faces of the bars and frame substantially in the same horizontal plane,



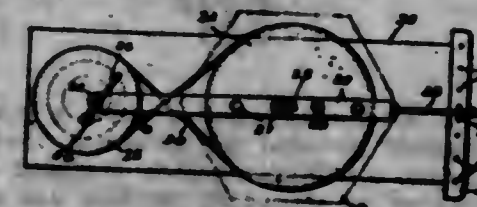
and a seat also slidably fitting the side bars to move along the platform in rear of the frame whereby to be maintained in close proximity thereto at all times.

1,307,957. MOVING-PICTURE MACHINE. JAMES A. CAMMON, Brooklyn, N. Y. Filed Jan. 3, 1918. Serial No. 69,781. Renewed Nov. 9, 1918. Serial No. 261,834. 3 Claims. (Cl. 88-17.)



1. The combination with the casing of a moving picture machine, of a fire shield spaced a distance from said casing to provide a ventilating space between the shield and the casing, and a radiating shield interposed in said ventilating space, the said shields and casing having openings in alignment for the passage of a beam of light.

1,307,958. DRAWING INSTRUMENT. OSCAR E. CHAMBER, Los Angeles, Calif. Filed Oct. 29, 1918. Serial No. 260,161. 2 Claims. (Cl. 33-37.)



1. In a device of the class described, a base, a rotatable table mounted thereon, a pulley mounted at one side of the table, a belt connecting the table with the pulley, a pencil guiding bar provided with apertures, a crank element connected with the pulley and operatively connected with the bar, an adjustable device for mounting the opposite end of the bar and comprising an element provided with a series of apertures extending in one direction and a series of apertures extending at an angle therewith, a pin for engaging the apertures of the first series, a pin for engaging the apertures of the second series, the pin first named carrying a guiding element, means passing through the guiding element for controlling the movement of the pencil guiding bar and a resilient device passing around said means and retained by the second named pin, in an adjusted position corresponding with the location of the pin first named.

1,307,959. BOMPKER. AMOS F. CHASE, Lynn, Mass. Filed Apr. 7, 1918. Serial No. 268,004. 2 Claims. (Cl. 9-144.)

1. A bumper formed principally of a single length of material having a neck opening cut near one end, said

end depending from said opening and forming the upper half of the garment back, the remainder of said length forming the complete garment front, having notches to receive the legs, and extending upwardly from these



notches to form the lower half of the garment back, the edges of the front and back being stitched together from said notches to points below the shoulders, leaving armholes; the width of said lower half of the back being greater than said upper half and having a draw-string.

1,307,960. FISHING-REEL ATTACHMENT. GEORGE LAUER CURTIS, New York, N. Y. Filed Aug. 13, 1918. Serial No. 249,712. 1 Claim. (Cl. 74-32.)



In a fishing reel, a pivotal bar mounted upon one end thereof and having oppositely disposed flanges upon its edges near one end, a portion of the bar intermediate said flanges being free and resilient, a handle pivoted to said flanges and having a flat end bearing against the resilient portion of the bar, and designed to be held by the latter when the handle is turned between said flanges.

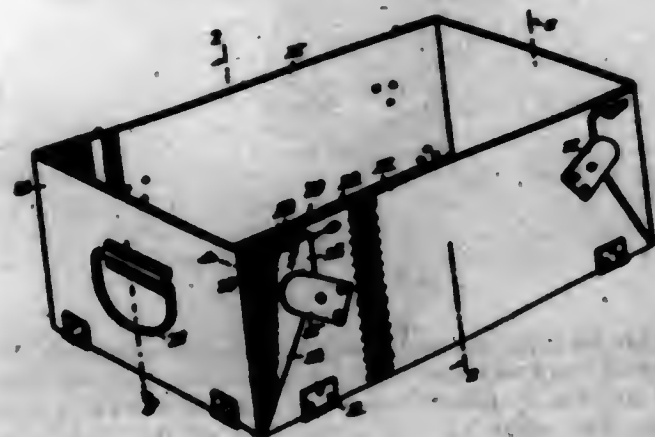
1,307,961. DRIVE CONNECTION FOR DIRIGIBLE VE-
HICLE-WHEELS. EMIL E. DAHLGREN, Clintonville,
Wis. Filed Apr. 24, 1918. Serial No. 280,473. 2
Claims. (Cl. 74-108.)



1. A wheel mounting comprising a pair of steering knuckle heads, a truncated hollow spherical enlargement on one of said heads, the other head having a spherical cavity receiving said spherical enlargement and forming therewith a coupling chamber, bearing lugs on the first specified knuckle head outwardly of said spherical enlargement, bearing lugs on the last mentioned head inwardly and outwardly of the first named lugs, all said bearing lugs being provided with registering journal

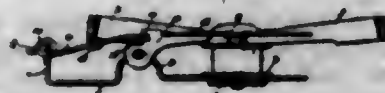
openings, spindles mounted in said journal openings, the openings of the outer lugs being counterbored, heads on the outer ends of the spindles threaded in said counter sinks, shafts extending through the steering knuckle heads, and a universal coupling for the shafts in said coupling chambers.

1,307,962. BAKING-PAN. HURLEY H. DAVIS, Kirkland, Wash. Filed June 7, 1918. Serial No. 233,750. 4 Claims. (Cl. 52-6.)



1. A baking pan comprising a bottom, side walls and end walls hinged to said bottom, end flanges located at each end of the end walls and adapted to overlap the adjacent ends of the side walls, tongues carried by the side walls for overlapping engagement with each of the side flanges, and means for preventing the accidental withdrawal of the end flanges from beneath the said tongues.

1,307,963. ANIMAL-TRAP. JOHN R. ELDON, Sioux City, and GEORGE W. ELDON, Forest City, Iowa. Filed Mar. 10, 1919. Serial No. 281,635. 5 Claims. (Cl. 43-23.)



1. In a jaw trap, the combination of a jaw having an inclined finger at its outer and lower edge, spring means for suddenly closing the jaw, a trigger support having a raised portion and a longitudinal slot therein and also having an upstanding outer portion, a trigger pivoted to swing vertically in said slot and having a herf and also having lateral rests flush with the lower wall of the herf, a pan on the trigger, and a keeper member movable vertically and laterally on the upstanding portion of the trigger support and having a stop portion to contact against said upstanding portion.

1,307,964. DIRECTION-SIGNAL. JOHN ERDIE, Trenton, N. J. Filed Nov. 3, 1917. Serial No. 200,115. 2 Claims. (Cl. 116-31.)



1. In a device of the class described, a rotatably mounted arrow carrying designations indicating right and left, means for illuminating said designations, mechanical means for rotating the arrow and comprising a resiliently mounted rotatable member adapted to return

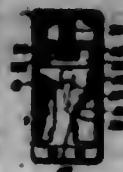
the arrow to normal position when operated, a casing comprising a tubular member receiving the resiliently mounted rotatable member, said casing including a base portion and means connected therewith for securing the base portion and the rotatable means in position.

1,307,965. PRESS. CHARLES H. FOWLER, Boston, Mass. Filed Aug. 20, 1918. Serial No. 252,050. 4 Claims. (Cl. 100-44.)



1. In a vegetable press, the combination of a colander, a plunger disposed within the colander, a scraper mounted upon the exterior of the colander, and means whereby the scraper and the plunger will be caused to move simultaneously in the same direction.

1,307,966. AUTOMATIC HASP-LOCK. JOHN R. FRANCIS, Rochester, N. Y. Filed Jan. 20, 1919. Serial No. 272,182. 3 Claims. (Cl. 70-2.)



2. A lock of the class described, a staple, a lock having a casing hingedly mounted for movement toward and from the staple, a spring actuated U-shaped slide, a suitable engaging lug carried by the slide and a spring actuated key operated member movable within the casing and spaced from the staple engaging lug and contacting with the U-shaped slide, whereby the latter may be independently moved through contact of the staple with the staple engaging lug to lock the lock or operated by the movement of the key engaging member to release the staple.

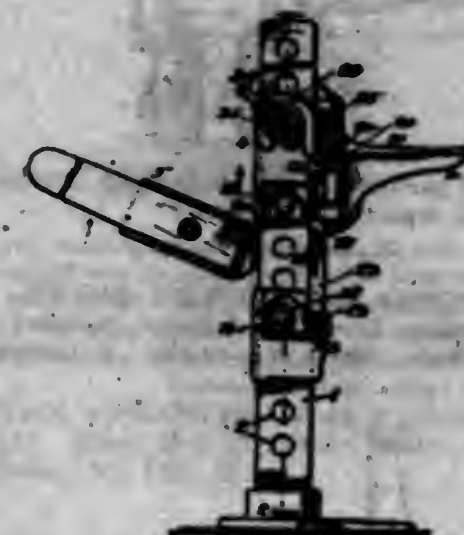
1,307,967. HEAD-RULE. WILLIAM A. GLIMPSE, Bloomington, Ill. Filed June 14, 1917. Serial No. 174,732. 1 Claim. (Cl. 101-400.)



A head rule for association with column rules, consisting of a body having a longitudinal printing edge, the body at a material distance from the longitudinal printing edge being thickened at one side only of the printing edge with a resultant shoulder projecting beyond the

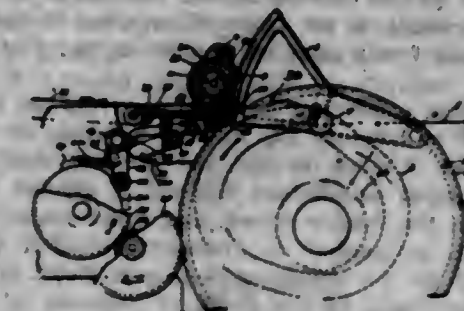
printing edge and continuing to the bottom face of the body, the thickened portion having grooves formed in its front face that extend part way of the depth of the thickened portion and through its upper and lower faces to receive and hold the column rules.

1,307,968. LIFTING-JACK. PHILIP J. HARRAH, Bloomfield, Ind. Filed May 6, 1918. Serial No. 232,910. 4 Claims. (Cl. 254-111.)



1. A lifting jack comprising a standard having a plurality of perforations extending entirely therethrough, a pair of runners movable on said standard, a spring actuated pin carried by each of said runners for alternately entering said perforations to constitute a fixed stop while the other runner is advancing, a lever fulcrumed to one of said runners, and a pitman connecting said lever with the other runner.

1,307,969. PRINTING-PRESS. ALBERT F. HARRIS, Warren, Ohio, assignor to The Harris Automatic Press Company, Niles, Ohio, a Corporation of Ohio. Filed Aug. 6, 1915. Serial No. 44,033. 11 Claims. (Cl. 271-53.)

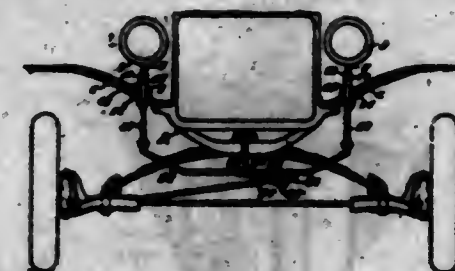


1. In a printing press, a constantly rotating cylinder having stops on its periphery, means for feeding stock to said stops, including an intermittently rotating roller, a roller in constant gear with said last mentioned roller and cooperating therewith to grip the stock, said rollers being each locked against rotation when gripping the stock, and means for accelerating the rotation of said rollers after the stock has been gripped.

1,307,970. DIRIGIBLE HEADLIGHT. JOSEPH H. DE HART, Woolwine, Va. Filed Jan. 26, 1918. Serial No. 218,912. 1 Claim. (Cl. 240-62.)

In a dirigible headlight, the combination with an automobile, of a bearing supported on a fender of the automobile, a plate mounted on the bearing and provided with an

angularly disposed slot, an ear formed upon the bearing, a bifurcated member pivotally connected with the ear, a



bolt carried thereby, a block adjustable on the bolt, a pin depending from the block and disposed in the angularly disposed slot and a lamp bracket rotatable in the bearing.

1,307,971. LOCK. JOHN D. HANSEN, Villa Grove, Ill. Filed Dec. 29, 1917. Serial No. 209,568. 6 Claims. (Cl. 105-265.)



1. The combination with a vehicle, doors located interiorly of the vehicle, swinging members arranged exteriorly of the vehicle, door locking mechanism, means for connecting the door locking mechanism with the swinging members for effecting the locking action of the doors upon the swinging of the members in one direction, and rotatable means for automatically throwing the door locking mechanism to a released position upon the lifting of the swinging members in an opposite direction.

1,307,972. CORNER AND DIVISION BAR. GEORGE C. HERRMAN, Chicago, Ill. Filed June 17, 1916. Serial No. 104,307. 6 Claims. (Cl. 189-78.)



6. In store front construction, a hollow glass supporting post made of sheet metal, and a reinforcing bar external to the post, and secured thereto, and a foot piece, or anchor applicable to either post or bar, and slidably connected therewith, the cross-section of the portion of the post engaged by the reinforcing bar being similar to the cross-section of the foot piece, and the reinforcing bar also having a cross section corresponding to that of the footpiece for engagement by the latter when applied thereto.

1,307,973. CORNER AND DIVISION BAR. GEORGE C. MINOR, Chicago, Ill. Filed June 17, 1916. Serial No. 104,908. 5 Claims. (Cl. 189-78.)



1. A glass-clamping device comprising two pairs of glass-engaging members that respectively engage outer and inner sides of the plates of glass, a combined hinging and clamping bar which pivotally connects the outer glass-engaging members, and pressure-producing means connected with said bar and acting on the inner glass-clamping members, said bar being tubular and curved externally, and the outer members having correspondingly curved surfaces in contact with the curved exterior of said bar and said tubular bar having on its inner side a slot between opposing flanges and said outer members having extremities that pass through said slot and are situated within the bar.

2. A glass-clamping device comprising two pairs of glass-engaging members that respectively engage outer and inner sides of the plates of glass, a combined hinging and clamping bar which pivotally connects the outer glass-engaging members, and pressure-producing means connected with said bar and acting on the inner glass-clamping members, said bar being tubular and having on its inner side a slot between opposing flanges, and said outer members having extremities that pass through said slot and are situated within the bar.

1,307,974. KILN. JOHN D. HOFF, Oakland, Calif. Filed Dec. 1, 1917. Serial No. 204,975. 1 Claim. (Cl. 263-29.)

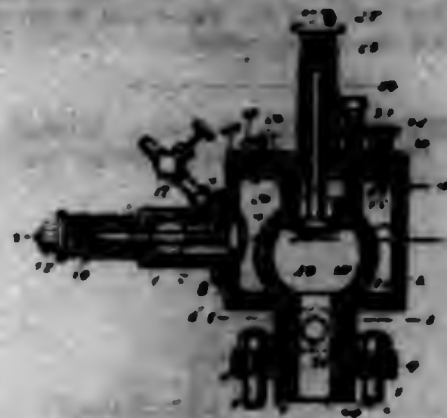


A continuous calcining kiln comprising a central flue open at the top and provided with a plurality of radially arranged discharge ports at its base, with observation ports, and with firing chambers provided with ports leading to the discharge ports and adapted to conduct any overflow in said firing chambers into the discharge ports below.

1,307,975. CARBURIZER. CARL J. IPSEN, Jamestown, N. Y. Filed Sept. 28, 1917. Serial No. 193,788. 1 Claim. (Cl. 123-34.)

A carburizer comprising a main body inclosing a mixing chamber, a combustion chamber located within said mixing chamber, an inlet valve controlling the admission of air and fuel to said mixing chamber, an intake valve controlling the admission of said mixture to said combustion chamber, and a mixture deflecting partition extending across said mixing chamber and serving to direct

the mixture against, around and over the wall of said combustion chamber before it enters the last named



chamber, said partition having an opening through which the mixture is drawn.

1,307,976. POWER-TRANSMITTING DEVICE. PETER EMIL VILHELM JACOBSEN, Jyderup, Denmark. Filed Feb. 18, 1916. Serial No. 79,192. 2 Claims. (Cl. 180-71.)



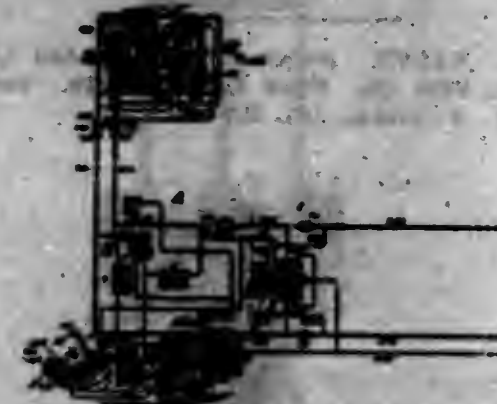
1. In a rear construction for motor vehicles having a driven shaft parallel to the axis of rotation of the rear vehicle wheel, a disk on the end of said shaft having transverse spaced equidistant thereon, a similar disk and transverse on the vehicle wheel, and links connecting said transverse in a manner to transmit rotation from the driven shaft to the vehicle wheel, said links being positioned at an angle to the plane of rotation of the axis so that they may freely pass each other during the rotation of the axis.

2. In a rear construction for motor vehicles having a driven shaft parallel to the axis of rotation of the rear vehicle wheel, a disk on the end of said shaft having transverse spaced equidistant thereon, a similar disk and transverse on the vehicle wheel, and links connecting said transverse in a manner to transmit rotation from the driven shaft to the vehicle wheel, said links being positioned at an angle to the plane of rotation of the axis so that they may freely pass each other during the rotation of the axis, and a radius member mounted for rocking movement upon the shaft and vehicle wheel and adapted to maintain said shaft and vehicle wheel in spaced relation.

1,307,977. TELEPHONE SYSTEM AND APPARATUS. ALEXANDER E. KNYE, Chicago, Ill., assignor, by mesne assignment, to Automatic Electric Company, a Corporation of Illinois. Filed Apr. 12, 1909. Serial No. 311,237. 155 Claims. (Cl. 173-18.)

1. In a telephone system, the combination of a main or central station, a plurality of outlying or sub-central stations, trunking cables connecting the said central station with the said sub-central stations, selectors located at the central station and adapted for performing trunking operations corresponding to all of the digits of any called number except the last two thereof, subscribers'

telephone lines leading into the sub-central stations, an individual trunk-selecting switch for each subscriber's line, a switch-operating machine or master-switch located at each sub-central station and common to all the individual-switches thereof, connectors located at the sub-



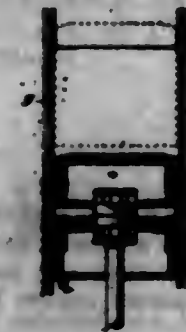
central stations, the connectors of any sub-central station being less in number than the subscribers' lines leading thereto, but each connector having a multiple terminal of each telephone line terminating at the sub-central station at which such connector is located.

1,307,978. PIPE COVER. FRED H. KLING, Los Angeles, Calif. Filed May 31, 1916. Serial No. 237,522. 1 Claim. (Cl. 181-12.)



A pipe cover consisting of a flat disk of resilient metal, fingers cut and upset from said disk so as to form draft openings, said fingers being attached at their inner ends adjacent the center of said disk and having their free ends adjacent the periphery of the disk bent so as to form knuckles adapted to engage and grip the inner wall of a pipe bowl.

1,307,979. PROCESS OF FITTING CAST-IRON ARTICLES TO OTHER BODIES IN CONNECTION WITH WHICH THEY WORK, AND PRODUCT OF SUCH PROCESS. WILLIAM A. KNAPP, Washington, D. C., assignor, by direct and mesne assignments, to Charles Schwartz, trustee, of Washington, D. C. Filed Oct. 7, 1915. Serial No. 54,613. Renewed Dec. 19, 1918. Serial No. 247,532. 9 Claims. (Cl. 23-148.)



1. The herein described process of fitting a cast iron article to another body in connection with which it works, which consists in permanently heat-expanding the article to a size approximating that it should have in order to properly work in cooperation with the other body, and then grinding the two together to accurately fit one another.

1,307,980. TIRE-VALVE. HENRY F. KNAPP, Ridgewood, N. Y. Filed Sept. 1, 1915. Serial No. 48,830. 3 Claims. (Cl. 182-12.)

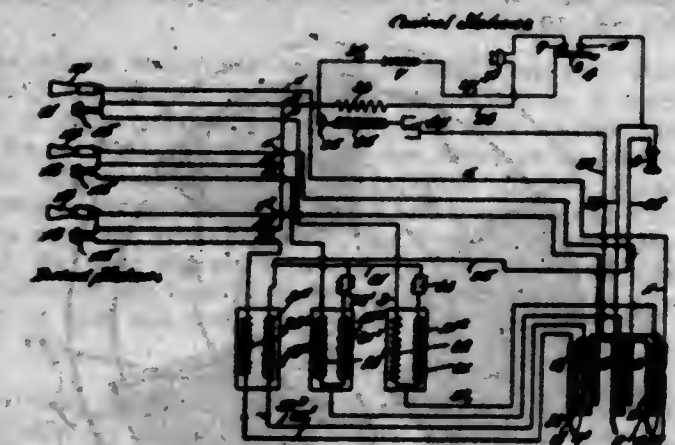
4. For tire valves or the like, a plug having a bore passing partly through it, a bridge above said bore and having a hole of less diameter than said bore, and said

plug having a lateral passage to said bore, said passage opening at the top of said plug in combination with a



valve proper having a pin extending through said bore and bridge.

1,307,981. LOUD-SPEAKING INTERCOMMUNICATING TELEPHONE SYSTEM. NATHAN A. KURMAN, New York, N. Y., assignor to International Callophone Corporation, a Corporation of Delaware. Filed Oct. 17, 1914. Serial No. 367,078. 13 Claims. (Cl. 179-70.)



12. A loud talking telephone circuit comprising a sending station and a plurality of receiving stations, a transmitter at the sending station, a receiver at each receiving station, circuits connecting the transmitter and receiver, an induction coil having its two windings connected in series arranged in each circuit, a battery common to all circuits, and switches at the sending station for opening and closing the individual circuits to the receiving stations.

1,307,982. WATER-LEVEL BOILER-GAGE. CLARENCE H. LANE, Philadelphia, Pa. Filed Mar. 16, 1918. Serial No. 222,940. 4 Claims. (Cl. 73-54.)



1. The combination with a boiler of the type having its normal water level overhead or above the floor of the boiler, of upper and lower gage fittings each with a cut-off valve independently operable from the other so that either of the fittings can be separately blown to test,

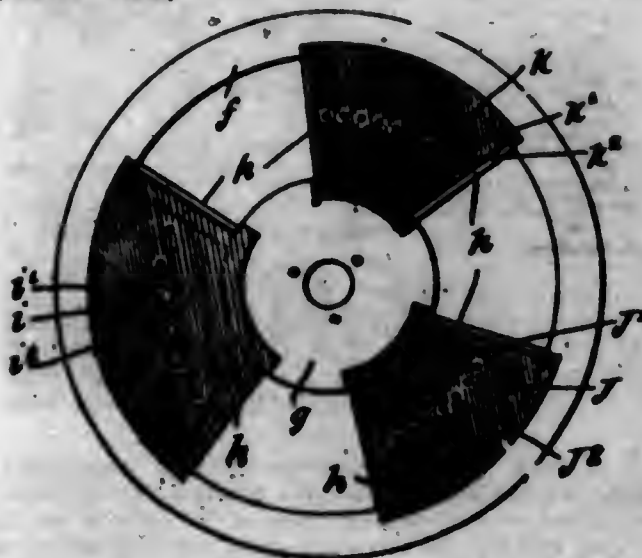
and each having an oblique gage tube branch, and a tube therein, whereby when the whole is applied to a boiler with the fittings respectively above and below the boiler level, the level line is plainly visible from substantially any point in front of the boiler.

1,307,983. CARGO VESSEL. JAMES J. LYNN, Port Huron, Mich. Filed June 14, 1916. Serial No. 108,669. 4 Claims. (Cl. 114-78.)



1. A cargo vessel having transverse frames, center stanchions, and slanting bulkheads running straight from opposite frames to one of said stanchions and back to opposite frames throughout the major portion of the cargo hold.

1,307,984. CINEMATOGRAPH-MACHINE. MORTON EARLE MYERS and MARTIN A. J. HARPER, New York, N. Y. Filed Mar. 29, 1917. Serial No. 156,178. Renewed Apr. 4, 1919. Serial No. 287,616. 6 Claims. (Cl. 88-19.3.)



1. A cinematograph machine embodying therein a shutter composed of a cover blade and a flicker blade each formed of translucent material, said material having a substantially transparent area, and an opening there-through within said transparent area.

2. A cinematograph machine embodying therein a shutter composed of a frame, a hub by means of which said shutter may be rotated, a cover blade and a flicker blade supported respectively between said hub and said frame, open spaces being provided within said frame between said blades, each of said blades being formed of translucent material said material having a substantially transparent area and an opening there-through within said transparent area.

3. A cinematograph machine embodying therein a shutter composed of a cover blade and a flicker blade, each formed of translucent material having a sequence of small openings there-through, and substantially transparent areas about each of said openings, said transparent areas being separated by translucent areas.

1,307,985. HEEL FOR SHOES. JOSEPH S. PEDEN, New York, N. Y. Filed May 31, 1918. Serial No. 237,508. 4 Claims. (Cl. 36-36.)



1. A heel for shoes comprising a frame having a top flange to support said frame upon the sole of a shoe, a

partition piece within said frame having prongs for engagement with said sole to secure said frame in place thereon, a flange below said partition piece forming with the latter a slideway and support, and a rubber cushion supported within said slideway.

1,307,998. VALVE. FRANK L. RANDALL and LOUIS R. SCHMIDT, Erie, Pa. Filed Jan. 24, 1918. Serial No. 213,450. 2 Claims. (Cl. 251-78.)



1. In a valve, the combination of a body; a diaphragm in the body; a removable seat in the diaphragm having a cylindrical surface with radial openings there-through and a conically shaped cap for deflecting material to said openings; and a valve head having a closure surface for closing said openings, said head opening upwardly.

1,307,987. ANGLE-GAGE APPARATUS FOR USE IN MINING. FRANCISCO RIVERO, Madrid, Spain. Filed Aug. 28, 1917. Serial No. 186,657. 8 Claims. (Cl. 33-60.)



1. A device of the character described including a dial plate having an opening to receive a vertical cord, means for fixing the plate to the cord, and means for suspending the dial plate from points remote from the opening.

1,307,988. FORCE-FEED LUBRICATOR. WILLIAM J. SCHLACKS, Chicago, Ill., assignor to McCord and Company, Chicago, Ill., a Corporation of Delaware. Filed July 20, 1918. Serial No. 245,948. 12 Claims. (Cl. 184-29.)

11. In a force feed lubricator, the combination with a casing, of a pair of spaced differential diaphragms in the form of smooth flat metal disks and secured in said casing with fluid-tight joints at their peripheral portions, one of said diaphragms being subject to pressure pulsations and the other acting as an oil displacing element, the said diaphragms being movable from one side to the other of the planes of the respective peripheral portions,

a strut positively connecting the axial portions of the said two diaphragms for common vibratory movements



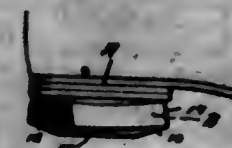
in both directions, and a spring located in the space between said two diaphragms acting on said strut, and at its ends anchored to said casing.

1,307,999. FAIR-LEADER. SOLOMON A. SOULS, Frances, Wash. Filed Apr. 29, 1919. Serial No. 293,463. 7 Claims. (Cl. 254-190.)



1. A device of the class described, comprising a base, a pair of upright side walls carried thereby, a rockable frame carried by said side walls, means carried by the side walls for limiting the rocking movement of said frame, means for maintaining the frame at either limit of its rocking movement, and a rockable block mounted on said frame and provided with a sheave.

1,307,990. CUSHION-HEEL. EDWIN D. STALFORD, Baltimore, Md. Filed Apr. 29, 1918. Serial No. 231,454. 2 Claims. (Cl. 36-35.)

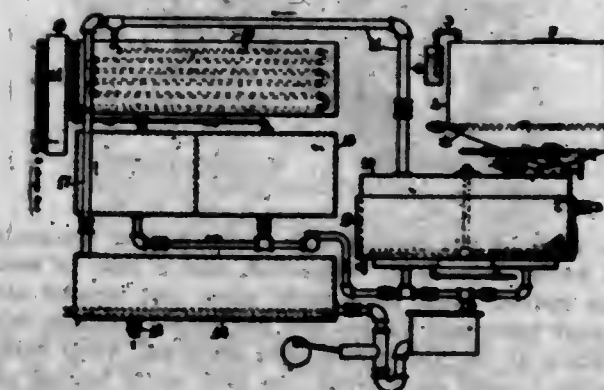


1. A cushion heel comprising a body having a flat central portion and a peripherally extending upwardly and outwardly inclined portion constituting a saucer edge, said saucer edge being curved longitudinally and having its forward upper edge straight.

1,307,991. METHOD OF EXTRACTING VALUES FROM GARBAGE AND THE LIKE. RAYMOND WELLS, Homer, N. Y., assignor to Cobwell Corporation, Cleveland, Ohio, a Corporation of Virginia. Filed Nov. 13, 1916. Serial No. 130,962. 12 Claims. (Cl. 198-8.)

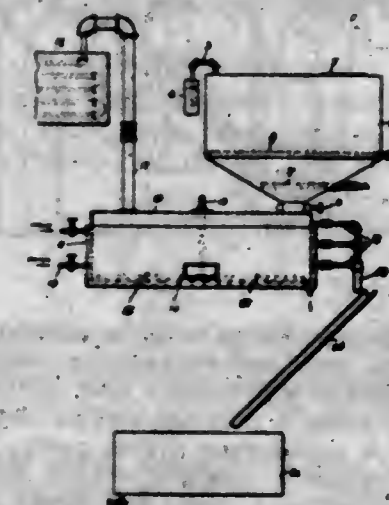
10. In a method of recovering values from garbage and like materials containing starches, sugars or gums, as

well as oils, greases, or fats, the steps which consist in boiling the original mass for several hours; cooling such mass to approximately 140 degrees F.; intermixing a malt infusion therewith and allowing same to cool further to approximately 90 degrees F.; thereupon intermixing a quantity of suitable yeast, whereby such first-named ingredients are converted into alcohol, or derivatives thereof; mixing the resulting fermented mass with a medium



insoluble in water but capable of dissolving such last-named ingredients; raising the temperature to a point where the combined vapor tensions of such medium and water, with alcohol in solution, are equal to or greater than the superimposed vapor pressure, thereby simultaneously evaporating such water and alcohol along with such medium; adding more of the latter, so as to maintain the body thereof substantially constant; and then drawing off the body of such medium with dissolved content of such last-named ingredients.

1,307,992. METHOD OF EXTRACTING VALUES FROM GARBAGE AND THE LIKE. RAYMOND WELLS, Homer, N. Y., assignor to Cobwell Corporation, Cleveland, Ohio, a Corporation of Virginia. Filed Jan. 2, 1918. Serial No. 209,815. 10 Claims. (Cl. 99-11.)



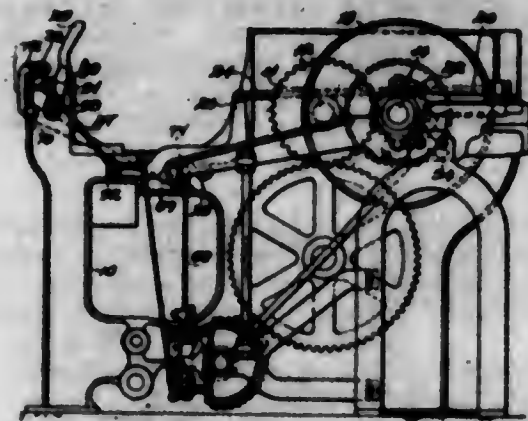
6. In a method of recovering values from garbage and like materials containing starches, sugars or gums as well as oils, greases or fats, the steps which consist in fermenting such first-named ingredients in the original mass; heating the latter so as to drive off approximately twenty-five per cent. of the water present, the latter carrying with it the alcohol produced by such fermentation and the oils, greases or fats rising to the top of the residual mass; introducing a layer of hot water beneath such oils, greases or fats; drawing off such water with such oils, greases or fats floating thereon; and then heating and stirring such residual mass until the water remaining therein is practically all driven off.

1,307,903. APPARATUS FOR FORMING BLOCKS OF CONCRETE. JAMES T. WISNER, New York, N. Y. Filed June 4, 1918. Serial No. 234,902. 4 Claims. (Cl. 22-121.)



4. A mold box having side walls having channels and end walls, detachably connected, and a pair of sectional walls spaced apart from each other and located between the end walls and having end portions extending into the channels of the side walls, said sectional walls being collapsible toward each other, the side walls having cut-out portions in their upper edges above the upper limit of said sectional walls, and a cover plate adapted to overlap said sectional walls, with its ends in said cut-out portions of the side walls, the sectional walls extending short of the outer edges of the side walls so that when the cover member is in position it is flush with the edges of the side walls.

1,307,904. WEFT-REPLENISHING LOOM. LEONARD AITKEN, Lawrence, Mass. Filed May 22, 1914. Serial No. 840,239. 6 Claims. (Cl. 139-85.)



1. In a weft-replenishing loom, in combination, weaving mechanism and weft-replenishing mechanism arranged to operate alternately, said weft-replenishing mechanism including a weft-replenishing shaft, a transmission shaft, a continuously driven pulley, speed-reducing gearing arranged to transmit rotation from said pulley to said transmission shaft, and means arranged to transmit rotation from said transmission shaft to said weft-replenishing shaft.

1,307,905. LIGHTNING-ARRESTER. JAMES C. ARMOR, Pittsfield, Mass. Continuation in part of application Serial No. 681,136, filed Mar. 2, 1912. This application filed June 13, 1916. Serial No. 103,361. 3 Claims. (Cl. 175-214.)

1. The combination of a low frequency electric power conductor, and means for dissipating energy, due to high frequency disturbances, by heat resulting from hysteresis and eddy currents comprising a substantially continuous distributed conductor having a plurality of turns of

metal close to and insulated from the power conductor, said metal turns constituting an open coil whereby said



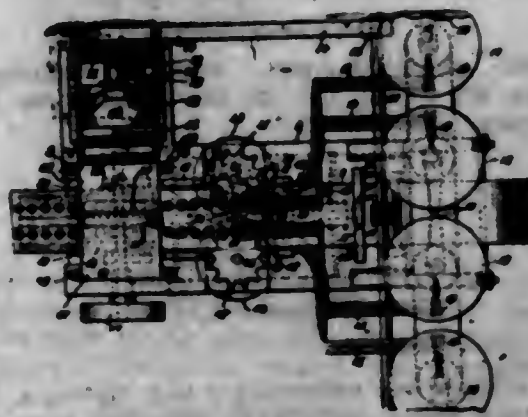
means has no material influence when the power conductor is traversed only by normal working current.

1,307,906. GATE. GUY BUNDS, Progresso, N. Mex. Filed Dec. 26, 1917. Serial No. 306,991. 1 Claim. (Cl. 39-87.)



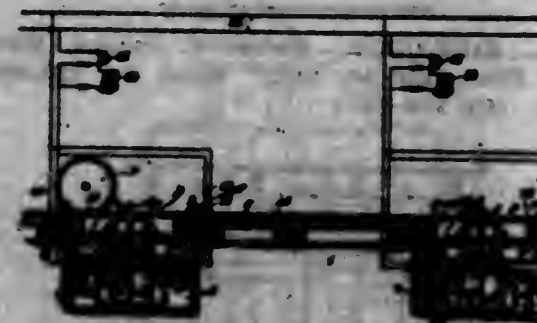
A gate comprising slats, a hinge rod, and a hinge strap bent between its ends to closely encircle said rod and having its ends extending between two slats of the gate and offset apart, said ends of the strap being provided with T-heads secured to the opposite sides of said slats.

1,307,907. MACHINE FOR CARDING SNAP-FASTENERS. RICHARD HATLEY BARKLEY, Plainville, Mass., assignor to Whiting & Davis Company, a Corporation of New York. Filed June 5, 1918. Serial No. 238,237. 15 Claims. (Cl. 218-18.)



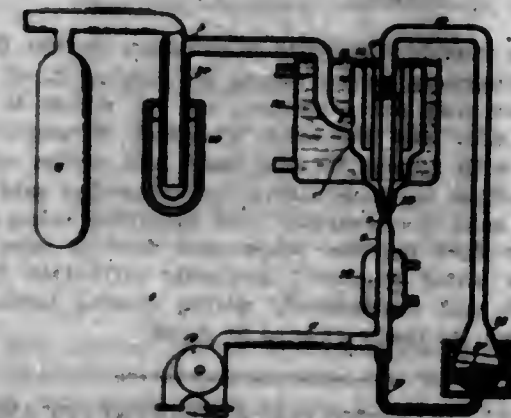
6. A machine for carding snap fasteners, comprising the combination of a support for a card, means for feeding the stud and socket members of snap fasteners to opposite sides of the card, a pusher, a power shaft connected to the pusher for operating it to move the stud members of the fasteners to carry the studs through holes in the card and into the sockets of the corresponding socket members, and a printing member connected to the power shaft and actuated thereby to print upon the cards to which the snap fasteners are affixed.

1,307,908. RAILWAY-CROSSING SIGNAL. HOMER S. BUNNELLY, Cogen, Iowa. Filed July 2, 1917. Serial No. 178,408. 15 Claims. (Cl. 246-128.)



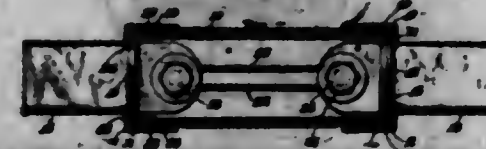
1. A crossing signal including a switch box, a pivoted trip adapted to be rocked by a movable abutment, a local circuit including an electric signal, terminal contacts of the local circuit adapted to be closed, means for latching the contacts into engagement, and means for unlatching the contacts upon rocking the pivoted trip.

1,307,909. METHOD OF AND APPARATUS FOR EXHAUSTING TO LOW PRESSURES. OLIVER R. BUCKLEY, East Orange, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Mar. 30, 1918. Serial No. 228,840. 7 Claims. (Cl. 230-18.)



1. The method of exhausting gas containing vessels to low pressure which consists in entraining gas from the vessel to be exhausted into a stream of vapor and entraining the resulting mixture of gas and vapor into a second stream of vapor at a higher pressure than said first named stream.

1,308,000. RENEWABLE KNIFE-BLADE FUSE. JOHN MAXWELL COOTE, Elizabeth, N. J. Filed Dec. 31, 1917. Serial No. 209,650. 11 Claims. (Cl. 175-273.)



1. A renewable knife-blade fuse, comprising: two oppositely-disposed blade contact members; a fusible element secured to same; a shell enclosing said fusible element and portions of said blade contact members; a member slotted to receive one of the blade contact members to align same and secure both to the shell; and caps fitting over the blade contact members and ends of said shell.

1,308,001. PISTON DISTRIBUTION-VALVE. CHARLES W. DAKS, Chicago, Ill., assignor to the Fyle-National Company, Chicago, Ill., a Corporation of New Jersey. Filed Jan. 2, 1917. Serial No. 140,141. 9 Claims. (Cl. 139-5.)

1. A cylindrical piston valve and means for reciprocating it, a seat therefor including compression spring rings including and in slidable contact with the valve,

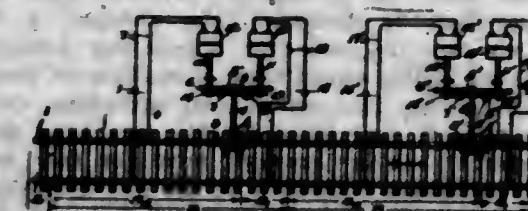
said means movable with the valve comprising an apron of the same diameter as the valve, and spaced away from the working edge of the valve for holding said rings in position, fingers extending inwardly from said apron toward the working edges of said valve.



5. A cylindrical piston valve and means for reciprocating it, a seat therefor including compression spring rings including and in slidable contact with the valve, and means movable with the valve comprising an apron of the same diameter as the valve, and spaced away from the working edge of the valve for holding said rings in position, fingers extending inwardly from said apron toward the working edges of said valve, said fingers terminating at a point removed from the working edge of the valve.

8. A cylindrical piston valve and means for reciprocating it, a seat therefor including compression spring rings including and in slidable contact with the valve, and means movable with the valve comprising an apron of the same diameter as the valve, and spaced away from the working edge of the valve for holding said rings in position, supporting ribs interposed between the apron and the valve, said ribs being cut away adjacent the edge of the valve, to provide an opening about the substantially entire periphery of the valve immediately adjacent the working edge, fingers extending inwardly from said apron toward the working edges of said valve, said fingers decreasing in width toward the valve, said fingers terminating at a point removed from the working edge of the valve.

1,308,002. RAILWAY SAFETY SYSTEM. FREDERICK DENNETT, Hyde Park, Mass. Filed Mar. 6, 1918. Serial No. 220,823. 13 Claims. (Cl. 246-69.)

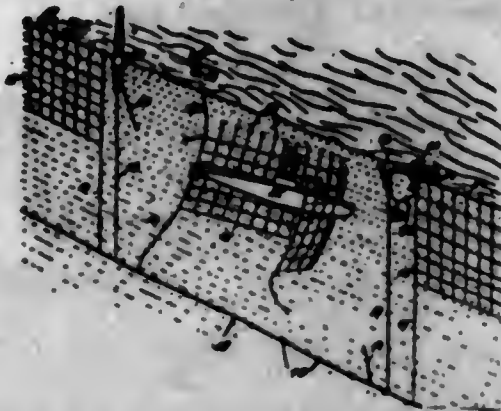


1. A railway safety system comprising actuating members distributed along the trackway at intervals so as to actuate train mechanism when in operative position and so as to clear the train mechanism when in inoperative position, means for throwing the respective members into inoperative position when approached by a train, and means for throwing the respective members into operative position after being passed by a train, said second means being connected with said first means so as to render the first means inoperative when the track is obstructed.

1,308,003. APPARATUS FOR DETECTING AND INDICATING THE PRESENCE OF SUBMARINE BOATS. GIOVANNI EMANUELE ELIA, New York, N. Y. Filed Apr. 27, 1917. Serial No. 164,850. 40 Claims. (Cl. 114-240.)

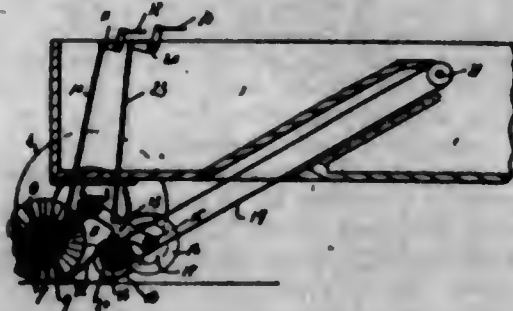
1. Apparatus for detecting and indicating the presence of submarine boats comprising the combination of a cable adapted to be submerged in the sea, a plurality of nets forming barriers to be engaged by a submarine

heat, individual connections from each net to the cable, means for sustaining each net in position in the water, a plurality of normally inoperative signaling devices



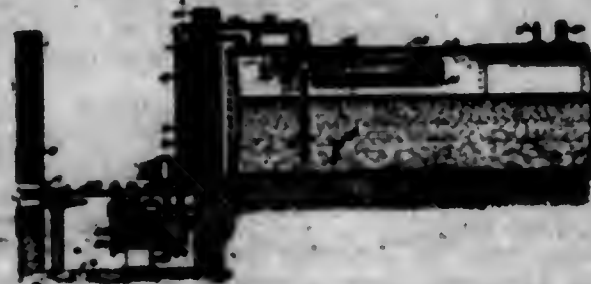
each connected to one of the several nets, and automatic means for rendering any signaling device operative actuated by movement of the net connected to that signaling device through the water; substantially as described.

1,308,004. STREET-SWEEPER. CHARLES FINKE, and IRA COMBS, Seattle, Wash. Filed Sept. 11, 1916. Serial No. 119,356. Renewed Oct. 15, 1918. Serial No. 258,289. 1 Claim. (Cl. 15-17.)



In a rotary street sweeper having a wagon body mounted upon front and rear axles, the combination of hangers mounted on the rear axle and extending rearwardly and downwardly therefrom, a rotary sweeper supported in the hangers, means for raising and lowering the sweeper, conveyor supporting hangers mounted on the rear axle and extending forwardly and downwardly therefrom in front of the sweeper, a roller mounted between the conveyor supporting hangers, a roller mounted in the wagon body, a continuous conveyor passing around the two rollers and extending through the wagon body, a gear wheel on the rear axle, gearing on the conveyor hangers meshing with the gear on the rear axle, and means connected to the conveyor supporting hangers to raise and lower the lower end of the conveyor.

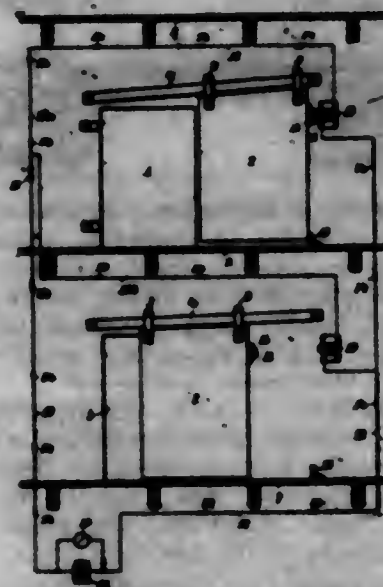
1,308,005. LIQUID-FEED SYSTEM. MILTON A. FANLON, Oakland, Calif., assignor to Fenn Rotary Oil Burner Inc., Boston, Mass., a Corporation of Massachusetts. Filed Mar. 8, 1918. Serial No. 221,118. 14 Claims. (Cl. 150-36.)



1. The combination with a reservoir for liquid, of a system to conduct liquid from said reservoir, a valve in

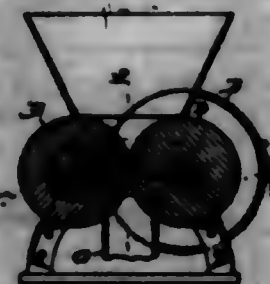
said system, and means automatically to close said valve and withdraw from the system liquid therein beyond said valve in the event of a leak in the system.

1,308,006. FIRE-DOOR. SIDNEY C. FISHER, Medford, Mass. Filed July 30, 1917. Serial No. 188,286. 2 Claims. (Cl. 100-47.)



1. The combination with a fire door or the like having continuously acting means for closing it, of an electromagnet and an armature one of which is carried by said door and the other of which is supported stationary with respect to said door, and means controlled by variations in temperature for energizing said electromagnet, said electromagnet and armature being disposed to be brought together when said door is open and to hold the latter by direct magnetic attraction from the effect of said continuously acting closing means, while permitting its ready closure by hand.

1,308,007. GRINDING INSTRUMENTALITY AND PROCESS OF PRODUCING SAME. ROBERT FENNEMAN, Hancock, Mich. Filed Sept. 29, 1917. Serial No. 193,914. Renewed Sept. 23, 1918. Serial No. 244,262. 4 Claims. (Cl. 52-12.)

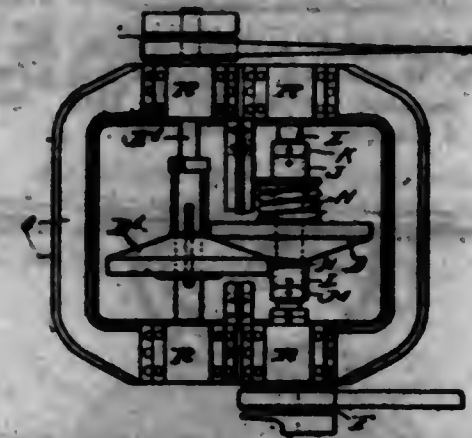


2. A grinding and pulverizing instrumentality, consisting of a soft metal base adapted to be mounted for rotation about an axis, and having a surface generated by a line revolving about said axis, said surface being formed by pulverulent material embedded in the soft metal, and having the latter drawn between and about the particles of said material.

1,308,008. GRINDING-MACHINE. ROBERT FENNEMAN, New York, N. Y. Filed Dec. 23, 1916. Serial No. 186,557. Renewed Sept. 23, 1918. Serial No. 244,263. 1 Claim. (Cl. 52-10.)

A pulverizer or grinder comprising two metal disks each frusto-conical in form journaled for rotation with their conical surfaces facing each other, and means for revolving them in opposite directions about their re-

spective axes, whereby they have the same direction of circumferential movement at their proximate surfaces, each disk being formed as to its conically surfaced per-



tion of comparatively soft and tough metal adapted for embedding the pulverized material which is passed between the disks and crushed thereby.

1,308,009. FIRE-KINDLER. ALVIN J. GERNHART, Flint, Mich. Filed June 8, 1918. Serial No. 238,925. 4 Claims. (Cl. 44-2.)



1. A fire kindler having a combustible grate consisting of longitudinal and transverse intersecting elements of which the upper edges of the longitudinal elements are arranged in a common plane to form a support for fuel, and of which the intermediate portions below the fuel supporting edge are cut away to form a housing, and an inflammable wicking arranged in the housing formed by said members or elements of the grate and disposed and secured within the contour of the latter.

1,308,010. COPY-HOLDER. EDWARD TIMMAM GIBSON, New York, N. Y. Filed Apr. 29, 1919. Serial No. 294,262. 1 Claim. (Cl. 120-28.)



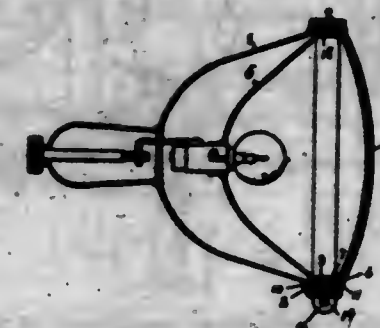
A copy holder comprising a base, a cleat disposed on the forward end of the upper surface of said base and hinged to the forward end of said base to turn from and toward the upper surface of said base, a shelf fastened adjacent the forward end of its under surface to the upper surface of said cleat, a pivot pin carried by the said base and projecting upwardly from the upper surface thereof in rear of the said cleat, the said pivot pin having its long axis at right angles to said base, and an elongated shelf-elevating block disposed on the upper surface of said base and loosely mounted on said pivot pin; said block having ends engageable with said cleat to support the said shelf at different angles to the base, said block being turnable to a position parallel with the cleat to permit said cleat to rest against the base.

1,308,011. JEWEL. HARRY GILLEY, Cincinnati, Ohio, assignor to Solomon Gilley and Harry Gilley, Cincinnati, Ohio, composing the Partnership of S. & H. Gilley. Filed July 10, 1918. Serial No. 244,218. 3 Claims. (Cl. 62-28.)



2. A jewel comprising a metallic gem-studded crown plate having a plurality of metallic polished bosses forming light-reflecting points; a metallic gem-studded tapered body for supporting said crown plate, said body being fixedly attached to said crown plate and provided with a plurality of extended metallic projections, the ends whereof are polished for affording light-reflecting surfaces; and means for removably attaching said jewel to ornaments of personal wear, said means embodying a screw-threaded member extended from the apex of said body.

1,308,012. LAMP. CHARLES E. GOOLTRY, Detroit, Mich., assignor to Edmunds and Jones Corporation, Detroit, Mich., a Corporation of New York. Filed July 10, 1918. Serial No. 244,219. 3 Claims. (Cl. 240-41.)



2. In a lamp, the combination of a body having a circular open end and a circumferential outwardly sloping shoulder adjacent said end, a lens closing said open end, a locking band extending around the end of the lamp and the edge of the lens and having inwardly extending flanges at its edges inclined away from each other, means to draw the ends of the band together, one of said flanges engaging the back of said shoulder on the body and the other engaging the front face of the lens to draw the lens toward the body when the ends of the band are drawn together, and a cylindrical strip of yieldable material within the band extending around the circumference of the lens and the end of the body and adapted to be pressed against the edge of the lens.

1,308,013. MUFFLE-CHARGER. EUGENE D. HALLOCK, Buffalo, N. Y., assignor to The Republic Metalware Company, Buffalo, N. Y., a Corporation of New York. Filed July 2, 1918. Serial No. 243,173. 6 Claims. (Cl. 214-28.)

1. A muffle charger, comprising a vertically-movable frame, substantially upright toggles for raising and

lowering said frame, a second substantially horizontal toggle connected with the first-named toggle, means for

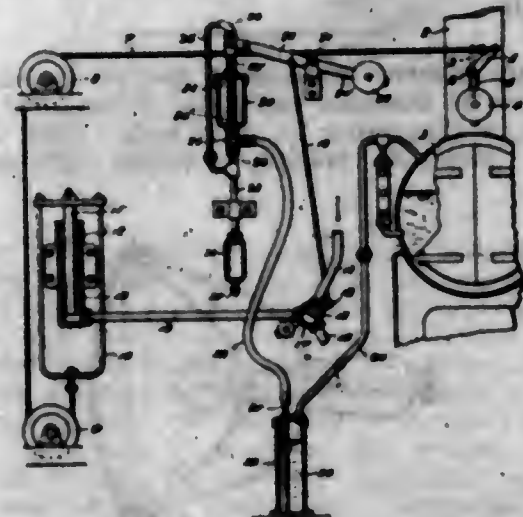


actuating said horizontal toggle, and an article-carriage running upon said frame.

1,308,014. TREATMENT OF VULCANIZABLE MATERIALS. RAYMOND B. PRICE, New York, N. Y., assignor to Rubber Regenerating Company, a Corporation of Indiana. Original application filed Oct. 9, 1912, Serial No. 724,874. Divided and this application filed Mar. 22, 1915. Serial No. 16,012. 1 Claim. (Cl. 18-50.)

The method of manufacturing articles containing vulcanizable plastics consisting in sheeting the plastic, subjecting the sheets to the action of a vacuum, subsequent thereto assembling the sheets to form the article, and finally subjecting the article to the action of a vulcanizing medium.

1,308,015. AUTOMATIC DAMPER-REGULATOR. ISAAC A. BACKLUND, Chicago, Ill. Filed Feb. 19, 1919. Serial No. 278,085. 3 Claims. (Cl. 236-8.)



2. In a damper-regulating apparatus of the character described, the combination with a liquid reservoir, a vertically movable vessel into which a liquid is elevated by steam pressure from said reservoir, of a receptacle located below said vessel, and pipes affording communicative connections between said receptacle and the vessel, one of said pipes being provided with an opening into the external atmosphere and disposed outside of the communicative connections between the vessel and receptacle.

1,308,016. GAS-OPERATED GUN. WILLIAM R. CLARK, Seattle, Wash., assignor of one-half to William Martin, Seattle, Wash. Filed May 24, 1917. Serial No. 170,622. 10 Claims. (Cl. 42-3.)



3. In a gas-operated gun, a breech-bolt provided with rack teeth, a sector gear engaging therewith, locking devices for releasably securing the breech-bolt in its forward position, and a reciprocating operating bar for disengaging said locking devices from the breech-bolt and subsequently influencing said sector gear to retract the breech-bolt.

1,308,017. FIREARM. ALFONSO MERCER, Sr., Norfolk, Va.; W. W. Mercer administrator of said Alfonso Mercer, Sr., deceased. Filed May 2, 1918. Serial No. 232,101. 8 Claims. (Cl. 88-32.)



1. A detachable magazine for fire-arms or the like, consisting of a flat, arcuate cartridge chamber in which cartridges lie in lateral contact, and radially as to the center of the arc, the chamber having at one end a gateway adapted to be inserted into the case of the fire-arm and aligned with the bore of the barrel so that the plunger of the arm will traverse the gateway, means for attaching the magazine to the arm with the plane in which the cartridges lie passing longitudinally through the bore of the arm, and means for advancing the cartridges successively into the gateway from the chamber.

1,308,018. SELF-LOCKING COTTER-PIN. EDWARD C. WILSON, Washington, D. C. Filed June 3, 1914. Serial No. 842,633. 10 Claims. (Cl. 74-8.)



1. A cotter pin comprising a head part and a pair of legs extending from the head part, said legs having portions of their length adjacent said head arranged in close proximity to each other and in substantially parallel relation, said legs having portions of their length adjacent the outer ends thereof also arranged in close proximity to each other and in substantially parallel relation, said legs having portions of their length intermediate said mentioned portions bowed outwardly away from each other so as to comprise a compressible enlargement intermediate said mentioned end portions, the mentioned outer end portions being adapted to be spread apart to comprise locking means, and the compressible intermediate portion being adapted to be compressed to spread said outer end portions into locking position.

1,308,019. ABRASIVE WHEEL. JOSEPH HENRY WOODINGTON, Clevedon, and CHARLES ADAMS YOUNG, Bristol, England. Filed July 19, 1918. Serial No. 245,644. 3 Claims. (Cl. 12-91.)



1. An abrasive wheel of the class described including a cutter carrying body having a centrally located shaft

opening, an abutment flange formed at one end of the said body and having its inner face disposed at an oblique angle to the axis of the shaft receiving opening of the body, a plurality of circular cutters positioned on the cutter carrying body, spacing rings interposed therebetween, and a cutter clamping flange detachably fitted to the other end of the cutter carrying body and also having its inner face disposed obliquely to the axis of the central shaft receiving opening.

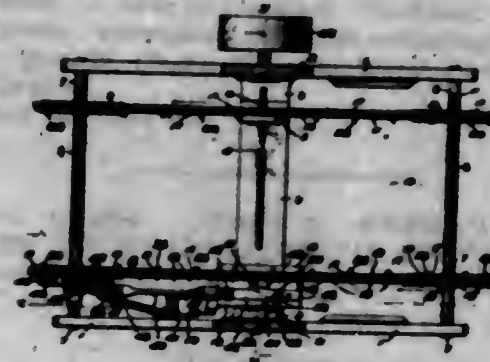
1,308,020. SOUND-RECORD. FRANCIS LINCOLN YOUNG, New York, N. Y., assignor to The Aeolian Company, a Corporation of Connecticut. Filed June 28, 1916. Serial No. 166,392. 1 Claim. (Cl. 274-42.)



A record for sound reproducing machines, said record having a continuous convoluted groove constituting a path for the stylus of the machine, said groove having playing and non-playing portions for the travel of the stylus therein and demarcating means extending around the record substantially between the annular zones occupied by said playing and non-playing portions of the groove and in the general direction of such groove whereby said demarcating means will be readily visible while the record is in operation.

REISSUES.

14,670. BOX-BLANK MACHINE. SERAPHINE F. BAUVENS, Chicago, Ill., assignor to Wirebounds Corporation, a Corporation of Maine. Filed Feb. 5, 1917. Serial No. 146,841. Original No. 1,181,400, dated Mar. 9, 1913. Serial No. 610,550, filed Feb. 24, 1911. 48 Claims. (Cl. 1-15.)



44. A machine for use in making boxes, comprising, in combination, fastener-setting means; and mechanism for producing a succession of predetermined fastener-setting relationships between said fastener-setting means and the box parts, including fastener positioning means for controllably locating individual fasteners on the box parts.

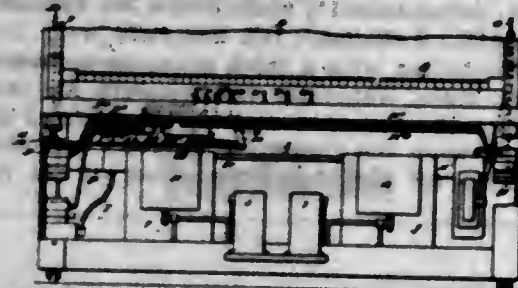
263 O. G.—41

14,671. CONTROL DEVICE. NELS HOFFMAN, Chicago, Ill., assignor to Johnson Service Company, a Corporation of Wisconsin. Filed Feb. 28, 1919. Serial No. 279,907. Original No. 1,283,709, dated Nov. 5, 1918. Serial No. 249,494, filed Aug. 12, 1918. 5 Claims. (Cl. 296-82.)



1. A control device responsive to changes in condition of the medium to be controlled, comprising fixed structural parts providing a fluid-pressure supply passage and a delivery passage connected by an intermediate opening and having a fixed exhaust passage connecting said delivery passage to the atmosphere; a valve for controlling said intermediate opening, said valve being separate and distinct from said exhaust passage; an expandable member positioned in relation to said valve and said exhaust passage and operative to engage said valve and the port of said exhaust passage, to open said valve and to close said port; means for supplying and exhausting said fluid-pressure to operate said expandable member; and an element responsive to said changes to control said supplying and exhausting means.

14,672. EXPRESSION-CONTROLLING DEVICE FOR PLAYER-PIANOS. ORRIS M. KENNEDY, Philadelphia, Pa., assignor to The Cunningham Piano Company of Philadelphia, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 15, 1918. Serial No. 234,797. Original No. 1,183,569, dated May 16, 1916. Serial No. 38,526, filed July 7, 1915. 6 Claims. (Cl. 84-100.)

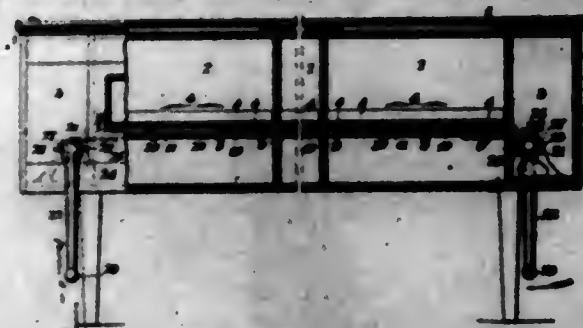


6. In a player piano, a plurality of independent pneumatic mechanisms for controlling the operation of expression mechanisms, a music roll having thereon an expression guide line, an indicator movable to follow said line, a valve, passage ways therein leading to the atmosphere, means of communication between the valve and each pneumatic, and governed by said valve, connecting actuating means adapted to actuate said valve and indicator in unison, and a lever forming part of said actuating means, whereby said indicator may be made to follow the line and said valve be caused to selectively actuate the appropriate pneumatic to effect the results indicated by said line.

14,673. AUTOMATIC EGG-TURNING DEVICE. PERRY STOVER MARTIN, Harrisonburg, Va., assignor to Newton Giant Incubator Corporation, Harrisonburg, Va., a Corporation of Virginia. Filed July 24, 1917. Serial No. 182,541. Original No. 1,195,705, dated Aug. 22, 1916. Serial No. 7,239, filed Feb. 10, 1915. 12 Claims. (Cl. 119-44.)

11. In an incubator, the combination of a casing with partitions dividing it into a plurality of hatching com-

partments; means in each compartment for turning the eggs therein; a longitudinally shiftable member extend-



ing through all said compartments; and means for selectively connecting said member with any or all of said egg-turning means.

14,674. DOOR CHECK AND CLOSER. JOHN C. SCHMIDT, Chicago, Ill. Filed Apr. 19, 1919. Serial No. 291,364. Original No. 1,266,964, dated May 21, 1918, Serial No. 190,231, filed Sept. 7, 1917. 23 Claims. (Cl. 16-87.)

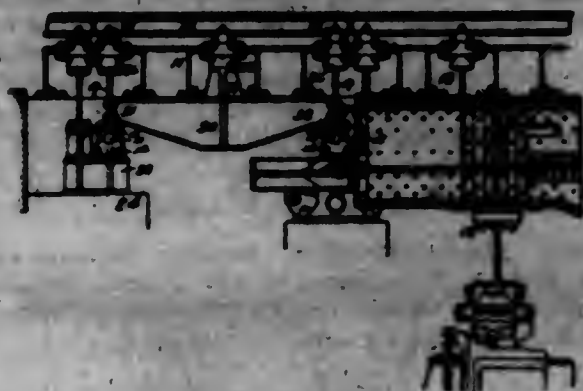


14. In a door check, the combination with a spring-actuated member, of a friction device connected therewith, and fluid means for controlling the application and release of said friction device.

14,675. TRACK SCALE. ARTH. S. VOOR, Altoona, Pa. Filed Mar. 3, 1919. Serial No. 290,494. Original No. 1,269,231, dated June 11, 1918, Serial No. 189,526, filed Apr. 3, 1917. 9 Claims. (Cl. 238-174.)

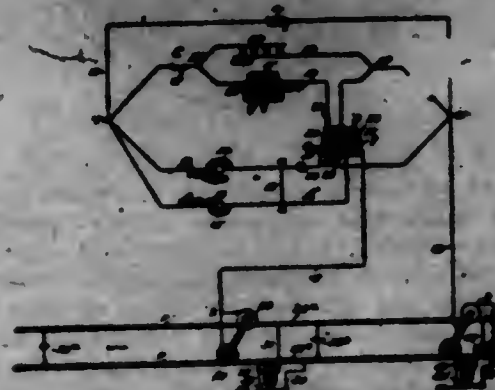
2. In combination with a track scale, an approach section for the scale, transverse end members for carrying the weight of the approach section, longitudinal girders interposed between the transverse members and attached thereto, means for supporting the center of the rail on

the approach section upon the said longitudinal girders, and spool bearings including means for preventing the



transverse and longitudinal movements of the approach section.

14,676. COMBINED AUTOMATIC TRAIN SIGNALING AND CONTROL SYSTEM. JOSEPH WHITMAN BUELL, Washington, D. C., assignor to Buell Signal and Train Control Company, Incorporated, a Corporation of Virginia. Filed Mar. 23, 1918. Serial No. 236,237. Original No. 1,181,780, dated May 2, 1916, Serial No. 427,456, filed Apr. 16, 1908. 41 Claims. (Cl. 246-87.)



26. A plurality of all-rail track circuits arranged in immediate relation to each other, a normally closed circuit carried by a vehicle movable on the rails including the rails and a track loop of negligible resistance at a predetermined point, and directly controlled by the adjacent track circuit, and a second closed circuit including signal and vehicle control mechanism controlled by the first mentioned circuit.

TRADE-MARKS

OFFICIAL GAZETTE, JUNE 24, 1919.

[PUBLISHED JUNE 20, 1919.]

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this publication.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 98,552. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) JAMES CYCLES CO. LIMITED, Birmingham, England. Filed May 21, 1916. Under ten-year proviso.

THE JAMES

Particular description of goods.—Bicycles, Motor-Cycles, Tricycles, and Side Cars.

Claims use since May 12, 1916.

Ser. No. 103,178. (CLASS 27. HOROLOGICAL INSTRUMENTS.) LENOX JEWELRY CO., Boston, Mass. Filed Apr. 21, 1917.



No claim is made to the word "Lockland."

Particular description of goods.—Horological Instruments—Namely, Clocks, Watches, Watch-Movements, and Chronometers.

Claims use since Mar. 1, 1917.

Ser. No. 103,604. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UCHITANO MATSUURA, Kyoto, Japan. Filed May 7, 1917.

PITYROL

Particular description of goods.—Semi-solid Unguent Preparation for Diseases of the Skin.

Claims use since June 14, 1916.

Ser. No. 107,354. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALEX. D. SHAW & CO., New York, N. Y. Filed Dec. 8, 1917.

SPANISH CASTLE

Consists of the arbitrary words "Spanish Castle" and a pictorial representation of a castle.

Particular description of goods.—Olive-Oil.

Claims use since Nov. 13, 1917.

Ser. No. 108,049. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) COMMERCIAL SHIRT COMPANY, New York, N. Y. Filed Dec. 19, 1917. Under ten-year proviso.

Nofade

The trade-mark consisting of the word "Nofade," the letter "N" being printed in red, the letter "o" in yellow, the letter "f" in lavender, the letter "a" in green, the letter "d" in blue, and the letter "e" in orange.

Particular description of goods.—Cotton and Silk Piece Goods.

Claims use since August, 1892.

Ser. No. 108,738. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ACME RUBBER MANUFACTURING COMPANY, Trenton, N. J. Filed Feb. 1, 1918.

ALLPACK

Particular description of goods.—Fruit-Jar Rubbers.

Claims use since Dec. 26, 1917.

[Vol. 908. No. 4.]

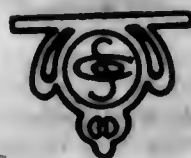
Ser. No. 109,518. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE FIRTH COMPANY LIMITED, Warrington, England. Filed Mar. 12, 1918.

FIRCON

Particular description of goods.—Fence-Wire, Wire Fencings, Wire-Cloth, Wire-Gauze, Wire Nails, Staples. Claims use since May 16, 1917.

Ser. No. 109,638. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE SHOTWELL COMPANY, Los Angeles, Calif. Filed Mar. 18, 1918.

UNIVERSAL



Particular description of goods.—A Liquid Cleaner for Kid Gloves and Shoes. Claims use since Jan. 15, 1918.

Ser. No. 110,021. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GUSSEN BAY DRIVE CALK CO., Green Bay, Wis. Filed Apr. 6, 1918.



BULL DOG.

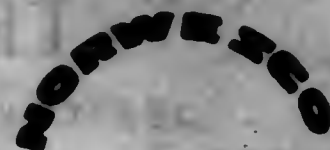
Particular description of goods.—Tool-Holders for Lathes, Planers, Shapers, and Milling-Machines. Claims use since Mar. 1, 1917.

Ser. No. 110,125. (CLASS 39. CLOTHING.) NICK-A-JACK Hosiery Mills, Chattanooga, Tenn. Filed Apr. 11, 1918.

NICK-A-JACK

Particular description of goods.—Hosiery. Claims use since Mar. 8, 1918.

Ser. No. 110,489. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE NORTHWESTERN CHEMICAL CO., Marietta, Ohio. Filed Apr. 27, 1918.



Particular description of goods.—Air-Drying Enamel, Ready-Mixed Rim-Paint, Engine-Enamel, Ready-Mixed Tire-Paint, Bronze Paint, Varnish, Prussian Blue in Oil, Furniture-Polish, and Shellac. Claims use since February, 1914.

Ser. No. 110,604. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE CELLOID COMPANY, New York, N. Y. Filed May 6, 1918.

SHELLEUR

The word "Shelleur."
Particular description of goods.—Toy Whistles, Rattles, Dominoes, Game-Markers, Billiard-Markers, Umpire-Indicators, Checkers, Parlor-Balls, Dice, Dice-Cups, Poker-Chips, and Pool-Triangles. Claims use since Jan. 5, 1918.

Ser. No. 110,605. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE CELLOID COMPANY, New York, N. Y. Filed May 6, 1918.

EBONEUR

The word "Ebneur."
Particular description of goods.—Toy Whistles, Rattles, Dominoes, Game-Markers, Billiard-Markers, Umpire-Indicators, Checkers, Parlor-Balls, Dice, Dice-Cups, Poker-Chips, and Pool-Triangles. Claims use since Jan. 5, 1918.

Ser. No. 110,855. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRIC.) JOHN B. BROWN & SONS, LIMITED, Belfast, Ireland. Filed May 13, 1918.

The "Colleen"

Particular description of goods.—Plain Cotton Piece Goods of All Kinds. Claims use since the year 1910.

Ser. No. 110,922. (CLASS 39. CLOTHING.) THE OVERALL OVERALL CO., Opelika, Ala. Filed May 16, 1918.



Particular description of goods.—Overalls. Claims use since Apr. 28, 1918.

[Vol. 508. No. 4.]

Ser. No. 111,165. (CLASS 38. PRINTS AND PUBLICATIONS.) THE ENGINEERING MAGAZINE COMPANY, New York, N. Y. Filed May 24, 1918.



Particular description of goods.—Printed Books and Periodical Publications Issued Monthly. Claims use since January, 1900.

Ser. No. 111,204. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BRAVER LEATHER MANUFACTURING CO., Newark, N. J. Filed May 27, 1918.



Applicant hereby disclaims exclusive use of the word "Kid" except as part of the combination constituting the trade-mark.

Particular description of goods.—Chrome-Tanned Shoe-Leather. Claims use since April, 1917.

Ser. No. 111,732. (CLASS 9. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NATIONAL COMMODITIES COMPANY, Philadelphia, Pa. Filed June 21, 1918.



The picture of the girl shown on the drawing is merely fanciful, no claim being made for the word "Henno" apart from its showing on the drawing.
Particular description of goods.—Shampoo. Claims use since June 1, 1918.

[Vol. 508. No. 4.]

Ser. No. 111,921. (CLASS 48. FOODS AND INGREDIENTS OF FOODS.) HOLLAND FOOD CORPORATION, New York, N. Y. Filed July 2, 1918.



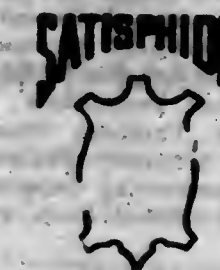
No claim being made to the words "Trade Mark, Brand."
Particular description of goods.—Condensed Milk. Claims use since on or about Jan. 15, 1914.

Ser. No. 112,034. (CLASS 39. CLOTHING.) UNITED STATES RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed July 10, 1918.

Workster

Particular description of goods.—Coats, Overalls, Jackets, and Trousers Made of Fabric, Fabric and Rubber, and Fabric and Oiled Material. Claims use since June 28, 1918.

Ser. No. 112,224. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) SPINGEL BROS., INC., New York, N. Y. Filed July 19, 1918.



Disclaiming the representation of the hide.
Particular description of goods.—Leather, Skins, and Hides. Claims use since May, 1916.

Ser. No. 112,244. (CLASS 9. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES E. WACK, Reno, Nev. Filed July 20, 1918.

Danderdip

Particular description of goods.—Hair-Tonic. Claims use since Aug. 1, 1917.

Ser. No. 112,525. (CLASS 17. TOBACCO PRODUCTS.) MANIE HYMAN, New York, N. Y. Filed Aug. 5, 1918.

"TANGO"

Particular description of goods.—Cigars, Cigarettes, and Smoking-Tobacco Put Up in Packages. Claims use since March, 1918.

Ser. No. 113,143. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAWIS COUNTY CONDENSED MILK Co., Lowville, N. Y. Filed Sept. 12, 1918.

IXL

Particular description of goods.—Condensed Milk.
Claims use since the 1st day of March, 1918.

Ser. No. 113,594. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE STANLEY WORKS, New Britain, Conn. Filed Oct. 5, 1918.



No claim being made to the exclusive use of the words "The Stanley Works" as a trade-mark apart from the mark shown in the drawing, trade-mark consisting of a design having a black upper panel bearing the name, in white letters, "The Stanley Works" and a yellow lower panel containing a black heart-shaped figure, on which are shown the letters "S. W." in white, the colors and arrangement thereof substantially as described and shown in the accompanying drawing being claimed as features of the mark.

Particular description of goods.—Hinges, Screen-Hangers, Storm-Sash Hangers, Hasps, Box-Handles, Chest and Draw Handles, Door-Handles; Pulls and Lifts for Doors, Sashes, and Screens; Brackets, Window-Sash Fasteners, Latches, Bolts, Door-Holders, Back-Catches for Shutters and Doors, Padlock-Eyes, Dead-Slides; Lid-Supports for Boxes, Chests, Desks, Cabinets, Pianos, Talking-Machines, and Similar Articles; Window-Springs, Metal Mending-Plates for Reinforcing Purposes and Mending Purposes, Staples, Sliding-Door Rails, Flat Corner-Irons, and Metal Washers.

Claims use since January, 1917.

Ser. No. 113,829. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE HESS STEEL CORP., Baltimore, Md. Filed Oct. 21, 1918.

HESSTEEL

Particular description of goods.—Steel Bars, Billets, Sheets, and Ingots.

Claims use since Aug. 20, 1918.

Ser. No. 114,113. (CLASS 39. CLOTHING.) INMAN HOSEMAN COMPANY, Elizabeth City, N. C. Filed Nov. 9, 1918.

INMAN

The lining in the drawing is for shading and not for color.

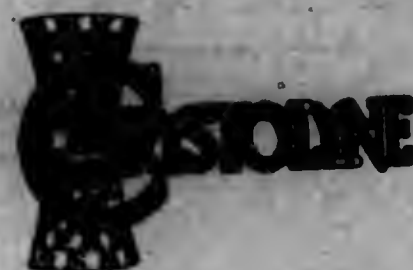
Particular description of goods.—Men's Half-Hose.
Claims use since July, 1918.

Ser. No. 114,293. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) OTIS COMPANY, Ware, Mass. Filed Nov. 22, 1918. Under ten-year proviso.

OTIS

Particular description of goods.—Cotton Piece Goods.
Claims use since 1840.

Ser. No. 114,402. (CLASS 33. GLASSWARE.) CATO-TOLINE CUT GLASS COMPANY, Brooklyn, N. Y. Filed Dec. 5, 1918.

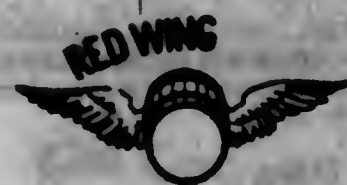


No claim being made to the illustration of a vase apart from the mark shown in the drawing.

Particular description of goods.—Cut-Glass Articles comprising Dishes, Vases, Bowls, Nappies, Jugs, Tumblers, Puff-Boxes, and Hair-Receivers.

Claims use since Oct. 18, 1918.

Ser. No. 114,680. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WINE LIQUOR OIL COMPANY, Newark, N. J. Filed Dec. 14, 1918.



Particular description of goods.—Animal and Stock Foods.

Claims use since Sept. 27, 1912.

Ser. No. 114,794. (CLASS 39. CLOTHING.) CHERRY BROTHMAN, South Manchester, Conn. Filed Dec. 20, 1918.

Aura

Particular description of goods.—Hosiery, Cravats.
Claims use since Dec. 14, 1918.

[Vol. 303. No. 4.]

Ser. No. 114,771. (CLASS 39. CLOTHING.) EST-JOUVIN FRERES & Co., Grenoble, France. Filed Dec. 21, 1918.

Veloutine

Particular description of goods.—Gloves.
Claims use since Feb. 24, 1905.

Ser. No. 114,831. (CLASS 9. EXPLOSIVES, FIRE-ARMS, EQUIPMENTS, AND PROJECTILES.) THE RUSSELL MFG. CO., Middletown, Conn. Filed Dec. 26, 1918.



Particular description of goods.—Woven Belts for Military Equipment—Namely, Woven Belts for Cartridge Belts, Woven Belts for Military Haversacks, Woven Belts for Military Bag Carriers, and Woven Belts for Military-Implement Carriers.

Claims use since September, 1918.

Ser. No. 114,862. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) LOUIS R. MENDELSON, Cleveland, Ohio. Filed Dec. 23, 1918.

Hotstream

Particular description of goods.—Gas, Gasolene, and Vapor Water-Heaters and Draft-Hoods Therefor.

Claims use since Apr. 1, 1915.

Ser. No. 114,973. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GRAY BROS. INC., New York, N. Y. Filed Jan. 3, 1919.

HYGLO

Particular description of goods.—Nail-Polish, Cuticle-Remover, Nail-White, Nail-Polish Paste, Nail-Rouge, Rouge, Compact Face-Powders, Face-Powders, Lip-Sticks, and Eyebrow-Pencils.

Claims use on nail-polish since Oct. 19, 1914; cuticle-remover, Mar. 22, 1918; nail-white, Sept. 20, 1918; nail-polish paste, Nov. 18, 1918; nail-rouge, Nov. 18, 1918; rouge, Mar. 21, 1919; compact face-powders, Mar. 21, 1919; face-powders, lip-sticks, eyebrow-pencils, Sept. 6, 1919.

[Vol. 303. No. 4.]

Ser. No. 115,048. (CLASS 22. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE CRAIG TRACTOR COMPANY, Euclid, Ohio. Filed Jan. 8, 1919.

CRAIG TRACTOR

No claim being made to the word "Tractor" apart from the mark shown in the drawing.

Particular description of goods.—Farm-Tractors.
Claims use since Aug. 12, 1918.

Ser. No. 115,063. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) BEAR LITHIA SPRINGS CO., New York, N. Y. Filed Jan. 10, 1919.

Bear

Particular description of goods.—Non-Alcoholic Beverages or Soft Drinks, as Follows: Still and Sparkling Table-Water, Ginger-Ale, Sarsaparilla, Birch-Beer, Lemon-Soda, Orange-Soda, Root-Beer, Blood-Orange, Cream-Soda, and Orange-Phosphate.

Claims use since about 1886 on still and sparkling table-water and since January, 1913, on the other non-alcoholic beverages or soft drinks enumerated.

Ser. No. 115,137. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANCIS H. BLAWIE, Somerville, Mass. Filed Jan. 12, 1919.

AUNT MARTHA'S

The words "Aunt Martha's."

Particular description of goods.—Bread.
Claims use since Nov. 18, 1918.

Ser. No. 115,150. (CLASS 39. CLOTHING.) WILLIAM PURNASH, St. Louis, Mo. Filed Jan. 13, 1919.

VENUS

Particular description of goods.—Metallic Heels for Leather Boots and Shoes for Men, Women, and Children.
Claims use since Dec. 15, 1918.

Ser. No. 115,208. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEON BROTHMAN, Arecibo, Porto Rico. Filed Jan. 15, 1919.

ARKADIA

Particular description of goods.—Aperient Reconstituent Pills and Preparations for Use in Cases of General Debility and Want of Appetite, Preferably in the Form of Pills.

Claims use since the 1st day of January, 1917.

[Vol. 303. No. 4.]

Ser. No. 115,211. (CLASS 39. CLOTHING.) THE LEAVENGOOD GLOVE & GARMENT CO., Coshocton, Ohio. Filed Jan. 15, 1919.



SEE THAT THUMB?
"THE IDEAL"
IT'S DIFFERENT

No exclusive claim being made to the picture of a glove nor to the legend "See That Thumb? It's Different" except in connection with the mark shown.
Particular description of goods.—Fabric Gloves.
Claims use since Jan. 11, 1919.

Ser. No. 115,224. (CLASS 15. OILS AND GREASES.) BERNARD MULLER-THYM, Kansas City, Mo. Filed Jan. 16, 1919.

POCO

Particular description of goods.—Oil for Sanctuary Lamps and Candles.
Claims use since about Oct. 28, 1917.

Ser. No. 115,287. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) KLAXON COMPANY, Newark, N. J. Filed Jan. 18, 1919.

KLAXOCATOR

Particular description of goods.—Code-Signal Transmitters for Calls, Annunciators, Alarms, &c.
Claims use since Jan. 1, 1919.

Ser. No. 115,349. (CLASS 12. CONSTRUCTION MATERIALS.) THE KENMORE WALLBOARD CO., Kenmore, N. Y. Filed Jan. 21, 1919.



No claim for the words "Blak Bok" being made apart from the mark shown in the drawing.
Particular description of goods.—Wall-Board.
Claims use since July 1, 1918.

Ser. No. 115,363. (CLASS 9. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS WALSHYANGSTE, Cleveland, Ohio. Filed Jan. 21, 1919.

ZBLA

No claim being made to the words "Trade Mark Reg. U. S. Pat. Off.—Namely, the word "Zbla."
Particular description of goods.—A Medical Preparation for Rheumatism.
Claims use for a period of seven months, commencing Oct. 12, 1918.

Ser. No. 115,611. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EMPIRE SILK COMPANY, Wilmington, Del., and New York, N. Y. Filed Feb. 4, 1919.

Crepespun

Particular description of goods.—Silk Piece Goods.
Claims use since the 21st day of January, 1919.

Ser. No. 115,656. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) ECLIPSE PHOTOGRAPH CORPORATION, Paterson, N. J. Filed Feb. 4, 1919.

Electra

Particular description of goods.—Phonographs.
Claims use since Feb. 1, 1919.

Ser. No. 115,723. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EMPIRE SILK COMPANY, Wilmington, Del., and New York, N. Y. Filed Feb. 10, 1919.

Zephyrspin

Particular description of goods.—Silk Piece Goods.
Claims use since the 21st day of January, 1919.

Ser. No. 115,741. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) TRAFFIC MOTOR TRUCK CORPORATION, St. Louis, Mo. Filed Feb. 10, 1919.

Traffic

Particular description of goods.—Motor-Trucks.
Claims use since July 7, 1917.

[Vol. 508. No. 4.]

Ser. No. 115,861. (CLASS 39. CLOTHING.) LOUIS MARCUS, Baltimore, Md. Filed Feb. 14, 1919.

Yeomanette

Particular description of goods.—Ladies' Outer Garments Consisting of Cloaks, Coats, and Suits, Midie-Blouses, and Dresses.
Claims use since about Jan. 15, 1919.

Ser. No. 115,870. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) SALVATORE BAGNULO, Boston, Mass. Filed Feb. 15, 1919.



Particular description of goods.—Sprays and Showers Adapted to be Fitted to Bath-Tubs.
Claims use since about Dec. 15, 1918.

Ser. No. 115,879. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE LUXENHIMER CO., Cincinnati, Ohio. Filed Feb. 15, 1919.



Particular description of goods.—Water Columns, Water-Gages.
Claims use since Sept. 1, 1918.

Ser. No. 115,880. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE LUXENHIMER CO., Cincinnati, Ohio. Filed Feb. 15, 1919.



Particular description of goods.—Pop-Valve Mufflers, Steam and Air Whistles, Steam-Boiler Oil-Injectors, In-

[Vol. 508. No. 4.]

jectors and Ejectors of Feed-Water for Steam-Bollers, Strainers for Injectors and Ejectors of Feed-Water for Steam-Bollers, Strainers for Gasoline-Engines, Mechanical Primers for Gasoline-Engines and Parts of These Primers; Mechanical, Hydrostatical, and Gravity-Feed Lubricators; Oil-Pumps, Sight-Feed Valves, Drip-Valves, Multiple Oilers, Wiper-Cups, Drip-Troughs as Parts for Machinery Lubrication and the Attachments for Holding These Parts, Grease-Cups, Oil-Cups, Low-Water Alarms for Steam-Bollers, and Fusible Plugs for Low-Water Alarms for Steam-Bollers.
Claims use since Sept. 1, 1918.

Ser. No. 115,948. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOSEPH F. DWYER, Seattle, Wash. Filed Feb. 18, 1919.

BARGAIN

Particular description of goods.—Ticket-Dispensing Machines.
Claims use since June 1, 1918.

Ser. No. 115,962. (CLASS 39. CLOTHING.) ARTHUR D. KATCHER, New York, N. Y. Filed Feb. 19, 1919.



Particular description of goods.—Infants' and Children's Headwear—Namely, Infants' Caps and Bonnets; Children's Caps and Hats; Wash-Hats; Children's Fokes and Toques and Straw Hats; Infants' Lawn and Silk Caps.
Claims use since Jan. 24, 1919.

Ser. No. 116,138. (CLASS 39. CLOTHING.) CECILIA LEVY, New York, N. Y. Filed Feb. 25, 1919.

Jimbad

Particular description of goods.—Women's Hats.
Claims use since Feb. 12, 1919.

Ser. No. 116,180. (CLASS 39. CLOTHING.) M. R. & G. FRANK, INC., Providence, R. I. Filed Feb. 27, 1919.



The picture being fanciful.

Particular description of goods.—Wearing-Apparel for Men and Women, as Follows: Women's Gowns, Dresses, Blouses, Sweaters, Under and Outer Skirts; Muffs, Coats, and Neck-Pieces of Fur; Collars of Textile Fabrics; Capes, Shawls, and Scarfs of Textile Fabrics; Trimmings and Untrimmed Hats, Caps, and Bonnets; Muffs of Textile Fabrics, Chemises, Drawers, Corset-Covers, Combination-Garments, Princess Slips and Camisoles, Nightgowns and Pajamas, Brassières; Linen, Silk, and Cotton Hosiery, and Men's and Women's Leather and Fabric Gloves.

Claims use since Feb. 10, 1919.

Ser. No. 116,282. (CLASS 39. CLOTHING.) TOM WYB INC., Winchendon, Mass. Filed Mar. 3, 1919.

Wetherkote

The word "Kote" is hereby disclaimed apart from the mark shown on the drawing.

Particular description of goods.—Knit Jackets, Sweaters, Jerseys, Caps, Neckscarfs, Swimming and Bathing Suits, Knitted One-Piece Underwear, Mittens, Stockings for Men, Women, and Children.

Claims use since January, 1918.

Ser. No. 116,430. (CLASS 39. CLOTHING.) SCHULMAN COMPANY, INC., New York, N. Y. Filed Mar. 8, 1919.

Khaki-Doo

No claim being made to the word "Khaki" except in association with the remainder of the mark shown.

Particular description of goods.—Men's Working Clothes—Namely, Overalls, Jumpers, Outer Shirts, also Sporting Jackets, Coats, Suits, and Trousers; Uniforms for Men, Women and Children; Women's and Children's Outer Shirts, Bloomers, Suits, Skirts, and Dresses, and Leather and Fabric Leggings for Both Men and Women.

Claims use since Jan. 31, 1919.

Ser. No. 116,446. (CLASS 38. PRINTS AND PUBLICATIONS.) GORDON C. SMITH, Los Angeles, Calif. Filed Mar. 10, 1919.

Who's Here?

Particular description of goods.—A Monthly Magazine. Claims use since Dec. 1, 1918.

Ser. No. 116,478. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM P. SAUNDERS, Birmingham, Ala. Filed Mar. 11, 1919.



Particular description of goods.—Tonic for Improving the Tone of the Muscles, Nerves, Blood, and System Generally.

Claims use since Feb. 10, 1919.

Ser. No. 116,481. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WILLIAM T. BAKER, INC., Jersey City, N. J. Filed Mar. 12, 1919.



Particular description of goods.—Oil Wall-Paints. Claims use since December, 1918.

Ser. No. 116,557. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) UNITED ADVERTISING & SALES CO., San Francisco, Calif. Filed Mar. 13, 1919.



Particular description of goods.—Electric Automatic Advertising-Machines.

Claims use since May 1, 1918.

Ser. No. 116,558. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) UNITED ADVERTISING & SALES CO., San Francisco, Calif. Filed Mar. 13, 1919.



Particular description of goods.—Electric Automatic Advertising-Machines.

Claims use since May 1, 1918.

Ser. No. 116,628. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) SIMMONS HARDWARE COMPANY, St. Louis, Mo. Filed Mar. 18, 1919.

KLIPPER KLUK

No claim being made to the exclusive use of the word "Kluk" apart from the mark shown in the drawing.

Particular description of goods.—Shirts.

Claims use since May 19, 1907.

Ser. No. 116,642. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) AUGUST A. BUSCH, Jr., Sappington, Mo. Filed Mar. 17, 1919.



No claim being made to the phrase "Try These Waters at the Mill, Pure as Notes of Whip-Poor-Will" apart from the mark shown in the drawing.

Particular description of goods.—A Natural Spring Table-Water.

Claims use since July, 1917.

Ser. No. 116,643. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) AUGUST A. BUSCH, Jr., Sappington, Mo. Filed Mar. 17, 1919.



Consisting of the name "Wish-Ton-Wish." Particular description of goods.—A Natural Spring Table-Water.

Claims use since July, 1917.

Ser. No. 116,661. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAX ROUSIN, Chicago, Ill. Filed Mar. 17, 1919.



The picture of the lady forming part of the said trademark is purely fanciful. The letters forming the words "Crème of Youth" are printed in black with borders of tan.

Particular description of goods.—Face-Cream.

Claims use since Jan. 10, 1919.

Ser. No. 116,668. (CLASS 39. CLOTHING.) BEN WINN & CO., New York, N. Y. Filed Mar. 21, 1919.

PENROD

Consisting of the word "Penrod." Particular description of goods.—Boys', Juveniles', High-School-Boys', and Young Men's Overcoats and Outer Suits in One, Two, and Three Piece Garments.

Claims use since Mar. 12, 1919.

Ser. No. 116,806. (CLASS 39. CLOTHING.) WAY BROS. MANUFACTURING COMPANY, Philadelphia, Pa. Filed Mar. 21, 1919.

WAYWELL

Particular description of goods.—Undershirts, Drawers, and Union-Suits for Men, Women, and Children, Made of Knit Fabrics.

Claims use since Jan. 2, 1919.

Ser. No. 116,808. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE BRER HILL STEEL COMPANY, Youngstown, Ohio. Filed Mar. 22, 1919.



Particular description of goods.—Pig-Iron Manufactured in Blocks and Molds. Claims use since Dec. 30, 1884.

Ser. No. 116,840. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) LAS-STIK PATCH MFG. CO., Hamilton, Ohio. Filed Mar. 24, 1919.



Particular description of goods.—Fabric-and-Rubber Repair-Patches. Claims use since Oct. 1, 1917.

Ser. No. 116,973. (CLASS 38. PRINTS AND PUBLICATIONS.) PUBLIC LEDGER COMPANY, Philadelphia, Pa. Filed Mar. 27, 1919.

FOLLIES OF THE PASSING SHOW

Particular description of goods.—An Art Feature—Namely, a Series of Cartoons.
Claims use since July 1, 1918.

Ser. No. 116,985. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE BISHOP & BARCOCK COMPANY, Cleveland, Ohio. Filed Mar. 26, 1919.

Multiflex

Particular description of goods.—Return-Line Traps, Air-Valves, and Damper-Regulators, All for Steam-Heating Systems.
Claims use since Mar. 1, 1918.

Ser. No. 116,991. (CLASS 39. CLOTHING.) KING BROS. SHOE CO., Bristol, Tenn. Filed Mar. 28, 1919.

**FOUR
4
SQUARE**

Particular description of goods.—Men's, Boys', Women's, and Children's Leather Boots and Shoes.
Claims use since Mar. 1, 1919.

Ser. No. 117,029. (CLASS 15. OILS AND GREASES.) WHITE STAR REFINING CO., Detroit, Mich. Filed Mar. 29, 1919.

STAROLINE

Particular description of goods.—Petroleum Products, as Follows: Motor-Oil, Cylinder-Oil, Engine-Oil, Soluble Oil Primarily for Machine-Tool Lubrication, Drawing-Oil Primarily for Use in Drawing Metals, Fuel-Oil, Machine-Oil, Cutting and Drawing Oil Compounds, and Differential-Grease.
Claims use since Dec. 1, 1917.

Ser. No. 117,159. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FAIRTS & WIEHL COMPANY, Chattanooga, Tenn. Filed Apr. 4, 1919.

**GAD-
U-
TONE**

Particular description of goods.—A Medicinal Tonic Acting as a Reconstructive, Histogenetic, Roborant, and Nutrient.
Claims use since the year 1899.

Ser. No. 117,161. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. W. HOFFMEIER, Chicago, Ill. Filed Apr. 4, 1919.

VELCO

Particular description of goods.—A Medical and Toilet Cream for All Foot Troubles, Tired or Aching Feet; Perspiring, Burning, or Blistered Feet; Frost-Bites, Chilblains, Calluses, for External Use.
Claims use since Mar. 15, 1917.

Ser. No. 117,212. (CLASS 39. CLOTHING.) OTTO E. ALBRECHT, St. Paul, Minn. Filed Apr. 7, 1919. Under ten-year proviso.

Albrecht Furs
1835

Particular description of goods.—Muffs, Caps, Hats, Neckwear, Gloves, Robes for Personal Wear, Coats, Cloaks, and Capes, All Made of Fur.
Claims use since the year 1865.

Ser. No. 117,252. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) REICHMAN & FAUST, New York, N. Y. Filed Apr. 7, 1919.

ALADDIN

Particular description of goods.—Hair-Nets.
Claims use since about April, 1918.

[Vol. 298. No. 4.]

Ser. No. 117,261. (CLASS 39. CLOTHING.) ALEXIS WEIL, New York, N. Y. Filed Apr. 7, 1919.



No claim being made to the words "Hose" and "Reinforced Heel and Toe."
Particular description of goods.—Men's, Women's, and Children's Hosiery.
Claims use since the year 1918.

Ser. No. 117,324. (CLASS 17. TOBACCO PRODUCTS.) THE FRANCO-AMERICAN CIGARETTE & TOBACCO CO., INC., Louisville, Ky. Filed Apr. 10, 1919.

**BIG FIVE
5**

Particular description of goods.—Smoking and Chewing Tobaccos and Cigarettes.
Claims use since Jan. 1, 1919.

Ser. No. 117,373. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CONSOLIDATED GROCERY COMPANY, Sioux City, Iowa. Filed Apr. 11, 1919.

EGG-O-TONE

Particular description of goods.—A Medicinal Product for Keeping Fowls Healthy and Increasing the Production of Eggs.
Claims use since Mar. 1, 1917.

Ser. No. 117,380. (CLASS 39. CLOTHING.) LAING, HARRIS & CHAMBERLAIN, Philadelphia, Pa. Filed Apr. 11, 1919.

TRUFIT

Particular description of goods.—Cloth and Felt Spats and Overgaiters.
Claims use since about Apr. 2, 1917.

[Vol. 298. No. 4.]

Ser. No. 117,392. (CLASS 39. CLOTHING.) NATHANIEL C. SMOLIN, New York, N. Y. Filed Apr. 11, 1919.

Bluebird

Particular description of goods.—Women's and Misses' Hats.
Claims use since about Jan. 1, 1915.

Ser. No. 117,393. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM S. CURTIN, Lynn, Mass. Filed Apr. 12, 1919.

SPRAYOLINE

Particular description of goods.—Medicine, and More Specifically Described as a Preparation with a Petroleum Base Containing Camphor, Menthol, Oils of Eucalyptus, Globules, Pinus, Pumilio, with Aromatics, Which Form a Healing Agent in All Forms of Catarrhal Affections and Diseases Affecting the Mucous Membranes of Nose and Throat.
Claims use since July 28, 1918.

Ser. No. 117,441. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CREOTINA CHEMICAL COMPANY, St. Louis, Mo. Filed Apr. 14, 1919.

CREOTINA

Particular description of goods.—A Preparation for Pulmonary Troubles and Bronchial, Nasal, and Throat Affections.
Claims use since May or June, 1914.

Ser. No. 117,445. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) DOERFLER DIE-CASTING COMPANY, Brooklyn, N. Y. Filed Apr. 14, 1919.

DO-DI

Particular description of goods.—Brass Castings.
Claims use since approximately Aug. 1, 1917.

Ser. No. 117,468. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY DUNN, Lodi, Calif. Filed Apr. 14, 1919.

ALADDIN

Particular description of goods.—Hair-Tonic.
Claims use since Mar. 7, 1919.

Ser. No. 117,484. (CLASS 9. EXPLOSIVES, FIRE-ARMS, EQUIPMENTS, AND PROJECTILES.) WM. BENDIS MANUFACTURING COMPANY, Walden, N. Y. Filed Apr. 15, 1919.



Particular description of goods.—Shotguns, Rifles, Gun-Cases, Holsters, and Cartridge-Belts.
Claims use since Jan. 11, 1907.

Ser. No. 117,485. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ETNA CHEMICAL COMPANY, New York, N. Y. Filed Apr. 15, 1919.



Particular description of goods.—An Antipyretic and Analgesic Medical Preparation.
Claims use since 1890.

Ser. No. 117,652. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EAST WHITTIER CITRUS ASS'N, East Whittier, Calif. Filed Apr. 21, 1919.

Tom Sawyer

Particular description of goods.—Fresh Citrus Fruits—Namely, Lemons.
Claims use since Jan. 1, 1918.

Ser. No. 117,700. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOPKINS SHIPPERS, Tacoma, Wash. Filed Apr. 21, 1919.

PICK-A-MIX

"Pick-A-Mix."
Particular description of goods.—Mixed Pickle.
Claims use since Feb. 1, 1917.

Ser. No. 117,709. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE TEXAS COMPANY, Houston, Tex., and New York, N. Y. Filed Apr. 21, 1919.

RESTOLENE

Particular description of goods.—Petrolatum and Petroleum Jelly.
Claims use since Mar. 27, 1919.

Ser. No. 117,719. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE WESTCOTT-MOTON CAR COMPANY, Springfield, Ohio. Filed Apr. 21, 1919.



That part of the drawing which is double cross-hatched by dash-lines representing orange color. No claim is made to the name "Westcott" apart from the mark shown in the drawing.

Particular description of goods.—Automobiles.
Claims use since Feb. 20, 1919.

Ser. No. 117,720. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) MAYFLOWER RUBBER WORKS COMPANY, Braintree, Mass. Filed Apr. 22, 1919.



Particular description of goods.—Inner Tubes and Rubber Tires for Vehicles.
Claims use since November, 1917.

Ser. No. 117,722. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) MAYFLOWER RUBBER WORKS COMPANY, Braintree, Mass. Filed Apr. 22, 1919.

MAYFLOWER

Particular description of goods.—Inner Tubes and Rubber Tires for Vehicles.
Claims use since November, 1917.

Ser. No. 117,728. (CLASS 42. THREAD AND YARN.) MARLBORO COTTON MILLS, McColl, S. C. Filed Apr. 22, 1919.

MARLBORO



No claim being made to the word "Marlboro" apart from the mark shown in the drawing.
Particular description of goods.—Yarns.
Claims use since Oct. 2, 1918.

[Vol. 208. No. 4.]

Ser. No. 117,808. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MILLARD F. BOQUETTE, Council Bluffs, Iowa. Filed Apr. 26, 1919.



BOQUETTE'S FAMILY REMEDY

The portrait shown is that of myself. No claim is made to the words "Boquette's Family Remedy" apart from the trade-mark shown in the drawing.

Particular description of goods.—A Preparation for the Treatment of Chills, Fever, Rheumatism, Neuralgia, Lumbago, Heart Trouble, Constipation, Indigestion, Catarrh, Kidney Trouble, Stomach Trouble, Headache, Grippe, Blood Diseases, and Nerve Trouble.
Claims use since Apr. 1, 1918.

Ser. No. 117,878. (CLASS 29. CLOTHING.) ERCO RUBBER COMPANY, Trenton, N. J. Filed Apr. 26, 1919.

ERCO

Particular description of goods.—Rubber and Composition Soles and Heels.
Claims use since about the middle of June, 1918.

Ser. No. 117,879. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ISOL TOILET CO., New York, N. Y. Filed Apr. 26, 1919.



Particular description of goods.—A Dressing for the Hair.
Claims use since Apr. 14, 1919.

Ser. No. 117,879. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHNSON-EARL-MYERS COMPANY, Pittsburgh, Pa. Filed Apr. 26, 1919.

AMAZING



Particular description of goods.—Coffee.
Claims use since December, 1918.

[Vol. 208. No. 4.]

Ser. No. 117,941. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MASSACHUSETTS COTTON MILLS, Lowell and Boston, Mass. Filed Apr. 28, 1919.

VICKY

Particular description of goods.—Cotton Piece Goods.
Claims use since Feb. 1, 1919.

Ser. No. 117,976. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PETER M. HAMACHER, Deer Park, Wash. Filed Apr. 29, 1919.

"P-H"

Particular description of goods.—A Medicine for the Treatment of Diarrhea and Colds.
Claims use since Apr. 1, 1919.

Ser. No. 117,984. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MASSARO MACARONI COMPANY, Fulton, N. Y. Filed Apr. 29, 1919.



Particular description of goods.—Macaroni, Elbows, and Spaghetti.
Claims use since about the 15th of June, 1911.

Ser. No. 118,054. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WALTER V. JUDKINS, Boston, Mass. Filed May 1, 1919.

XXX

Particular description of goods.—Ribbons.
Claims use since September, 1908.

Ser. No. 118,078. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS E. CONNOR, Lynn, Mass. Filed May 2, 1919.



Particular description of goods.—Pile-Ointment.
Claims use since Apr. 22, 1919.

[Vol. 208. No. 4.]

Ser. No. 118,114. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WALTER V. JUDKINS, Boston, Mass. Filed May 3, 1919.

RECORD

Particular description of goods.—Ribbons.
Claims use since January, 1912.

Ser. No. 118,127. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & Co. Inc., New York, N. Y. Filed May 3, 1919.

Prybiloff

Particular description of goods.—Pile Fabrics in the Piece.
Claims use since the 7th day of January, 1919.

Ser. No. 118,129. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & Co. Inc., New York, N. Y. Filed May 3, 1919.

Polariskin

Particular description of goods.—Pile Fabrics in the Piece.
Claims use since the 17th day of February, 1919.

Ser. No. 118,130. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & Co. Inc., New York, N. Y. Filed May 3, 1919.

Iceutex

Particular description of goods.—Pile Fabrics in the Piece.
Claims use since the 22d day of February, 1919.

Ser. No. 118,131. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SIDNEY BLUMENTHAL & Co. Inc., New York, N. Y. Filed May 3, 1919.

Anniemole

Particular description of goods.—Pile Fabrics in the Piece.
Claims use since the 17th day of April, 1918.

Ser. No. 118,150. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHNSON-EARL-MAYERS COMPANY, Pittsburgh, Pa. Filed May 3, 1919.



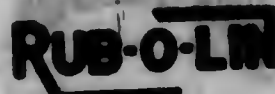
Particular description of goods.—Blended and Roasted Coffee.
Claims use since December, 1918.

Ser. No. 118,151. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHNSON-EARL-MAYERS COMPANY, Pittsburgh, Pa. Filed May 3, 1919.



No claim being made for the words "Our Choice" except in connection with the mark as shown.
Particular description of goods.—Roasted Coffee.
Claims use since August, 1917.

Ser. No. 119,183. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ORRISMER S. RIMER, Dayton, Ohio. Filed May 3, 1919.



Particular description of goods.—Salve for Congestion and Inflammation, Colds in the Head, Colds on the Chest, Spasmodic Croup, Whooping-Cough, Bronchitis, Catarrh, Tonsillitis, Asthma, Hay-Fever, Sore Throat, Pleurisy, Rheumatism, Neuralgia, Headache, Bruises, Burns, Sore Feet, Sprains, Insect-Bites, Insect-Stings, Wounds, Cuts, Piles, Stiff Joints, Cold Sores, Stiff Neck, and Earache.
Claims use since May, 1918.

[Vol. 263. No. 4.]

TRADE-MARK REGISTRATIONS GRANTED

JUNE 24, 1919.

125,861. CERTAIN NAMED FIRE APPARATUS. AMERICAN LA FRANCE FIRE ENGINE COMPANY, INC., Elmira, N. Y.

Filed March 22, 1919. Serial No. 116,806.

125,862. STOCK AND POULTRY FEED. J. J. BARNHART Co., Chicago, Ill.

Filed January 4, 1919. Serial No. 114,966. PUBLISHED MARCH 11, 1919.

125,863. VEGETABLE, GARDEN, AND FIELD SEEDS. F. W. BOLGIANO & COMPANY, INC., Washington, D. C.

Filed December 7, 1918. Serial No. 114,526. PUBLISHED FEBRUARY 25, 1919.

125,864. SUBSTITUTE FOR EGGS. ARTHUR N. CHRISTY & Co., Newark, N. Y.

Filed May 24, 1918. Serial No. 111,168. PUBLISHED MARCH 18, 1919.

125,865. CERTAIN NAMED ENAMELED WARE FOR HOUSEHOLD USE. COLUMBIAN ENAMELING & STAMPING COMPANY, Terre Haute, Ind.

Filed June 11, 1918. Serial No. 111,487. PUBLISHED NOVEMBER 20, 1918.

125,866. FRESH FRUITS—NAMESLY, APPLES, ORANGES, LEMONS, PEACHES, PEARS, AND PLUMS. CONSUMERS FRUIT COMPANY OF AMERICA, Chicago, Ill.

Filed July 11, 1918. Serial No. 112,056. PUBLISHED MARCH 11, 1919.

125,867. TEXTILE THREADS AND YARNS. DOMESTIC MILLS COMPANY, Lowell, Mass.

Filed January 20, 1919. Serial No. 116,316. PUBLISHED FEBRUARY 25, 1919.

125,868. CANDY. ELPS CONFECTIONERY Co., New York, N. Y.

Filed January 27, 1919. Serial No. 115,451. PUBLISHED MARCH 18, 1919.

125,869. NON-ALCOHOLIC MALTLESS BEVERAGE, NOT OF A CEREAL NATURE, SOLD AS A SOFT DRINK. MEYER BREWERY, Atlanta, Ga.

Filed December 9, 1918. Serial No. 114,561. PUBLISHED MARCH 18, 1919.

125,870. CANDIES. EYE BRAND CONFECTIONERY, Inc., Brooklyn, N. Y.

Filed January 21, 1919. Serial No. 115,341. PUBLISHED MARCH 18, 1919.

125,871. ROOF-VENTILATORS AND TIN FIRE-DOORS. FALSTROM & TORNGUIST Co., Passaic, N. J.

Filed April 27, 1918. Serial No. 110,478. PUBLISHED FEBRUARY 25, 1919.

125,872. SELF-RISING PANCAKE-FLOUR. C. A. GAMBRILL MANUFACTURING COMPANY, Baltimore, Md.

Filed February 4, 1919. Serial No. 115,616. PUBLISHED MARCH 18, 1919.

125,873. TOPS FOR VEHICLES. GOLDS PATENT MANUFACTURING Co., Inc., New York, N. Y.

Filed December 21, 1918. Serial No. 114,766. PUBLISHED FEBRUARY 25, 1919.

125,874. BREAD. C. F. HATHAWAY & SONS, North Cambridge, Mass.

Filed December 24, 1917. Serial No. 108,129. PUBLISHED MARCH 5, 1918.

125,875. FLY-SWATTERS. ANSON VERN MARTIN, Chicago, Ill.

Filed July 10, 1918. Serial No. 112,218. PUBLISHED FEBRUARY 25, 1919.

125,876. WHEAT-FLOUR. OTTAWA MILLING COMPANY, Kansas City, Mo., and Ottawa, Kans.

Filed January 11, 1919. Serial No. 115,127. PUBLISHED MARCH 18, 1919.

125,877. CERTAIN NAMED FOODS. GEORGE W. PELL, Denver, Colo.

Filed September 10, 1918. Serial No. 113,110. PUBLISHED MARCH 18, 1919.

125,878. FRESH AND CURED PORK, SAUSAGE, AND LARD. STERLING S. PRICE, Lexington, Ky.

Filed May 10, 1916. Serial No. 95,052. PUBLISHED FEBRUARY 25, 1919.

125,879. CANNED FRUITS AND CANNED BERRIES. H. G. PRINCE & Co., Oakland, Calif.

Filed September 23, 1918. Serial No. 113,377. PUBLISHED MARCH 18, 1919.

125,880. CHOCOLATE CANDY. THE PURITAN CHOCOLATE Co., Cincinnati, Ohio.

Filed September 25, 1918. Serial No. 113,382. PUBLISHED MARCH 18, 1919.

125,881. CERTAIN NAMED THREADS AND YARNS. RICHARDSON SILK COMPANY, Chicago, Ill.

Filed February 6, 1918. Serial No. 108,846. PUBLISHED FEBRUARY 25, 1919.

125,882. LIMESTONE-ROCK CHICKEN FEED. ROCK-FIELD PRODUCTS COMPANY, Milwaukee, Wis.

Filed July 29, 1918. Serial No. 112,412. PUBLISHED MARCH 11, 1919.

125,883. OLIVE-OIL. ANTHONY RUBINO, New York, N. Y.

Filed January 30, 1919. Serial No. 115,842. PUBLISHED MARCH 18, 1919.

125,884. CANDY, AND MORE PARTICULARLY CHOCOLATES AND BONBONS. EMIL J. SCHUMMANN, Philadelphia, Pa.

Filed August 17, 1917. Serial No. 105,705. PUBLISHED MARCH 5, 1918.

125,885. STOCK FOOD. SYRACUSE MILLING COMPANY, Syracuse, N. Y.

Filed July 1, 1918. Serial No. 111,912. PUBLISHED MARCH 18, 1919.

125,886. CANDIES. THE TOURAINE COMPANY, Boston, Mass.

Filed January 9, 1919. Serial No. 115,078. PUBLISHED MARCH 18, 1919.

TRADE-MARK REGISTRATIONS RENEWED.

15,963. TOILET POWDERS. ALEXANDRE NAPOLÉON BOURJOIS, Paris, France; A. Bourjois & Co., Inc., assignee.

Registered November 6, 1888. Renewed November 6, 1918.

14,187. PERFUMERY. EMILE MEYER, Paris, France; H. & G. Klotz & Co., successors.

Registered March 22, 1887. Renewed March 22, 1917.

16,486. RUM. HENRY WHITE & Co., London, England.

Registered April 9, 1880. Renewed April 9, 1919.

DECISIONS

OF THE COMMISSIONER OF PATENTS AND OF UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS

EX PARTE SAMUEL CADOT, INC.

Decided June 2, 1922.

TRADE-MARKS—"OLD VIRGINIA" GEOGRAPHICAL.

The term "Old Virginia" is geographical, and therefore not registrable as a trade-mark.

ON APPEAL.

TRADE-MARK FOR PAINTS, COATINGS, TINTS, ETC.

Mr. HENRY Spear, Jr., for the applicant.

Newton, Commissioner:

This is an appeal from the decision of the Examiner of Trade-Marks refusing to register "Old Virginia," for paints and stains, on the ground that "Old Virginia" is geographical, it being the well-known designation of the State of Virginia, the Examiner calling attention, further, to the fact that "Old Virginia" is applied to that State to distinguish it from West Virginia, which was cut off from Virginia.

Applicant contends, in effect, that the statute only provides for the rejection of marks consisting of words that are "merely" geographical and that "Old Virginia" stains, etc., has a fanciful significance in that it conveys the idea of whitewash on old plantation-houses of Virginia in antebellum days, which had a softness of tone which has become traditional in the South, and this is the sense in which this term would ordinarily be construed, and cites the allowance of such words as "Gibraltar," "Aurora," etc.

I am inclined to think that the Examiner was right. The geographical significance of "Old Virginia" is the prominent dominating idea conveyed by those words. The words may convey shades of meaning different from the geographical; but they are too indistinct to seriously consider or to form the basis of an allowance. They are not so fanciful as was "Columbia" in the celebrated case of *Columbia Mill Co. v. Alcorn et al.* (65 O. G., 1916; 159 U. S., 459.) In that case "Columbia" was not the ordinary name for the United States and might very well have been said to be fanciful, but was held geographical by the Court because the dominating prominent meaning was geographical.

In *ex parte A. S. Doyle Company* (125 M. S. Dec., 222) "Old English" was held to be geographical, and in *ex parte Wm. T. Mullikin Co., Inc.* (126 M. S. Dec.) "Old Dominion" was held geographical.

Following these decisions, the decision of the Examiner is affirmed.

EX PARTE MANGAN & Co.

Decided May 20, 1922.

TRADE-MARKS—"HAIRFOREVER," FOR A HAIR-TONIC—NOT DESCRIPTIVE.

The term "Hairforever," used as a trade-mark for a hair-tonic, held not descriptive, since the exclusive use of this word would not take away from the public any word which it would need in describing a hair-tonic.

ON APPEAL.

TRADE-MARK FOR HAIR-TONIC.

Mr. James H. Griffin for the applicants.

Newton, Commissioner:

This is an appeal from the decision of the Examiner of Trade-Marks refusing to register "Hairforever" as a trade-mark for hair-tonic, on the ground that the word indicates the effect of the use of the tonic, citing *ex parte George D. Krusen & Son*, (120 M. S. Dec., 16,) holding "No Hair" not registrable for a depilatory preparation, and *ex parte Kelly*, (114 M. S. Dec., 330,) holding "Everlasting," for dyes, unregistrable.

Applicant replies by citing "Footcase," for an instep-supporter, (115 M. S. Dec., 248;) "Holeproof," for hostery, (190 Fed. Rep., 606,) etc., and points out that even though "Hairforever" is suggestive it is such an exaggeration that it loses its descriptive properties, if it ever had any.

Applying the decision in *ex parte Boyce et al.* (190 O. G., 617) to this case, it is held—the exclusive use of this word leaves open to everybody else all words useful in describing any quality or property pertaining to this particular class of goods.

It is inconceivable that any one would attempt to describe any quality or composition of hair-tonic by the word "Hairforever," and it is not believed that the exclusive use of "Hairforever" will take away from the public any word which it would need or could use in describing its hair-tonic, and for this reason the word may be registered, and the decision of the Examiner of Trade-Marks is reversed.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Second Circuit.

PROCTER & GAMBLE Co. v. BERLIN MILLS Co.

Decided November 2, 1921; on petitions for rehearing January 9, 1922.

(208 Fed. Rep., 23.)

1. PATENTS—VALIDITY—PRESUMPTION.

The presumption of validity of a patent extends to the identity of the inventor, who swore to the invention in the statutory form.

2. SAME—DEFENSE—BURDEN OF PROOF.

In an infringement suit the contention that the one in whose name the patent was granted was not the actual inventor is an affirmative defense, which must be sustained by fair preponderance of the evidence.

3. SAME—INVENTOR.

It is immaterial whether a patentee understands or correctly states the theory or philosophy of the invention, so the fact that the one who patented a lardlike food consisting of incompletely-hydrogenated vegetable oil was not a chemist, etc., and did not understand all phenomena leading to the result does not, in an infringement suit, show that he was not the inventor.

4. SAME—INVENTION.

While it was old to form a lardlike compound by mixing animal stearin and cotton-seed oil and also to produce a hard product from cotton-seed oil by hydrogenation, a lardlike product consisting of an incompletely-hydrogenated vegetable oil was a new thing in the sense of the patent law, and the Burchenal patent, No. 1,135,351, for such a product is valid.

5. SAME—NOVELTY—HYDROGENIZED-VEGETABLE-OIL LARD.

What is practically lard, consisting solely of one vegetable oil in a state of arrested hydrogenation, is a new thing in the sense of the patent law, and not a lard substitute, so near to existing articles of commerce that the only field open to patentee was limited to a particular mode of making or by specifically-stated chemical tests.

6. SAME—PRODUCT—INFRINGEMENT.

A product patent is infringed if the product complained of is the patented article substantially as described, it making no difference by what path or process, new or old, inferior or improved, the infringing product is manufactured.

APPEAL from the District Court of the United States for the Southern District of New York.

Suit by the Procter & Gamble Company against the Berlin Mills Company. From a decree for defendant, complainant appeals. Reversed and remanded, with directions.

STATEMENT OF THE CASE.

The action is upon claims 1 and 2 of Patent No. 1,135,351, issued April 13, 1916, to the plaintiff herein, as assignee of John J. Burchenal, who is and long has been an officer of the corporate plaintiff. The claims are as follows:

1. A homogeneous lardlike food product, consisting of an incompletely hydrogenated vegetable oil.
2. A homogeneous lardlike food product, consisting of incompletely hydrogenated cotton seed oil.

The court below held in substance:

- (1) The disclosure did not amount to invention;
- (2) If there was invention, Burchenal was not the inventor; and
- (3) Upon a proper construction of the claims in suit there was no infringement.

The bill was accordingly dismissed, and the plaintiff took this appeal.

Mr. Livingston Gifford, Mr. Alfred M. Allen, and Mr. Thomas B. Kerr for the appellant.

Mr. John C. Pennie and Mr. Marcus B. May for the appellee.

Before WARD, ROGERS, and HOUGH, Circuit Judges. HOUGH, Cir. J., (after stating the facts as above:)

1. The patent declares that—this invention is a food product consisting of a vegetable oil, preferably cotton seed oil, partially hydrogenated and hardened to a homogeneous white or yellowish semi-solid, closely simulating lard.

This is a description of a visible, tangible thing which for some years has been manufactured and sold by plaintiff, as to which there is no evidence

[Vol. 300.

that anybody else ever made it before, or that if this product is entitled to patent protection there is any closely-related prior art.

Invention is denied, first, on the ground once taken by an Examiner in the Office, namely, that—If the problem of eliminating lard from cotton-seed oil were presented to an oil chemist, an incomplete hydrogenation of the cotton seed oil would at once suggest itself to him as a solution of the problem;

that is, (a) the matter is said to be so obvious as not to rise to the dignity of invention.

Another objection is that hydrogenation of vegetable oils was not new, and the discovery long prior to this application of catalysts not belonging to the "royal" group of metals had paved the way to effective and comparatively inexpensive hydrogenation. (Patent to Norman, British, No. 1,515 of 1903.) Prior to Burchenal's effective date it is admitted that the hydrogenic saturation of oil by catalytic means had been practised at least in well-known laboratories, and a hard fat produced, solid at ordinary temperatures and showing on analysis a very large percentage of stearic or palmitic acid. It is obvious that if one starts with (e. g.) cotton-seed oil, which is liquid at ordinary temperatures, because it has too little solid fat in it, and by chemical means so changes the molecular composition or arrangement of the substance as to increase the ratio of solid fat (i. e., unites enough hydrogen with linolin and olein to produce stearin), and thus produces the hard fat commonly known as stearin, there must have been a time during the development of the process when the union of hydrogen had only progressed far enough to convert the liquid into a semisolid.

Therefore it is said (b) that no man is entitled to a patent upon the thing or product which has always been produced when the process of making another thing or product was (say) half done.

The third objection to invention is substantially this: The merit or value of what Burchenal claims, and what this plaintiff makes and sells, is that it looks like lard, acts like lard, and can be used for the purposes of lard without offending the conservatism of chefs, housewives, and maid-servants. But before Burchenal many imitation lards were made by mechanically mixing hard animal fats and cotton-seed oil in varying proportions, and some of these mixtures show on analysis substantially the same chemical characteristics as are shown by Burchenal's chemically-produced "homogeneous semi-solid." Therefore it is said that to make the same thing as had been made by earlier lard imitators, but in a different way, cannot warrant a patent upon the resulting thing or product, whatever may be true in respect of the process by which that product is reached. This is as much as to say (c) that the Burchenal article when completed and ready for use must be old, because other men had earlier arrived at the same chemical result by other paths.

Objection (a) raises the question of fact encountered in a large proportion of patent cases, and concerning which discussion is of small value. No. 4.]

If the record discloses no one who ever tried to do the same thing in the same way. When novelty in that sense appears the question really is one of measuring foresight by hindsight. The problem seems easy now, but, when the object reached was desirable, useful, and apt for commercial success, the bald fact that nobody ever did it before is persuasive, though not conclusive, evidence of some invention. Burchenal's imitation lard has these attributes, and we consider it a sufficient answer, to the statement that any oil chemist could have done the thing, to note that no oil chemist did do it during the more than score of years prior to Burchenal's application, when cotton-seed oil (especially) as an abundant American product was endeavoring to supplant lard in the American market.

The next objection to invention (b) really denies the possibility of invention ever residing in noting or discovering a use for something which if not a by-product, may be termed a half-product or unfinished product of an existing method of procedure. Without resorting to the extreme doctrine of *Potts v. Overseer* (155 U. S., 597; 15 Sup. Ct., 194; 39 L. Ed., 275) it seems to us that the question presented by this record depends upon whether the thing produced by partial hydrogenation is a different thing from that which existed before hydrogenation began and that which would exist when it ended. The change introduced by catalytic introduction of hydrogen is chemical; the analysis of the cotton-seed oil at divers stages of the process of manufacture differs. To be sure, the difference is only in the union of additional atoms of hydrogen with the unsaturated fats (linolin and olein); but if this molecular and chemical change induces a resulting change in appearance, in utility, and in texture, it may well be called, when lardlike, a thing different from what it was as oil, and equally different from what it would be at the point of saturation.

The patent law does not speak in terms of science, though scientific evidence is necessary for the application of its rules. The chemical composition of steam, water, and ice is the same, but they are different things; and in the same common-sense way oil, lard, and stearin are different things, although (with some chemical latitude) the oil may be said ultimately to become stearin, and to pass through the lard stage on the way.

For substantially the same reasons we think there is nothing in the last (c) objection to invention. It may be assumed as true that by the mixture of cotton-seed oil and animal stearin a substance can be produced which for practical purposes is the same thing as Burchenal's chemically-changed cotton-seed oil; but one is a mixture and the other is not, and assuming the difference to be unimportant from the standpoint of either chemist or cook, it is a vital difference from that of the law.

We are therefore of opinion that there was invention in Burchenal's disclosure. Product patents may be justly subjected to critical scrutiny, but these claims are far within the border line adverted to in *Foussere v. Suarez*, (232 Fed., 155; 146 C. C.

[Vol. 300.

A., 347;) and just as the conversion of an abandoned machine into an operative and successful one by the introduction of new, but simple, features constitutes invention (*United Shirt Co. v. Boettie*, 140 Fed., 735; 79 C. C. A., 442) so we think that seizing upon thing A, which had been thing B, and was to become thing C, and utilizing the half-made, but different, product, amounted to an invention which is duly set forth in this application.

2. The finding below, that Burchenal was not the inventor of whatever invention is revealed, is really a declaration that one Kayser did the inventing, and Burchenal for some inexplicable reason appropriated it. This is an affirmative defense, and must be sustained by a fair preponderance of credible evidence. Burchenal swore to invention in the statutory form, and the presumption of validity extends to the identity of the inventor, for certainly nothing could be more completely invalid than a patent for invention to one who invented nothing.

The train of evidence resulting in the finding of non-invention in Burchenal is this: The plaintiff corporation is, and long before 1907 was, a large manufacturer of soap. Down to that time it neither made nor dealt in food products, fatty or otherwise. In that year it received from England a letter from one Kayser, saying that he intended coming to the United States to introduce "a new process of the greatest possible importance to soap manufacturers," and asking substantially for employment or remuneration if he was to communicate his valuable knowledge. He was employed; he divulged his process. It is a process for the hydrogenation of vegetable oils, and is one of the processes which, when arrested (say) half-way, produces Burchenal's "homogeneous lardlike product."

By the time this action was begun Kayser had returned to England (in 1910), and on or shortly after the outbreak of the present war was interned as an enemy alien. While in this country he had assigned to the plaintiff herein his applications for patents on processes of hydrogenation, had been paid for them, and become a stockholder in the plaintiff corporation. The defendants sent an agent to England, who interviewed Kayser and sought to extract from him evidence that he, and not Burchenal, either discovered or invented the food product before this court. Kayser refused all evidence, and in effect declined to either assert or assent to the proposition that he was the deviser or inventor of what Burchenal got a patent for.

There is no evidence that, during the whole period of Kayser's employment by the plaintiff and his experimentation upon fats he either attempted to produce a "lardlike compound" or observed that such compound was obtainable by his process. There is some evidence (if it can be called by that name) that after Kayser had carried on experiments at plaintiff's factory for some time he showed to the deposing witness a fat "like tallow," looking as if it had been "molded in a jelly glass,"

No. 4.]

and that Kayser said in substance that "it was for cooking purposes." What Kayser showed may be regarded as evidence, but upon what principle the remarks of one who is neither a party nor a witness can be regarded as competent we do not perceive.

Yet in this testimony there is nothing inconsistent with the course of events as plainly proven. When Kayser began to produce by his processes a hard fat, it occurred certainly to Mr. Procter (the plaintiff's president), and not improbably to Kayser himself, that since substantially-saturated cotton-seed oil was a fair commercial equivalent for animal stearin, that since frying and shortening compounds were largely manufactured by combining animal stearin with cotton-seed oil, so they might be made by mechanically mixing liquid oil and hardened oil. Such experiment was tried, not at the factory of plaintiff, which had no machinery for the purpose, but at the establishment of one McCaw, who was already a manufacturer of lard-like compounds employing animal fat.

We are satisfied of the truth (entirely apart from all presumptions) of plaintiff's testimony that it was not until Kayser had returned to England, or was on the point of going, that it occurred to any one that it was not necessary to first harden by hydrogenic saturation the cotton-seed oil, and then mix it with the fluid article, in order to make a lardlike compound, but that the hardening process might be arrested in the manner and for the purposes disclosed by Burchenal's application.

Assuming, now, that this mental operation or discovery in the sense of the patent law (Walk. on Pat., 5th ed., sec. 2) amounted to invention, we not only find no evidence that Burchenal was not the inventor, but it is a strain upon credulity to believe that, when this plaintiff corporation might just as well have advanced an application in Kayser's name, it deliberately preferred the fraud of prosecuting it in that of Burchenal.

It may be, and we think is, quite true that the evidence reveals Burchenal as not primarily a chemist, but a man of business, deeply interested in the advancement of his corporation's prosperity. We recognize the fact that there is a fundamental difference between "new articles of manufacture" and "new articles of commerce," (*Cereulase, etc., Co. v. Bates*, 101 Fed., 272; 41 C. C. A., 341;) and it may also be quite true that Burchenal's contribution to the sum of human knowledge grew out of the trained business man's observation of the possibilities of a chemist's process, which he was himself quite incapable of devising.

But, just as it is immaterial whether a patentee understands or correctly states the theory or philosophy of the mechanism which produces—

his new result (*Van Epps v. United, etc., Co.*, 143 Fed., 800; 75 C. C. A., 77) so it is immaterial whether, when Burchenal observed and seized upon as a new and useful thing a half-hydrogenically-saturated oil he was actuated rather by commercial instinct than acquired chemical knowledge.

[Vol. 200.

It is enough that he had both a mental conception and a tangible reduction to practice, (*Corrington v. Westinghouse, etc., Co.*, 178 Fed., at page 715; 108 C. C. A., 479,) and that is all that the patent law requires. Quite possibly this patentee would never have conceived the thought, had he not watched Kayser; but he could and did get something out of Kayser's train of phenomena, which the latter neither thought of, nor reduced to practice.

2. The final objection to a decree in plaintiff's favor is that, properly construed, the claims in suit are not infringed, because (a) the defendant's product widely varies from that of the patent in the relative percentages of saturated fats, olein and linolin; (b) the process pursued by defendant is disclosed or assumed in the patent in suit; and (c) that said claims are to be regarded as strictly limited, if not substantially abandoned, through or by reason of the proceedings in the Patent Office as revealed by file-wrapper contents.

As to the first point (a), it is enough to note that, while the variation insisted upon is true, it must, to negative infringement, be at least a variation extending beyond the limits of a valid claim read in the light of the disclosure. In this instance it is not denied that what the defendant makes and sells is not only lardlike, homogeneous in the sense of mixture, and wholly consisting of an incompletely-hydrogenized cotton-seed oil, but it is within the limits of iodine value, titre, and melting-points specified in the application. Therefore it is an infringement.

It is true (b) that defendant's process of manufacture is very different from that of plaintiff, and we are willing to assume it different from and better than anything known to Burchenal or developed by Kayser. But this patent is upon a product, and if the product complained of is the patented article substantially as described, it makes no difference by what path or process, new or old, inferior or improved, the infringing product is manufactured. (*General Electric Co. v. Leco-Phillips Co.*, 233 Fed., 96; 147 C. C. A., 108.)

The contention (c), that the Office proceedings were such as to limit or nullify the broad claims in suit amounts, we think, to this, viz: When this application was filed, in 1910, applicant demanded two claims which, if anything, are slightly narrower than the two now in suit. They were rejected by the Primary Examiner, and thereafter many changes were made in the language of the claims submitted by way of amendment. In our opinion, never at any time did the applicant acquiesce in the Examiner's action, but consistently endeavored to obtain, and finally did obtain, in the claims first above quoted, what he had in the first place asked for.

It is the acquiescence of an applicant, and not the action of an Examiner, or of many Examiners, that surrenders to the public what the applicant first declares to be patentable invention. The very word "acquiescence" necessarily implies obedient No. 4.]

action, perhaps enforced, but still submission on the petitioner's part. Here there never was any such acquiescence, and the patent as issued substantially contains in the claims in suit the originally propounded definition of invention. This is far within the rule enforced by us in *Kinross, etc., Co. v. Wilson* (142 Fed., 970; 74 C. C. A., 232,) where a rejected claim was carried into and obtained grant in another patent. Here the claims rejected were at least substantially victorious in the same patent, apparently through a change in the examining personnel.

For the reasons stated, the decree appealed from is reversed, with costs both here and below, and the cause remanded, with directions to enter a decree adjudging claims 1 and 2 valid and infringed. WAMS, *Ch. J.*, (dissenting:)

I think the district judge was right in holding the patent void for lack of invention. It was well known that a vegetable oil could be changed chemically into a hard fat by hydrogenation, and of course that at some stage of the process, before complete hydrogenation, it would be a homogeneous semisolid. It was also known that the process would not affect the edibility of the product. The product at all stages of the process was therefore old, and open to the public for any use of which it was capable. To apply it when semisolid as a substitute for animal lard in cooking was no doubt novel and useful, but was not in my opinion invention. To one skilled in the chemical art, such a use was as obvious, if he thought about it at all, as were the many mechanical improvements which, though new and useful, have been held not to be inventions, because within the capacity of those skilled in the particular art. There was nothing revolutionary about this new use. There was no crying need, nor any problem to be met. The market was and still is abundantly supplied with mixtures of vegetable oils and animal fats which satisfactorily meet culinary needs. Yet the complainant is given a monopoly of all semisolid homogeneous hydrogenized vegetable oils, however produced, when applied to culinary purposes.

ON PETITIONS FOR REHEARING.

Messrs. Kerr, Page, Cooper & Hayward (Mr. Livingston Gifford, Mr. Alfred M. Allen, and Mr. Thomas B. Kerr of counsel) for the appellant.

Mr. John C. Pennie (Mr. Marcus B. May of counsel) for the appellee.

Messrs. Sullivan & Cromwell (Mr. Charles E. Hughes and Mr. Royall Victor of counsel) for the American Oil Co.

HOUGH, Ch. J.:

The principal producer of cotton-seed oil has joined in this application as *amicus curiae*, and by figures of oil production, as well as of food products derived therefrom, has greatly magnified the importance of Burchenal's patent.

It seems to be now assumed that hydrogenized oil, as a substitute for lard, is as superior to an

[Vol. 200.

amalgam, combination or mixture, of oil and animal fat, or oil and stearin artificially produced; that the patent in suit is almost basic, instead of disclosing a mere variant among products of equal utility.

If this importance in result be real, it is a reason for giving to the claims in suit a broad range of equivalents, and suggests reflections not contained in our former opinion, but leading to an identical result.

Defendant's petition restates with painstaking ability an argument perfectly good, if the premises be admitted. That premise is that Burchenal invented nothing but an artificial lard, or lard substitute, so near to existing articles of commerce that the only field open to him was limited to a particular mode of making, or by specifically-stated chemical tests.

The chemical tests or limits indicated in Burchenal's disclosure are put with an "about;" they are not carried into the claims sued on, as they are into some not in suit; nor do all the usable and marketable specimens of defendant's factory show uniform tests. We adhere to the remarks concerning "iodine values, titre, and melting points" heretofore made, but do not and did not ground judgment thereon.

Our decision is and has been based on a firm conviction that what is practically lard, consisting solely of one vegetable oil in a state of arrested hydrogenation, is a new thing in the sense of the patent law, almost as new as a synthetic egg, evolved from vegetable albumen by chemical treatment.

The results of such evolutionary treatment are by their genesis so novel that analysis of constituents is immaterial. Patentable novelty is not in their parts, as revealed by quantitative or qualitative analysis, but in a practical functional identity between animal products and a vegetable product as chemically changed.

Our view of the nature of this invention permitted us to assume (not find) a possibly quite superior method as used by defendants; but, when the product was seen to be something that was (in effect) lard resulting from an arrested hydrogenation of cotton-seed oil, there was infringement.

On this record, it may almost be said that defendant's machines will cease to produce infringements only when they yield what a plain man would not call lard.

Application denied.

ROGERS, circuit judge, concurs.
WAMS, circuit judge, not voting.

ADJUDICATED PATENTS

(U. S. C. C. A. N. Y.) The Bird patent, No. 1,181,827, and the Becker patent, No. 1,024,550, for prepared roofing, *Held identical as to the invention claimed. Bird v. Elaborated Roofing Co. of Buffalo*, 250 Fed. Rep., 300.
No. 4.]

(U. S. C. C. A. N. Y.) The Bird patent, No. 1,088,427, for prepared roofing, Held valid, but not infringed. *Bird v. Elaborated Roofing Co. of Buffalo*, 256 Fed. Rep., 303.

(U. S. C. C. A. N. Y.) The Bird patent, No. 1,181,827, for prepared roofing, Held valid and infringed. *Bird v. Elaborated Roofing Co. of Buffalo*, 256 Fed. Rep., 303.

Amendment to Trade-Mark Law of Paraguay.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 17, 1919.

The following amendment to the trade-mark law of Paraguay, which has been received through the State Department, is published for the information of those concerned.

J. T. NEWTON,
Commissioner.

ASUNCION, April —, 1919.

It being necessary to establish sure protection in favor of the owners of foreign trade-marks and in conformity with the provisions of article 48 of the law of July 6, 1889, the President of the Republic decrees:

37.—UNDERTAKING.

1. Miscellaneous.
2. Coffins—
3. Composite.
4. Foldable sections.
5. Metal and wood.
6. Metallic.
7. Plastic material.
8. Glass.
9. Canopy.
10. Corner structures.
11. Corpse-preserving.
12. Corpse-raising devices.
13. Head-rests.

37.—UNDERTAKING—Continued.

14. Coffins—
15. Sliding panel.
16. Swinging.
17. Joints.
18. Supports.
19. Linings and coverings.
20. Shields.
21. Embalming—
22. Processes.
23. Apparatus.
24. Injectors and ejectors.

37.—UNDERTAKING—Continued.

25. Chin-supports.
26. Casket grave-rests.
27. Casket-carriers.
28. Corpse-carriers.
29. Grave-dials.
30. Grave-coverings.
31. Life-signals.
32. Lowering devices—
33. Hand-ropes—
34. Releasers.
35. Portable coffin-casings.

J. T. NEWTON, Commissioner.

[Vol. 263. No. 4.]

ARTICLE 1. For the registration of a foreign trade-mark the Bureau of Internal Revenue shall demand proof of the right of ownership of the applicant for the registration of said mark.

ART. 2. The ownership of the marks shall be determined by one of the following methods of procedure:

1. The presentation of a certificate of registration issued by the competent authority or a legal copy of the same.

2. The presentation of a certificate issued by the consulate of the nationality of the applicant showing that the latter is the owner of the mark.

3. Any other means at the discretion of the Bureau of Internal Revenue.

ART. 3. In order to register new marks destined to distinguish foreign products for exclusive sale in the country, the applicant must make known this fact when he makes application for registration. In case of a false declaration the Bureau of Internal Revenue shall be allowed to summarily annul the registration.

ART. 4. Be it communicated, published, and sent to the Official Register.

FRANCO.
EUSEBIO AYALA.

Changes in Classification.

(Class No. 2,407.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 7, 1919.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 27, Undertaking, (Division XX.) abolish the existing subclass titles and establish in lieu thereof the following subclasses and definitions:

INDEX

TO THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

JUNE, 1919.

(Decisions of the United States Circuit Court of Appeals are indicated by the letter *c*, and of the Supreme Court of the United States by two stars (**).)

TABLE OF CASES.

	Page.		Page.
<i>c</i> Armstrong Seating Corporation v. Smith's Island Oyster Co.	422	Mangan & Co. <i>Ex parte</i>	633
<i>c</i> Brothers v. The United States.....	331	<i>c</i> Procter & Gamble Co. v. Berlin Mills Co.....	623
Cabot, Inc., Samuel. <i>Ex parte</i>	623	<i>c</i> Schlitz Brewing Company, Joseph, v. Houston Ice & Brewing Company <i>et al.</i>	333
Craig Tractor Company, The. <i>Ex parte</i>	339	<i>c</i> Tiffany v. Paper Products Co.....	329
<i>c</i> Edmonds v. Perham.....	494	<i>c</i> Willard v. Union Tool Co.....	167
<i>c</i> Liquid Carbonic Co. <i>et al.</i> v. Gilchrist Co.....	165		
<i>c</i> Luton v. Washburn <i>et al.</i>	481		

SUBJECT-MATTER INDEX.

	Page.		Page.
Combination, validity, sufficient if there be joint operation of the elements producing result, not necessarily new, in a more efficient way due to their cooperative action, <i>c</i> Willard <i>et al.</i> v. Union Tool Co.....	167	Particular patents, <i>Gess</i> , No. 984,378, "Cone-tubes for knitting-machines," void for lack of invention and anticipated, <i>c</i> Tiffany v. Paper Products Co.....	329
Construction of statutes, section 4994, Revised Statutes, <i>c</i> Tiffany v. Paper Products Co.....	329	Luton, Nos. 832,970, 833,202, 979,776, and 989,372, "Reinforced concrete construction," certain claims of each invalid for lack of invention, mechanical skill alone required, <i>c</i> Luton v. Washburn <i>et al.</i>	481
Sections 4917 and 4922, <i>c</i> Liquid Carbonic Co. <i>et al.</i> v. Gilchrist Co.....	165	Willard and Wilcox, No. 1,064,270, "Rotary drilling apparatus," mere aggregation, one element detached instrument, <i>c</i> Willard <i>et al.</i> v. Union Tool Co.....	167
Of terms "at" and "secured to," <i>c</i> Liquid Carbonic Co. <i>et al.</i> v. Gilchrist Co.....	165	Patentability, combination of new element with old device, new and useful result obtained, patentable, <i>c</i> Liquid Carbonic Co. <i>et al.</i> v. Gilchrist Co.....	165
Invention, adapting article to new use by enlargement only, not invention, <i>c</i> Liquid Carbonic Co. <i>et al.</i> v. Gilchrist Co.....	165	Patentee, not understanding all phenomena leading to result no proof of non-invention, <i>c</i> Procter & Gamble Co. v. Berlin Mills Co.....	623
Making two separate parts integral not patentable, <i>c</i> Tiffany v. Paper Products Co.....	329	Patents, reward of substantial discovery, but not protection for every trifling device or shadow of an idea merely requiring mechanical skill, <i>c</i> Tiffany v. Paper Products Co.....	329
Novelty, article of manufacture, near existing articles, not a substitute but new in sense of patent law, only added open limited to method of making or specifically-stated chemical tests, <i>c</i> Procter & Gamble Co. v. Berlin Mills Co.	623	Subject-matter, machine, composition of matter, or manufacture, <i>c</i> Armstrong Seating Corporation v. Smith's Island Oyster Co.....	422
Particular patents, Armstrong, No. 1,184,944, "Tagging oysters," void for lack of invention, <i>c</i> Armstrong Seating Corporation v. Smith's Island Oyster Co.....	422	Priority of invention, depending applications, independent inventors, reduction to practice, burden of proof on second applicant, <i>c</i> Willard <i>et al.</i> v. Union Tool Co.....	167
Berman, No. 922,365, "Straw-dispensing apparatus," valid and infringed as to claim 2 and void as to claim 1, <i>c</i> Liquid Carbonic Co. <i>et al.</i> v. Gilchrist Co.....	165	Date of application, invention sufficiently described, evidence of invention prior to that date, <i>c</i> Willard <i>et al.</i> v. Union Tool Co.....	167
Brothers, No. 881, 614, "Cable-crane with gravity-anchors," not infringed, <i>c</i> Brothers v. The United States.....	331	Same invention, independent inventors, dates considered, date of patent, date of application, date of actual reduction to practice, <i>c</i> Willard <i>et al.</i> v. Union Tool Co.....	167
Burchenal, No. 1,124,321, "Incompletely-hydrogenated oil-lard," valid patent, new product in the sense of patent law, <i>c</i> Procter & Gamble Co. v. Berlin Mills Co.....	623		
Edmonds and Hoyt, No. 775,164, "Electrical surgical baker," not anticipated, disclosure invention, and is infringed, <i>c</i> Edmonds v. Perham.....	494		

	Page.		Page.
Product patent, infringed by similar product no matter by what process manufactured, <i>Procter & Gamble Co. v. Berlin Mills Co.</i>	623	Trade-marks, infringement, labels deceptively similar, sufficiency of resemblance, <i>Joseph Schlitz Brewing Co. v. Houston Lee & Brewing Company & al.</i> ...	328
Reduction to practice, expending applications, burden of proof on second applicant showing fair preponderance of evidence, not conclusive or beyond reasonable doubt, required, <i>Willard & al. v. Union Tool Co.</i>	167	The words "Craig Tractor," for farm-tractors, distinctively displayed, registrable, <i>ex parte The Craig Tractor Company</i>	329
Suits for infringement, defense patentee not inventor to be sustained by preponderance of evidence, <i>Procter & Gamble Co. v. Berlin Mills Co.</i>	623	"Hairforever," for hair-tonsic, registrable, not descriptive term, <i>ex parte Mangan & Co.</i>	623
Excessive claims, costs not to be recovered unless disclaimer be filed prior to bringing suit, <i>Liquid Carbonic Co. & al. v. Gilchrist Co.</i>	165	"Old Virginia," for paints, etc., refused registration as a geographical term, <i>ex parte Samuel Cabot, Inc.</i>	623
Patentee claims that which he did not invent, no disclaimer filed prior to suit, no recovery for valid portion infringed unless disclaimer be filed within reasonable time, <i>Liquid Carbonic Co. & al. v. Gilchrist Co.</i>	165	Validity of patent, presumption of extends to identity of inventor swearing to invention in statutory form, <i>Procter & Gamble Co. v. Berlin Mills Co.</i>	623
		Use by others of invention not exceeding two years prior to application, patent not invalidated, <i>Tiffany v. Paper Products Co.</i>	329

DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS
AND OF THE UNITED STATES COURTS.

JUNE, 1919.

[Decisions of the United States Circuit Court of Appeals are indicated by the letter *c* and of the Supreme Court of the United States by two stars (**).]

ANTICIPATION.

See Construction of Statutes, 3; Particular Patents, 6.

BURDEN OF PROOF.

See Priority of Invention; Suits for Infringement, 2.

CLAIMS.

See Construction of Statutes, 1, 2; Particular Patents, 1, 2, 3, 6; Terminology.

COMBINATION.

See Invention; Particular Patents, 3; Inventorship.

CONFUSION OF THE PUBLIC.

See Trade-Marks.

CONSTRUCTION OF SPECIFICATIONS AND PATENTS.

See Particular Patents.

CONSTRUCTION OF STATUTES.

1. EXCESSIVE CLAIM—DISCLAIMER PRIOR TO BRINGING SUIT NECESSARY TO RECOVER COSTS.

Where, through inadvertence, etc., a patentee has claimed that of which he was not the first inventor, he cannot, under Revised Statutes, section 4922, (Comp. St., 1916, sec. 6464,) recover costs for infringement of the valid portion of the patent where his disclaimer was not filed prior to the beginning of suit. [*Liquid Carbonic Co. & al. v. Gilchrist Co.*, 165.]

2. SAME—RIGHT TO RECOVERY DEPENDENT UPON FILING OF DISCLAIMER.

Under Revised Statutes, sections 4917, 4922, (Comp. St., 1916, secs. 6462, 6464,) where a patentee, through inadvertence, etc., claimed that of which he was not the original discoverer, but a disclaimer was not filed before suit, no recovery by the patentee for infringement of the valid portion of the patent can be allowed unless disclaimer be filed within a reasonable time. [*Id.*]

3. ANTICIPATION—PRIOR USE.

Under Revised Statutes, section 4924, (Comp. St., 1916, sec. 6466,) use by others of an invention prior to patenting does not invalidate the patent where the time did not exceed two years prior to the application and the patentee was the first to actually make the invention. [*Tiffany v. Paper Products Co.*, 329.]

COPENDING APPLICATIONS

See Priority of Invention.

COSTS.

See Construction of Statutes, 1.

DATE OF FILING APPLICATION.

See Suits for Infringement, 1.

DESCRIPTIVE TERMS.

See Registration of Trade-Marks, 2.

DISCLAIMERS.

See Construction of Statutes, 1, 2.

DISCLOSURE OF INVENTION.

See Particular Patents, 6.

ELEMENTS.

See Invention; Particular Patents, 3; Patentability.

EVIDENCE.

See Priority of Invention, 2; Suits for Infringement, 1, 2.

FIRST AND ORIGINAL INVENTOR.

See Construction of Statutes, 2; Priority of Invention; Suits for Infringement, 2, 3. Validity of Patents.

FORMER DECISION CITED.

See Suits for Infringement, 1.

GEOGRAPHICAL TERMS.

"Old Virginia," for paints and stains.
The term "Old Virginia" is geographical, and therefore not registrable as a trade-mark. [*Ex parte Samuel Cabot, Inc.*, 623.]

INDEPENDENT INVENTORS.

See Priority of Invention; Suits for Infringement, 1.

INFRINGEMENT.

See Construction of Statutes, 1, 2; Particular Patents, 2, 3, 6; Suits for Infringement; Terminology; Trade-Marks; Unfair Competition.

PROCESS—PROCESS.

A product patent is infringed if the product complained of is the patented article substantially as described, it making no difference by what path or process—new or old, inferior or improved—the infringing product is manufactured. [*Procter & Gamble Co. v. Berlin Mills Co.*, 623.]

INVENTION.

See Construction of Statutes 3; Particular Patents, 1, 4, 6, 7; Patent Laws; Patentability; Suits for Infringement, 1, 2.

1. **PATENTABILITY—NEW USE—ENLARGEMENT IN SIZE AND FURTHER MODIFICATION.**
While one who by enlarging the size of a patented article makes it suitable for a new use is not entitled to a patent, yet where the inventor combines a new element with the old device, whereby a new and useful result is obtained, there is "invention," which is patentable.
[⁴ Liquid Carbonic Co. et al. v. Gilchrist Co., 165.

2. **SAME—MAKING TWO PARTS INTEGRAL.**
Where the prior art disclosed a cone-tube for supporting yarn having a square nose or tip and it was the custom to provide such tip with a button or ball of acorn shape, it involved no invention to make in one piece a cone-tube of the same shape.
[⁴ Tiffany v. Paper Products Co., 320.

MECHANICAL SKILL.

See Particular Patents, 8; Patent Laws.

METHOD.

See Infringement; Particular Patents, 1, 5.

MONOPOLY.

See Patent Laws.

NAME OF APPLICANT.

See Registration of Trade-Marks, 1.

NEW USE.

See Invention, 1.

NOVELTY.

See Particular Patents, 5.

PARTICULAR PATENTS.

1. **ARMSTRONG—No. 1,195,945—TAGGING OYSTERS—INVENTION.**
The Armstrong patent, No. 1,195,945, for marking bivalves by means of a tag attached to the lower shell of an oyster, involving claims for a tag attached to an oyster-shell and a method of attaching the tag at a certain point, *held* void for lack of invention, it being a common practice to identify articles by attaching tags thereto.
[⁴ Armstrong Seating Corporation v. Smith's Island Oyster Co., 462.

2. **BERMAN—No. 962,300—DISPENSING APPARATUS—VALIDITY—INFRINGEMENT.**
The Berman patent, No. 962,300, for a dispensing apparatus for use at bars and soda-fountains to contain straws for drinking purposes, *held* valid and infringed as to claim 2, invalid as to claim 1.
[⁴ Liquid Carbonic Co. et al. v. Gilchrist Co., 165.

3. **BROTHERS—No. 551,614—CABLE-CRANES—INFRINGEMENT.**
The Brothers patent, No. 551,614, for a cable-crane with a gravity-anchor consisting of a rigid tower and a tilting anchor-tower, from which a counterweight is suspended to take up the slack of the cable, *held* not infringed by a crane in which both towers were designed and intended to be rigid, even though in the subsequent tightening of the cables for the purpose of carrying the load over and free from the work which was being constructed there was a yielding of the towers under stress of the load, since there was no semblance of an outward inclination of a yielding support, but rather a tendency on the part of both rigid towers to collapse inwardly under an undue stress.
[⁴ Brothers v. The United States, 331.

4. **BURCHENAL—No. 1,135,351—FOOD PRODUCT—INVENTION.**
While it was old to form a lardlike compound by mixing animal steam and cotton-seed oil and also to produce a hard product from cotton-seed oil by hydrogenation, a lardlike product consisting of an incompletely-hydrogenated vegetable oil was a new thing in the sense of the patent law, and the Burchenal patent, No. 1,135,351, for such a product is valid.
[⁴ Procter & Gamble Co. v. Berlin Mills Co., 633.

5. **SAME—NOVELTY—HYDROGENATED-VEGETABLE-OIL LARD.**
What is practically lard, consisting solely of one vegetable oil in a state of arrested hydrogenation, is a new thing in the sense of the patent law, and not a hard substitute, so near to existing articles of commerce that the only field open to patentee was limited to a particular mode of making or by specifically-stated chemical tests.
[⁴ *Id.*

6. **EDMONDS AND HOYT—No. 775,165—ELECTRICAL SURGICAL BAKES—VALID—INFRINGEMENT.**
The Edmonds and Hoyt patent, No. 775,165, for an electrical surgical baker, was not anticipated, disclosed invention, and is entitled to a construction broad enough to protect the valuable contribution of the patentees to the art; also *held* infringed.
[⁴ Edmonds v. Perkins, 494.

7. **GEES—No. 938,579—CONE-TUBE FOR KNITTING-MACHINES—VOID AND ANTICIPATED.**
The Gees patent, No. 938,579, for a cone-tube for use in knitting-machines as a support for masses of yarn, which involved the rounding of the nose or end of prior devices to eliminate the danger of the last few rounds catching and breaking on the edge of the cone, while a distinct improvement, *held* invalid as lacking invention; also anticipated by prior art devices.
[⁴ Tiffany v. Paper Products Co., 320.

8. **LUTEN—Nos. 852,570, 853,322, 979,776, AND 989,272—REINFORCED CONCRETE CONSTRUCTION.**
The Luten patents, Nos. 852,570, claims 14, 15, and 16; No. 853,322, claim 17; No. 979,776, claim 1, and No. 989,272, claim 2, all for reinforced concrete construction, *held* invalid. Steel rods having been placed in concrete structures to resist tension or pull, it required only mechanical or engineering skill to locate in any particular structure where the tension is and only the same skill to determine where the steel should be placed to resist such tension.
[⁴ Luten v. Washburn et al., 461.

9. **WILLARD AND WILCOX—No. 1,064,370—ROTARY DRILLING APPARATUS—AGGREGATION—ONE ELEMENT DETACHED INSTRUMENT.**
Allowed combination claims of the Willard and Wilcox patent, No. 1,064,370, represented by claim 2, for elements to be used in connection with a rotary drilling apparatus to facilitate changing from the operation of drilling to the operation of removing the drill-string from the well, and vice versa, are for a mere aggregation, the device for holding the pipe-string being a detached instrument and not a part of a machine.
[⁴ Willard et al. v. Union Tool Co., 167.

PATENT LAWS.

See Particular Patents, 4, 5.

DEVICE MUST INVOLVE INVENTION.

The design of the patent laws is to reward those who make some substantial discovery which adds to our knowledge, etc.; but it was never the object of these laws to grant a monopoly for every trifling device or shadow of a shade of an idea which would naturally occur to any skilled mechanic.
[⁴ Tiffany v. Paper Products Co., 320.

PATENTABILITY.

See Invention.

1. VALIDITY OF COMBINATIONS.

The mere fact that human agency intervenes in an operation does not render a combination unpatentable. Nor is it necessary that the action of the elements be simultaneous, nor that one of the elements shall so enter into the combination as to change the action of the others; but it is sufficient if there be some joint operation of the elements, producing a result due to their cooperative action.
[⁴ Willard et al. v. Union Tool Co., 167.

2. SUBJECT-MATTER FOR PATENTS—TAGGED OYSTERS.

A tagged oyster is not a machine or a composition of matter, and it is not a manufacture.
[⁴ Armstrong Seating Corporation v. Smith's Island Oyster Co., 462.

PRESUMPTION.

See Validity of Patents.

PRIORITY OF INVENTION.

See Suits for Infringement, 1.

1. **BETWEEN INVENTORS HAVING COINCIDENT APPLICATIONS—BURDEN OF PROOF.**
As between rival inventors whose applications are pending at the same time the burden is on him whose application is second to show that he was first to reduce the invention to practice.
[⁴ Willard et al. v. Union Tool Co., 167.

2. SAME—MEASURE OF PROOF.

In a contest between rival inventors for priority of invention, their applications being pending at the same time and both inventors having reduced their conceptions to practice, the one whose application is second, in sustaining the burden of proving that he was the first to reduce the invention to practice, is required to establish his priority only by his preponderance of evidence and not by proof conclusive in character or beyond a reasonable doubt.
[⁴ *Id.*

PROCESS.

See Infringement.

PRODUCT.

See Infringement; Particular Patents, 4.

PUBLIC USE.

See Construction of Statutes, 2.

REDUCTION TO PRACTICE.

See Priority of Invention; Suits for Infringement, 1.

REGISTRATION OF TRADE-MARKS.

See Geographical Terms.

1. NAME OF THE APPLICANT—DISTINCTIVE DISPLAY.

The words "Craig Tractor," in staggered relation, with a heavy black line over the word "Craig" and a heavy black line under the first three letters thereof, the bottom black line forming the top of the first letter of the word "Tractor," *held* registrable, since the name is distinctively displayed.
[⁴ *Ex parte* The Craig Tractor Company, 320.

2. **"HAIRFOVEVER" FOR A HAIR-TONIC—NOT DESCRIPTIVE.**
The term "Hairfovever," used as a trade-mark for a hair-tonic, *held* not descriptive, since the exclusive use of this word would not take away from the public any word which it would need in describing a hair-tonic.
[⁴ *Ex parte* Mangan & Co., 633.

RESULTS.

See Invention, 1; Patentability; Suits for Infringement, 2.

RIGHT TO PATENT.

See Construction of Statute, 2.

SIMILARITY OF LABELS.

See Trade-Marks; Unfair Competition.

STATE OF THE ART.

See Invention, 2; Particular Patents, 5, 7.

SUITS FOR INFRINGEMENT.

See Construction of Statutes, 1, 2.

1. DATE OF INVENTION—PATENTS ISSUED TO INDEPENDENT INVENTORS.

"When two patents for the same invention have been issued to independent inventors, the rule is that the dates of their inventions are: (1) the date of the patents; (2) the dates of the applications, provided the application sufficiently describes the invention, and (3) the dates of actual reduction to practice. In the absence of other proof, the filing of the application is taken to be a constructive reduction to practice. In *Kearney v. Leitch Valley E. Co.* (C. C., 22 Fed., 323) Mr. Justice Bradley said: 'The date of the application, if it describes the invention sufficiently, is conclusive evidence that the invention was made prior to such date.'"
[⁴ Willard et al. v. Union Tool Co., 167.

2. DEFENSE—BURDEN OF PROOF.

In an infringement suit the contention that the one in whose name the patent was granted was not the actual inventor is an affirmative defense, which must be sustained by fair preponderance of the evidence.
[⁴ Procter & Gamble Co. v. Berlin Mills Co., 633.

3. INVENTOR.

It is immaterial whether a patentee understands or correctly states the theory or philosophy of the invention, so the fact that the one who patented a lardlike food consisting of incompletely-hydrogenated vegetable oil was not a chemist, etc., and did not understand all phenomena leading to the result does not, in an infringement suit, show that he was not the inventor.
[⁴ *Id.*

TERMINOLOGY.

CLAIMS—CONSTRUCTION OF TERMS "FIT" AND "SECURED TO."
The word "fit" does not necessarily mean a tight fit, as a piston in a cylinder; nor does "secured to" mean rigidly secured to, and a claim using these terms is infringed by a similar device in which a like part is loosely fitted and another part is slidably secured, which answers to the requirement "secured to."
[⁴ Liquid Carbonic Co. et al. v. Gilchrist Co., 165.

TRADE-MARKS.

See Geographical Terms; Registration of Trade-Marks; Unfair Competition.

INFRINGEMENT—LABELS.

In determining the question whether two labels are deceptively similar it is not necessary that the imitation of a feature to which the plaintiff has the exclusive right when taken alone should be sufficient to deceive. It would be enough if, taken with the elements common to the public, the imitation accomplished a result that neither would alone.
[⁴ Joseph Schlitz Brewing Company v. Houston Ice & Brewing Company et al., 333.

UNFAIR COMPETITION.

TRADE-MARKS—INFRINGEMENT.

Where both plaintiff and defendant sell beer in brown bottles with brown labels, but plaintiff has no exclusive right to the color of the bottle or label, and the shape of defendant's label is quite different from that of plaintiff's and the script upon it is wholly different and the two labels are applied to the bottles in quite unlike modes, *held* that defendant's use of its label did not amount to unfair competition.
[⁴ Joseph Schlitz Brewing Company v. Houston Ice & Brewing Company et al., 333.

VALID PATENTS.

See Construction of Statutes, 1, 2; Particular Patents, 2, 4, 6.

VALIDITY OF PATENTS.

See Construction of Statutes, 3.

PRESUMPTION—IDENTITY.

The presumption of validity of a patent extends to the identity of the inventor, who swore to the invention in the statutory form.
[⁴ Procter & Gamble Co. v. Berlin Mills Co., 633.

VOID PATENTS.

See Particular Patents, 1, 2, 7, 8, 9.



PATENTS WERE ISSUED DURING THE MONTH OF JUNE, 1919.

Alexander, Alexander M. (See Beverly, Mass., assignor, for
 same assignments, to United States Machinery Corpora-
 tion, Paterson, N. J. Saving-balls. No. 1,304,593;
 June 3; v. 232; p. 159.)
 Alexander, Arthur, Chicago, Ill., assignor to A. G. Welch,
 trustee, Artificially made bearing. No. 1,304,576;
 June 17; v. 232; p. 312.
 Allen, Alexander A. (See Brighton and Allen.)
 Allen, Allen C., Chicago, Ill. Wrench. No. 1,304,704;
 June 17; v. 232; p. 357.
 Allen, Edwin P., Atlantic, assignor to Adams-Pond
 & Co., Boston, Mass. Concrete construction. No.
 1,304,680; June 17; v. 232; p. 401.
 Allen, W. (See Hudson and Allen.)
 Allen, George W., assignor to F. Sturtevant Company,
 Pneumatic cleaner. No. 1,304,248; June
 3; v. 232; p. 8.
 Allen, Gerald H. and W. H., Detroit, Mich.; sold Gerald
 H. Allen assignor to sold W. H. Allen. Rust-preventing
 coating. No. 1,304,331; June 3; v. 232; p. 19.
 Allen, James A., assignor of one-half to B. F. Briggs, Provi-
 dence, R. I. Fringing-press. No. 1,306,481; June 3; v.
 233; p. 23.
 Allison, Charles H., Ghazala, Calif. Detonator. No.
 1,304,510; June 10; v. 233; p. 272.
 Allisale, James F., Chicago, Ill. Hat appliance. No.
 1,304,690; June 17; v. 233; p. 300.
 Allich Prosty Company. (See Olcott, Roy B., assignor.)
 Allich, John T., assignor to Fisher Body Corporation,
 Detroit, Mich. Drip-trough for automobiles. No.
 1,307,073; June 24; v. 233; p. 674.
 Alimsky, Randolph H., New York, N. Y. Sealing means
 for barrel-cushion, &c. No. 1,304,457; June 10; v.
 233; p. 232.
 Alimsky, Marvin C., New York, N. Y. Tire-protector.
 No. 1,307,331; June 24; v. 233; p. 525.
 Alvey, Benjamin H., Louisville, Ky. Automobile-top. No.
 1,307,073; June 24; v. 233; p. 406.
 Alvert, Edith J., Chicago, Ill. Means for converting base-
 burning stoves into oil-coal heaters. No. 1,304,764;
 June 3; v. 233; p. 101.
 Ambrose, Henry W., et al. (See Ambrose, Jennings G., as-
 signor.)
 Ambrose, Jennings G., assignor of one-third to T. C. Ham-
 mond, and one-third to H. W. Ambrose, Loma Portal,
 Calif. Combination-lock. No. 1,306,081; June 3; v.
 232; p. 52.
 American Arch Company. (See Willett, Alfred H., as-
 signor.)
 American Bank Note Company. (See Altheissen, Peter,
 assignor.)
 American Brake Company, The. (See Burton, Thomas
 L., assignor.)
 American Brake Company, The. (See Kadel, Byern W., as-
 signor.)
 American Button & Fastener Company. (See Elliott,
 William E., assignor.)
 American Can Company. (See Ford, Ben K., assignor.)
 American Can Company. (See Graham, Charles W., as-
 signor.)
 American Can Company. (See Gray, James A., assignor.)
 American Can Company. (See Hodgson, John G., as-
 signor.)
 American Electrical Heater Company. (See Kuhn and
 Head, assignors.)
 American La France Fire Engine Company. (See Haw-
 ley, William G., assignor.)
 American La France Fire Engine Company. (See Mork,
 Harry A., assignor.)
 American Lined Company. (See Schaub, Jacob, as-
 signor.)
 American Machine & Foundry Company. (See Smith, El-
 mer D., assignor.)
 American Manufacturers Sales Company, The. (See
 Drake, Richard, assignor.)
 American Motor Company. (See Dickey, Edmund A., as-
 signor.)
 American Multigraph Company. (See Trundle, George
 W., Jr., assignor.)
 American Optical Company. (See Baker, Nelson M., as-
 signor.)
 American Optical Company. (See Carson, Oswald B., as-
 signor.)
 American Optical Company. (See Day, George H., as-
 signor.)
 American Optical Company. (See Greene, Willard B., as-
 signor.)

American Optical Company, The. (See Herbert, Pitt H., assignor.)
 American Optical Company. (See Poston, Lawrence, assignor.)
 American Optical Company. (See Schumacher, Elmer L., assignor.)
 American Seating Company. (See Willis, Wayne, assignor.)
 American Steam Gauge & Valve Manufacturing Company. (See Hopkins, Frank H., assignor.)
 American Warp Drawing Machine Company. (See Field and Lanning, assignors.)
 American Well Works, The. (See Chapman, Matthew T. and M. C., assignors.)
 Ames, Adelbert, Jr., Tewkesbury, Mass. Reflector. No. 1,306,511; June 10; v. 263; p. 272.
 Ames, Butler, Lowell, Mass. Safety-rasor. No. 1,306,323; June 3; v. 263; p. 10.
 Ames, Howard. (See Rhodes, Leonard H., assignor.)
 Ames, Leroy A., et al. (See Wolfard, Merl R., assignor.)
 Ammentorp, Carl, Copenhagen, Denmark. Electric candle. No. 1,306,990; June 17; v. 263; p. 335.
 Anderberg, Albert L., et al. (See Anderberg, Thomas E., assignor.)
 Anderberg, Thomas E., Sandy, assignor of one-third to W. W. Moore and one-third to A. L. Anderberg, Salt Lake City, Utah. Automatic draft-regulator. No. 1,307,950; June 24; v. 263; p. 601.
 Andersen, Lauritz W., Waterbury, Conn. Shade holder or support. No. 1,305,985; June 10; v. 263; p. 173.
 Anderson, Andrew B., and J. L. Petersen, Lake Mills, Iowa. Hay-rack bed-piece. No. 1,307,841; June 24; v. 263; p. 581.
 Anderson, August P., Chicago, Ill. Refrigerating apparatus. No. 1,307,431; June 24; v. 263; p. 607.
 Anderson, Homer, Peckskill, N. Y. Spark-indicator. No. 1,306,544; June 17; v. 263; p. 306.
 Anderson, James B., Shaler township, Allegheny county, Pa. Oil-burner. No. 1,306,459; June 10; v. 263; p. 263.
 Anderson, John S., Marble township, Lincoln county, Minn. Trap. No. 1,305,333; June 3; v. 263; p. 19.
 Anderson, Mary A. (See Anderson, Walter E. and M. A.)
 Anderson, Sigfred, Windber, Pa. Automatic train-stopping mechanism. No. 1,306,751; June 17; v. 263; p. 245.
 Anderson, Sigfred, Windber, Pa. Trip device. No. 1,306,732; June 17; v. 263; p. 245.
 Anderson, Vermer G. (See Tideman, Carl E., assignor.)
 Anderson, Walter E. and M. A., Banksville, Pa. Spoon-holder. No. 1,306,677; June 10; v. 263; p. 303.
 Anderson, William E., et al. (See Felts, Charles F., assignor.)
 Andra, John B., Ballston Spa, N. Y. Fabric for spring-beds. No. 1,305,996; June 10; v. 263; p. 173.
 Andrews, Charles F., et al. (See Crutcher, Wiley M., assignor.)
 Andrews, Chester E., Pittsburgh, Pa. Synthetic manufacture of thymol. No. 1,306,512; June 10; v. 263; p. 273.
 Andrews, Bernard E., Newton, Mass. Ventilator. No. 1,306,845; June 17; v. 263; p. 306.
 Andrews, James A. (See Herbert and Andrews.)
 Angell, Edwin E., deceased; J. E. Macy, administrator, Boston, Mass. assignor to Todd Photocopying Company, Rochester, N. Y. Printing apparatus. No. 1,307,532; June 24; v. 263; p. 625.
 Angell, Otis R., Haverhill, Mass., assignor to Hamel Shoe Machinery Company. Edge-setting machine. No. 1,306,864; June 3; v. 263; p. 120.
 Animated Picture Products Company. (See Seaburg, Charles W., assignor.)
 Anschutz, Rudolph A., Spokane, Wash. Sharpening-machine. No. 1,306,733; June 17; v. 263; p. 246.
 Anthony, Daniel L., El Paso, Tex. Method of and means for inflating and introducing sealing liquid into pneumatic tires. No. 1,307,173; June 17; v. 263; p. 438.
 Anthony, Ralph W., Cedar Rapids, Iowa. Grate attachment. No. 1,306,940; June 17; v. 263; p. 324.
 Anthony, Wendell F., Ridley Park, Pa. Grass-trimming implement. No. 1,307,471; June 24; v. 263; p. 614.
 Antiehl, Alfred B., assignor to H. B. Gibson Co., Inc., New York, N. Y. Agitator implement. No. 1,306,433; June 3; v. 263; p. 38.
 Apaley Rubber Company. (See Brown, Perley H., assignor.)
 Arbetter Felling Machine Company. (See Hayes, Thomas J., assignor.)
 Arbogast, Walter H., Barberton, Ohio. Milk-bottle receptacle. No. 1,305,995; June 3; v. 263; p. 120.
 Arcade Manufacturing Company. (See Morgan, Charles, assignor.)
 Armbruster, Charles E. H., Denver, Colo. Dynamic op-tometer. No. 1,306,784; June 17; v. 263; p. 366.
 Armbruster, Charles E. H., Denver, Colo. Dynamic op-tometer. No. 1,306,735; June 17; v. 263; p. 366.
 Armbruster, Charles E. H., Denver, Colo. Dynamic op-tometer. No. 1,306,736; June 17; v. 263; p. 366.
 Armstrong, Arthur P., Wickliffe, Ohio. Friction-drive. No. 1,306,968; June 3; v. 263; p. 120.
 Arner, James C., Pittsfield, Mass. Lightning-arrestor. No. 1,307,006; June 24; v. 263; p. 610.

Armstrong, Martin B., London, Ohio. Building construction. No. 1,307,253; June 24; v. 263; p. 463.
 Armstrong, Rankin H., et al. (See Van Bortum, John A., assignor.)
 Armstrong, William H., Washington, D. C. Propeller. No. 1,307,103; June 17; v. 263; p. 414.
 Arnold, Fred L., assignor to R. L. McGraw, New York, N. Y. Cartbarrier. No. 1,307,107; June 17; v. 263; p. 415.
 Arnold, Stanley R., Chicago, Ill. Internal-combustion engine. No. 1,306,334; June 3; v. 263; p. 34.
 Arnold, William E., North Abington, Mass. Welt for boots and shoes. No. 1,307,174; June 17; v. 263; p. 434.
 Arntsen, Ole B., Minneapolis, Minn. Ticket-cabinet. No. 1,306,795; June 17; v. 263; p. 367.
 Aronson, Louis V., Newark, N. J. Temperature-indicating device for cooling systems for internal-combustion engines. No. 1,306,266; June 10; v. 263; p. 251.
 Arter, William, assignor to The Parsons-Arter Machine Company, Worcester, Mass. Adjustable bearing. No. 1,306,307; June 10; v. 263; p. 251.
 Arundel, Hubert. (See Hinchman and Arundel.)
 Arny, William H., Albany Park, N. J. Stamp-offring machine. No. 1,306,459; June 10; v. 263; p. 263.
 Asbestos Protected Metal Co. (See Pitts Gerald, John M., assignor.)
 Ashby, Dorsey F., Washington, D. C. Means for preventing gas interference with projectiles in multiple-gun mountings. No. 1,306,308; June 10; v. 263; p. 246.
 Ashley, Robert W., New York, N. Y., assignor of one-half to P. Oberkirch, St. Marys, Pa. Vehicle-wheel rim. No. 1,306,682; June 3; v. 263; p. 68.
 Ashby, Robert W., New York, N. Y., and P. Oberkirch, St. Marys, Pa. Demountable rim for wire-wheels and the like. No. 1,306,683; June 3; v. 263; p. 68.
 Atun, Theodore, Floral Park, N. Y. Concrete construction. No. 1,307,423; June 24; v. 263; p. 607.
 Atlantic Hand Brake Corporation, The. (See Savage, William H., assignor.)
 Atlas Electric Device Co. (See Thompson and Jamison, assignors.)
 Atlas Max, Jacksonville, Fla. Crutch-tip. No. 1,306,997; June 3; v. 263; p. 124.
 Atlas Powder Company. (See Hill and Strass, assignors.)
 Auerbach, Max, Bremen, Germany, assignor to H. R. Cato, Wassenaar, near The Hague, Netherlands. Shuttle-change mechanism for looms. No. 1,307,394; June 24; v. 263; p. 498.
 Auerbach, Frank L., Neosho, Mo. Sorting-rack for road-dry laundry. No. 1,306,997; June 10; v. 263; p. 253.
 Ault, Edward H., assignor to The Bauer Brothers Company, Springfield, Ohio. Treating cotton-seed for separating meats from hulls. No. 1,306,991; June 17; v. 263; p. 393.
 Aurand, Frank H., Oak Park, assignor of one-half to H. R. Wahl, Chicago, Ill. Clutch. No. 1,306,513; June 10; v. 263; p. 273.
 Austin, Frederick C. (See Farrar, Monroe, assignor.)
 Austin, Frederick C. (See French, James C., assignor.)
 Austin, Herbert, Bromsgrove, England. Mounting tractors upon their steering-axles and strengthening such axles. No. 1,306,243; June 3; v. 263; p. 8.
 Auto Pneumatic Action Company, The. (See Johnson, Oscar, assignor.)
 Auto Specialties Manufacturing Co. (See Blair, Clarence L., assignor.)
 Automatic Electric Company. (See Keith, Alexander H., assignor.)
 Automatic Electric Company. (See Lubberger, Fritz, assignor.)
 Automatic Electric Company. (See Martin, Talbot G., assignor.) (Release.)
 Automatic Electric Company. (See Powell, Winfred T., assignor.)
 Automatic Electric Company. (See Willis, Bernard D., assignor.)
 Automatic Electric Company. (See Willis and Martin, assignors.)
 Automatic Excitator Company. (See Comer, John J., assignor.)
 Automobil-und Maschinenfabrik G. m. b. H. (See Kurth, Alfred, assignor.)
 Averill, Rex, G., assignor to The Ohio Brass Company, Mansfield, Ohio. Draw-bar carrier. No. 1,306,997; June 10; v. 263; p. 124.
 Ax, George E., assignor, by name assignments, to Ludwigshafen Verbands Aktiengesellschaft, Stockheim, Sweden. Compressor. No. 1,306,000; June 17; v. 263; p. 357.
 B. Manichewitz Company, The. (See Manichewitz, Jacob U., assignor.)
 B. F. Goodrich Company, The. (See Gammeter, John R., assignor.)
 B. F. Stereovant Company. (See Bentley, Oliver D. H., assignor.)
 B. & K. Mfg. Co., The. (See Brardict, Paul M., assignor.)
 Babcock & Wilcox Company, The. (See Rodly, William J., assignor.)
 Bach, Louis, Alexandria, La. Decoy. No. 1,306,000; June 10; v. 263; p. 358.

Bachman, Arthur A., Baltimore, Md., assignor to U. S. Industrial Alcohol Co., Liquid fuel. No. 1,306,564; June 10; v. 263; p. 284.
 Bachman, Isaac A., Chicago, Ill. Automatic dampen-regulator. No. 1,306,000; June 24; v. 263; p. 614.
 Bachman, Albert W., Lamar, Colo. Sub-starters for very-plano-motors. No. 1,307,331; June 17; v. 263; p. 458.
 Bacon, Raymond F., Pittsburgh, Pa., assignor to Newmont Company, New York, N. Y. Preservation of citrus-fruit juices. No. 1,306,344; June 3; v. 263; p. 3.
 Bader, Edward G., Los Angeles, Calif. Theft-alarm for automobiles. No. 1,307,043; June 24; v. 263; p. 674.
 Bader, Gustav A., Rochester, N. Y. Lamp-mounting. No. 1,307,073; June 24; v. 263; p. 683.
 Bader, Gustav A., Paris, France. Thumb-out spanner. No. 1,307,000; June 24; v. 263; p. 680.
 Baehland, Leo H., Yonkers, assignor to General Balaite Company, New York, N. Y. Phonic condensation products and making same. No. 1,306,681; June 17; v. 263; p. 327.
 Baer, George B. W. M., assignor to Decyrus Company, South Milwaukee, Wis. Bank-rod. No. 1,307,074; June 24; v. 263; p. 683.
 Bailey, Charles A., Cromwell, Conn. Toy pistol. No. 1,306,239; June 3; v. 263; p. 29.
 Bailey, Charles A., Cromwell, Conn. Toy pistol. No. 1,307,473; June 24; v. 263; p. 614.
 Bailey, Frederick T., assignor to H. Merritt, Dudley, Mass. Collapsible cloth-rod. No. 1,307,175; June 17; v. 263; p. 468.
 Bahr, Clarence L., Detroit, assignor to Auto Specialties Manufacturing Co., St. Joseph, Mich. Bow-top holder for tops with detachable rear curtains. No. 1,306,183; June 10; v. 263; p. 264.
 Bahr, Stuart G., and S. I. Feltus, assignors to Hudson Motor Car Company, Detroit, Mich. Tractor. No. 1,306,458; June 3; v. 263; p. 26.
 Baker, Arthur H., assignor to Hercules Electric Company, Indianapolis, Ind. Reversing for magnet-igniters. No. 1,306,154; June 10; v. 263; p. 260.
 Baker, Erik K., assignor to Universal Rim Company, Chicago, Ill. Vehicle-wheel. No. 1,307,473; June 24; v. 263; p. 614.
 Baker, Fred L., et al. (See Durant, Herbert U., assignor.)
 Baker, Milo A., et al. (See Durant, Herbert U., assignor.)
 Baker, Nelson M., assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,306,514; June 10; v. 263; p. 273.
 Baldwin, William B., and J. Curtis, South Madison, Wis. Means for converting rotary into reciprocating motion. No. 1,307,474; June 24; v. 263; p. 614.
 Balfour Guthrie Investment Company, The. (See Harris, Paul A., assignor.)
 Ball, Bert C., Portland, Oreg. Logging-engine. No. 1,306,124; June 10; v. 263; p. 253.
 Ball, Brothers Glass Manufacturing Company. (See Woodward, Frank L., G., assignor.)
 Ball, John R., Danvers, Colo. Ball-mill. No. 1,307,961; June 24; v. 263; p. 688.
 Ball, John R., Danvers, Colo. Ball-mill. No. 1,307,961; June 24; v. 263; p. 688.
 Ballinger, William L., Bradford, Ohio. Tie-spacer. No. 1,307,391; June 17; v. 263; p. 444.
 Bamberth, Thomas H., assignor of one-half to R. M. Bawling, Vancouver, British Columbia, Canada. Toy. No. 1,306,000; June 3; v. 263; p. 71.
 Bancroft, John A., and M. C. Indahl, assignors to Langston Mimeotype Machine Company, Philadelphia, Pa. Key-board compensating-machine. No. 1,307,719; June 24; v. 263; p. 560.
 Banks, Helena H., Ames, Iowa. Direction-indicator. No. 1,306,000; June 10; v. 263; p. 124.
 Barker Gas Range Works. (See Van Riper and Fritschman, assignors.)
 Barndorff, Edward A., Chicago, Ill. Record-holder. No. 1,306,997; June 17; v. 263; p. 358.
 Barak, Jacob, Dover, N. J., assignor to Hercules Powder Company, Wilmington, Del. Nitroglycerol. No. 1,307,000; June 17; v. 263; p. 401.
 Barak, Jacob, Dover, N. J., assignor to Hercules Powder Company, Wilmington, Del. Nitroglycerol. No. 1,307,000; June 17; v. 263; p. 401.
 Barak, Jacob, Dover, N. J., assignor to Hercules Powder Company, Wilmington, Del. Nitroglycerol. No. 1,307,000; June 17; v. 263; p. 401.
 Barker Asphalt Paving Company. (See Everett and Barker, assignors.)
 Barker Asphalt Paving Company, The. (See Wiederhold, Henry, assignor.)
 Barker-Colman Company. (See Colman, Howard D., assignor.)
 Barker-Colman Company. (See Stigman and Parter, assignors.)
 Barker, E. L. (See Kelly, William J., assignor.)
 Barker, George. (See Salisbury, Charles E., assignor.)
 Barker, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Web-actuating mechanism. No. 1,306,998; June 10; v. 263; p. 174.

Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Sheet collecting, associating, and folding machines. No. 1,306,999; June 10; v. 263; p. 173.
 Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Sheet-delivery mechanism for printing-presses. No. 1,306,999; June 10; v. 263; p. 173.
 Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. and Stonington, Conn. Sheet-delivery mechanism for printing-presses. No. 1,306,999; June 10; v. 263; p. 173.
 Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Delivery mechanism for printing-presses. No. 1,306,999; June 10; v. 263; p. 173.
 Barper, Newton L., and J. P. Donaldson, Amherst, Va. Loading-machine. No. 1,307,335; June 24; v. 263; p. 468.
 Barber, Arthur D., Yakima, Wash. Bag-holder for coffee-strainers. No. 1,307,475; June 24; v. 263; p. 615.
 Barber, John C., London, England. Divisible wheel-rim. No. 1,306,515; June 10; v. 263; p. 273.
 Barlow, Bronson, Chicago, Ill. Plant-box. No. 1,306,434; June 3; v. 263; p. 24.
 Barlow, Robert H., Fowler Springs, Ga. Railway-signal. No. 1,307,476; June 24; v. 263; p. 615.
 Barnes, Walter B. (See Dunlop, Judson, assignor.)
 Barnhart, John R. (See Hayes and Barnhart.)
 Barnes, James L., St. Clair, Mo. Basket. No. 1,306,941; June 17; v. 263; p. 324.
 Barody, Jean, Constantine, Algeria. Guiding and controlling instrument for cutting clothes. No. 1,307,232; June 17; v. 263; p. 498.
 Baros, Julius, and H. Greenwood, Barnsbore, Pa. Attachment for barber-chairs. No. 1,306,211; June 10; v. 263; p. 215.
 Barr, Fletcher L., South Orange, assignor to The Hart Roller Bearing Company, East Orange, N. J. Grinding-machine. No. 1,306,400; June 10; v. 263; p. 252.
 Barrett Company, The. (See Perry, Ray P., assignor.)
 Barrett, Eli R., Leonard, Tex. Motor-vehicle heater. No. 1,306,876; June 17; v. 263; p. 372.
 Barrett, Joseph C., New York, N. Y. Measuring instrument. No. 1,306,640; June 3; v. 263; p. 79.
 Barrille, Salvador, Boston, and L. L. Marzban, Somerville, Mass. Sheet-stripping machine. No. 1,306,992; June 17; v. 263; p. 393.
 Barro, Anthony F., assignor of one-half to A. A. Dibble, New York, N. Y. Razor-blade holder. No. 1,306,516; June 10; v. 263; p. 273.
 Barry, Cornelius J., assignor to F. J. Setchell, Chicago, Ill. Reel for winding and forming machines. No. 1,305,990; June 10; v. 263; p. 174.
 Barry, John. (See Ernest and Barry.)
 Barrow, Edwin O., assignor to The Dow Chemical Company, Midland, Mich. Making magnesium chloride and the like. No. 1,306,641; June 3; v. 263; p. 79.
 Barrow, Edwin O., assignor to The Dow Chemical Company, Midland, Mich. Making magnesium chloride and the like. No. 1,306,642; June 3; v. 263; p. 79.
 Barthelmy, Louis, Châlons-sur-Saône, France. Device for displaying photographs or the like. No. 1,306,240; June 3; v. 263; p. 1.
 Bartlett, Earl H., Low Bush, Ontario, Canada. Pumping mechanism. No. 1,306,672; June 10; v. 263; p. 283.
 Bartlett, George H., assignor to National Paper Products Co., San Francisco, Calif. Paper-box-forming machine. No. 1,306,511; June 3; v. 263; p. 63.
 Barton, James, and W. Cotterill, assignors to The Rosamond-Bedway Belling & Hose Co., Inc., Newark, N. J. Tension device for shutters. No. 1,307,336; June 24; v. 263; p. 468.
 Baruch, Sydney N., San Francisco, Calif. Apparatus for taking photographs for the stereoscopic projection of motion-pictures. No. 1,307,074; June 17; v. 263; p. 498.
 Bask, Joseph, and F. Girardi, Detroit, Mich. Trolley-harp. No. 1,306,239; June 10; v. 263; p. 29.
 Basile, Dominick C., and I. K. Shero, Fillmore, Calif. Concrete mixer and conveyor. No. 1,307,903; June 24; v. 263; p. 674.
 Bassett, Robert A., Buffalo, N. Y. Water-meter. No. 1,307,007; June 24; v. 263; p. 468.
 Bate, Ira D., West Jefferson, Ohio. Gate-operating mechanism. No. 1,307,004; June 24; v. 263; p. 574.
 Bates, Adolmer M., assignor to Bates Valve Bag Company, Chicago, Ill. Tool for tying wire bag-ties. No. 1,306,163; June 10; v. 263; p. 264.
 Bates, Albert H., Cleveland Heights, assignor to The Borden Company, Warren, Ohio. Die-stock. No. 1,306,999; June 3; v. 263; p. 20.
 Bates, Robert, Athens, Tenn. Polish. No. 1,306,664; June 3; v. 263; p. 58.
 Bates, Thomas. (See Fulton, John A. S., assignor.)
 Bates Valve Bag Company. (See Bates, Adolmer M., assignor.)
 Batten, Gibson C., Cincinnati, Ohio. Riddle. No. 1,306,998; June 10; v. 263; p. 224.
 Bauer Brothers Company, The. (See Ault, Edward H., assignor.)
 Bauer, Henry. (See Neumann and Bauer.)

[illegible]

Baker, Joseph, New York, N. Y., assignor by name as shown to H. J. Motor Appliance Company. No. 1,267,577; June 17; v. 263; p. 452.
 Baker, Joseph, New York, N. Y., assignor to H. J. Motor Appliance Company. Engine starting apparatus. No. 1,267,578; June 17; v. 263; p. 451.
 Baker Motor Appliance Company. (See Baker, Joseph, assignor.)
 Bakken, Charles A. (See Billings, Nelson O., assignor.)
 Baker, Nathan O., assignor of one-half to C. A. Baker. Motor Over-Door-locks. No. 1,267,580; June 17; v. 263; p. 124.
 Baker, Paul P., Malmo, Sweden. Pneumatically operated construction. No. 1,267,579; June 17; v. 263; p. 457.
 Bakken, Thomas M., Manchester, England, and R. D. Fisher, assignors to Barker-Coleman Company, Rock-land, N. Y. Machine for operating upon crops. No. 1,267,581; June 17; v. 263; p. 125.
 Baker, Charles, New York, N. Y. Lap- and cover-thrower. No. 1,267,582; June 17; v. 263; p. 121.
 Bard, Benjamin W. (See Clark, Albert L., assignor.)
 Barker, Arthur O., Pittsburgh, Pa. Street-sweeper. No. 1,267,583; June 17; v. 263; p. 457.
 Barker, Lee A., Kalamazoo, Mich. Wheel and tire carrier. No. 1,267,571; June 17; v. 263; p. 451.
 Barker, Gustav. (See Barker and Nordlund.)
 Barker, John, New York, N. Y., assignor of one-half to T. Barker, Madison, Minn. Tire- and shoe. No. 1,267,587; June 3; v. 263; p. 24.
 Barker, Theodore. (See Barker, John.)
 Black, John L. (See Reynolds, John.)
 Blackman, Richard T., New Orleans, La. Machine for cutting. No. 1,267,588; June 17; v. 263; p. 458.
 Black, William, assignor to Black & White Limited, Coventry, England. No. 1,267,511; June 24; v. 263; p. 559.
 Blanchard, George L., Fremont, Cal. Gas-burner. No. 1,267,589; June 3; v. 263; p. 29.
 Blanchard, George L., Atlanta, Ga. Saw reconstruction. No. 1,267,591; June 17; v. 263; p. 567.
 Blanchard, Frederick W. (See Marchbanks and Blanchard.)
 Blanchard, Walter, Detroit, Mich. Grading-hanger. No. 1,267,592; June 17; v. 263; p. 566.
 Blacker, Albert, Akron, Ohio. Street-sweeping machine. No. 1,267,577; June 17; v. 263; p. 572.
 Black, Lee W., New York, N. Y. Cutting-machine. No. 1,267,577; June 17; v. 263; p. 288.
 Black, Lee W., New York, N. Y. Carrier-machine. No. 1,267,578; June 17; v. 263; p. 289.
 Black, Frederick O. (See Ritter, Stephen F., assignor.)
 Black, Frederick O. and V. Stockholm, Sweden. Producing steam of high pressure. No. 1,267,513; June 24; v. 263; p. 559.
 Blackmer, Joel, and J. Schaben, Alpena, Iowa. Sport-ship. No. 1,267,594; June 24; v. 263; p. 560.
 Bly, Harold, assignor to National Brass Co., Grand Rapids, Mich. Door-bolt. No. 1,267,595; June 3; v. 263; p. 25.
 Blyth, Meredith W., and T. V. Miller, Sheffield, England. Pumps and apparatus for the treatment of land and the like. No. 1,267,579; June 3; v. 263; p. 123.
 Boak, William M., Toledo, assignor to the Buck Worm Gear Company, Cleveland, Ohio. Forming worm-gears. No. 1,267,597; June 3; v. 263; p. 26.
 Boak Worm Gear Company, Inc. (See Boak, William M., assignor.)
 Boeckmann, A. C., Pittsburgh, Pa. Assignor to Westinghouse Electric and Manufacturing Company. Electrical regulator. No. 1,267,570; June 17; v. 263; p. 572.
 Boehm, Louis J., Chicago, Ill. Merchandise-package. No. 1,267,574; June 10; v. 263; p. 222.
 Boehm, Alexander, Brooklyn, N. Y. Disassembling machine. No. 1,267,575; June 17; v. 263; p. 460.
 Boehm, Robert J., New York, N. Y. Cooling unit. No. 1,267,576; June 17; v. 263; p. 410.
 Boehm, Robert J., New York, N. Y. Variable-speed power transmission. No. 1,267,571; June 3; v. 263; p. 121.
 Boe, James H. C., Oklahoma, Okla. Cotton-picking device. No. 1,267,590; June 3; v. 263; p. 120.
 Boer, Carl F. (See Boer, Robert C., assignor.)
 Boer, Robert C., Williams, Baltimore, Ohio. Chain toy. No. 1,267,573; June 3; v. 263; p. 64.
 Boer, Robert C., Williams, Baltimore, Ohio. Drilling-gage. No. 1,267,574; June 3; v. 263; p. 121.
 Boer, John M., Newark, N. J. Apparatus for conditioning gas. No. 1,267,585; June 3; v. 263; p. 54.
 Boett, Edward F., Chicago, Ill. Window blind and ventilator. No. 1,267,579; June 24; v. 263; p. 513.
 Boett, Joseph R., J. D. Williams, Dunbar, Spencer, and F. L. Smith, New York, N. Y. Lumber and time applier. No. 1,267,580; June 3; v. 263; p. 51.
 Bough, Philip P., and E. Stephenson, Fort Worth, Tex. Apparatus for curing tire-casing. No. 1,267,579; June 17; v. 263; p. 410.
 Bous, Arthur L., Denver, Colo. Night-light for fire-alarm. No. 1,267,570; June 17; v. 263; p. 372.
 Bouch, Frank M. (See Maibach and Booth.)
 Bouch Company, Inc. (See Bous, Albert H., assignor.)
 Bouch Company, Inc. (See Bous, Albert H., assignor.)
 Boud, Lambert J., Redford, Pa. Battery-protecting device. No. 1,267,567; June 10; v. 263; p. 304.
 Bost, Fred A., Hopton, Iowa. Wagon. No. 1,267,100; June 17; v. 263; p. 413.
 Boston, William R., Omaha, Neb. Motor-vehicle-locking means. No. 1,267,580; June 3; v. 263; p. 54.
 Boston, Louis, Los Angeles, Calif. Method and means for preventing unauthorized sale of medicine. No. 1,267,520; June 3; v. 263; p. 31.
 Boston Machinery Company. (See Peterson, Ambler, assignor.)
 Boston Peckell Polster Company. (See Wilson, Robert A. and A. P., assignors.)
 Bourn, Roy L., and H. R. Martin, Tate, Neb. Partitioning member for shipping-cases. No. 1,267,593; June 17; v. 263; p. 567.
 Bouch, William F., Buffalo, and C. Hartmann, Lancaster, N. Y., assignors to Gould Coupler Company. Electric regulator. No. 1,267,586; June 24; v. 263; p. 552.
 Bouch, Frank M., Ostrorville, Mass. Saw-jointer. No. 1,267,585; June 17; v. 263; p. 457.
 Bowden, David, assignor to G. W. J. Murphy Company, New York, N. Y. Shot for fasteners. No. 1,267,530; June 3; v. 263; p. 65.
 Bowden, Robert, assignor to La Societe Francaise des Glycerines, Paris, France. Apparatus for distilling glycerin. No. 1,267,544; June 17; v. 263; p. 302.
 Bowden, James A., Los Angeles, Calif., assignor to A. Schneider's Son, Incorporated, New York, N. Y. Press-machine. No. 1,267,545; June 10; v. 263; p. 234.
 Bowden, Philip A., assignor to L. A. Little, Lynn, Mass. Stamp-machine. No. 1,267,546; June 17; v. 263; p. 303.
 Bowers Can Seal Company, Inc. (See Bowers, John C., assignor.)
 Bowers, John C., assignor to The Bowers Can Seal Company, Boston, Mass. Can-sealing machine. No. 1,267,590; June 10; v. 263; p. 597.
 Bowers, Robert H. (See Clusen and Bowers.)
 Bowser, Charles H., Ill. Reclining automobile. No. 1,267,542; June 17; v. 263; p. 547.
 Bowman, Cyrus B., Omaha, Neb. Hoist. No. 1,267,564; June 24; v. 263; p. 602.
 Bowman, Karl G. (See Carlson and Boman.)
 Bowser, Allen A., Port Wayne, Ind. Inclining casing. No. 1,267,549; June 17; v. 263; p. 347.
 Boyd, Joseph, Clumber, Ireland. Puttee and making the like. No. 1,267,535; June 17; v. 263; p. 457.
 Boyer, Harvey L., Philadelphia, Pa. Camera. No. 1,267,585; June 3; v. 263; p. 62.
 Boyer, Louis E., Trojan, N. D. Guard. No. 1,267,722; June 24; v. 263; p. 550.
 Bradstreet, Tracy F., Chicago, Ill. Rotary engine. No. 1,267,590; June 24; v. 263; p. 516.
 Bradley, Joseph E., Miami, Fla. Screen-hinge. No. 1,267,590; June 17; v. 263; p. 337.
 Bradley, William H., Concord, N. H. Curtain-actuator. No. 1,267,592; June 17; v. 263; p. 440.
 Bradshaw, Granville E., assignor of one-half to A. R. C. Motors Limited, Hertsman, Walton-on-Thames, England. Motor-cycle frame. No. 1,267,596; June 17; v. 263; p. 504.
 Bragg, J. J., et al. (See Goode, Thomas A., assignor.)
 Brant, J. H., et al. (See Brant, Louis C. and J. H.)
 Brant, Louis C. and J. H. Brant, Ind. Shock-absorber. No. 1,267,595; June 24; v. 263; p. 602.
 Brant, Louis C. and J. H. Brant, Ind. Producing moving pictures. No. 1,267,540; June 24; v. 263; p. 562.
 Branner, William, Haverhill, Mass. Bundling device. No. 1,267,582; June 17; v. 263; p. 427.
 Brannan, John J., McKees Rocks, Pa. Railway-rail joint. No. 1,267,510; June 17; v. 263; p. 415.
 Brant, J. H., et al. (See Brant, Louis C. and J. H.)
 Brant, Louis C. and J. H. Brant, Ind. Sound-box. No. 1,267,596; June 24; v. 263; p. 602.
 Brant, Louis C. and J. H. Brant, Ind. (See Brant, Louis C. and J. H.)
 Brant, Louis C. and J. H. Brant, Ind. Pipe-puller. No. 1,267,590; June 3; v. 263; p. 20.
 Bray, England G. (See Marceau and Bray.)
 Bray, Robert R., Los Angeles, Calif. Electric well-drill. No. 1,267,547; June 24; v. 263; p. 582.
 Bray, Robert R., Los Angeles, Calif., and A. A. Allen, Nome, Alaska. Power-driven saw. No. 1,267,544;

Bridges, Frank P., and I. L. Fritchett, Depoy, Ky. Churn-dasher. No. 1,306,797; June 17; v. 263; p. 387.
 Bried, Julian A., Oakland, Calif. Tile floor. No. 1,306,246; June 10; v. 263; p. 224.
 Briggs, Benjamin F. (See Allen, James A., assignor.)
 Briggs, Jesse A., Westleyville, Pa. Pliers. No. 1,306,878; June 3; v. 263; p. 122.
 Britton, William C., Jr., assignor to Phillips-Britton Company, Kennett Square, Pa. Making electrical conductors. No. 1,307,341; June 24; v. 263; p. 490.
 Briones, Julio N., Cuenca, Spain. Compound fabric. No. 1,306,518; June 10; v. 263; p. 274.
 Bristol, Edgar H., assignor to The Foxboro Company, Foxboro, Mass. Thermometer. No. 1,307,067; June 17; v. 263; p. 402.
 British Westinghouse Electric & Manufacturing Company, The. (See Scanes, Arthur E. L., assignor.)
 Britton, Osa L., Denver, Colo. Direction-indicator for use in connection with vehicle direction-signals. No. 1,306,464; June 10; v. 263; p. 264.
 Brock, Matthias, Boston, Mass. assignor, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J. Band-lasting mechanism. No. 1,306,547; June 10; v. 263; p. 224.
 Brockman, Henry P., Lincoln, Calif. Brake-cleaning device. No. 1,306,874; June 3; v. 263; p. 132.
 Brockway, George A. (See Olatun, Alvin O., assignor.)
 Brogan, Michael P., Lawrence, Mass. assignor, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J. Welt-basting machine. No. 1,306,684; June 10; v. 263; p. 290.
 Bromley, William O., Mercer, Pa. Adjustable corn-basting table. No. 1,307,956; June 24; v. 263; p. 602.
 Brooks, Frederick A., and E. Urbana, Ill. Screw-pump. No. 1,306,160; June 10; v. 263; p. 267.
 Brooks, Roger. (See Brooks, Frederick A. and E.)
 Brooks, Stephen H., Cleveland, Ohio. Automatic fire-extinguishing system. No. 1,307,013; June 24; v. 263; p. 539.
 Brooks, Stephen H., Cleveland, Ohio. Fire-extinguishing inlet for fuel-tanks. No. 1,307,514; June 24; v. 263; p. 539.
 Brown, Ernest L., Tarrytown, N. Y., assignor to J. N. Thomson, Pittsford, Pa. Blouse-gate. No. 1,306,870; June 10; v. 263; p. 247.
 Brown, Charles, Knoxville, assignor of one-third to R. F. Lively and one-third to F. J. Lively, Lenoir City, Tenn. Tire-unwrapping machine. No. 1,306,990; June 10; v. 263; p. 188.
 Brown Company. (See Richter, George A., assignor.)
 Brown, Ellis E., Reading, Pa. Friction-clutch. No. 1,306,465; June 10; v. 263; p. 264.
 Brown, Harold, Dacoma, Okla. Indicator for engines. No. 1,306,575; June 10; v. 263; p. 264.
 Brown, J. D. (See Hohnsbee, George H., assignor.)
 Brown, James, assignor of one-half to C. Felt, Philadelphia, Pa. Attachment for unraveling textile fabrics. No. 1,306,586; June 3; v. 263; p. 69.
 Brown, Lee R., Baton Rouge, La. Sign-basher. No. 1,307,287; June 17; v. 263; p. 437.
 Brown, Mortimer B., Brooklyn, N. Y. Vehicle. No. 1,307,723; June 24; v. 263; p. 550.
 Brown, Percy H., assignor to Aspel Rubber Company, Hudson, Mass. Shoe. No. 1,306,906; June 17; v. 263; p. 394.
 Brown, Phelps, Springfield, Mass. Igniter. No. 1,307,242; June 24; v. 263; p. 400.
 Brown, Phelps, Springfield, Mass. Igniter. No. 1,307,243; June 24; v. 263; p. 400.
 Brown, Robert J., Springfield, Ill. Window shade and curtain bracket. No. 1,306,009; June 10; v. 263; p. 164.
 Brown Specialty Machinery Co. (See Coburn, Richard G., assignor.)
 Brown, William H., Hastings, Nehr. Collapsible sign and lighting post. No. 1,307,655; June 24; v. 263; p. 547.
 Brown, William J., Macon, Ga. Valve. No. 1,306,570; June 10; v. 263; p. 264.
 Bruce, Baxter H., U. S. Navy. Automobile-signal. No. 1,307,088; June 17; v. 263; p. 402.
 Bruce, Claude L., et al. (See Hughes, John L., assignor.)
 Bruhn, Friedrich W. G., Berlin, Germany. Tachimeter. No. 1,306,040; June 10; v. 263; p. 184.
 Brunawick, Frank P. A., et al. (See Kaupert, George, assignor.)
 Bubb, Clarence A., assignor to The Korket Company, Detroit, Mich. Flush-valve. No. 1,307,576; June 24; v. 263; p. 583.
 Buchanan, Clarence H., Washington, D. C. Foot-warmer. No. 1,307,615; June 24; v. 263; p. 540.
 Buchanan, Ira R., Yelm, Wash. Valve-lifting tool. No. 1,307,772; June 24; v. 263; p. 568.
 Buck Glass Company, The. (See Bethel, Albert E., assignor.)
 Buck, Otto H., Kokomo, Ind. Attachment for wrenches. No. 1,306,248; June 3; v. 263; p. 4.
 Buckham, George T. (See Dawson and Buckham.)
 Buchler, Oliver E., East Orange, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Method of and apparatus for exhausting to low pressures. No. 1,307,580; June 24; v. 263; p. 611.
 Buckner, Louis H., Indianapolis, Ind. Connecting means for hubs and axles. No. 1,306,519; June 10; v. 263; p. 274.

Bucyrus Company. (See Bager, Evans R. W. M., assignor.)
 Bucyrus Company. (See Ferris, Walter, assignor.)
 Buchala, Ed M., Blackhawk county, Iowa. Ventilating means for corn-crisks. No. 1,306,484; June 10; v. 263; p. 252.
 Buchler, John R., Keokuk, Iowa, assignor to A. G. Wetmore, Plymouth, Ind. Crates. No. 1,307,484; June 24; v. 263; p. 507.
 Bucholt, Otto C., St. Louis, Mo. Band-lasting device. No. 1,306,746; June 17; v. 263; p. 349.
 Buell, Joseph W., Washington, D. C. assignor to Buell Signal and Train Control Company, Incorporated. Combined automatic train signaling and control system. (Belgium.) No. 14,076; June 24; v. 263; p. 616.
 Buell Signal and Train Control Company. (See Buell, Joseph W., assignor.) (Belgium.)
 Buehner, Harry C., Chicago, Ill. assignor to The McCarty & Torrey Company, Pittsburgh, Pa. Draft-yoke. No. 1,306,468; June 10; v. 263; p. 262.
 Bulard, Lewis M., Kansas City, Mo. Feeding-machine. No. 1,306,766; June 3; v. 263; p. 321.
 Bullard, Maurice L. (See Gendall and Bullard.)
 Bullivant, Cass, assignor of one-half to W. W. Scott, Spokane, Wash. Rim contractor and expander. No. 1,306,907; June 17; v. 263; p. 394.
 Bumpstine, George L., assignor of one-half to H. A. Bumpstine, Jr., New York, N. Y. Vehicle-coupling. No. 1,307,184; June 17; v. 263; p. 491.
 Budy, Joseph, assignor to The McGraw Tire & Rubber Company, Palestine, Ohio. Collapsible core. No. 1,307,184; June 24; v. 263; p. 507.
 Bunker, Arthur, Schenectady, N. Y. Locomotive-truck. No. 1,307,616; June 24; v. 263; p. 540.
 Bunting, John W., Chicago, Ill. Heater for hot water or steam. No. 1,306,888; June 3; v. 263; p. 64.
 Burt Ring Sales Company. (See Cobb, Harry H., assignor.)
 Burden, Henry. (See Taylor, Miles, and Burden.)
 Burgess Battery Company. (See Burgess, Charles F., assignor.)
 Burgess, Charles F., assignor to Burgess Battery Company, Madison, Wis. Manufacture of dry cells. No. 1,306,884; June 3; v. 263; p. 4.
 Burgess, Charles F., assignor to Burgess Battery Company, Madison, Wis. Manufacture of dry cells. No. 1,306,881; June 3; v. 263; p. 4.
 Burgess, Charles F., assignor to Burgess Battery Company, Madison, Wis. Manufacture of dry cells. No. 1,306,882; June 3; v. 263; p. 4.
 Burgess, Hubert A., Seattle, Wash. Speed-controlled rheostat. No. 1,306,881; June 3; v. 263; p. 129.
 Burgh, William E., Seattle, Mo. Turning concrete walls. No. 1,306,687; June 10; v. 263; p. 27.
 Burke, James F., Kansas City, Mo. Tool-handle-etching means. No. 1,306,484; June 3; v. 263; p. 57.
 Burley, Clem J., Columbus, Ohio, assignor to General Electric Company. Insulating material. No. 1,306,680; June 10; v. 263; p. 274.
 Burlington, William, assignor to Engineering Products Corporation, Newport News, Va. Pneumatic impact-tool. No. 1,306,680; June 10; v. 263; p. 522.
 Burnham, George A., assignor to E. R. Condit Jr., Brookline, Mass. Electric switch. No. 1,307,848; June 24; v. 263; p. 623.
 Burrell, Benjamin S., Indiana Harbor, Ind. Liquid-fuel-gasifying apparatus. No. 1,306,680; June 3; v. 263; p. 57.
 Burrows, John R., Wilmington, Del. Artificial Sower. No. 1,307,617; June 24; v. 263; p. 540.
 Burnell, Otis H., Orebro, Sweden. Ball-eyes for ball-bearing. No. 1,306,878; June 3; v. 263; p. 132.
 Burton, Thomas L., assignor to The American Brake Company, St. Louis, Mo. Brake-beam with removable transverse. No. 1,307,618; June 24; v. 263; p. 540.
 Busch, Arthur L., assignor to Samuel L. Moore & Sons Corporation, Elmhurst, N. J. Submarine torpedo-tube construction. No. 1,306,870; June 3; v. 263; p. 128.
 Bush, Eugene, Washington, D. C. Valve construction. No. 1,307,261; June 24; v. 263; p. 490.
 Butcher, Elmer E., Interlaken, N. J., assignor to Marconi Wireless Telegraph Company of America. Method of and apparatus for eliminating static effects. No. 1,306,176; June 10; v. 263; p. 307.
 Butler, Benjamin F., Greenfield, Mass. assignor to Greenfield Top and Die Corporation. Pipe-threading apparatus. No. 1,306,171; June 10; v. 263; p. 307.
 Butten, Frank H., New York, N. Y. Vehicle-control system. No. 1,307,956; June 24; v. 263; p. 602.
 Byriner, William W., and F. Montague, Philadelphia, Pa. Vent-lane. No. 1,306,787; June 3; v. 263; p. 168.
 C. B. Cottrell & Sons Company. (See Barker, Howard M., assignor.)
 Cabot, Samuel, Canton, assignor to Samuel Cabot, Inc., Boston, Mass. Waterproof cement. No. 1,306,846; June 3; v. 263; p. 79.
 Cadogan, Dr. Ernest, et al. (See Koch, George, assignor.)
 Cadman, Adell B., Detroit, Wis. assignor, by means assignments, to Warner Manufacturing Company, South Beloit, Ill. Trailer-truck. No. 1,306,881; June 3; v. 263; p. 58.
 Caldwell, A. R. (See Knudsen, Martin N., assignor.)

Caldwell, George B., Ottawa, Ontario, Canada. Combination hand-tool. No. 1,306,887; June 3; v. 263; p. 59.
 Callad, Adriana, Waterbury, Conn. War-car. No. 1,307,380; June 17; v. 263; p. 458.
 Calloway, Allen, assignor to Adriance Machine Works, Inc., Brooklyn, N. Y. Bottle filling and sealing machine. (Belgium.) No. 14,087; June 10; v. 263; p. 608.
 Cambera, David S. (See Cambera, Santiago and D. S.)
 Cambera, Santiago and D. S., Tucson, Ariz. Air-cooling machine. No. 1,307,068; June 24; v. 263; p. 547.
 Cambron, James A., Brooklyn, N. Y. Moving-picture machine. No. 1,307,947; June 24; v. 263; p. 605.
 Campa y Novedosa, Abelardo F., Habana, Cuba. Incombustible and waterproof product for use in construction. No. 1,306,688; June 10; v. 263; p. 174.
 Campbell, John J., Brooklyn, N. Y. Welding-tool. No. 1,306,766; June 17; v. 263; p. 349.
 Canale, William D. (See Rieger and Canale.)
 Canfield, Harry R., assignor to The Electric Controller & Manufacturing Company, Cleveland, Ohio. Motor-control system. No. 1,306,518; June 10; v. 263; p. 278.
 Capital Motors Corporation. (See Knave, William, assignor.)
 Capaldi, John O., assignor to Eastman Kodak Company, Rochester, N. Y. Photographic-printing apparatus. No. 1,306,946; June 17; v. 263; p. 398.
 Carborundum Company, The. (See Tene and Smith, assignors.)
 Carling Turbine Blower Co. (See Carlson, Axel W., assignor.)
 Carlson, Axel W., Santa Ana, Calif. Automatic train-stop. No. 1,307,007; June 24; v. 263; p. 575.
 Carlson, Axel W., assignor to Carling Turbine Blower Co., Worcester, Mass. Turbine-blower. No. 1,307,111; June 17; v. 263; p. 418.
 Carlson, George H., assignor to Hoeschen Manufacturing Company, Omaha, Neb. Toy machine-gun. No. 1,306,877; June 10; v. 263; p. 324.
 Carlson, Oscar I. (See Carlson and Boman.)
 Carlson, Oscar I. and E. Boman, Ljungavik, Sweden. Apparatus for effecting reactions between one or more solid substances and one or more gaseous substances. No. 1,306,441; June 3; v. 263; p. 40.
 Carpenter, Daniel A., New York, N. Y. Buckle. No. 1,306,466; June 10; v. 263; p. 262.
 Carpenter, Edward P., Elmira Heights, and J. L. Carpenter, Potsdam, N. Y. Folding crane. No. 1,306,186; June 10; v. 263; p. 300.
 Carpenter, John L. (See Carpenter, Edward P. and J. L.)
 Carpenal, Richard H., and J. C. Sothan, assignors to The Coventry Ordnance Works, Limited, Coventry, England. Apparatus for automatically setting tools or facilitating the setting of the same. No. 1,306,878; June 3; v. 263; p. 122.
 Carr, Charles B., New York, N. Y. Eye-wiper. No. 1,306,443; June 3; v. 263; p. 40.
 Carras, Marie, Montevideo, Uruguay. Ship-carry submarine defense. No. 1,306,877; June 3; v. 263; p. 122.
 Carson, George H., Albany, N. Y. Window-fastener. No. 1,307,113; June 17; v. 263; p. 418.
 Carson, Oswald R., assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,306,521; June 10; v. 263; p. 274.
 Carter, Adrian B. (See Bessold and Carter.)
 Cartwright, Hugh F., St. Louis, Mo. Supporting-frame for motor-trucks. No. 1,306,865; June 17; v. 263; p. 328.
 Case, Henry J., Poughkeepsie, N. Y., assignor to Moline Plow Company. Elevator attachment for grain harvesters. No. 1,306,879; June 3; v. 263; p. 121.
 Case, Henry J., Poughkeepsie, N. Y., assignor to Moline Plow Company. Conveying mechanism. No. 1,306,880; June 3; v. 263; p. 121.
 Casey-Dupres Company, The. (See Francis, Arthur E., assignor.)
 Casler, Herman, Canastota, N. Y. Tire-pump. No. 1,307,080; June 17; v. 263; p. 402.
 Cass, William J., Boston, Mo. Whitest-iron. No. 1,307,220; June 17; v. 263; p. 488.
 Castilla, Ricardo G., Mexico, Mexico. Non-refillable bottle. No. 1,306,947; June 17; v. 263; p. 398.
 Cato, Herman R. (See Auerbach, Max, assignor.)
 Cates, Leland C., assignor to Bannan Chemical Company, Chicago, Ill. Dye-cup. No. 1,307,113; June 17; v. 263; p. 418.
 Cavagnaro, Nicholas J., Union Course, N. Y., assignor to Cavagnaro, Cavagnaro & Ambrosio, Inc. Air-drying device. No. 1,306,780; June 3; v. 263; p. 169.
 Caven, Trevor M., Baltimore, Md., assignor to Maryland Products Company. Diatomaceous composition. No. 1,306,822; June 3; v. 263; p. 88.
 Central Tool Company, The. (See Jaques, Fernando O., assignor.)
 Cavagnaro, Cavagnaro & Ambrosio. (See Cavagnaro, Nicholas J., assignor.)
 Chadburn, William R. (See Chadburn, William and W. R.)
 Chadburn, William and W. R., Beeth, England. Ship's telegraphic apparatus. No. 1,307,183; June 17; v. 263; p. 427.

Chadeld Chemical Company. (See Ellis, Carleton, assignor.)
 Chadwick, John W., Kansas City, Mo. Fluid-motor. No. 1,306,201; June 10; v. 263; p. 224.
 Chadwick, Lee S., assignor to The Cleveland Metal Products Company, Cleveland, Ohio. Connecting device. No. 1,306,169; June 10; v. 263; p. 184.
 Chadwick, Lee S., East Cleveland, assignor to The Cleveland Metal Products Company, Cleveland, Ohio. Lifter for frame-spreaders and wick-steps. No. 1,306,101; June 10; v. 263; p. 194.
 Chalman, John E., Chicago, Ill. Hemmer for sewing-machines. No. 1,306,258; June 3; v. 263; p. 4.
 Chamberlin, Benjamin D., assignor to Eastman Kodak Company, Rochester, N. Y. Photographic-film spool. No. 1,306,881; June 17; v. 263; p. 378.
 Chambers, Adam, New York, N. Y. Fastening device for automobiles. No. 1,306,780; June 17; v. 263; p. 358.
 Chambers, Humphrey W. (See Perry and Chambers.)
 Chambers, John B., Indianapolis, Ind. Throttle-valve apparatus. No. 1,307,114; June 17; v. 263; p. 416.
 Charnard, Auguste, Ruell, France. Receptacle for incendiary aerial bombs. No. 1,306,747; June 17; v. 263; p. 328.
 Chandler, Elbert E., Eagle Rock, Calif. Tractor. No. 1,307,481; June 24; v. 263; p. 516.
 Chandler, George W. (See Pratt and Chandler.)
 Chaney, Oscar M., Los Angeles, Calif. Drawing instrument. No. 1,307,368; June 24; v. 263; p. 603.
 Chapman, Frank H., assignor to Toledo Scale Company, Toledo, Ohio. Machine for grooving and finishing jewel-bearings. No. 1,307,577; June 24; v. 263; p. 533.
 Chapman, Mark C. (See Chapman, Matthew T. and M. C.)
 Chapman, Matthew T., Aurora, Ill. Rotary pump. No. 1,307,116; June 17; v. 263; p. 416.
 Chapman, Matthew T. and M. C., assignors to The American Well Works, Aurora, Ill. Pumping machinery. No. 1,307,116; June 17; v. 263; p. 416.
 Charland, Ernest, Indian Orchard, assignor of one-half to D. J. McNamara, Springfield, Mass. Fire-hydrant. No. 1,306,578; June 10; v. 263; p. 284.
 Chase, Amos F., Lynn, Mass. Romper. No. 1,307,950; June 24; v. 263; p. 608.
 Chatain, Henri G., and H. W. Stock, Erie, Pa., assignors to General Electric Company. Means for preventing vibration of reciprocating engines. No. 1,306,522; June 10; v. 263; p. 274.
 Chatfield, Clarence E., assignor to The Stimmens Automatic Railway Signal Company, Buffalo, N. Y. Signal system for moving vehicles. No. 1,306,523; June 3; v. 263; p. 85.
 Chaur, Gustave E., Paris, France. Piston. No. 1,307,955; June 24; v. 263; p. 600.
 Check, Henry M., Ferndale, assignor of one-half to A. R. Levy, Little Rock, Ark. Can-holder. No. 1,307,482; June 24; v. 263; p. 516.
 Cheneau, Emile A., Cognac, France. Distilling apparatus. No. 1,307,184; June 17; v. 263; p. 428.
 Cheney, Corey E. (See Millard, Osterhout, and Cheney.)
 Cheney, Fred, assignor of one-half to J. M. McClintock, Detroit, Mich. Instrument for handling jewels. No. 1,306,881; June 3; v. 263; p. 123.
 Chersop, Henry, Chaplin, Saskatchewan, Canada. Trap. No. 1,306,588; June 3; v. 263; p. 69.
 Cherington, George T., Waukegan, Ill. Spring-motor governor. No. 1,306,882; June 3; v. 263; p. 123.
 Cherry, Edward E., Trenton, N. J., assignor of one-third to W. Fisher, Philadelphia, Pa., and one-third to L. E. Laurent, New York, N. Y. Captain and sheave block. No. 1,307,578; June 24; v. 263; p. 533.
 Childrey, William H., Haw River, N. C., assignor to Scott and Williams, Incorporated, Boston, Mass. Machine for knitting fabric sections and making fabrics having transferred sections. No. 1,306,528; June 10; v. 263; p. 274.
 Childs, Frank H., Stroud, Okla. Hose-supporter. No. 1,306,800; June 17; v. 263; p. 358.
 Chiron, Hippolyte M., Hog Island, Pa. Aeroplane. No. 1,306,524; June 3; v. 263; p. 58.
 Chittim, Carl C., Tulsa, Okla. Combined adjustable chair and cot. No. 1,306,102; June 10; v. 263; p. 194.
 Christman, Horace, Edgewood, assignor to Pittsburgh Meter Company, June 3; v. 263; p. 123.
 Christman, Horace, East Pittsburgh, Pa. Wet-gas meter. No. 1,306,583; June 3; v. 263; p. 69.
 Christensen, Martin J., assignor of one-half to F. B. Scholt, Chicago, Ill. Safety device for ships. No. 1,307,940; June 17; v. 263; p. 403.
 Christoph, Edward A., assignor to J. W. Eloy, Chicago, Ill. Building-blocks. No. 1,307,351; June 17; v. 263; p. 488.
 Christopher, Anthony J., Baldwinville, N. Y. Wire-fastening device. No. 1,307,240; June 17; v. 263; p. 488.
 Chroy, George, Stewart, Minn. Hitching device. No. 1,306,884; June 3; v. 263; p. 124.
 Chryst, William A., Dayton, Ohio, assignor to The Dayton Engineering Laboratories Company. Engine starting system. No. 1,306,187; June 10; v. 263; p. 201.
 Chuk, Lewis W., Edgewood Park, Pa., assignor to Westinghouse Electric & Manufacturing Company. Electrolytic cell. No. 1,306,443; June 3; v. 263; p. 40.

Chamberly, John E., Nashville, Tenn. Automobile-jack. No. 1,307,080; June 17; v. 263; p. 410.
 Chung, Kun S., Honolulu, Hawaii. Game apparatus. No. 1,305,341; June 3; v. 263; p. 21.
 Church, Edmund B., Chicago, Ill. Curtain-fastener. No. 1,304,524; June 10; v. 263; p. 274.
 Churchill, William, and E. Pascucci, assignors to Cuming Glass Works, Corning, N. Y. Lens. No. 1,307,579; June 24; v. 263; p. 522.
 Claessens, Rudolph J., Philadelphia, Pa. Disinfectant apparatus. No. 1,307,535; June 24; v. 263; p. 523.
 Ciglia, Ernest F., and L. P. Polletier, New York, N. Y. Assignors, by mesne assignments, to E. & B. Carborator Company, Inc. Carborator. (Belgium.) No. 1,305,883; June 10; v. 263; p. 304.
 Cirielli, Francesco, Philadelphia, Pa. Lid-supporting member. No. 1,305,840; June 17; v. 263; p. 305.
 Clapp, Albert L., Marblehead, assignor to E. W. Bird, Framingham, Mass. Felt and making the same. No. 1,305,770; June 3; v. 263; p. 102.
 Claremont, Ernest A. (See Foster and Claremont.)
 Clark, Bradford A., Bloomington, Ill. Yarn-feeding mechanism for looms. No. 1,307,241; June 17; v. 263; p. 438.
 Clark, Melville, Chicago, Ill. Assignor to Melville Clark Piano Company. Combined player-piano and phonograph. No. 1,304,947; June 17; v. 263; p. 307.
 Clark, Samuel A., Seattle, Wash. Table opening and closing device. No. 1,307,508; June 24; v. 263; p. 575.
 Clark, Sherman W., Wapato, Wash. Spring-seat. No. 1,305,771; June 3; v. 263; p. 102.
 Clark, William E., assignor of one-half to W. Martin, Seattle, Wash. Gas-operated gun. No. 1,304,910; June 24; v. 263; p. 314.
 Clarke, Joseph T., Harrow, England. Instrument for indicating verticality or orientation. No. 1,304,982; June 17; v. 263; p. 373.
 Clarke, Richard T., Columbus, Ohio. Garment-supporter. No. 1,304,901; June 17; v. 263; p. 358.
 Clarke, William E., Toronto, Ontario, Canada. Lining-pad. No. 1,305,444; June 3; v. 263; p. 40.
 Clavel, Charles H., Levallois Perret, France. Explosion-motor. No. 1,307,185; June 17; v. 263; p. 423.
 Clausen, Henry P., Mount Vernon, and C. L. Goodrum, assignors to Western Electric Company, Incorporated, New York, N. Y. Machine-switching telephone system. No. 1,307,536; June 24; v. 263; p. 523.
 Clausen, Leon R., and E. R. Bowers, assignors to The Dala Manufacturing Company of Iowa, Ottumwa, Iowa. Hay-stacker. No. 1,304,748; June 17; v. 263; p. 345.
 Clawson, Monroe S., Weehawken, N. J. Electric furnace. No. 1,304,948; June 17; v. 263; p. 305.
 Cleffton, Claud J., and G. J. Owatonna, Minn. Acetylene-generator. No. 1,305,254; June 3; v. 263; p. 4.
 Cleffton, Guy J. (See Cleffton, Claud J. and G. J.)
 Clement, Edward E., Washington, D. C. Acoustic apparatus. No. 1,304,248; June 10; v. 263; p. 224.
 Cleveland Hardware Company, The. (See Adams, Edgar E., assignor.)
 Cleveland Macaroni Company, The. (See Gammel, Karl, assignor.)
 Cleveland Metal Products Company, The. (See Chadwick, Lee S., assignor.)
 Clough, Andrew M., Batavia, N. Y. Timber-hook. No. 1,304,602; June 17; v. 263; p. 333.
 Clover Electrical Corporation. (See Clover, Howard K., assignor.)
 Coast, John W., Jr., assignor to The Process Company, Tulsa, Okla. Apparatus for cracking hydrocarbons. No. 1,307,724; June 24; v. 263; p. 550.
 Contain, Louis, assignor of one-half to Sunbeam Motor Car Company, Limited, Wolverhampton, England. Valve-gear. No. 1,304,949; June 17; v. 263; p. 306.
 Contain, Louis, assignor of one-half to Sunbeam Motor Car Company Limited, Wolverhampton, England. Internal-combustion engine. No. 1,307,619; June 24; v. 263; p. 540.
 Cobb, Dan L., and W. W. Moore, Orange, Tex. Dubbing-machine. No. 1,304,240; June 10; v. 263; p. 225.
 Cobe, Harry H., Boston, Mass. Assignor to Rurd Ring Sales Company, Buffalo, N. Y. Fastener. No. 1,304,970; June 3; v. 263; p. 42.
 Coburn, Edward B., assignor of one-half to J. R. Hannan, Worcester, Mass. Ice-cutting machine. No. 1,304,047; June 10; v. 263; p. 104.
 Coburn, Richard G., assignor to Brown Specialty Machinery Co., Chicago, Ill. Shutter mechanism for endless conveyors and the like. No. 1,306,103; June 10; v. 263; p. 104.
 Coburn Trolley Truck Manufacturing Company, The. (See Collin, Charles W., assignor.)
 Cochran Corporation. (See Wells, Raymond, assignor.)
 Cochran, Frank, Cheshire, England. Production of fabrics having the property of invisibility. No. 1,304,213; June 10; v. 263; p. 215.
 Codd, William C., Baltimore, Md. Pipe-coupling. No. 1,307,393; June 24; v. 263; p. 400.
 Coe, Addison, Jersey City, assignor of one-half to E. Berendrick, Union, N. J. Extension-staff and container for flags. No. 1,305,885; June 3; v. 263; p. 124.

Coe, Elmer B., Wilkesburg, Pa. Assignor to The Union Switch & Signal Company, Scranton, Pa. Relay. No. 1,307,735; June 24; v. 263; p. 550.
 Coe, Stanley Manufacturing Corporation. (See Stanley, Philip H., assignor.)
 Collin, Charles W., Portland, Me. Assignor to The Auburn Trolley Truck Manufacturing Company, Auburn, Mass. Folding table. No. 1,304,043; June 10; v. 263; p. 244.
 Collin, Frank P., Boston, and E. P. Whitaker, Boston, Mass. Steam-radiator for traction-engine cars. No. 1,307,540; June 24; v. 263; p. 523.
 Cohen, Ira. (See Finkel and Cohen.)
 Cobo, Herbert B., Mount Vernon, N. Y. Brake-band. No. 1,305,494; June 10; v. 263; p. 304.
 Colardou, Emmanuel L. P., assignor to H. Crochet, Paris, France. Explosion-engine. No. 1,307,590; June 24; v. 263; p. 527.
 Colby, Ora A. (See Thornton and Colby.)
 Colby, Ora A., Larkspur, Pa. Assignor to Westinghouse Electric and Manufacturing Company. Electric furnace. No. 1,304,300; June 10; v. 263; p. 235.
 Colby, Ora A., Larkspur, Pa. Assignor to Westinghouse Electric and Manufacturing Company. Electric furnace. No. 1,304,301; June 10; v. 263; p. 235.
 Cole, Clifford R., Birmingham, Ala. Pipe connection. No. 1,307,507; June 24; v. 263; p. 575.
 Cole, Gurney H., Mount Oliver, Pa. Assignor to Westinghouse Electric and Manufacturing Company. Constant-current regulator. No. 1,304,535; June 10; v. 263; p. 275.
 Coleman, Frederick A., Cleveland Heights, assignor to The Foundry Equipment Company, Cleveland, Ohio. Core-over door. No. 1,307,433; June 24; v. 263; p. 518.
 Coleman, James M., Westmont, assignor of one-half to K. F. Nyström, St. Lambert, Montreal, Quebec, Canada. Refrigerator-car. No. 1,304,773; June 3; v. 263; p. 105.
 Collette, Joseph E., Jr., Fitchburg, Mass. Window-screen. No. 1,304,330; June 10; v. 263; p. 232.
 Collin, Joseph A., Secaucus, assignor of one-half to E. Roulier, Coburn, N. Y.; J. Collin, administrator. Car-step-operating mechanism. No. 1,307,580; June 24; v. 263; p. 527.
 Collins, Julia, administratrix. (See Collins, Joseph A.)
 Colman, Howard B., assignor to Barker-Colman Company, Rockford, Ill. Warp-binding machine. No. 1,304,130; June 10; v. 263; p. 201.
 Comer, John J., assignor to Automatic Houndstitch Company, Chicago, Ill. Transmitting apparatus. No. 1,305,525; June 3; v. 263; p. 35.
 Compton, Glenn A., A. R. Neen, Minneapolis, W. H. Gonservit and G. A. Green, St. Paul, assignors to Everlast Manufacturing Company, Incorporated, Minneapolis, Minn. Collapsible arch-form. No. 1,304,173; June 10; v. 263; p. 207.
 Compton, John D., Indianapolis, Ind. Brake-operating mechanism. No. 1,307,404; June 24; v. 263; p. 517.
 Condit, Sears B., Jr. (See Burham, George A., assignor.)
 Conn, J. C., et al. (See Webb, George W., assignor.)
 Conner, Oliver E., Jr., Hartwell, Ohio. Gun-sight. No. 1,304,175; June 10; v. 263; p. 205.
 Consolidated Railway Electric Lighting and Equipment Company. (See Kennedy, Patrick, assignor.)
 Continental Can Company. (See Haral, Otto H., assignor.)
 Continental Can Company. (See Adams and Parker, assignors.)
 Continental Can Company. (See Finch, George, assignor.)
 Continental Can Company. (See Warner, Ivar F., assignor.)
 Continental Can Company. (See Warner and Takaferr, assignors.)
 Cook, Adaham J., Westerlo, N. Y. Garment-stay. No. 1,304,068; June 17; v. 263; p. 373.
 Cook, Frank A., Hartford, Conn. Assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,304,950; June 17; v. 263; p. 303.
 Cooper, Benjamin F., assignor of one-third to H. H. Goodman and one-third to G. E. Wagner, Cantonville, Mich. Tractor. No. 1,304,570; June 10; v. 263; p. 254.
 Cooper, Charles J., assignor of one-half to H. W. Cooper Saddlery Hardware Mfg. Company, Malton, Ill. Chain-cockers. No. 1,307,405; June 24; v. 263; p. 518.
 Cooper, Charles W. (See Morris, Frank G., assignor.)
 Cooper Hewitt Electric Company. (See Keyes, Frederick G., assignor.)
 Cooper Hewitt Electric Company. (See Felt, Joseph C., assignor.)
 Cooper, Howell C. (See Garner and Cooper.)
 Cooper, Thomas, Norfolk, England. Friction-clutch. No. 1,304,302; June 10; v. 263; p. 235.
 Costa, John M., Elizabeth, N. J. Removable knife-blade fence. No. 1,304,090; June 24; v. 263; p. 611.
 Corey, William H., Newport, Me. Extractor for obstructed esophagus. No. 1,304,773; June 3; v. 263; p. 102.
 Corning Glass Works. (See Churchill and Pascucci, assignors.)
 Corning Glass Works. (See Gage and Taylor, assignors.)
 Cosgrove, Patrick J. (See Rogers and Cosgrove.)
 Cotter, Joseph E., West Somerville, Mass. Moving device for mixed motor-vehicles. No. 1,307,551; June 24; v. 263; p. 523.

Cottrell, Walter. (See Barton and Cottrell.)
 Cottrill, John E., Iowa, Mich. Attachment for heavy-duty barbers. No. 1,304,130; June 10; v. 263; p. 201.
 Cottrill, William F., Fishponds, England. Flexible cover for laminated vehicle-springs. No. 1,307,507; June 24; v. 263; p. 547.
 Coughtry, Arthur J., Lorain, Ohio. Portable drilling and running machine. No. 1,304,657; June 10; v. 263; p. 264.
 Courtney, Marion, O. Waller, Ohio. Mail-box. No. 1,307,542; June 17; v. 263; p. 493.
 Cousins, Benjamin, Windsor, Kan. Shock-absorber for the pulley or sucker rod of oil-pumps. No. 1,307,243; June 17; v. 263; p. 433.
 Coventry Ordnance Works Limited, The. (See Carpmel and Bodman, assignors.)
 Coventry Ordnance Works, The. (See Bodman and Hellberg, assignors.)
 Covert, George J., and R. A. Shaw, Wayne, N. Y. Grinding-plate for food-mills. No. 1,304,549; June 10; v. 263; p. 235.
 Cowan, John A., Kansas City, Mo. Tractor. No. 1,304,680; June 10; v. 263; p. 265.
 Cowan Truck Company. (See Sidmann, Frank L., assignor.)
 Covell, William M., Evansville, Ind. Wheel construction and mounting. (Belgium.) No. 1,304,900; June 10; v. 263; p. 304.
 Cox, Benjamin F., Worcester, Tex. Game-retaining garment. No. 1,307,244; June 17; v. 263; p. 429.
 Cox, William, Fremont, Wellington, New Zealand. Scud-ding attachment to belt and hose washing or hating machines. No. 1,305,774; June 3; v. 263; p. 103.
 Coy, Daniel C., Riverton, Utah. Taper apparatus. No. 1,304,048; June 10; v. 263; p. 104.
 Coyer, Henry B., assignor to De Forest Radio Telephone & Telegraph Company, New York, N. Y. Grid-making machine. No. 1,304,690; June 3; v. 263; p. 87.
 Crabtree, John I., assignor to Eastman Kodak Company, Rochester, N. Y. Colored image and producing the same. No. 1,305,942; June 3; v. 263; p. 120.
 Crall, Preston B., Columbus, Ohio. Lock for stop-bones. No. 1,307,540; June 24; v. 263; p. 527.
 Cramer, Walter G., Cincinnati, Ohio. Holder for camera. No. 1,305,580; June 10; v. 263; p. 304.
 Crane, Frederick G., et al. (See Hansen, Grant, assignor.)
 Crane, Newton, Boston, Mass. Wire-winding machine. No. 1,307,680; June 24; v. 263; p. 540.
 Cravens, Frank B., Lexington, Ky. Air-brake. No. 1,304,526; June 10; v. 263; p. 276.
 Crawford, Fred, Prosser, Wash. Guard-anger for mowers. No. 1,304,695; June 17; v. 263; p. 323.
 Crawford, Harvey F., Brockton, Mass. Dicing-out attachment for presses. No. 1,307,041; June 17; v. 263; p. 403.
 Creveling, John L., New York, N. Y. Assignor to Safety Car Heating and Lighting Company. Electric regulation. No. 1,304,174; June 10; v. 263; p. 204.
 Cresson, Charles C., Kansas City, Mo. Brake-operating mechanism. No. 1,304,903; June 17; v. 263; p. 305.
 Cristiano, Bruno, Canonsburg, Pa. Mouthpieces for cornets and similar instruments. No. 1,304,501; June 3; v. 263; p. 87.
 Criswell, John E., et al. (See Ryan and Jackson, assignors.)
 Crocker, Wellman D., Glencare Warra, Queensland, Australia. Non-refillable bottle. No. 1,305,775; June 3; v. 263; p. 103.
 Crochet, Henry. (See Colardou, Emmanuel L. P., assignor.)
 Crompton & Knowles Loom Works. (See Hutchins and Crossland, assignors.)
 Crompton & Knowles Loom Works. (See Le Doux, Hector, assignor.)
 Crompton & Knowles Loom Works. (See Marshall, Robert A., assignor.)
 Crompton & Knowles Loom Works. (See Regan, John, assignor.)
 Crompton & Knowles Loom Works. (See Ryan, Epps H., assignor.)
 Cropper, William N., Lexington, Ky. Screen construction. No. 1,307,726; June 24; v. 263; p. 550.
 Crosby Steam Gage & Valve Company. (See Mitchell, James W., assignor.)
 Cross, Donald. (See Hirtzel and Cross.)
 Crossland, George. (See Hutchins and Crossland.)
 Cross-Hinds Company. (See Hastings, Harold P., assignor.)
 Cross-Hinds Company. (See Okey, Edwin A., assignor.)
 Crowell, Charles E., Brooklyn, N. Y. Multiple-length series-delivery type-setting machine. No. 1,304,770; June 3; v. 263; p. 103.
 Crowell, William J., Jr., Lebanon, Pa. Indicating differential speed-meter. No. 1,304,405; June 10; v. 263; p. 233.
 Crowley, Richard J., assignor of one-fifth to A. Kramer, one-fifth to T. E. Tennant, one-fifth to H. A. Tennant, and one-fifth to M. Rothman, Dallas, Tex. Battery. No. 1,304,214; June 10; v. 263; p. 215.
 Crown Optical Company. (See Mihalyl, Joseph, assignor.)

Cuthbert, Elmer M., Longmont, Colo. Assignor of one-third to C. F. Andrews and one-third to F. M. Downer. Yieldable bearing and support therefor. No. 1,306,951; June 17; v. 263; p. 534.
 Cuthbert, Paul J., New Castle, Pa. Automobile-halter. No. 1,304,551; June 10; v. 263; p. 263.
 Cuthbert, Thomas M. (See Koon, Frederick.)
 Cuthbert, March J. A., Houston, Tex. Drill-bit. No. 1,304,271; June 10; v. 263; p. 247.
 Cunniff, Matthew S., New York, N. Y., and F. W. Gelschneider, Freehold, N. J., assignors to Nester Manufacturing Company, Inc. New York, N. Y. Lead-testing apparatus. No. 1,307,247; June 24; v. 263; p. 491.
 Cunha, Anthony M., Providence, R. I. Wrench. No. 1,307,405; June 24; v. 263; p. 517.
 Cunniff, John V., assignor to J. K. Lanning, Fall River, Mass. Top-roll-saddle mechanism. No. 1,307,117; June 17; v. 263; p. 419.
 Cunningham, Albert J., Bridgewater, Mass. Kitchen and table article. No. 1,305,777; June 3; v. 263; p. 103.
 Cunningham, James E., Decatur, Ill. Rail. No. 1,307,552; June 24; v. 263; p. 523.
 Cunningham Piano Company of Philadelphia, The. (See Kennedy, Otto M., assignor.) (Belgium.)
 Currier, Hiram D., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Trunk-circuit. No. 1,304,900; June 10; v. 263; p. 304.
 Currier, Hiram D., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Telephone system having instantaneous disconnect and recall. No. 1,306,904; June 17; v. 263; p. 530.
 Currier, Hiram D., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Trunk-circuit. No. 1,307,438; June 24; v. 263; p. 524.
 Curry, Henry B., Louisville, Ky. Silo-base anchor. No. 1,304,682; June 3; v. 263; p. 88.
 Curry, John F., New York, N. Y. Game-board. No. 1,307,457; June 24; v. 263; p. 508.
 Cushing, John G., Los Angeles, and F. C. Munro, Long Beach, Calif. Printing-machine. No. 1,306,773; June 3; v. 263; p. 104.
 Cushing, Richard L., Tiskilwa, Ill. Explosive shell. No. 1,304,215; June 10; v. 263; p. 215.
 Curtin, John. (See Baldwin and Curtin.)
 Curtis, George L., New York, N. Y. Fishing-reel attachment. No. 1,307,900; June 24; v. 263; p. 503.
 Curtis, George V., Springfield, Mass. Assignor to Bausch Machine Tool Company. Counter-sinking-machine. No. 1,307,597; June 24; v. 263; p. 521.
 Curtiss Aeroplane and Motor Corporation. (See Curtiss, Glenn H., assignor.)
 Curtiss Aeroplane and Motor Corporation. (See Kleckler, Henry, assignor.)
 Curtiss, Glenn H., assignor to Curtiss Aeroplane and Motor Corporation, Buffalo, N. Y. Twin-boat hydro-aeroplane. No. 1,304,749; June 17; v. 263; p. 340.
 Curtiss, Glenn H., Garden City, assignor to Curtiss Aeroplane and Motor Corporation, Buffalo, N. Y. Aeroplane-wing truss. No. 1,304,750; June 17; v. 263; p. 340.
 Curtiss, Glenn H., Garden City, assignor to Curtiss Aeroplane and Motor Corporation, Buffalo, N. Y. Combination landing-gear for aeroplanes. No. 1,304,751; June 17; v. 263; p. 340.
 Cushman, Charles A., Barre, Vt. Magnetic heater. No. 1,307,773; June 24; v. 263; p. 548.
 Cutler-Hammer Mfg. Co., The. (See Evans, Clarence T., assignor.)
 Cutler-Hammer Mfg. Co., The. (See Goldenstein, Maurice M., assignor.)
 Cutler-Hammer Mfg. Co., The. (See Henderson, Clark T., assignor.)
 Cutler-Hammer Mfg. Co., The. (See Hunter, Richard B., assignor.)
 Cutler-Hammer Mfg. Co., The. (See Klein, Charles J., assignor.)
 Cutler-Hammer Mfg. Co., The. (See Simon, Arthur, assignor.)
 Cutler-Hammer Mfg. Co., The. (See Zimmer, Paul H., assignor.)
 Cutright, Ismael G. (See Sharpe and Cutright.)
 Cutting, Don D., Seattle, Wash. Tag-fastening means. No. 1,305,693; June 3; v. 263; p. 88.
 D & W Fuse Company. (See Downes and Mayer, assignors.)
 Dady, Arthur O., New York, N. Y., assignor to Pfanetichl Company, Incorporated, North Chicago, Ill. Valve for internal-combustion engines. No. 1,304,175; June 10; v. 263; p. 205.
 Dady, Arthur O., New York, N. Y. Assignor to Pfanetichl Company, Incorporated, North Chicago, Ill. Valve and means for cooling the same. No. 1,304,470; June 10; v. 263; p. 205.
 Dady, Arthur O., New York, N. Y. Assignor to Pfanetichl Company, Incorporated, North Chicago, Ill. Exhaust-valve and means for cooling the same. No. 1,304,471; June 10; v. 263; p. 205.
 Dahlberg, E. O. (See Shaw, John K., assignor.)
 Dahlmon, Emil E., Clintonville, Wis. Drive connection for dirigible vehicle-wheels. No. 1,307,951; June 24; v. 263; p. 603.

Dahlstrand, Josef Y., assignor to Kerr Turbine Company, Wellsville, N. Y. Turbine-bucket blade and making the same. No. 1,307,082; June 17; v. 263; p. 410.
 Dala Manufacturing Company of Iowa, Inc. (See Clausen, Leon R., assignor.)
 Dake, Charles W., assignor to The Pyle-National Company, Chicago, Ill. Piston distribution-valve. No. 1,306,001; June 24; v. 263; p. 611.
 Dale, William R., Philadelphia, Pa. Hat-retaining device. No. 1,305,804; June 3; v. 263; p. 88.
 Dalman, John W., Chicago, Ill. Yoke for draft-rigging and making the same. No. 1,307,083; June 17; v. 263; p. 410.
 Daniels, Thomas M., Redondo Beach, Calif. Best-topping machine. No. 1,306,678; June 10; v. 263; p. 302.
 Danner, Emil C., Westmont borough, Pa. Ball-anchor and manufacture thereof. No. 1,307,084; June 17; v. 263; p. 411.
 Danner, Lewis E., Catonsville, Pa. Wire-stretcher. No. 1,305,779; June 3; v. 263; p. 104.
 Danner, Alfred E., Sacramento, Calif. Housing-machine for woodworking. No. 1,306,252; June 10; v. 263; p. 225.
 Daut, Leonhard, Brooklyn, N. Y. Bottle filling and corking machine. No. 1,307,086; June 24; v. 263; p. 501.
 Davenport, James E., assignor to Union Technical Corporation, New York, N. Y. Rotary engine-valve. No. 1,305,005; June 3; v. 263; p. 88.
 Davidson, Elias E., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Antifriction feed-chute for tube-machines. No. 1,305,448; June 3; v. 263; p. 41.
 Davidson, Frank R., assignor to Howe and Davidson Company, Marceline, Ill. Partition member for containers. No. 1,307,621; June 24; v. 263; p. 541.
 Davidson, George, and H. C. Doctor, Fort Wayne, Ind. Knitted fabric body. No. 1,305,446; June 3; v. 263; p. 41.
 Davidson, James E., and C. Holland, Butte, Mont. Electrically-operated valve. No. 1,307,089; June 24; v. 263; p. 501.
 Davidson, Samuel C., Belfast, Ireland. Flare-light shell. No. 1,306,407; June 10; v. 263; p. 283.
 Davies, Walter L. (See Boomer and Davies.)
 Davis, Decatur W., Louisville, Ky. Container. No. 1,306,408; June 10; v. 263; p. 283.
 Davis, Frank J., San Francisco, Calif. Attachment for hydraulic systems. No. 1,306,582; June 10; v. 263; p. 283.
 Davis, Frank J., San Francisco, Calif., assignor to Bethlehem Shipbuilding Corporation, Ltd., Bethlehem, Pa. Take-up device for engine-room telegraphs. No. 1,307,727; June 24; v. 263; p. 500.
 Davis, Harley H., Kirkland, Wash. Baking-pan. No. 1,307,092; June 24; v. 263; p. 504.
 Davis, Merrill, Detroit, Mich. Internal-combustion engine. No. 1,307,188; June 17; v. 263; p. 428.
 Davis, Thomas A., Medora, N. D. Train-order holder. No. 1,306,984; June 10; v. 263; p. 174.
 Davis, Walter P. (See Driscoll and Davis.)
 Davis, William J., Chicago, Ill. Temperature-changing apparatus for liquids. No. 1,307,728; June 24; v. 263; p. 500.
 Dawes, John L., Pittsburgh, Pa. Protector for lamps or sign structures. No. 1,305,006; June 3; v. 263; p. 88.
 Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Gun-sighting apparatus. No. 1,306,400; June 10; v. 263; p. 284.
 Dawson, Arthur T., and T. Buckham, assignors to Vickers Limited, Westminster, London, England. Electrical apparatus for transmitting or receiving signals. No. 1,306,410; June 10; v. 263; p. 284.
 Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Sighting apparatus for ordnance. No. 1,306,412; June 10; v. 263; p. 284.
 Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Sighting apparatus for ordnance. No. 1,306,413; June 10; v. 263; p. 284.
 Day, George H., assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,305,697; June 3; v. 263; p. 88.
 Day, George H., assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,306,827; June 10; v. 263; p. 275.
 Day, George H., assignor to American Optical Company, Southbridge, Mass. Temple. No. 1,306,906; June 17; v. 263; p. 359.
 Day, George H., assignor to American Optical Company, Southbridge, Mass. Bridge. No. 1,307,118; June 17; v. 263; p. 417.
 Day, Robert U., Stephenson, Miss. Nut-lock. No. 1,305,698; June 3; v. 263; p. 89.
 Dayton Engineering Laboratories Company, The. (See Christ, William A., assignor.)
 De Catalan Castellani, Gastone, Rome, Italy. Artificial limb. No. 1,305,768; June 3; v. 263; p. 102.
 De Forest Radio Telephone & Telegraph Company. (See Coyer, Henry S., assignor.)
 De Ferranti, Sebastian E., Hollinwood, England. Production of shell and like forgings. No. 1,306,583; June 10; v. 263; p. 285.

De Hart, Joseph H., Westville, Va. Dirigible headlight. No. 1,307,970; June 24; v. 263; p. 505.
 De Hart, William A., and J. A. Watt, New York, N. Y. Cork or stopper extractor. No. 1,306,848; June 17; v. 263; p. 367.
 De Laval Separator Company, The. (See Laitch, Meredith, assignor.)
 De Long, William A., Jr., Plainfield, N. J. Auxiliary ribbon-holder. No. 1,306,880; June 3; v. 263; p. 124.
 De Maine, Marvin. (See Moore, Edwin H., assignor.)
 De Marco, Peter L., Minneapolis, Minn. Automatic door opener and closer. No. 1,307,848; June 24; v. 263; p. 461.
 De Martini, Paul, Jamaica, N. Y. Drive for macaroni, &c. No. 1,307,788; June 24; v. 263; p. 570.
 De Muth, Charles J., assignor to S. Greenman, Pittsburgh, Pa. Washer-feeding machine. No. 1,307,900; June 24; v. 263; p. 502.
 De Rooy, William, New York, N. Y. Wrench. No. 1,306,887; June 3; v. 263; p. 124.
 De Smith, Henry, assignor to M. D. Knowlton Company, Rochester, N. Y. Feeding device for stay-applying machines. No. 1,306,943; June 3; v. 263; p. 21.
 De Smith, Henry, assignor to M. D. Knowlton Company, Rochester, N. Y. Feeding device for stay-applying machines. No. 1,306,948; June 3; v. 263; p. 21.
 De Voce, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Mechanical movement. No. 1,306,104; June 10; v. 263; p. 106.
 De Voce, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Feeder-foot mechanism for sewing-machines. No. 1,306,752; June 17; v. 263; p. 349.
 Deane, Clarence M., Carnegie, Okla. Paper-ola. No. 1,305,880; June 3; v. 263; p. 88.
 Debold, Otto, Newark, N. J. Ventilator. No. 1,306,283; June 10; v. 263; p. 226.
 Dech, Charles F., Braintree, England. V-block. No. 1,306,354; June 10; v. 263; p. 226.
 Deere & Company. (See Melvin, Charles H., assignor.)
 Delaporte, Maurice, Paris, France. Device for insuring stability of working steam-jackets arranged in series. No. 1,306,414; June 10; v. 263; p. 284.
 Delano, Albert. (See Van Deuren, Delano and Loblan.)
 Denmark, Jacob, Trenton, N. J. Cigarette-case. No. 1,306,000; June 3; v. 263; p. 88.
 Dennette, Frederick, Hyde Park, Mass. Railway safety system. No. 1,306,608; June 24; v. 263; p. 511.
 Dennis, Hunter, Woodbine, Calif. Pulley. No. 1,306,696; June 3; v. 263; p. 54.
 Denver Rock Drill Manufacturing Company, The. (See Leonard and Johnson, assignors.)
 Depollier, Charles L., Brooklyn, N. Y. Watch. No. 1,306,140; June 10; v. 263; p. 301.
 Des Barres, Aubrey H. H., New Glasgow, Nova Scotia, Canada. Game. No. 1,306,044; June 10; v. 263; p. 103.
 Desbauriers, Albert J., St. Paul, Minn., assignor, by means assignment, to The Guardian Savings & Trust Company, trustee. Adjustable capital-mold. No. 1,307,688; June 24; v. 263; p. 517.
 Detroit Dental Manufacturing Company. (See Kerr, Matthew M., assignor.)
 Detroit Stone Works. (See Miller, Robert H., assignor.)
 Dewey, Byron L., Detroit, Mich. Reclining wheel. No. 1,306,746; June 10; v. 263; p. 308.
 Dewey Davenport Company. (See Murphy, William L., assignor.)
 Deschodt, Richard L., Richmond Hill, N. Y. Means for testing meters. No. 1,306,657; June 10; v. 263; p. 290.
 Deschodt, Richard L., Richmond Hill, N. Y. Means for testing gas-meters. No. 1,306,658; June 10; v. 263; p. 290.
 Deschodt, Richard L., Richmond Hill, N. Y. Means for testing gas-meters. No. 1,306,660; June 10; v. 263; p. 290.
 Deschodt, Richard L., Richmond Hill, N. Y. Testing gas-meters. No. 1,306,660; June 10; v. 263; p. 290.
 Dexter Folder Company. (See Perry, John E., assignor.)
 Di Giorgio, Joseph, Cambridge, Mass. Sanitary stringer attachment for confection-machines. No. 1,306,216; June 10; v. 263; p. 216.
 Diamond Match Company, The. (See Parison, Michael, assignor.)
 Diamond Match Company, The. (See Reave, James H., assignor.)
 Dibble, Alphonse A. (See Barre, Anthony F., assignor.)
 Dickerson, Herbert M., assignor of twenty-two and one-half one-hundredths to C. E. Wigginton and seventy-seven and one-half one-hundredths to A. C. Freilich, Evansville, Ind. Oil-gage signal and circuit-breaker. No. 1,306,843; June 3; v. 263; p. 120.
 Dickerson, Raymond L., assignor of one-third to A. B. Jones, Spokane, Wash., and one-third to W. J. Michael, Portland, Ore. Motor-vehicle. No. 1,307,623; June 24; v. 263; p. 541.
 Dickey, Edmund S., Baltimore county, Md., assignor to American Motor Company, Inc., New York, N. Y. Gas meter. No. 1,306,646; June 3; v. 263; p. 70.
 Dickey, Edmund S., Baltimore county, Md., assignor to American Motor Company, Inc., New York, N. Y. Gas meter. No. 1,306,817; June 10; v. 263; p. 216.

Dickey, Edmund S., Baltimore county, Md., assignor to American Motor Company, Inc., New York, N. Y. Gas meter. No. 1,306,818; June 10; v. 263; p. 216.
 Dickey, Edmund S., Baltimore county, Md., assignor to American Motor Company, Inc., New York, N. Y. Gas meter. No. 1,306,819; June 10; v. 263; p. 216.
 Dickey, Edmund S., Baltimore county, Md., assignor to American Motor Company, Inc., New York, N. Y. Gas meter. No. 1,306,820; June 10; v. 263; p. 217.
 Dickinson, Fairleigh S., Rutherford, N. J. Valveless syringe. No. 1,307,245; June 17; v. 263; p. 439.
 Dickinson, William W., Jr., Little Rock, Ark. Apparatus for burning brick. No. 1,306,447; June 3; v. 263; p. 41.
 Dickson, Henry C., Birmingham, England. Tube, stay, strut, and like element. No. 1,306,942; June 17; v. 263; p. 206.
 Dickson, James T., assignor to F. C. Kingston, Los Angeles, Calif. Pop-valve. No. 1,306,944; June 3; v. 263; p. 120.
 Dickson, John W., Dallas, Tex. Turnbuckle and cable-head. No. 1,305,880; June 3; v. 263; p. 70.
 Dickson, John W., Dallas, Tex. Cable-head. No. 1,306,901; June 3; v. 263; p. 70.
 Dietrich, Carl A., St. Louis, Mo. Ring-sling device for loose pulleys, gears, &c. No. 1,306,753; June 17; v. 263; p. 349.
 Dietz, Uriah, Bangor, Pa. Rail-holding means. No. 1,307,088; June 17; v. 263; p. 411.
 Dijkstra, Richard, Chicago, Ill. Thermal circuit-closer. No. 1,307,088; June 17; v. 263; p. 411.
 Dilks, Charles F., assignor of one-half to I. W. Goldberg, Bridgeport, N. J. Tension-testing device for sewing-machine threads. No. 1,306,780; June 3; v. 263; p. 104.
 Dill, Bert C., Barport county, N. D. Driving mechanism for grain binders and harvesters. No. 1,306,906; June 17; v. 263; p. 209.
 Dillon, John J., Sault Ste. Marie, Ontario, Canada. Switch-stand lock. No. 1,306,106; June 10; v. 263; p. 103.
 Dimitroff, Vladimir T., North Scituate, R. I. Dental instrument. No. 1,306,908; June 17; v. 263; p. 304.
 Dimm, Benjamin F., Erie, Pa., assignor to C. A. Dimm, trustee. Alloying metal with iron or steel. No. 1,307,083; June 24; v. 263; p. 502.
 Dimm, Charles A. (See Dimm, Benjamin F., assignor.)
 Dimm, Julius, New York, N. Y. Means for protecting ships from torpedoes. No. 1,306,700; June 3; v. 263; p. 80.
 Dinan, Laurita, Minneapolis, Minn. Milling apparatus. No. 1,307,539; June 24; v. 263; p. 505.
 Dion, Eugene, Baltic, Conn. Sharpening rasors. No. 1,307,600; June 24; v. 263; p. 547.
 Distro, Roger W., Cleveland Heights, Ohio, assignor to The W. B. Tyler Company, Cleveland, Ohio. Elevator-car construction. No. 1,307,187; June 17; v. 263; p. 425.
 Ditkin, Moses B., New York, N. Y. Adjustable support for glue-tanks. No. 1,306,784; June 17; v. 263; p. 350.
 Ditzon, James, assignor to The J. Geo. Layner Engineering Works Company, Littleton, Colo. Drill-steel-pinning device. No. 1,306,106; June 10; v. 263; p. 106.
 Dittmar, Elmer C., Williamsport, Pa. Flooring. (See Jones, B. H., assignor.)
 Dittmar, Elmer C., Williamsport, Pa. Flooring. (See Jones, B. H., assignor.)
 Dixon, Burt, St. Louis, Mo. I. Tap-reel mangle. No. 1,306,538; June 10; v. 263; p. 276.
 Dixon, Theodore. (See Koppeler, George C., assignor.)
 Dobbel, Frederick W., Rossmore, Calif. Internal-combustion engine. No. 1,307,487; June 24; v. 263; p. 517.
 Dobbs, Frank L., Superior, Wis. Spacing instrument. No. 1,307,188; June 17; v. 263; p. 428.
 Doctor, Henry C. (See Davidson and Doctor.)
 Dodge, Wallace D. C., Hampton Falls, N. H. Grease-cap. No. 1,306,827; June 3; v. 263; p. 54.
 Doherty, Henry L. (See Stevens, Fred, assignor.)
 Doherty, John H., Dayton, Ohio. Pipe-coupling. No. 1,307,440; June 24; v. 263; p. 538.
 Dolne-Dahan, Gaston Ceintre, Beleniza, near Lima, Belgium. Valveless two-stroke engine. No. 1,306,861; June 10; v. 263; p. 200.
 Donaldson, James P. (See Barger and Donaldson.)
 Donaldson, Thomas J., Jenkintown, Pa. Check-book. No. 1,306,781; June 3; v. 263; p. 104.
 Donovan, Patrick H., Fittsburg, assignor to The Westinghouse Air Brake Company, Wheeling, Pa. Draw-bar shock-absorber. No. 1,307,087; June 17; v. 263; p. 411.
 Doran, William A., and J. B. Folan, O'Fallon, Mo. Indicator. No. 1,306,235; June 3; v. 263; p. 5.
 Dorey, Edgar W., London, assignor to Thomas Walker & Son Limited, Birmingham, England. Marine log. No. 1,307,624; June 24; v. 263; p. 541.
 Dorr Company, The. (See McAfee, Daniel S., assignor.)
 Doubleday, Julian E., Alexandria, Va. Distilling apparatus. No. 1,306,807; June 17; v. 263; p. 334.
 Dover, George W., Cranston, assignor to George W. Dover, Incorporated, Providence, R. I. Making pistons. No. 1,306,049; June 10; v. 263; p. 121.
 Dover Manufacturing Company, The. (See Johnson, Charles T., assignor.)
 Dow Chemical Company, The. (See Barstow, Edwin C., assignor.)

Dow Chemical Company, The. (See Dow, Herbert H., assignor.)
 Dow, Herbert H., assignor to The Dow Chemical Company, Midland, Mich. Making halogen derivatives of hydrocarbons. No. 1,306,472; June 10; v. 263; p. 294.
 Downer, Basil G., assignor of one-half to G. H. Himes, South Bend, Ind. Attachment for moving-picture machines. No. 1,307,641; June 24; v. 263; p. 537.
 Downer, F. M., et al. (See Crutcher, Milroy M., assignor.)
 Downes, Louis W., and W. S. Mayer, assignor to D & W Fine Company, Providence, R. I. Float-controlled switch. No. 1,307,189; June 17; v. 263; p. 429.
 Downham, Cora M., Detroit, Wis. Coffee-percolator. No. 1,306,085; June 17; v. 263; p. 333.
 Doty, Nicholas M., Alton, E. D. Automatic hog oiler and disinfectant. No. 1,306,965; June 3; v. 263; p. 149.
 Douglas Company. (See Lenders, Adolph W. H., assignor.)
 Douglass, Harry B., Detroit, Mich. Indicating-callipers. No. 1,306,701; June 3; v. 263; p. 80.
 Drake, Richard, Racine, Wis., assignor to The American Manufacturers Sales Company. Tobacco-can. No. 1,306,266; June 3; v. 263; p. 8.
 Draves, Emil B., Richmond, Ind. Feed-regulator. No. 1,307,249; June 24; v. 263; p. 492.
 Draper Corporation. (See Owen, Herbert W., assignor.)
 Draper Corporation. (See Rhodes, Alonzo H., assignor.)
 Drey, James C., New Orleans, La. Trailer. No. 1,306,995; June 10; v. 263; p. 174.
 Drew, William F., Oakland, Calif. Drive mechanism. No. 1,306,330; June 10; v. 263; p. 239.
 Driscoll, William F., and E. Bender, Morton, Ill. Traction-vehicle. No. 1,306,984; June 17; v. 263; p. 321.
 Drayling, Alfred, Maurer township, Middlesex county, N. J., assignor of twenty-five one-hundredths to W. C. Locke, Stamford, Conn. Reinforced shoes. No. 1,306,782; June 3; v. 263; p. 104.
 Driscoll, Winfield E., and W. F. Davis, Gresham, Oreg. Current-wheel. No. 1,306,888; June 3; v. 263; p. 124.
 Droege, Oscar E., Pompton Lakes, N. J., and G. A. Robinson, New York, N. Y. Toy cannon. No. 1,306,504; June 10; v. 263; p. 288.
 Droege, Oscar E., Pompton Lakes, N. J., and G. A. Robinson, New York, N. Y. Holder. No. 1,306,505; June 10; v. 263; p. 288.
 Drummond, Joseph W., Chillicothe, Ohio. Spark-plug. No. 1,307,088; June 17; v. 263; p. 411.
 Dubilier, Philip. (See Dubilier, William and P.)
 Dubilier, William and P., New York, N. Y. Electrical-discharge-producing device. No. 1,307,084; June 24; v. 263; p. 503.
 Dubois, John P., Fall River, Mass. Container for string-nails. No. 1,307,043; June 17; v. 263; p. 408.
 Dubois, John P., Fall River, Mass. Device for driving or positioning nails or the like where desired. No. 1,307,043; June 17; v. 263; p. 408.
 Duckham, Harry D., Kenton, Ohio. Hog-oiler. No. 1,306,473; June 10; v. 263; p. 284.
 Dudley, Andrew T., Houston, Tex. Automatic bale-forming compressor. No. 1,306,944; June 3; v. 263; p. 22.
 Dudley, Clarence E., Ypsilanti, Mich. Shipping case or container. No. 1,307,089; June 17; v. 263; p. 411.
 Dudley, Howard M., Philadelphia, Pa. Fabric-treating machine. No. 1,306,823; June 10; v. 263; p. 275.
 Duff, Frank C. (See Toll and Duff.)
 Duffin, Alfred E., Marham, Wis., and F. Mead, Chicago, Ill. Cushioned wheel. No. 1,307,008; June 24; v. 263; p. 578.
 Duff, Thomas L., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Lamp. No. 1,306,259; June 3; v. 263; p. 6.
 Dufrenoy, Jere C., Rahway, N. J. Chuck. No. 1,306,257; June 3; v. 263; p. 6.
 Duke, Edgar, Ashton, Idaho. Beet digging and topping machine. No. 1,306,598; June 10; v. 263; p. 296.
 Duncan, Joseph E., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,307,119; June 17; v. 263; p. 417.
 Dunne, William J., North Lewisburg, Ohio. Reversible rotary steam-engine. No. 1,306,345; June 3; v. 263; p. 22.
 Dunham Company, The. (See Karl, George E., assignor.)
 Dunham, Harry H., New Salem, Ill. Stock-feeder. No. 1,307,120; June 17; v. 263; p. 417.
 Dunham, Henry V., Mount Vernon, N. Y. Treating nuts and product thereof. No. 1,307,080; June 17; v. 263; p. 411.
 Dunkinson, Norman G., York, Pa. Universal joint. No. 1,306,286; June 3; v. 263; p. 5.
 Dunlap, Forrest E., assignor of one-half to E. C. Stricker, Tulsa, Okla. Tire-repairing device. No. 1,307,180; June 17; v. 263; p. 429.
 Dunlap, John S., Chicago, Ill. Coffee-percolator. No. 1,306,415; June 10; v. 263; p. 285.
 Dunlap, Joseph B., Tulsa, Okla. Swing. No. 1,307,774; June 24; v. 263; p. 568.
 Dunlap, Samuel H., Halls, Tex. Gin-compressor. No. 1,306,785; June 3; v. 263; p. 105.
 Dunlop, Jackson, Floral Park, assignor of one-half to W. B. Barnes, New York, N. Y. Window-shade. No. 1,307,729; June 24; v. 263; p. 560.

Dunlop Rubber Company Limited, The. (See Macbeth, Colin, assignor.)
 Dunwoody, John E. Belfast, Ireland. Leading magnet-drum of Lewis and Itho gun. No. 1,304,415; June 10; v. 263; p. 255.
 Duplex Printing Press Company. (See Buchanan, Henry F., assignor.)
 Duquette, Maxim A. (See Haggood, Clarence H., assignor.)
 Durand, George A. (See Vance, Walter N., assignor.)
 Durant, Herbert U., assignor of two-thirds to M. A. Baker and P. L. Baker, Los Angeles, Calif. Variable-speed transmission. No. 1,307,453; June 24; v. 263; p. 317.
 Durgin, Warren R., Brownville, Mo. Coffee-strainer. No. 1,303,050; June 10; v. 263; p. 184.
 Dutton, Frank H., Johannesburg, Transvaal, South Africa. Light railway system and locomotive therefor. No. 1,304,051; June 10; v. 263; p. 184.
 Duval, Louis W. (See Turner, Frank R., assignor.)
 Dyer, Cecil M., Kensington, London, England. Fuel-valve-periscope. No. 1,307,308; June 24; v. 263; p. 300.
 Dyar, Birney, Cincinnati, Ohio. Dental appliances. No. 1,300,030; June 17; v. 263; p. 334.
 Dyson, Alfred H., Montclair, N. J., assignor, by name assignments, to Western Electric Company, Incorporated. Telephone-exchange system. No. 1,307,460; June 24; v. 263; p. 317.
 Deland, James. (See Larson, Jacob F., assignor.)
 E. & H. Carver Company. (See Clegg and Feltner, assignors.) (Reissue.)
 E. I. du Pont de Nemours & Company. (See Brown, Charles L., assignor.)
 E. I. du Pont de Nemours & Company. (See Robinson, Charles F., assignor.)
 E. I. du Pont de Nemours and Company. (See Stowe, Floyd D., assignor.)
 E. I. du Pont de Nemours and Company. (See Swift, Wendell R., assignor.)
 E. I. du Pont de Nemours & Company. (See Winick, Herbert, assignor.)
 Eames, George M., Bridgeport, Conn. Edge-finishing and uniting woven fabrics. No. 1,305,523; June 3; v. 263; p. 64.
 Earnhart, Chauncey R., assignor to Safety First Devices Company, Indianapolis, Ind. Compressed-air valve and gage. No. 1,305,261; June 3; v. 263; p. 6.
 Earnhart, Chauncey R., assignor to Safety First Devices Company, Indianapolis, Ind. Compressed-air valve and gage. No. 1,305,262; June 3; v. 263; p. 6.
 Earnhart, Chauncey R., assignor to Safety First Devices Company, Indianapolis, Ind. Pressure-indicating air-valve. No. 1,305,263; June 3; v. 263; p. 6.
 Earnhart, Chauncey R., assignor to Safety First Devices Company, Indianapolis, Ind. Valve for pneumatic tires. No. 1,305,264; June 3; v. 263; p. 7.
 Earnhart, Chauncey R., assignor to Safety First Devices Company, Indianapolis, Ind. Pressure-indicating valve. No. 1,305,265; June 3; v. 263; p. 7.
 Earnhart, Chauncey R., assignor to Safety First Devices Company, Indianapolis, Ind. Air-valve structure. No. 1,305,266; June 3; v. 263; p. 7.
 Earnhart, Lucien T., assignor to Safety First Devices Company, Indianapolis, Ind. Compressed-air valve and gage. No. 1,305,267; June 3; v. 263; p. 6.
 Eastman Kodak Company. (See Capotak, John G., assignor.)
 Eastman Kodak Company. (See Chamberlin, Benjamin D., assignor.)
 Eastman Kodak Company. (See Crabtree, John I., assignor.)
 Eastman Kodak Company. (See Decker, Joseph, assignor.)
 Eastman Kodak Company. (See Frederick and Ross, assignors.)
 Eastman Kodak Company. (See Pirwitz, Friedrich A. G., assignor.)
 Eaton, George M., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, Locomotive. (Reissue.) No. 1,304,051; June 10; v. 263; p. 304.
 Eaton, George M., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Locomotive driving mechanism. No. 1,304,531; June 10; v. 263; p. 374.
 Eaton, George M., and G. H. F. Holy, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company. Electric locomotive. No. 1,305,530; June 10; v. 263; p. 375.
 Edmonds, Alonso N., Charleston, S. C. Radio receiving apparatus. No. 1,304,474; June 10; v. 263; p. 264.
 Edmondson, Harry J., Spokane, Wash. Fishing apparatus. No. 1,307,625; June 24; v. 263; p. 341.
 Edmondson, Seth T., Coyle, Ohio. Hay-press. No. 1,305,784; June 3; v. 263; p. 104.
 Edmunds and Jones Corporation. (See Godley, Charles E., assignor.)
 Edsall, Raymond L. (See Wilkinson and Edsall.)
 Edsbauer, Petronella, Chicago, Ill. Weighing-machine. No. 1,304,052; June 10; v. 263; p. 185.
 Edward G. Budd Manufacturing Company. (See Weaver, Clayton B., assignor.)
 Edwards, Evan J., East Cleveland, Ohio. Lighting-system control. No. 1,300,411; June 10; v. 263; p. 254.

Edwards, Francis R., Crystal Lake, assignor to Stromberg Motor Device Company, Chicago, Ill. Fuel-fired system. No. 1,304,500; June 17; v. 263; p. 304.
 Egan, Charles R., and E. P. Jackson, assignors of one-third to L. C. Summers, J. R. Griswold, and J. W. Pauley, Charleston, W. Va. Submarine mine. No. 1,304,573; June 10; v. 263; p. 347.
 Eggenmann, Ernest, Arroyo, Wis. Delightful automobile headlight. No. 1,305,765; June 3; v. 263; p. 185.
 Ehlert, Robert C., assignor to The Albert Scherzer Manufacturing Company, Denver, Colo. Pressure-cooker. No. 1,304,792; June 3; v. 263; p. 30.
 Ehrler, William. (See Stender and Ehrler.)
 Ehmman, Frank L., Holyoke, Mass., assignor to Cowan Truck Company, Elevating-truck. No. 1,304,417; June 10; v. 263; p. 255.
 Eichen, Milton I. D., New York, N. Y. Photograph-holder. No. 1,307,304; June 24; v. 263; p. 300.
 Eichel, William F., et al. (See Evers, William H., assignor.)
 E. J. Nels G., Minneapolis, assignor to Peckin-Carpenter Company, St. Paul, Minn. Grain-elevators. No. 1,305,307; June 3; v. 263; p. 7.
 Elder, George S., St. Louis, Mo. Gauge-dispensing device. No. 1,307,543; June 24; v. 263; p. 327.
 Elder, George W. (See Elder, John R. and G. W.)
 Elder, John R., Sioux City, and G. W. Elder, Forest City, Iowa. Animal-trap. No. 1,307,553; June 24; v. 263; p. 328.
 Elford, Irma V., Cosmopolis, Wash. Lock. No. 1,307,305; June 24; v. 263; p. 300.
 Elford, Robert J., Waverly, Iowa. Spawner-egg. No. 1,305,520; June 3; v. 263; p. 64.
 Electric Controller & Manufacturing Company, The. (See Canfield, Harry R., assignor.)
 Electric Controller & Manufacturing Company. (See Canfield, Harry R., assignor.)
 Electric Controller & Manufacturing Company, The. (See Stratton, Harry F., assignor.)
 Electric Weighing Company. (See Mendler, Edwin H., assignor.)
 Elftberg, Henry O., Chicago, Ill. Nut-lock. No. 1,304,418; June 10; v. 263; p. 255.
 Eli Lilly and Company, The. (See Rhodohamel, Harley W., assignor.)
 Ellis, Giovanni R., New York, N. Y. Apparatus for detecting and indicating the presence of submarine boats. No. 1,305,008; June 24; v. 263; p. 611.
 Elliott-Styles, William, London, England. Electrical switch. No. 1,305,141; June 10; v. 263; p. 201.
 Ellingworth, Young R., Geneva, Ill. Hand-trip for grain-binders. No. 1,307,340; June 17; v. 263; p. 400.
 Elliott, William R., Grand Rapids, Mich., assignor to American Button & Fastener Company, Packaging-fastener. No. 1,304,107; June 10; v. 263; p. 186.
 Elliott, William J., Brooklyn, N. Y. Combination storage and water-heater for gas and vapor stoves. No. 1,305,647; June 3; v. 263; p. 80.
 Ellis, Alvarado L. R. (See Porter and Ellis.)
 Ellis, Carleton, Montclair, N. J., assignor to Chadeloff Chemical Company, New York, N. Y. Composite solvent and making same. No. 1,304,221; June 10; v. 263; p. 217.
 Ellsworth, William K., Brimston, Wash. Oil-burner. No. 1,307,626; June 24; v. 263; p. 341.
 Elroy, Jacob W. (See Christoph, Edward A., assignor.)
 Elshoff, Bernard, Newark, N. J., assignor to Westinghouse Electric and Manufacturing Company, Induction-motor. No. 1,305,532; June 10; v. 263; p. 375.
 Emba, William J., Iron River, Mich. Fuel-feeding device. No. 1,305,648; June 3; v. 263; p. 80.
 Emerson-Brantingham Company. (See Waterman, Lewis E., assignor.)
 Emerson, Wilmet S., Ellsworth, Me. Baggage-container. No. 1,304,573; June 10; v. 263; p. 347.
 Empire Cream Separator Company. (See Warnock, Robert, assignor.)
 Engel, Karl, Arlington, Mass., assignor, by name assignments, to United Shoe Machinery Corporation, Paterson, N. J. Last. No. 1,304,105; June 10; v. 263; p. 186.
 Engineering Products Corporation. (See Burlingham, William, assignor.)
 Egan, Justus R., Cleveland, Ohio. Vehicle control. No. 1,307,510; June 24; v. 263; p. 327.
 Eppel, Andrew, Lynn, and W. V. Neal, Boston, Mass., assignors to United Shoe Machinery Corporation, Paterson, N. J. Shoe-turning machine. No. 1,307,511; June 24; v. 263; p. 327.
 Epstein, Joseph, Brooklyn, N. Y. Metallic spring-mat-tram. No. 1,307,549; June 24; v. 263; p. 327.
 Erbes, Louis C., St. Paul, Minn. Tractor. No. 1,305,448; June 3; v. 263; p. 41.
 Erbe, John, Trenton, N. J. Direction-signal. No. 1,307,544; June 24; v. 263; p. 327.
 Erdmann, Oscar A., Detroit, Mich. Traffic-signal. No. 1,307,544; June 24; v. 263; p. 327.
 Erdos, Julia. (See Hartman and Erdos.)
 Ernst, George T., and J. Barry, Washington, D. C. Transmitter. No. 1,304,735; June 17; v. 263; p. 300.
 Erickson, John V., Scranton, Pa. Method of and apparatus for making phonograph-records. No. 1,307,512; June 24; v. 263; p. 327.

Eide Manufacturing Company. (See Hamilton, Paul H., assignor.)
 Eide, Alvin J., Shanrock, Ohio. Attachment for well-drills. No. 1,304,703; June 3; v. 263; p. 38.
 Eide, Cornelius J., Madison, Wisconsin. Drill. No. 1,304,774; June 10; v. 263; p. 302.
 Eide, Motors. (See Eide, Stephen I., assignor.)
 Eide, William T., Camden, N. J. Automobile-lock. No. 1,305,708; June 3; v. 263; p. 100.
 Eide, Walden S., Cleveland, Ohio, assignor of one-half to R. V. Henry, Augusta, Kans. Centrifugal separator. No. 1,307,000; June 17; v. 263; p. 304.
 Eide, William S., Lebanon, Mo. Spring-tire. No. 1,304,100; June 10; v. 263; p. 186.
 Evans, Clarence A., Chester, Pa. Educational device. No. 1,304,440; June 3; v. 263; p. 41.
 Evans, Charles T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Circuit-controller. No. 1,305,308; June 3; v. 263; p. 7.
 Evans Engine Company. (See Evans, James M., assignor.)
 Evans, James D., Montgomery, Ala. Suspension. No. 1,305,530; June 3; v. 263; p. 64.
 Evans, James R., Los Angeles, Calif. Feeder-perch. No. 1,304,480; June 3; v. 263; p. 42.
 Evans, James M., deceased; L. M. Evans, administrator, Westport, Conn., assignor to Evans Engine Company, Incorporated. Internal-combustion engine. No. 1,305,451; June 3; v. 263; p. 43.
 Evans, Lillian M., administrator. (See Evans, James M.)
 Evans, Ray C., North River, Va. Safety device for locomotives. No. 1,304,505; June 3; v. 263; p. 22.
 Evenden, William M., Chicago, Ill., assignor to Goss Printing Press Company, Cam. No. 1,304,419; June 10; v. 263; p. 255.
 Everett, Edward A., New York, N. Y. Means for stamping lamps. No. 1,307,305; June 24; v. 263; p. 300.
 Everitt, William A. (See Pattison, James C., assignor.)
 Everlasting Manufacturing Company. (See Compton, New, assignor.)
 Evans, William H., assignor of one-third to H. Schmitt and one-third to W. F. Brink, Cleveland, Ohio. Mold for segmental structures. No. 1,305,704; June 3; v. 263; p. 90.
 Evitts, John W., Jantha, Mo. Mortising-machine. No. 1,305,200; June 3; v. 263; p. 6.
 Exley, William H. (See Lottner and Exley.)
 F. L. Schmidt Company. (See Morick, Abraham, assignor.)
 Fader, William J., Schatman, and L. Goldberg, Newark, N. J. Cover for washbasins and the like. No. 1,307,455; June 24; v. 263; p. 340.
 Fager, Robert, Meacham, Ore. Traction device. No. 1,307,192; June 17; v. 263; p. 425.
 Fairbanks, Ernest H. (See Fritz, Julius L., assignor.)
 Fairweather, John C., Broughton, Ill. Gage. No. 1,305,555; June 10; v. 263; p. 176.
 Falley, Lewis H., Kansas City, Mo. Ore classifying and separating apparatus. No. 1,307,628; June 24; v. 263; p. 341.
 Farland, Ernest, et al. (See Leonard, Mahoney, and Farland.)
 Farland, Louis J., and L. F. Robert, An Sable Furth, N. Y. Rod-packing. No. 1,307,501; June 24; v. 263; p. 302.
 Farmer, Frank H., assignor to The White Motor Company, Cleveland, Ohio. Automobile traction mechanism. No. 1,305,453; June 3; v. 263; p. 42.
 Farmer, Frank H., assignor to The White Motor Company, Cleveland, Ohio. Internal-drive rear axle for motor-trucks. No. 1,305,454; June 3; v. 263; p. 42.
 Farmer, Frank H., assignor to The White Motor Company, Cleveland, Ohio. Internal-drive rear axle. No. 1,305,454; June 3; v. 263; p. 42.
 Farmer, Frank H., assignor to The White Motor Company, Cleveland, Ohio. Automobile traction mechanism. No. 1,305,531; June 3; v. 263; p. 64.
 Farnsworth, Arthur J., and E. M. St. Claire, San Francisco, Calif. Bag-holder. No. 1,307,450; June 24; v. 263; p. 340.
 Farrar, Ben R., et al. (See Wernette, Adolph J., assignor.)
 Farrar, Monroe, assignor to F. C. Austin, Chicago, Ill. Bank-support. No. 1,304,570; June 3; v. 263; p. 8.
 Fawcett, Harry J., Tippencoe City, Ohio. Churn. No. 1,304,177; June 10; v. 263; p. 204.
 Federal Telegraph Company. (See Fuller, Leonard F., assignor.)
 Feeley, Mary J., St. Paul, Minn. Ash-sifter. No. 1,304,053; June 10; v. 263; p. 185.
 Feer, Fritz, Basel, Switzerland. Die-stock. No. 1,307,580; June 24; v. 263; p. 353.
 Feig, Curt. (See Brown, James, assignor.)
 Fein, Joseph B. (See Dorris and Fein.)
 Feltner, Stephen I., et al. (See Feltner and Feltner.)
 Feltner, Stephen I., assignor to Eide Motors, Detroit, Mich. Motor for internal-combustion engine. No. 1,304,947; June 3; v. 263; p. 22.
 Fellows, Edwin R., Springfield, Vt. Machine for cutting crown-gears. No. 1,304,581; June 10; v. 263; p. 220.
 Felton, George W., Elm Springs, S. D. Post-operand. No. 1,304,507; June 17; v. 263; p. 300.
 Felton, William G., Wabash, Ohio. Hot-air heating system. No. 1,304,450; June 10; v. 263; p. 245.

Feltner, Charles F., assignor of one-fourth to W. E. Anderson, one-fourth to W. H. Langdale, and one-fourth to S. L. Langdale, St. Louis, Mo. Breather for internal-combustion engine. No. 1,304,421; June 10; v. 263; p. 254.
 Feltner, Otto C., Raymond, Wash. Bag and fruit cart. No. 1,307,000; June 24; v. 263; p. 304.
 Feltner, Arthur D., Kild, Ohio. Automobile-lock. No. 1,307,001; June 17; v. 263; p. 305.
 Feltner, Ralph B. M., and G. W. Chandler, Anderson, Ind. Water-wheel. No. 1,304,223; June 10; v. 263; p. 217.
 Feltner, Harry J., Upper Teotling, London, assignor of one-half to F. Feltner, Westminster, England. Street-sweeper. No. 1,307,000; June 24; v. 263; p. 304.
 Ferguson, Lyman H., Ithaca, N. Y., assignor to Ferguson Tire Corporation. Vehicle-tire. No. 1,304,557; June 10; v. 263; p. 254.
 Ferguson Tire Corporation. (See Ferguson, Lyman H., assignor.)
 Ferguson, William C., Garden City, assignor to Nichols Copper Company, New York, N. Y. Treatment of electrolytic slimes. No. 1,305,787; June 3; v. 263; p. 105.
 Ferguson, William C., Garden City, assignor to Nichols Copper Company, New York, N. Y. Treatment of electrolytic slimes. No. 1,305,788; June 3; v. 263; p. 105.
 Ferguson, William C., Garden City, assignor to Nichols Copper Company, New York, N. Y. Treatment of electrolytic slimes. No. 1,305,789; June 3; v. 263; p. 105.
 Ferrel, Marie, Turin, Italy. Carburizer for combustion engine. No. 1,307,300; June 24; v. 263; p. 300.
 Ferrel, Walter, assignor to Bucyrus Company, North Milwaukee, Wis. Outrigger operating and locking device for locomotive-cranes and the like. No. 1,307,546; June 24; v. 263; p. 327.
 Ferrel, Milton A., Oakland, Calif., assignor to Penn Rotary Oil Burner Inc., Boston, Mass. Liquid-fuel system. No. 1,305,555; June 24; v. 263; p. 612.
 Ferrel, Milton A., assignor. (See Ferrel, Milton A., assignor.)
 Fibre Company of North America. (See Gills, Lyle N., assignor.)
 Field, Joseph C., Orange, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Impulse-transmitter. No. 1,304,054; June 10; v. 263; p. 185.
 Field, Edward F., and C. D. Lansing, assignors to American Warp Drawing Machine Company, Boston, Mass. Warp-drawing mechanism. No. 1,305,705; June 3; v. 263; p. 90.
 Field, Samuel B., Holbrook, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass. Moisture-proof adhesive compound. No. 1,307,347; June 17; v. 263; p. 400.
 Field, Aron C., Pittsburgh, Pa. Method and apparatus for testing canisters. No. 1,307,515; June 24; v. 263; p. 341.
 Field, Otto F. (See Abels, Hermann, assignor.)
 Finch, Clifton E., Newark, N. J. Framework for display publicity by machine. No. 1,307,225; June 17; v. 263; p. 440.
 Finck, Charles, and I. Cohen, Seattle, Wash. Street-sweeper. No. 1,304,506; June 24; v. 263; p. 302.
 Finck, George P., Wilton-on-James, Va. System of automatic train control. No. 1,305,348; June 3; v. 263; p. 22.
 Firestone Tire & Rubber Company, The. (See Stevens, William C., assignor.)
 First Trust and Savings Company, The, et al., trustees. (See Sommer, William H., assignor.)
 Fisher, Charles D., Akron, Ohio. Wrench attachment. No. 1,307,193; June 17; v. 263; p. 425.
 Fisher, George, Chicago, Ill. Folding bed. No. 1,304,120; June 10; v. 263; p. 200.
 Fish, Gilbert D. (See Stanton and Fish.)
 Fisher, Abraham, New York, N. Y. Double cuff. No. 1,305,200; June 3; v. 263; p. 6.
 Fisher Body Corporation. (See Allmand, John T., assignor.)
 Fisher, Charles W., Springfield, Ohio. Lifting-jack. No. 1,304,455; June 3; v. 263; p. 43.
 Fisher, Henry P., Vancouver, British Columbia, Canada. Victim-inspecting device. No. 1,306,965; June 17; v. 263; p. 380.
 Fisher, Joseph O. (See Mackay, William A., assignor.)
 Fisher, Sidney C., Medford, Mass. Fire-door. No. 1,304,006; June 24; v. 263; p. 612.
 Fisher, Stanley L., Baybrook, Conn., assignor to The First Band Player Action Company, Deep River, Conn. Pneumatic valve-action. No. 1,307,550; June 24; v. 263; p. 340.
 Fisher, Wager, et al. (See Cherry, Edward R., assignor.)
 Fish Rubber Company, The. (See Lewis, George H., assignor.)
 Fish, William H., assignor to Richards-Wilcox Manufacturing Company, Aurora, Ill. Hanger for flexible coverings for doorways. No. 1,307,440; June 24; v. 263; p. 340.
 Fitz Gerald, John M., Oak Park, Ill., assignor to American Protected Metal Company, Pittsburgh, Pa. Conduit. No. 1,304,142; June 10; v. 263; p. 202.
 Fleckenstein, George F., Sioux City, Iowa. Device for indicating the presence of articles in pigeonholes. No. 1,304,707; June 17; v. 263; p. 300.
 Fletcher, William C., Hackensack, Minn. Automobile-tire. No. 1,304,055; June 10; v. 263; p. 185.

Fleming, Robert B., Niagara Falls, Ontario, Canada. Motor-car-shield cleaner. No. 1,300,456; June 3; v. 263; p. 42.

Fletcher, Ernest E., Chicago, Ill. Plaster-board support. No. 1,307,314; June 24; v. 263; p. 576.

Fletcher, James, Newnes, New South Wales, Australia. Percussion rock-drill. No. 1,306,349; June 3; v. 263; p. 23.

Fletcher Works. (See Gricom, Leslie, assignor.)

Flick, Lorenz, Bayleville, assignor, by means assignments, to F. A. Bayles, C. O. Read, and K. F. Wood, Pawtucket, R. I. Textile-printing machine. No. 1,305,300; June 3; v. 263; p. 125.

Flick, Lorenz, Bayleville, assignor, by means assignments, to F. A. Bayles, C. O. Read, and K. F. Wood, Pawtucket, R. I. Textile-printing machine. No. 1,305,301; June 3; v. 263; p. 125.

Flinchbaugh, Clarence E., Lima, Ohio. Windmill. No. 1,305,750; June 3; v. 263; p. 104.

Fling, Walter T., Savannah, Mo. Oil-burner stove. No. 1,306,954; June 17; v. 263; p. 387.

Fling, Walter T., Savannah, Mo. Oil-burner. No. 1,306,955; June 17; v. 263; p. 387.

Flood, David, and A. Pearson, Lindsay, Kans. Hook. No. 1,306,592; June 3; v. 263; p. 125.

Flower, William A., and L. H. Wohlbeiner, Fresno, Calif. Motor-motor and radiator-cap lock. No. 1,306,143; June 10; v. 263; p. 202.

Fluck, George, assignor to Continental Can Company, Incorporated, Syracuse, N. Y. Packing device for can-closing machines. No. 1,307,248; June 17; v. 263; p. 429.

Fluker, James, Feltham, England. Fire-extinguisher. No. 1,306,487; June 3; v. 263; p. 42.

Fomito Fireloom Company. (See Patterson, Duncan W., assignor.)

Follett, Edward P., Duluth, Minn. Street-indicating device. No. 1,306,271; June 3; v. 263; p. 3.

Follick, George W., Buffalo, N. Y. Combination-lock. No. 1,307,184; June 17; v. 263; p. 429.

Folts, Irving J., San Francisco, Calif. Gas-burner. No. 1,307,294; June 17; v. 263; p. 446.

Folwell-Alhking Company. (See Lighty and Alhking, assignors.)

Ford, Algernon P., and H. J. Mitchell, London, England. Joint or coupling for rods or the like. No. 1,306,906; June 17; v. 263; p. 387.

Ford, Ben K., Oak Park, Ill. assignor to American Can Company, New York, N. Y. Jacketed can. No. 1,306,908; June 17; v. 263; p. 389.

Ford, Ben K., East Orange, N. J. Retainer for can-lid-closures. No. 1,307,251; June 24; v. 263; p. 492.

Forger, William, New York, N. Y. Dry-cleaning extractor. No. 1,307,041; June 24; v. 263; p. 547.

Förland, Termed R., Hagesund, Norway. Extraction of molybdenum. No. 1,305,350; June 3; v. 263; p. 23.

Forrest, Charles N., Rahway, and J. V. Meigs, Perth Amboy, N. J., assignors to The Barber Asphalt Paving Company, Philadelphia, Pa. Manufacture of resinous products. No. 1,305,790; June 3; v. 263; p. 104.

Forreth, Robert, Hancock, Mich. Grinding instrumentality and producing same. No. 1,306,007; June 24; v. 263; p. 612.

Forryth, Robert, New York, N. Y. Grinding-machine. No. 1,306,006; June 24; v. 263; p. 612.

Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Electric cell. No. 1,306,458; June 3; v. 263; p. 42.

Fortney, Chauncey O., Bowling Green, Ohio. Valve. No. 1,306,997; June 10; v. 263; p. 176.

Foss, Henry, Deer River, Minn. Protector for railway-switches. No. 1,307,062; June 24; v. 263; p. 548.

Fossel, Joseph, Farnumville, Mass. Machine for making, charging, and sealing cartons. No. 1,306,423; June 10; v. 263; p. 266.

Fouston-Carpenter Company. (See Eit, Nels G., assignor.)

Foster Bros. Mfg. Co. (See Frank, William E., assignor.)

Foster, John M., Fulton, N. Y. Dancing figure for phonograph. No. 1,307,121; June 17; v. 263; p. 417.

Foster, John N., assignor of one-sixth to H. Becker and one-sixth to G. Nordwald, El Paso, Tex. Demountable rim. No. 1,306,937; June 17; v. 263; p. 397.

Foster, Louis R., Annapolis, Md., assignor to Tinius Olsen Testing Machine Company, Philadelphia, Pa. Testing machine. No. 1,307,061; June 17; v. 263; p. 411.

Foundry Equipment Company, The. (See Coleman, Frederick A., assignor.)

Fournoon, Wilfred, Pasadena, Calif., assignor of one-half to G. T. Voorhees, New York, N. Y. Distilling apparatus. No. 1,306,066; June 10; v. 263; p. 194.

Fowler, Charles H., Boston, Mass. Press. No. 1,307,908; June 24; v. 263; p. 604.

Fowler, Robert G., San Francisco, Calif. Fuseage. No. 1,307,008; June 17; v. 263; p. 385.

Fox, Charles H., Cincinnati, Ohio. Water-heater for auto fire-engines. No. 1,306,791; June 3; v. 263; p. 166.

Furbush Company, The. (See Bristol, Edgar H., assignor.)

Francis, Marie C., Cleveland, Ohio. Insulated-wire-striping machine. No. 1,306,588; June 10; v. 263; p. 266.

Francis, Arthur E., Cleveland, assignor, by means assignments, to The Cashy-Dupree Company, Marietta, Ohio. Electric multiple switch. No. 1,306,888; June 17; v. 263; p. 374.

Francis, John E., Rochester, N. Y. Automatic hand-lock. No. 1,307,908; June 24; v. 263; p. 604.

Francis, John, San Francisco, Calif. Tractor-tread. No. 1,306,888; June 3; v. 263; p. 70.

Frank, William E., assignor to Foster Bros. Mfg. Co., St. Louis, Mo. Folding davensport. No. 1,306,478; June 10; v. 263; p. 364.

Franklin, Henry E., New York, N. Y. Sterilizing apparatus for hypodermic syringes. No. 1,307,249; June 17; v. 263; p. 440.

Franssen, Leonard A., Brooklyn, N. Y. Grinding and cutting machine. No. 1,306,423; June 10; v. 263; p. 266.

Fraser, Richard C., Central City, assignor of one-third to W. E. Fraser, Durango, Colo. Foot-hole digger. No. 1,306,792; June 3; v. 263; p. 166.

Fraser, William E. (See Fraser, Richard C., assignor.)

Fraser, Frank D., assignor of one-half to F. A. Manning, Springfield, Ill. Bow-pad for vehicle-taps. No. 1,306,588; June 17; v. 263; p. 374.

Fraser, Ralph F., Baltimore, Md. Bell-crank lever and support for use with wigglers. No. 1,306,434; June 10; v. 263; p. 264.

Frederick, Charles W., and F. E. Klem, assignors to Eastman Kodak Company, Rochester, N. Y. Photographic objective. No. 1,306,548; June 17; v. 263; p. 387.

Frederick Osmun Company. (See Osmun, Ralph, assignor.)

Frederick, William A., Boston, Mass. Circuit-controlling button. No. 1,307,260; June 24; v. 263; p. 604.

Freedman, Max, Brooklyn, Mass. Tire. No. 1,307,790; June 24; v. 263; p. 621.

French Battery & Carbon Co. (See Graves, John, assignor.)

French, James C., assignor to F. C. Austin, Chicago, Ill. Tractor-track. No. 1,306,178; June 10; v. 263; p. 266.

Frederick, Herman R., Kimberly, Wis. Gun-sight. No. 1,307,441; June 24; v. 263; p. 604.

Frey, August J., assignor to Brann Goods Mfg. Co., Brooklyn, N. Y. Faucet clamp or coupling. No. 1,306,470; June 10; v. 263; p. 364.

Frey, Ivan C., York, Pa. Brick-mold-handling apparatus. No. 1,306,477; June 10; v. 263; p. 364.

Freytag, Otto, Bismarck, Idaho. Circuit-interrupter for traffic-signals. No. 1,306,640; June 3; v. 263; p. 50.

Fricker, Anthony, Lakewood, Ohio. Bituminous distributor. (Reissue.) No. 14,000; June 17; v. 263; p. 468.

Fried, Krupp Aktiengesellschaft Germaniawerft. (See Rittler, Paul A., assignor.)

Friedberg, Louis, Philadelphia, Pa. Cigarette-maker. No. 1,307,003; June 17; v. 263; p. 385.

Friedland, Joseph, Brooklyn, N. Y. Safety receiving-box. No. 1,307,255; June 24; v. 263; p. 492.

Friedrich, Adam, Philadelphia, Pa. Wagon for ice, ice-cream, and the like. No. 1,307,044; June 17; v. 263; p. 403.

Friel, Hattie D., administratrix. (See Friel, Patrick H.)

Friel, Patrick H., deceased. H. D. Friel, administratrix, assignor to Simmons Company, Kenosha, Wis. Rubbing mechanism. No. 1,306,523; June 10; v. 263; p. 276.

Friend, Edward H., London, England. Rotary engine. No. 1,307,908; June 24; v. 263; p. 602.

Frine, Michael A., Los Angeles, Calif. Wind-shield and top support. No. 1,307,627; June 24; v. 263; p. 642.

Fritz, Julius L., Fairview, Pa., assignor to E. E. Fairbanks, Merchantsville, N. J. Air-valve for carburetors. No. 1,306,573; June 3; v. 263; p. 8.

Fritz, Martin J., Mitchell, N. Y. Grain-drill hopper. No. 1,306,573; June 3; v. 263; p. 8.

Froelich, Adolph C., et al. (See Dickerson, Herbert M., assignor.)

Fruger, Louis V. W., Lorient, France. Sheet-anchor. No. 1,306,507; June 3; v. 263; p. 82.

Fromager, Albert L., and J. P. Six, Montreal, Quebec, Canada. Electric-switch device. No. 1,306,940; June 10; v. 263; p. 176.

Frost, Herbert, Chapel-on-to-Frith, England. Friction-surface. No. 1,307,367; June 24; v. 263; p. 584.

Frost, George A., South Beach, Conn. Tune-regulator. No. 1,307,044; June 24; v. 263; p. 548.

Fuchs, Ernest, Paris, assignor to L. Benoit, Billancourt, France. Vehicle of the self-laying-track type. No. 1,307,092; June 17; v. 263; p. 412.

Fuhrmann, Warren. (See Sedstrom, Oscar W., assignor.)

Fukuo, Junji, Koba, Japan. Stern-tube and its stuffing-box. No. 1,307,518; June 24; v. 263; p. 678.

Fuller, Leonard F., assignor to Federal Telegraph Company, San Francisco, Calif. Radioteletype. No. 1,306,222; June 10; v. 263; p. 212.

Fulton Company, The. (See Fulton, Glen, and Patton, assignors.)

Fulton Company, The. (See Fulton, Weston M., assignor.)

Fulton, John R. E., Chicago, Ill., assignor to T. Bates, Toronto, Ontario, Canada. Air-fueled device for furnace. No. 1,306,908; June 10; v. 263; p. 178.

Fulton, Weston M., assignor to The Fulton Company, Knoxville, Tenn. Humidifying device in combination with radiator-cooling. No. 1,306,638; June 3; v. 263; p. 57.

Fulton, Weston M., J. V. Glen, and H. T. Patton, assignors to The Fulton Company, Knoxville, Tenn. Cooling system for internal-combustion engines. No. 1,306,600; June 10; v. 263; p. 176.

Funda, John T. (See Goldsmith and Funda.)

Fundamental Corporation, The. (See Warman, Percy B., assignor.)

Furlow, Floyd C., Montclair, N. J., assignor to Otto Elevator Company, Jersey City, N. J. Variable-landing device. No. 1,306,504; June 3; v. 263; p. 70.

Furuta, Henry, assignor to The United States Printing and Lithograph Company, Cincinnati, Ohio. Carton. No. 1,306,707; June 3; v. 263; p. 28.

G. W. J. Murphy Company. (See Bourque, David, assignor.)

Gage, Henry P., and W. C. Taylor, assignors to Corning Glass Works, Corning, N. Y. Glass. No. 1,306,798; June 3; v. 263; p. 164.

Gage, Henry P., and W. C. Taylor, assignors to Corning Glass Works, Corning, N. Y. Glass. No. 1,306,794; June 3; v. 263; p. 164.

Gairbreath, Edwin M., Indianapolis, Ind. Internal-combustion engine. No. 1,307,045; June 17; v. 263; p. 403.

Gale, John M., Eaton, Ohio. Safety cash-cashier. No. 1,307,521; June 24; v. 263; p. 624.

Galentine, Lee A., and H. N. Gillette, Newark, N. Y. Valve-reducer. No. 1,306,887; June 17; v. 263; p. 374.

Gamble, Joseph W., and W. S. Glaze, Philadelphia, Pa., assignors to Harrison Safety Beller Works, Integrating and recording instrument. No. 1,306,700; June 3; v. 263; p. 22.

Gammell, Karl, assignor to The Cleveland Macaroni Company, Cleveland, Ohio. Die-press. No. 1,306,374; June 3; v. 263; p. 8.

Gammeter, John E., Akron, Ohio, assignor to The E. F. Goodrich Company, New York, N. Y. Vulcanizing-press for battery-jars. No. 1,306,001; June 10; v. 263; p. 176.

Gand, Stanislaw, Unkietown, Pa. Freight-car. No. 1,306,581; June 3; v. 263; p. 23.

Gandolfo, Giulio, Sampierdarena, Italy. Electric welding-machine. No. 1,306,940; June 17; v. 263; p. 387.

Garbel, Max, Chicago, Ill. Type-writing machine. No. 1,306,888; June 3; v. 263; p. 125.

Garbin, Jules F., Washington, D. C. Micrometer. No. 1,307,518; June 24; v. 263; p. 678.

Gardner, Benjamin F., assignor of one-half to E. Stedman, Chicago, Ill. Electric induction apparatus. No. 1,307,003; June 17; v. 263; p. 412.

Gardner, Frank P., Boston, Mass. Needle-guard attachment for sewing-machines. No. 1,307,265; June 17; v. 263; p. 446.

Gardner, James P., Chicago, Ill., assignor to The Reducing Machine Company. Body-treatment machine. No. 1,306,540; June 3; v. 263; p. 71.

Gardner, Joseph F., Kansas City, Mo. Pneumatic fountain-pen. No. 1,307,195; June 17; v. 263; p. 426.

Garlock, William H., Seattle, Wash. Bread-slicing machine. No. 1,307,397; June 24; v. 263; p. 600.

Garner, James E. (See Hammers, James, Koenig, and Garner.)

Garner, James E., Pittsburgh, Pa., and H. C. Cooper, Clarkburg, W. Va., assignors to Hope Natural Gas Company, Pittsburgh, Pa. Recovery of butane and propane. No. 1,307,288; June 24; v. 263; p. 407.

Garrison, Perry J., assignor of one-half to W. Reed, Oxford, Mich. Package-carrier. No. 1,306,840; June 17; v. 263; p. 367.

Garvey, Christopher A., Clayton, Mo. Fountain-brush. No. 1,306,700; June 3; v. 263; p. 81.

Getchell, George E., Roselle Park, N. J., assignor to The Singer Manufacturing Company. Seam for sewed articles. No. 1,306,110; June 10; v. 263; p. 194.

Gates, Charles C., assignor, by means assignments, to The Gates Rubber Company, Denver, Colo. Automobile-fan belt. No. 1,307,721; June 24; v. 263; p. 621.

Gates, Edward L., Bernard, N. Y. Camera-tripod. No. 1,306,067; June 10; v. 263; p. 194.

Gates, Philotas W., Chicago, Ill., assignor to Mumford Molding Machine Company, Jersey City, N. J. Compound jet ramming-machine. No. 1,306,428; June 10; v. 263; p. 267.

Gates Rubber Company, The. (See Gates, Charles C., assignor.)

Gaudreault, William H. (See Compton, Ross, Gaudreault, and Green.)

Goss, Bertha M., Kelowna, British Columbia, Canada. Bottom-form. No. 1,306,378; June 3; v. 263; p. 9.

Goer, Harry E., Johnston, Pa. Reversing apparatus for regenerative reversing-furnaces. No. 1,307,004; June 17; v. 263; p. 385.

Goer, Harry J., Providence, R. I. Combined toy wrist watch and whistle. No. 1,306,622; June 10; v. 263; p. 260.

Goldsman, Herman F., Berkeley, Calif. Valve-grinding tool. No. 1,307,590; June 17; v. 263; p. 649.

Goldschlager, Frederick W. (See Cummer and Grinnell, assignors.)

General Babelite Company. (See Baheland, Leo H., assignor.)

General Electric Company. (See Barkley, Clem J., assignor.)

General Electric Company. (See Chatain and Stock, assignors.)

General Electric Company. (See Hall, John L., assignor.)

General Electric Company. (See Hill, George H., assignor.)

General Electric Company. (See Hull, John L., assignor.)

General Electric Company. (See Hutt, Leonard F., assignor.)

General Electric Company. (See Jones, Benjamin W., assignor.)

General Electric Company. (See McLain and Eaton, assignors.)

General Electric Company. (See Merriam, Ezra B., assignor.)

General Electric Company. (See Murphy, Edwin J., assignor.)

General Electric Company. (See Orange, John A., assignor.)

General Electric Company. (See Pearson, Otto F., assignor.)

General Electric Company. (See Porter and Ellis, assignors.)

General Electric Company. (See Priest, Edward D., assignor.)

General Electric Company. (See Rogers, Robert H., assignor.)

General Electric Company. (See Steenstrup, Christian, assignor.)

General Electric Company. (See Swan, Alfred, assignor.)

General Electric Company. (See Weintraub, Rachel, assignor.)

General Electric Company. (See Wilkinson, James, assignor.)

General Fire Extinguishing Company. (See Loepfinger, Albert J., assignor.)

General Railway Signal Company. (See Howe, Henry, and Hall, assignors.)

General Railway Signal Company. (See Howe, Winthrop K., assignor.)

General Rubber Company. (See Slocum, Edward M., assignor.)

General Wire Tie Co. (See Warwick, Rogers M., assignor.)

Geng, Jacob, Brinkman, Mont. Hair-fastener. No. 1,306,589; June 10; v. 263; p. 264.

Gestel, Perry H., Newton, Mass. Steam-generating apparatus. No. 1,306,888; June 17; v. 263; p. 374.

George W. Dover, Incorporated. (See Dover, George W., assignor.)

Gerrard, Alvin J., Flint, Mich. Fire-kindler. No. 1,306,000; June 24; v. 263; p. 618.

Gernandt Motor Corporation. (See Gernandt, Waldo G., assignor.)

Gernandt, Waldo G., assignor to Gernandt Motor Corporation, Chicago, Ill. Internal-combustion engine. No. 1,306,533; June 3; v. 263; p. 57.

Gernandt, Waldo G., assignor, by means assignments, to Gernandt Motor Corporation, Chicago, Ill. Internal-combustion engine. No. 1,306,804; June 3; v. 263; p. 125.

Gerrard, Frederick J., Monroe, Nebr. Vending-machine. No. 1,306,798; June 3; v. 263; p. 104.

Gottall, Traville C., Philadelphia, Pa. Automobile-theft detector means. No. 1,306,552; June 3; v. 263; p. 28.

Gottomy, William H., Jr., Rockford, Iowa. Aeroplane-controlling mechanism. No. 1,306,002; June 10; v. 263; p. 176.

Gotz, John, Morton, and M. Shives, Yates City, Ill.; said Shives assignor to said Gotz. Method and apparatus for preparing corn for storage. No. 1,307,046; June 17; v. 263; p. 404.

Gibbins, Henry, executor. (See Gibbins, William G.)

Gibbins, William G., deceased, St. Louis, Mo.; H. Gibbins, executor. Flooding-machine. No. 1,307,782; June 24; v. 263; p. 621.

Gibson, Michael J., Shenandoah, Pa. Miner's cap. No. 1,306,888; June 3; v. 263; p. 126.

Gibbs, Clarence A., Williamsport, Pa. Incinerator. No. 1,306,710; June 3; v. 263; p. 81.

Gibson, Edward T., Brooklyn, N. Y. Line-guide for copy-holder. No. 1,306,900; June 17; v. 263; p. 348.

Gibson, Edward T., New York, N. Y. Copy-holder. No. 1,306,910; June 24; v. 263; p. 613.

Gibson, James, Chicago, Ill., assignor of one-half to L. Schiller, St. Louis, Mo. Furniture-caster. No. 1,306,376; June 3; v. 263; p. 9.

Giele, Walter E. (See Gamble and Giele.)

Giesler, Jean V. (See Fulton, Glen, and Patton.)

Gil, Francisco M., Mexico, Mexico. Phonographic clock. No. 1,306,590; June 3; v. 263; p. 71.

Gilbert, Albert P., Durham, N. C. Tobacco-hanging machine. No. 1,306,574; June 10; v. 263; p. 247.

Gilbert, Alfred C., assignor to The A. C. Gilbert Company, New Haven, Conn. Electric switch. No. 1,307,004; June 17; v. 263; p. 412.

Gilbert & Barker Manufacturing Company. (See Kincaid, Charles W., assignor.)

Gilchrist Company, The. (See Gilchrist, Raymond B., assignor.)

Gilchrist, Raymond B., assignor to The Gilchrist Company, Newark, N. J. Chipper and making the same. No. 1,305,711; June 3; v. 263; p. 81.
 Gillespie, Alexander E., London, England. Sheet metal. No. 1,305,690; June 17; v. 263; p. 338.
 Gillespie, William F., San Francisco, Calif. Shoe sole. No. 1,305,450; June 3; v. 263; p. 44.
 Gillette, Hugh N. (See Gillette and Gillette.)
 Gillette Safety Razor Company. (See Farber, Riley H., assignor.)
 Gilts, Lyle N., Washington, D. C., assignor to Fibre Company of North America. Process and apparatus for treating fiber-bearing plants. No. 1,307,560; June 17; v. 263; p. 440.
 Gilmore, Horatio G., Washington, D. C. Rail-anchor. No. 1,304,889; June 17; v. 263; p. 374.
 Gilmore, Horatio G., Washington, D. C. Rail-anchor. No. 1,307,400; June 24; v. 263; p. 518.
 Gilroy, Harry, assignor to S. & H. Gilroy, Cincinnati, Ohio. Jewel. No. 1,305,011; June 24; v. 263; p. 612.
 Gipson, Charles L., Jarbidge, Nev. Clamp. No. 1,304,363; June 3; v. 263; p. 22.
 Girard, Frank. (See Baill and Girard.)
 Glanville, George, Los Angeles, Calif. Automobile curtain. No. 1,305,400; June 3; v. 263; p. 44.
 Glasbrook, Richard T., et al. (See Rosenbain and Reid, assignors.)
 Glenn, John C., Erie, Pa. Valve-gear mechanism. No. 1,304,322; June 10; v. 263; p. 240.
 Gilding Waits Amusement Co. (See Miller, William E., assignor.)
 Gilman, William A., Bloomington, Ill. Head-rails. No. 1,307,367; June 24; v. 263; p. 604.
 Goddard, Walter T., Victor, N. Y. Insulator-cap. No. 1,305,712; June 3; v. 263; p. 51.
 Goddard, Walter T., Victor, N. Y. Cable-clamping device. No. 1,305,713; June 3; v. 263; p. 51.
 Godfrey, John F., Elkhart, Ind. Self-actuating conveying bucket. No. 1,305,789; June 17; v. 263; p. 340.
 Godfrey, Joseph H., assignor to The Godfrey Manufacturing Company, Chicago, Ill. Bottle-tilting device. No. 1,304,690; June 17; v. 263; p. 374.
 Godfrey Manufacturing Company, The. (See Godfrey, Joseph H., assignor.)
 Godley, Charles E., assignor to Edmunds and Jones Corporation, Detroit, Mich. Lamp. No. 1,304,612; June 24; v. 263; p. 612.
 Godley, Frank A., New York, N. Y. Envelop. No. 1,304,224; June 10; v. 263; p. 218.
 Goetz, George L., Chicago, Ill. Booklet-cover. No. 1,304,691; June 17; v. 263; p. 340.
 Goetz, Frank, Collingswood, N. J. Relief-valve. No. 1,305,597; June 3; v. 263; p. 71.
 Goetz, Frank, Collingswood, N. J. Relief-valve. No. 1,305,598; June 3; v. 263; p. 71.
 Gold Medal Camp Furniture Manufacturing Co. (See Rasmussen, Martin, assignor.)
 Goldberg, J. W. (See Dika, Charles F., assignor.)
 Goldberg, Louis. (See Feder, Schatzman, and Goldberg.)
 Goldberg, Solomon H. (See McKee, Fred E., assignor.)
 Golden, Samuel, assignor to Hullin Boat Company, Inc., New York, N. Y. Boat or vessel. No. 1,304,300; June 3; v. 263; p. 126.
 Goldenstein, Maurice M., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Motor-controller. No. 1,307,558; June 24; v. 263; p. 594.
 Goldman, Barney, New York, N. Y. Unsinkable life-boat. No. 1,304,354; June 3; v. 263; p. 22.
 Goldsmith, Harry, and J. T. Pardo, Brancana, N. Y. Attachment for wind-chaids. No. 1,307,491; June 24; v. 263; p. 518.
 Goldstein, William L., New York, N. Y. Automatic fender. No. 1,305,714; June 3; v. 263; p. 81.
 Good, John, New York, N. Y. Separator. No. 1,304,900; June 10; v. 263; p. 176.
 Goodale, Ward R., and M. L. Bullard, Manchester, assignors to Isothermal Carburetor Company, Portsmouth, N. H. Carburetor. No. 1,304,144; June 10; v. 263; p. 202.
 Goode, Thomas A., Kansas City, Mo., assignor of one-third to C. M. Hinds, Kansas City, Mo., and one-third to J. Bragg, Huntington, Oreg. Gear-shift-locking mechanism. No. 1,307,354; June 24; v. 263; p. 492.
 Goode, Thomas A., Kansas City, Mo., assignor of one-third to C. M. Hinds, Kansas City, Mo., and one-third to J. Bragg, Huntington, Oreg. Combination-padlock. No. 1,307,353; June 24; v. 263; p. 494.
 Gooding, William S., Chicago, Ill. Punch-press. No. 1,305,461; June 3; v. 263; p. 44.
 Goodrich, R. F., The. (See Davidson, Elias E., assignor.)
 Goodrum, Charles L. (See Clausen and Goodrum.)
 Goodwill, Jasper E., Omaha, Neb. Locking means for motor-vehicles. No. 1,305,377; June 3; v. 263; p. 9.
 Goodyear Tire & Rubber Company, The. (See Nail, Edward, assignor.)
 Gorman, Max, Stillacoom, Wash. Safety-book. No. 1,307,251; June 17; v. 263; p. 440.
 Gorneth, Erik A., Wall, S. D. Child-wearer. No. 1,304,500; June 10; v. 263; p. 240.
 Goss Printing Press Company. (See Evenden, William M., assignor.)
 Goss Printing Press Company. (See Seymour, Ralph C., assignor.)

Goss Printing Press Company, The. (See Smith, Ernest J., assignor.)
 Gottsman, Herman, New York, N. Y. Lock-operated circuit-breaker. No. 1,307,325; June 24; v. 263; p. 540.
 Goubert, Auguste A., Englewood, assignor to H. Bantz, Montclair, N. J. Drying various substances. No. 1,305,600; June 3; v. 263; p. 71.
 Goubert, Auguste A., Englewood, N. J. Apparatus for dehydrating. No. 1,305,600; June 3; v. 263; p. 71.
 Gould Copper Company. (See Bostad and Hartmann, assignors.)
 Gould, Harry G., assignor to Gould Manufacturing Company, Omaha, Wis. Toy. No. 1,304,111; June 10; v. 263; p. 194.
 Gould Manufacturing Company. (See Gould, Harry G., assignor.)
 Gourdeau, Charles H. F., assignor to himself and J. A. Lacombe, St. Mandé, France. Mechanism with subsidiary planes. No. 1,304,534; June 3; v. 263; p. 57.
 Goussier, Joseph, Detroit, Mich. Vehicle-check. No. 1,304,535; June 3; v. 263; p. 57.
 Grace, Joseph E. (See Sullivan, David E., assignor.)
 Grant, Edwin R., South Bend, Ind. Assignor to The Standard Corporation. Vehicle-seat. No. 1,307,600; June 24; v. 263; p. 548.
 Grant, William F., Glasgow, Scotland. Tensionometer. No. 1,304,681; June 17; v. 263; p. 374.
 Graham, Charles W., Crestwood, assignor to American Can Company, New York, N. Y. Can. No. 1,304,600; June 17; v. 263; p. 380.
 Graham, Walter C., Houston, Va. Window-cleanser. No. 1,304,378; June 3; v. 263; p. 2.
 Graham-Yeall, Frederick E., Leith, Scotland. Mouthpiece for feeding-bottles. No. 1,304,368; June 10; v. 263; p. 204.
 Graham, Oscar, assignor to The Boring Automobile Telephone Company, Limited, London, England. Automatic and semi-automatic telephone system. No. 1,307,180; June 17; v. 263; p. 460.
 Granberg, Albert J., San Francisco, Calif. Pipe-wrench. No. 1,304,694; June 10; v. 263; p. 370.
 Grant, Frank, Westfield, Mass. Holder for cloth material. No. 1,304,370; June 10; v. 263; p. 204.
 Grant, Wilbur B., New York, N. Y. Hospital medicine-tray. No. 1,304,604; June 10; v. 263; p. 380.
 Grantland, John W., Cincinnati, Ohio. Compound valve. No. 1,304,716; June 3; v. 263; p. 62.
 Gram, Harry, Newark, N. J. Bottle-cushion brush. No. 1,304,478; June 10; v. 263; p. 207.
 Graves, John, assignor to French Battery & Carbon Co., Madison, Wis. Starting mechanism for over-riding machines. No. 1,304,370; June 3; v. 263; p. 10.
 Graves, John, assignor to French Battery & Carbon Co., Madison, Wis. Single-lever locking-clamp. No. 1,304,426; June 10; v. 263; p. 257.
 Gray & Davis. (See Moore, William B., assignor.)
 Gray, Gardner B., deceased; H. F. Gray, executor, assignor, by same assignment, to A. G. Williamson, trustee, Pittsburgh, Pa. Power-actuated system of traffic control. No. 1,304,750; June 17; v. 263; p. 364.
 Gray, Helen F., assignor. (See Gray, Gardner B.)
 Gray, James A., assignor to American Can Company, San Francisco, Calif. Apparatus for reforming cut-bottom. No. 1,304,610; June 17; v. 263; p. 360.
 Gray, James A., San Francisco, Calif. Assignor to American Can Company. Can-end-sorting apparatus. No. 1,304,611; June 17; v. 263; p. 360.
 Graybill, William A., Lansing, N. C. Baggy-shaft support. No. 1,307,355; June 17; v. 263; p. 494.
 Graybill, William A., Lansing, N. C. Fire-screen. No. 1,307,317; June 24; v. 263; p. 570.
 Green Engineering Company. (See March, Thomas A., assignor.)
 Green Engineering Company. (See Poppenhausen, Norman A., assignor.)
 Green, Gordon C., Swift Current, Saskatchewan, Canada. Cornet-fletcher. No. 1,307,607; June 24; v. 263; p. 548.
 Green, Gustave A. (See Compton, Ross, Compton, and Green.)
 Green, Harry E., St. John, New Brunswick, Canada. Toy. No. 1,304,308; June 10; v. 263; p. 207.
 Green, James W., Portland, Oreg. Rotary gas-engine. No. 1,305,600; June 3; v. 263; p. 140.
 Greene, Melville G., and V. E. Adams, assignors to Triumph Trap Co., Inc., Omaha, N. Y. Trap. No. 1,307,482; June 24; v. 263; p. 534.
 Greene, Willard B., Boston, assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,304,535; June 10; v. 263; p. 570.
 Greenfield Tap and Die Corporation. (See Butler, Benjamin F., assignor.)
 Greenfield Tap and Die Corporation. (See Wells, Frank G., assignor.)
 Greenwood, John. (See Phillips and Greenwood.)
 Greenwood, Harry. (See Baron and Greenwood.)
 Gregersen, William, St. Andrews Park, S. C. Bar or wave meter. No. 1,307,000; June 17; v. 263; p. 412.
 Gregg, William C., Summerville, S. C. Propeller for ships. No. 1,304,602; June 17; v. 263; p. 374.
 Gregory, Carl, Potomac, Calif. Tractor. No. 1,307,604; June 24; v. 263; p. 552.

Gregory, George P., Boston, Mass. Gage. No. 1,307,548; June 24; v. 263; p. 538.
 Greville, Henry, Liverpool, England. Treatment of dent. No. 1,304,337; June 10; v. 263; p. 340.
 Griffin, Maurice J. (See Hancock and Griffin.)
 Griffith, De Witt T., Memphis, Tenn. Switch and coil-box lock. No. 1,307,355; June 17; v. 263; p. 490.
 Gritham, William G., Philadelphia, Pa. Mechanism for water-closet apparatus. No. 1,304,060; June 10; v. 263; p. 184.
 Grimsley, L. F. (See Wolgamott, Samuel B., assignor.)
 Grismore, Jonathan E., Jamestown, Mo. Keyless padlock. No. 1,304,427; June 10; v. 263; p. 237.
 Grisco, Leslie, Philadelphia, Pa., assignor to Fletcher Works Incorporated. Bearing for centrifugal machines. No. 1,305,794; June 3; v. 263; p. 107.
 Gross, John H., Walla Walla, Wash. Traction-belt. No. 1,305,280; June 3; v. 263; p. 10.
 Gross, Milo D., Walla Walla, Wash. Joint. No. 1,307,122; June 17; v. 263; p. 417.
 Grossman, Harrison E., Philadelphia, Pa. Finger-ring. No. 1,307,388; June 24; v. 263; p. 501.
 Grossman, Simon. (See De Muth, Charles J., assignor.)
 Grotzmann, Harry V., assignor to G. D. Ross, Chicago, Ill. Printing-telegraph receiver. No. 1,305,530; June 3; v. 263; p. 58.
 Gruber, Arthur H., Evanston, Ill. Reinforcing for tire-casing. No. 1,304,354; June 10; v. 263; p. 240.
 Grützmacher, Wilhelm, Wierfeld, Germany. Assignor to Synthetic Patents Co., Inc., New York, N. Y. Yohimbin-arsenic pharmaceutical product. No. 1,305,462; June 3; v. 263; p. 44.
 Guardian Savings & Trust Company, The, trustee. (See Dealman, Albert J., assignor.)
 Guffy, George E. (See Rhodes, Guffy, and Sheehan.)
 Guider, Walter A., Linden Heights, Ohio. Carburetor. No. 1,307,005; June 24; v. 263; p. 548.
 Guilberson Dickinson Company. (See Wallin, Gustav W., assignor.)
 Gulf Refining Company. (See Hawhurst, Timothy S. K., assignor.)
 Gulick, Edward J., Elkhart, Ind. Oiling mechanism for internal-combustion engines. No. 1,305,355; June 3; v. 263; p. 24.
 Guilberg, Arthur V., Chicago, Ill. Lubricating apparatus. No. 1,305,733; June 24; v. 263; p. 561.
 Guilberg, Arthur V., Chicago, Ill. Lubricating means. No. 1,307,734; June 24; v. 263; p. 561.
 Gumpfer, John E., Chicago, assignor of one-half to W. H. Woolams, Decatur, Ill. Wheel attachment. No. 1,304,004; June 10; v. 263; p. 170.
 Gumpfer, John E., Chicago, assignor of one-half to W. H. Woolams, Decatur, Ill. Traction-wheel transmission mechanism. No. 1,304,005; June 10; v. 263; p. 170.
 Gumprecht, William L., Hartford, Conn. Assignor, by same assignment, to Underwood Computing Machine Company, New York, N. Y. Combined type-writing and computing machine. No. 1,305,567; June 3; v. 263; p. 54.
 Gund Manufacturing Company. (See Pieper, Chester E., assignor.)
 Guridi, Juan J., Maharrillaga, Florida, Uruguay. Harrow and locust-killing machine. No. 1,304,050; June 10; v. 263; p. 134.
 Gustafson, Charles J., assignor to Stromberg Motor Devices Company, Chicago, Ill. Throttle mechanism for internal-combustion engines. No. 1,304,006; June 10; v. 263; p. 177.
 Gustafson, Charles J., Anoka, Minn. Gearing. No. 1,305,718; June 3; v. 263; p. 62.
 Gustafson, Benjamin. (See Randall, Victor E., assignor.)
 H. Brinton Company. (See Larkin, Walter, assignor.)
 H. Malmis Co. (See Malmis, Hyman, assignor.)
 H. Malmis Company. (See Marshall, William J., assignor.)
 H. R. Gibson Co. (See Antlell, Alfred E., assignor.)
 H. D. Smith & Company, The. (See Thomson, William B., assignor.)
 H. W. Butterworth & Sons Company. (See Wiegand, Hugo O., assignor.)
 H. W. Cooper Radfery Hardware Mfg. Company. (See Cooper, Charles J., assignor.)
 Haarnagel, Georges, Neuilly-sur-Seine, France. Balance device for motor-car-door latch. No. 1,305,354; June 3; v. 263; p. 24.
 Hack, Charles W., New York, N. Y. Thermostat. No. 1,304,007; June 10; v. 263; p. 177.
 Hachey, Horace W., Chicago, Ill. Measuring instrument. No. 1,307,775; June 24; v. 263; p. 568.
 Hachey, Horace W., Chicago, Ill. Measuring instrument. No. 1,307,776; June 24; v. 263; p. 569.
 Hachey, Louis W., Orleans, Ill. Hat-protector. No. 1,304,367; June 3; v. 263; p. 24.
 Haddad, George H., Mitten, and A. E. Rawtree, Sutton, England. Treating porous vessels. No. 1,304,375; June 10; v. 263; p. 248.
 Haddad, George A. (See Bowden and Haddad.)
 Hager, William A., Turbome, Okla. Chain. No. 1,304,307; June 3; v. 263; p. 124.
 Hagerstrom, John A., assignor to Technical Supply Company, Scranton, Pa. Rolling-pin. No. 1,305,155; June 3; v. 263; p. 11.
 Hahnemann, Paul E., Southington, Conn. Hand-punch. No. 1,304,990; June 3; v. 263; p. 134.
 Haight, Harry V., Sherbrooke, Quebec, Canada. Assignor to Ingersoll-Rand Company, Jersey City, N. J. Un-loader for compressors. (Reissue.) No. 14,062; June 10; v. 263; p. 204.
 Haines, Stephen B., North Lewisburg, Ohio. Ironing-board. No. 1,304,993; June 17; v. 263; p. 375.
 Hal, Everett J., assignor to Metals Disintegrating Company, Inc., New York, N. Y. Method and apparatus for reducing metal to a finely-divided condition. No. 1,304,060; June 10; v. 263; p. 184.
 Hale, Charles E., Park Ridge, Ill. Assignor to Time Systems Company, Portland, Me. Needle-valve. No. 1,305,530; June 3; v. 263; p. 58.
 Haley, John S. (See Mulligan, Francis M., assignor.)
 Hall, Arthur J., Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, Controller. No. 1,305,536; June 10; v. 263; p. 274.
 Hall, Arthur J., Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of control. No. 1,305,537; June 10; v. 263; p. 277.
 Hall, Charles E. (See Matthews and Hall.)
 Hall, Charles W., Keystone, W. Va. Shaker-grate. No. 1,307,777; June 24; v. 263; p. 560.
 Hall, Frederick N. (See Howe, Henry, and Hall.)
 Hall, Holmes, et al. (See May, Harry E., assignor.)
 Hall, Imah, Birmingham, England. Means for melting and casting metal. No. 1,304,376; June 10; v. 263; p. 248.
 Hall, John L., Schenectady, N. Y., assignor to General Electric Company. Signaling system for transmitting information from a sending station to one or more receiving-stations. No. 1,304,593; June 10; v. 263; p. 287.
 Hall, Norman B., Norfolk, Va. Speed-measuring instrument. No. 1,307,629; June 24; v. 263; p. 542.
 Hall, William A., Muscatine, Iowa. Foldable steps or step-ladder. No. 1,305,281; June 3; v. 263; p. 10.
 Hallock, Eugene D., assignor to The Republic Metalware Company, Buffalo, N. Y. Muffle-charger. No. 1,308,013; June 24; v. 263; p. 613.
 Hamel Shoe Machinery Company. (See Angell, Otis R., assignor.)
 Hamilton, Harry W., Detroit, Mich., assignor to Hamilton Manufacturing Company, Indianapolis, Ind. Fuel-feed system. No. 1,304,477; June 10; v. 263; p. 248.
 Hamilton Manufacturing Company. (See Hamilton, Harry W., assignor.)
 Hamilton, Paul H., Fort Worth, Tex., assignor, by same assignment, to Eads Manufacturing Company, Wilmington, Del. Automatic control for gas water-heater. No. 1,304,612; June 17; v. 263; p. 360.
 Hamilton, William L., Tottenville, N. Y. Envelop. No. 1,304,691; June 10; v. 263; p. 187.
 Hamner, Anton, Dent, Minn. Motor-cycle sleigh. No. 1,304,426; June 10; v. 263; p. 257.
 Hammett, August H., et al. (See Schloerb, Albert F., assignor.)
 Hammond, Grant, New Haven, Conn., assignor of one-third to A. C. Washburne, Pittsfield, and one-third to P. G. Crane, Dalton, Mass. Magazine catch and release. No. 1,307,492; June 24; v. 263; p. 518.
 Hammond, John H., Jr., Gloucester, Mass. Aerial for submersible torpedoes. No. 1,304,145; June 10; v. 263; p. 202.
 Hammond, Thomas C., et al. (See Ambrose, Jennings G., assignor.)
 Hammond, William P. (See Moses, Edmund Q., assignor.)
 Hand, Jay A. (See Kuhn and Hand.)
 Hanke, Frederick C., Wilkesburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of regulation. No. 1,304,604; June 17; v. 263; p. 375.
 Hanlan, Angus A., Gary, Ind. Ingot-tongs. No. 1,306,255; June 10; v. 263; p. 226.
 Hanna Engineering Works. (See Krause, William P., assignor.)
 Hannigan, John E. (See Coburn, Edward B., assignor.)
 Hans Renold Limited. (See Renold and Carter, assignors.)
 Hancock, Ralph E., and M. J. Griffin, Manchester, N. H. Moving-holder. No. 1,305,540; June 3; v. 263; p. 58.
 Hansen, Lars, Kansas City, Mo. Molding-machine. No. 1,304,688; June 10; v. 263; p. 277.
 Hansen, Peter. (See Josef, Anders J., assignor.)
 Hanson, Bengt M., Hartford, Conn. Antifriction-bearing. No. 1,307,493; June 24; v. 263; p. 518.
 Hanson, Edwin E., Redstone, Mont. Tractor attachment for automobiles. No. 1,305,717; June 3; v. 263; p. 92.
 Hansen, Hugo H., Boston, Mass., and H. K. Moore, assignors to Berlin Mill Company, Berlin, N. H. Magnesia brick and making the same. No. 1,307,197; June 17; v. 263; p. 480.
 Hapgood, Clarence H., assignor of one-half to M. A. De-groot, Toledo, Ohio. Toilet apparatus. No. 1,305,358; June 3; v. 263; p. 24.
 Harbaugh, Dell F., Chicago, Ill. Electrolytic deposition of lead. No. 1,304,479; June 10; v. 263; p. 267.
 Harbaugh, Dell F., Chicago, Ill. Recovering metals from their ores. No. 1,304,480; June 10; v. 263; p. 267.
 Harbaugh, Josephine A. (See Barber and Harbaugh.)
 Hardies, Paul. (See Peters and Hardies.)

Harding, L. E., assignor of three-fourths to H. Schmitt, Jr., Sioux City, Iowa. Motor-vehicle jack. No. 1,307,330; June 24; v. 263; p. 384.

Harris, Jean, Boston, France. Detonating-fuse. No. 1,304,900; June 17; v. 263; p. 376.

Harrish, Harry E., Philadelphia, Pa. Assembling-conveyor. No. 1,306,900; June 3; v. 263; p. 124.

Harper, Martin A. J. (See Myers and Harper.)

Harpham, George L., Maupin, Oreg. Foldable bed-frame. No. 1,307,390; June 24; v. 263; p. 301.

Harrah, Philip J., Bloomfield, Ind. Lifting-jack. No. 1,307,930; June 24; v. 263; p. 603.

Harris, Alfred A., San Francisco, Calif. Auxiliary seat for children. No. 1,305,403; June 3; v. 263; p. 44.

Harris, Alfred F., Warren, assignor to The Harris Automatic Press Company, Niles, Ohio. Printing-press. No. 1,307,900; June 24; v. 263; p. 305.

Harris Automatic Press Company, The. (See Harris, Alfred F., assignor.)

Harris, Irvin F., Waxahatchie, Tex. Cranking device. No. 1,307,400; June 24; v. 263; p. 301.

Harris, Stanley W., assignor to The Akron Rubber Mold & Machine Company, Akron, Ohio. Vulcanizer. No. 1,306,006; June 10; v. 263; p. 177.

Harrison Safety Boiler Works. (See Gamble and Glase, assignors.)

Hart, Fred A., New Brunswick, N. J. Attachment for violin-bridges. No. 1,304,043; June 10; v. 263; p. 300.

Hart Grain Weigher Co. (See Steele, Benjamin M., assignor.)

Hart & Hageman Manufacturing Company, The. (See Stirling, Clarence C., assignor.)

Hartford Automotive Parts Company, The. (See McCombe, George A., assignor.)

Hart, August, Chatham, N. J. Electric heater. No. 1,307,190; June 17; v. 263; p. 430.

Hartog, Stephen D., St. Louis, Mo. Vehicle-tire. No. 1,307,123; June 17; v. 263; p. 417.

Hartman, Carl H., Chicago, Ohio. Sheet-cutter. No. 1,306,000; June 10; v. 263; p. 177.

Hartman, Hans, and J. Erdos, New York, N. Y. Autographic time-recorder. No. 1,306,481; June 10; v. 263; p. 267.

Hartmann, Carl. (See Bouché and Hartmann.)

Hartmann, Julius F. G. P., Copenhagen, Denmark. Alternating-current rectifier. No. 1,306,335; June 10; v. 263; p. 240.

Harvey, Louis R., assignor to Interlocking Rim and Wheel Company, San Francisco, Calif. Disk-wheel. No. 1,307,005; June 17; v. 263; p. 394.

Haskins, William A., West Somerville, Mass. Fountain-pen. No. 1,307,630; June 24; v. 263; p. 542.

Hass, Joe, Pittsburgh, Pa. Lamp-burner. No. 1,306,010; June 10; v. 263; p. 177.

Hastings, Donald T., assignor to Helley Brothers Company, Detroit, Mich. Carburetor. No. 1,306,464; June 3; v. 263; p. 44.

Hastings, Harold P., assignor to Crouse-Hinds Company, Syracuse, N. Y. Electric switch. No. 1,307,000; June 17; v. 263; p. 394.

Hastings, Herbert, Brighton, N. Y. Fluid-gage. No. 1,305,710; June 3; v. 263; p. 92.

Hasty, John B., San Bernardino, Calif. Drill-feed mechanism. No. 1,307,647; June 24; v. 263; p. 533.

Hathaway, Edgar P., assignor to American Warp Drawing Machine Company, Boston, Mass. Thread-uniting machine. No. 1,306,704; June 3; v. 263; p. 90.

Haug, Anton J., Nashua, N. H. Mechanical starter for explosive-engines. No. 1,305,720; June 3; v. 263; p. 92.

Hauk, Joseph, assignor to Interstate Iron and Steel Company, Chicago, Ill. Wire-loop machine. No. 1,307,735; June 24; v. 263; p. 562.

Hausser, Richard J., assignor of one-half to G. K. Henderson, Indianapolis, Ind. Multicolor-printing machine. No. 1,307,007; June 17; v. 263; p. 397.

Hawken, Darcy A., Awakino Point, Auckland, New Zealand. Bomb for flying-machines. No. 1,306,604; June 10; v. 263; p. 301.

Hawks, Edward A., Detroit, Mich. Explosive shell. No. 1,305,907; June 3; v. 263; p. 140.

Hawley, William G., assignor to American La France Fire Engine Company, Inc., Elmira, N. Y. Automobile fire-engine. No. 1,304,760; June 17; v. 263; p. 351.

Hawthorne, Ellsworth A., Bridgeport, Conn. Combined battery and tool box for vehicles. No. 1,306,146; June 10; v. 263; p. 202.

Hawthurst, Timothy S. K., Bayonne, N. J., assignor to Gulf Refining Company, Pittsburgh, Pa. Tank-car. No. 1,307,494; June 24; v. 263; p. 518.

Hayatt Baller Bearing Division, United Motor Corporation. (See Lockwood, Charles S., assignor.)

Hayden, Arthur C., assignor to Hayden & Clemens, Inc., Brockton, Mass. Mat-fitting. No. 1,306,336; June 10; v. 263; p. 340.

Hayden, Arthur C., assignor to Hayden & Clemens, Inc., Brockton, Mass. Machine for assembling sole-leather and like parts. No. 1,306,237; June 10; v. 263; p. 340.

Hayden & Clemens. (See Hayden, Arthur C., assignor.)

Hayden, Royal C., Oakes, N. D. Combination-tool. No. 1,306,800; June 17; v. 263; p. 376.

Hayes, George H., Hazelton, Kans. Fuel-heater for explosive-engines. No. 1,307,124; June 17; v. 263; p. 418.

Hayes, John P., and J. R. Barnhart, Pittsburgh, Pa. Rotary snap-switch. No. 1,305,541; June 3; v. 263; p. 50.

Hayes, Stanley W., Richmond, Ind. Dental. No. 1,306,961; June 17; v. 263; p. 393.

Hayn, Thomas J., Hamilton, assignor to Arboret Felling Machine Company, Boston, Mass. Beam for aerial articles. No. 1,306,540; June 3; v. 263; p. 90.

Hazel, George W., Camden, N. J., assignor, by mesne assignments, to Hazel Safety Nut Company, Philadelphia, Pa. Hand-tool. No. 1,306,880; June 3; v. 263; p. 129.

Hazel Safety Nut Company. (See Hazel, George W., assignor.)

Hazen Manufacturing Company. (See Wenden, Frederic E., assignor.)

Hedden, Frank A., Milwaukee, Wis. Heat-insulating composition and articles made therefrom. No. 1,307,548; June 24; v. 263; p. 322.

Hedden, Frank A., Milwaukee, Wis. Heat-insulating composition and articles made therefrom. No. 1,307,549; June 24; v. 263; p. 322.

Healy, John A., New Haven, Conn. assignor to Lindsay Auto Parts Company, Indianapolis, Ind. Ignition device for motor-vehicles. No. 1,305,601; June 3; v. 263; p. 72.

Heartill, Isaac N., Austin, Tex. Head or tail light for automobiles. No. 1,306,303; June 3; v. 263; p. 10.

Heath, Samuel, Lancaster, Pa. Lamp-canopy. No. 1,306,033; June 10; v. 263; p. 187.

Hockmann, Oscar L., St. Charles, Mo. File handle or holder. No. 1,306,323; June 3; v. 263; p. 10.

Hodges, Gustaf, Brooklyn, N. Y. Flying-machine. No. 1,307,047; June 17; v. 263; p. 404.

Hoggen, John, Seattle, Wash. Planer and cutter head. No. 1,306,660; June 3; v. 263; p. 90.

Holms, Adam. (See Ross and Holms.)

Holtmann, John H. (See Hadden and Holtmann.)

Holtrich, Elmer E., Phoenix, Ariz. Music-leaf turner. No. 1,306,483; June 10; v. 263; p. 267.

Holberg, Helge. (See Roth and Holberg.)

Hollmann, Rudolf E., Pittsburgh, Pa. assignor to Westinghouse Electric and Manufacturing Company. Control system. No. 1,306,450; June 10; v. 263; p. 277.

Hollmann, Isaac H., Findlay, Ohio. Dress-maker. No. 1,306,781; June 17; v. 263; p. 381.

Hopkins, Henry E., Madison, Ill. Petroleum-oil stove. No. 1,307,425; June 24; v. 263; p. 534.

Hopkinson, Charles F., Madisonville, assignor to The Krumper-Thomas Company, Newwood, Ohio. School-bag. No. 1,306,797; June 3; v. 263; p. 107.

Hopkinson, Clark T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Motor-controller. No. 1,306,697; June 17; v. 263; p. 378.

Hopkinson, George E. (See Hauser, Richard J., assignor.)

Hopkinson, John J., Topeka, Kans. Invalid-bed. No. 1,307,033; June 17; v. 263; p. 394.

Hopkinson, Abram A., Westwood, N. J. Exercise. No. 1,307,345; June 24; v. 263; p. 392.

Hosker, Otto, assignor to Firm of C. Kohn, Jens, Germany. Apparatus for testing lens systems. No. 1,306,300; June 3; v. 263; p. 124.

Hoschek, Fritz H., Rossmore, Tex. Barn-door lock. No. 1,307,461; June 24; v. 263; p. 501.

Henry Dabery Mfg. Company. (See Robbins, John W., assignor.)

Henry Hughes and Son Ltd. (See Stirling and Hughes, assignors.)

Henry, Rufus V. (See Hump, Waldron S., assignor.)

Henry Schmidt & Bro. (See Stertz, John H., assignor.)

Henry William S. (See Howe, Henry, and Hall.)

Henselman, Otto, Canton, Ohio. Wire-lightening device. No. 1,306,790; June 3; v. 263; p. 107.

Hentzell, Arthur L., Paw Paw, Mich. Liquid-fuel burner. No. 1,306,465; June 3; v. 263; p. 44.

Hepfinger, William, Birmingham, Mich. Letter-drafting instrument. No. 1,307,735; June 24; v. 263; p. 562.

Herbert, Charles C., San Jose, Calif. Combination exhaust and intake manifold. No. 1,306,906; June 17; v. 263; p. 379.

Herbert, John W., and J. A. Andrews, Biddford, Me. Ficker-stitch check for looms. No. 1,306,790; June 3; v. 263; p. 107.

Herbert, Pitt H., assignor to The American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,306,540; June 10; v. 263; p. 277.

Hercules Electric Company. (See Baker, Arthur R., assignor.)

Hercules Powder Company. (See Barab, Jacob, assignor.)

Hermann, Louis, Chicago, Ill. Sharpening-tool. No. 1,306,003; June 3; v. 263; p. 12.

Hermann, Seymour M., New York, N. Y. Mordanting by means of calcium antimony tartrate. No. 1,307,400; June 24; v. 263; p. 384.

Herrschfeld, Alexander G., assignor to International Motor Company, New York, N. Y. Shaft-coupling. No. 1,306,541; June 10; v. 263; p. 277.

Herrschfeld, Alexander G., assignor to International Motor Company, New York, N. Y. Rubber-band carrier. No. 1,306,900; June 17; v. 263; p. 376.

Hertel, Otto H., Oshkosh, assignor to Commercial Company, Chicago, Ill. Furnace. No. 1,306,180; June 10; v. 263; p. 304.

Herr, Gustave L., New York, N. Y. Spark-plug. No. 1,306,944; June 10; v. 263; p. 384.

Hess, Simon E., New York, N. Y. Battery arrangement. No. 1,306,147; June 10; v. 263; p. 290.

Hewitt, John D., Villa Grove, Ill. Lock. No. 1,307,971; June 24; v. 263; p. 604.

Hewitt, George C., Chicago, Ill. Corner and division bar. No. 1,307,972; June 24; v. 263; p. 604.

Hewitt, George C., Chicago, Ill. Corner and division bar. No. 1,307,973; June 24; v. 263; p. 604.

Hewitt, Frank W., Arlington, assignor to Huxley Electric Heating Company, Boston, Mass. Electric range. No. 1,307,440; June 17; v. 263; p. 404.

Hewitt, Isaac O., Berkeley Springs, W. Va. Folding inside and outside covers and compasses. No. 1,306,344; June 3; v. 263; p. 11.

Heyer, Carl D., Council Bluffs, Iowa. Adjustable chute construction. No. 1,307,100; June 17; v. 263; p. 430.

Hicks Improved Engine Brake Company. (See Hicks, James A., assignor.)

Hicks, James A., assignor to Hicks Improved Engine Brake Company, Chicago, Ill. Wind-pressure-brake system. No. 1,306,035; June 10; v. 263; p. 187.

Hickman, Joseph, and H. Arundel, Stockport, England. Liquid-fuel-injection apparatus for internal-combustion engines. No. 1,306,700; June 17; v. 263; p. 381.

Hick, Walter C., Toledo, Ohio. Aeroplane. No. 1,306,400; June 3; v. 263; p. 43.

Hildebrand, William H., Chicago, Ill. Metal-protected rubber heel. No. 1,307,767; June 24; v. 263; p. 568.

Hill, George H., assignor to H. T. Hill, administrator. Schenck, K. V., assignor to General Electric Company. Control for electric heating devices. No. 1,306,543; June 10; v. 263; p. 277.

Hill, Hazel T., administrator. (See Hill, George H.)

Hill, John, Worcester, Mass. Stock-releasing device. No. 1,307,335; June 24; v. 263; p. 392.

Hill, Ray L., and A. J. Burns, Tanawaga, Pa., assignors to Atlas Powder Company, Wilmington, Del. Explosive compound. No. 1,307,404; June 24; v. 263; p. 319.

Hilpert, Walter G., Harrisburg, Pa. Foot-board. No. 1,306,407; June 3; v. 263; p. 43.

Hinsley, Arthur T., Niagara Falls, N. Y., assignor, by mesne assignments, to National Carbon Company, Inc. Baked carbon article. No. 1,307,738; June 24; v. 263; p. 562.

Hinselman, Carl, Philadelphia, Pa. Turn-back. No. 1,306,320; June 3; v. 263; p. 10.

Hinds, Calvin M., et al. (See Goode, Thomas A., assignor.)

Hines, George H. (See Dewar, Basil G., assignor.)

Hines, Ray A., Colorado, Mo. Flaming attachment for cutters. No. 1,306,900; June 17; v. 263; p. 376.

Hinrich, Frank L., Pittsburgh, Pa. Rectangular measuring instrument. No. 1,307,300; June 24; v. 263; p. 392.

Hinman, Rollie L., Hartford, Ill. Automatic chimney-covers. No. 1,306,545; June 3; v. 263; p. 90.

Hino, Kuniyo, Tokyo, Japan. Cycle-car. No. 1,306,455; June 10; v. 263; p. 267.

Hino, Sosh, N. Olin, Olin. Adjustable hanger. No. 1,307,200; June 24; v. 263; p. 540.

Hirshman, Edward R., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone system. No. 1,306,901; June 3; v. 263; p. 142.

Hinsell, Charles A., Troy, N. Y. Adjustable fixture for electric lamps. No. 1,306,330; June 3; v. 263; p. 11.

Hirshman, August, Cincinnati, Ohio. Folding cradle. No. 1,306,530; June 10; v. 263; p. 241.

Hirschbeck Experiment Company. (See Hirschbeck, Halbert E., assignor.)

Hirschbeck, Halbert E., Pittsburgh, Pa., assignor of one-half to Hirschbeck Experiment Company. Apparatus for the manufacture of plate-glass. No. 1,307,307; June 24; v. 263; p. 392.

Hodge, Thomas D., Duluth, Minn. Switch for roll-passes. No. 1,307,125; June 17; v. 263; p. 418.

Hodges, George F., Thornton, assignor to E. and F. Goldenfeld, Spokane, Wash. Gate. No. 1,307,130; June 17; v. 263; p. 418.

Hodges, John G., Maywood, Ill., assignor to American Can Company, New York, N. Y. Canning. No. 1,306,513; June 10; v. 263; p. 260.

Hodges, William, New York, N. Y. Regulator. No. 1,306,603; June 3; v. 263; p. 72.

Hodges Manufacturing Company. (See Carlson, George H., assignor.)

Hof, Charles, Newark, N. J. Artificial limb. No. 1,306,721; June 3; v. 263; p. 90.

Hof, John D., Oakland, Calif. Kila. No. 1,307,974; June 24; v. 263; p. 604.

Hofstet, Andrew, Harbor, Oreg. Receipts. No. 1,306,144; June 3; v. 263; p. 90.

Hodgeson-La Roche Chemical Works, The. (See Muller, Paul, assignor.)

Hodgeson, Charles, Ill., assignor to Johnson Service Company, Chicago, Ill. (Reissue.) No. 14,971; June 24; v. 263; p. 618.

Hogg, George F., Chicago, Ill. Bivolt. No. 1,306,378; June 10; v. 263; p. 240.

Hogg Manufacturing Company, The. (See Holt, Malcolm H., assignor.)

Hohner, William, Woodhaven, and L. E. Manville, Yonkers, N. Y. Apparatus for repairing worn pin-bearings of pin-connected trusses. No. 1,306,901; June 17; v. 263; p. 377.

Hohmann, George H., assignor of three-fifths to J. D. Brown, Minneapolis, Minn. Face-plate for vice-jaws. No. 1,307,040; June 17; v. 263; p. 404.

Hohmann, George H., assignor of three-fifths to J. D. Brown, Minneapolis, Minn. Face-plate for vice-jaws. No. 1,307,040; June 17; v. 263; p. 404.

Hohmann, Otto A., assignor to Woodstock Typewriter Company, Woodstock, Ill. Line-lock. No. 1,307,061; June 17; v. 263; p. 405.

Holburn, John G., assignor to Linotype and Machinery Limited, London, England. Mechanically-cast type-bar. No. 1,306,903; June 17; v. 263; p. 376.

Holcomb, Noble R., Eldorado, Kans. Key-fastener. No. 1,307,400; June 24; v. 263; p. 319.

Holcombe, Joseph E., New York, N. Y. Tire-mounting and clamp therefor. No. 1,306,814; June 17; v. 263; p. 390.

Holden, Maria M., Yonkers, N. Y. Toy hoop. No. 1,307,000; June 17; v. 263; p. 392.

Holland, Curtis. (See Davidson and Holland.)

Hollman, James M., Nashville, Tenn. Car-coupling. No. 1,307,304; June 17; v. 263; p. 392.

Holley Brothers Company. (See Hastings, Donald T., assignor.)

Holliday, John A., Wilkesburg, assignor to The Union Switch & Signal Company, Swanton, Pa. Signal. No. 1,306,181; June 10; v. 263; p. 300.

Hollis, Horatio B., Washington, D. C. Automobile attachment. No. 1,307,402; June 24; v. 263; p. 501.

Holmes, Abram G., Pittsburgh, Pa. Wet-gas meter. No. 1,306,000; June 3; v. 263; p. 108.

Holmes, Claude J., Peekskill, N. Y. Alternating-current welding-transformer. No. 1,305,300; June 3; v. 263; p. 24.

Holmes, Claude J., Peekskill, N. Y. Alternating-current welding-transformer. No. 1,305,301; June 3; v. 263; p. 24.

Holmes, Claude J., Peekskill, N. Y. Electric arc welding, cutting, and repairing. No. 1,305,302; June 3; v. 263; p. 24.

Holmes, Claude J., Peekskill, N. Y. Alternating-current metallic-arc cutting and welding apparatus. No. 1,305,303; June 3; v. 263; p. 25.

Holmes, Claude J., South Orange, N. J. Mask for use in arc-welding or allied work. No. 1,306,364; June 3; v. 263; p. 25.

Holt, Herbert, and A. Seely, Rochdale, England. Spindle or roller for cones for winding-machines. No. 1,306,326; June 10; v. 263; p. 224.

Holt, Walter, L., Dallas, Ill. Shoe-stretcher. No. 1,307,778; June 24; v. 263; p. 560.

Holy, George H. F. (See Eaton and Holy.)

Holy, George H. F., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Core member for dynamo-electric machines. No. 1,305,004; June 3; v. 263; p. 72.

Holy, George H. F., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Resilient driving connection. No. 1,306,545; June 10; v. 263; p. 278.

Holyoke Machine Company. (See Lombard, Nathaniel, assignor.)

Hosker Electrochemical Company. (See Townsend, Clinton F., assignor.)

Hoskey, William T., New York, N. Y. Packaging bricks for transportation. No. 1,307,255; June 17; v. 263; p. 44.

Hoover, George A., Salinas, Ohio. Phonograph arm and horn attachment. No. 1,306,182; June 10; v. 263; p. 290.

Hope Natural Gas Company. (See Garner and Cooper, assignors.)

Hope Natural Gas Company. (See Zimmers, Jessop, Koenig, and Garner, assignors.)

Hopkins, Frank H., Somerville, assignor to American Steam Gauge & Valve Manufacturing Company, Boston, Mass. Pressure-regulating device. No. 1,305,365; June 3; v. 263; p. 25.

Hopkinson, Ernest, East Orange, N. J. Manufacturing short-glass. No. 1,306,206; June 3; v. 263; p. 11.

Hopkinson, Ernest, New York, N. Y. Making pneumatic tires. No. 1,306,001; June 3; v. 263; p. 108.

Horch, Jeremiah, Chicago, Ill. Automatic life-saving device. No. 1,306,611; June 10; v. 263; p. 177.

Horine, Karl, Evanston, Ill. Computer. No. 1,306,379; June 10; v. 263; p. 246.

Hortz, Carl, Chicago, Ill., assignor to The Ludlow Typograph Company, Cleveland, Ohio. Cabinet for typograph-matrices and the like. No. 1,306,257; June 10; v. 263; p. 228.

Horner, Otto C. (See Jackson, Louis L., assignor.)

Hoskins, William, Chicago, Ill. Art of recovering potash. No. 1,307,127; June 17; v. 263; p. 418.

Hoskins, Olat, Detroit, Mich. Shoe-cleaning machine. No. 1,307,070; June 24; v. 263; p. 549.

Houchins, Alfred W., and C. E. Luburg, assignors to Shochins Electric Corporation, Kirkwood, N. J. Coil. No. 1,306,515; June 17; v. 263; p. 361.

Houghton, Lewis T., Worcester, Mass. Tarn-tension mechanism. No. 1,306,146; June 10; v. 263; p. 208.

Houssman, George A., El Paso, Tex. Tatting-shuttle. No. 1,306,002; June 17; v. 263; p. 339.

Howe, Harold E., assignor to Standard Machine Company, Philadelphia, Pa. Take-up for circular-knitting machines. No. 1,307,353; June 24; v. 263; p. 468.

Houston, George D., Rushville, Ill. Three-horse overcr. No. 1,305,366; June 3; v. 263; p. 24.

Houston, Moses H., Highland Park, Ky. Revolving and folding table. No. 1,304,666; June 10; v. 263; p. 361.

Howard, William R., Newport, R. I. Syringe for injecting cement in teeth. No. 1,306,816; June 17; v. 263; p. 361.

Howarth, Ferdinand, Jr. (See Schulz, A. Steven, assignor.)

Howe and Davidson Company. (See Davidson, Frank E., assignor.)

Howe, Winthrop K., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Automatic train-control system. No. 1,306,190; June 10; v. 263; p. 240.

Howe, Winthrop K., W. A. Henry, and F. N. Hall, Rochester, assignors to General Railway Signal Company, Gates, N. Y. Switch-machine. No. 1,307,360; June 17; v. 263; p. 431.

Hoyt, Homer J., Detroit, Mich. assignor to Morgan & Wright, Machine for treating plastic materials. (Re-issue.) No. 14,043; June 10; v. 263; p. 365.

Hoyt, Richard H., Buffalo, N. Y. Cartman-drier. No. 1,306,093; June 17; v. 263; p. 339.

Hubbs, Henry E. (See Malone and Hubbs.)

Hudson Motor Car Company. (See Baitz and Felsche, assignors.)

Hughes, Edward, New York, N. Y. Fountain-pen. No. 1,307,350; June 24; v. 263; p. 463.

Hughes, Arthur J. (See Stirling and Hughes.)

Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Roller-boring drill. No. 1,304,664; June 17; v. 263; p. 339.

Hughes, John L., assignor of one-third to I. Shuler, Tulsa, Okla., and one-third to C. L. Bruce, Sedalia, Mo. Feed-water apparatus. No. 1,307,408; June 24; v. 263; p. 361.

Hughes, Robert B., Portland, Ore. Awning-arm. No. 1,307,201; June 17; v. 263; p. 431.

Huitt, Sven. (See Berglund, Edward B., assignor.)

Hulett, George H., Cleveland, Ohio. Warehouse-crane. No. 1,305,802; June 3; v. 263; p. 106.

Hull, John L., Schenectady, N. Y., assignor to General Electric Company. Double-range regulating arm for controlling speed of induction-motors. No. 1,306,664; June 10; v. 263; p. 294.

Hullin Boat Company. (See Golden, Samuel, assignor.)

Hult, Charles F., Chicago, Ill. Flange-wrench. No. 1,307,128; June 17; v. 263; p. 414.

Humphrey, David, Cleveland, Ohio. Elevated railway. No. 1,306,225; June 10; v. 263; p. 214.

Humphrey, James H., London, England. Tank and like receptacle. No. 1,307,564; June 24; v. 263; p. 334.

Hunter, Charles D., Newport News, Va. Combined motor-cycle and aeroplane. No. 1,307,097; June 17; v. 263; p. 414.

Hunter, Percy E., Pittsburgh, Pa. Annealing-box. No. 1,305,005; June 3; v. 263; p. 73.

Hunter, Richard B., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Motor-controller. No. 1,304,464; June 10; v. 263; p. 297.

Huss, William C., Cincinnati, Ohio. Illustrative photograph. No. 1,307,450; June 24; v. 263; p. 363.

Hutchins, George F. and G. Croeland, assignors to Crompton & Knowles Loom Works, Worcester, Mass. Double-plate fabric and making the same. No. 1,307,064; June 17; v. 263; p. 364.

Hutchins, William H., assignor to North East Electric Company, Rochester, N. Y. Dynamo-casing. No. 1,304,006; June 17; v. 263; p. 339.

Hutchinson, Miller E., West Orange, N. J. Motor-starting mechanism. No. 1,306,183; June 10; v. 263; p. 294.

Hutt, Leonard F., Schenectady, N. Y., assignor to General Electric Company. Means for controlling the circuits of electric motors. No. 1,306,844; June 10; v. 263; p. 278.

Iacono, Joseph, New Brunswick, N. J. Spark-plug. No. 1,306,817; June 17; v. 263; p. 361.

Ideal Roller Company. (See Welover and Price, assignors.)

Imaijima, Tatsujiro, Seattle, Wash. Life-buoy. No. 1,306,660; June 3; v. 263; p. 73.

Imaijima, Tatsujiro, Seattle, Wash. Pencil-sharpener. No. 1,304,903; June 17; v. 263; p. 377.

Imperial Trust for the Encouragement of Scientific and Industrial Research, The, et al. (See Bouché and Reid, assignors.)

Indahl, Mauritz C. (See Bancroft and Indahl.)

Indahl, Mauritz C., assignor to Lantion Monotype Machine Company, Philadelphia, Pa. Matrix-holder for typesetting machines. No. 1,307,571; June 24; v. 263; p. 364.

Independent Non-Fracting Powder Company. (See Walker, Charles E., assignor.)

Industrial Service Company. (See Jaeger, Otto, assignor.)

Ingersoll-Rand Company. (See Knight, Harry V., assignor.) (Re-issue.)

Ingram, Alfred, et al. (See Kettler, Carl W., assignor.)

Ingram, Harry, et al. (See Kettler, Carl W., assignor.)

Inman, Gilbert H., assignor of one-third to L. B. Wood, Taunton, Mass. Reel wiring apparatus. No. 1,305,906; June 3; v. 263; p. 149.

Interlocking Rim and Wheel Company. (See Harvey, Louis B., assignor.)

International Collophone Corporation. (See Kuruma, Na-then A., assignor.)

International Harvester Company. (See Robinson, Charles W., assignor.)

International Motor Company. (See Harrold, Alexander G., assignor.)

International Precipitation Company. (See Mettall, Raymond J., assignor.)

International Precipitation Company. (See Schmidt and Wolpert, assignors.)

Intervale Iron and Steel Company. (See Black, Joseph, assignor.)

Introvita, Anna, administratrix. (See Introvita, Benjamin.)

Introvita, Benjamin, deceased, Chippewa Falls, Wis.; A. Introvita, administratrix. Auto direction-signal. No. 1,304,901; June 3; v. 263; p. 129.

Ipsen, Carl J., Janesville, N. Y. Carburetor. No. 1,307,575; June 24; v. 263; p. 364.

Irvin, John C. (See Palmer and Irvin.)

Irvin, Bette, Brooklyn, N. Y. Field-motor. No. 1,304,903; June 3; v. 263; p. 149.

Irvin, Herbert G., Spar, Tex. Vacuum-operated make-and-break spark-plug. No. 1,304,667; June 10; v. 263; p. 294.

Irvin, William Y., Norwood, Pa. Folded sheet of paper and the like. No. 1,307,443; June 24; v. 263; p. 363.

Isothermal Carburetor Company. (See Goodale and Bullard, assignors.)

Iuchi, Tadah, Tsubakima, Japan. Rotatable crank. No. 1,307,455; June 24; v. 263; p. 364.

Iversen Piano Player Company. (See Peterson, Claus E., assignor.)

Ives, Frederic E., Philadelphia, Pa. Color photography. No. 1,304,664; June 17; v. 263; p. 339.

Ivery, James W., Philadelphia, Pa. Tooth-separator. No. 1,304,666; June 17; v. 263; p. 339.

Ivery, James W., Philadelphia, Pa. Napkin or roll attachment for rubber-dam clamps. No. 1,304,667; June 17; v. 263; p. 339.

Ivery, James W., Philadelphia, Pa. Safety or shield pin. No. 1,304,619; June 17; v. 263; p. 339.

Iwamoto, Gohji, Kyoto, Japan. Manufacturing paper leaves. No. 1,307,464; June 24; v. 263; p. 364.

Izua, Francisco, Toronto, Ontario, Canada. Nut-lock. No. 1,307,461; June 24; v. 263; p. 363.

J. Geo. Leyner Engineering Works Company. (See De-nen, Jean, assignor.)

J. Stone & Company Limited. (See Robman, Harry D., assignor.)

Jackman, Franklin P., Portland, Ore. Needle-threader. No. 1,304,668; June 10; v. 263; p. 294.

Jackson, Charles B., Hoboken, N. J. Elev. No. 1,304,307; June 3; v. 263; p. 24.

Jackson, David, Toronto, Ontario, Canada. Pipe-fitting. No. 1,307,451; June 24; v. 263; p. 363.

Jackson, Elva F. (See Ryan and Jackson.)

Jackson, James C. (See Smith, George F., assignor.)

Jackson, James H., Oakland, assignor of one-half to R. Maynard, (See Fennimore, Calif. Scale-pole. No. 1,307,518; June 24; v. 263; p. 364.

Jackson, John, Portsmouth, Ohio. Cannon. No. 1,304,612; June 10; v. 263; p. 174.

Jackson, Louis L., assignor of one-half to O. C. Norrey, New York, N. Y. Extruding metals from die-casts. No. 1,304,669; June 3; v. 263; p. 149.

Jackson, Marshall H., Chicago, Ill. Seal. No. 1,304,660; June 17; v. 263; p. 339.

Jacobsen, Peter E. E., Jyderup, Denmark. Power-transmitting device. No. 1,307,570; June 24; v. 263; p. 364.

Jacobson, William S., Steel Head, British Columbia, Canada. Berry-pail. No. 1,307,369; June 17; v. 263; p. 441.

Jacquet, George L., Nelloville, Wis. Rotary engine and pump. No. 1,307,461; June 24; v. 263; p. 364.

Jaeger, Otto, Hildes, Park, assignor to Industrial Service Company, Philadelphia, Pa. Dismounting apparatus. No. 1,307,444; June 24; v. 263; p. 363.

Japimann, Karl R. W., Stockholm, Sweden. Building-block. No. 1,304,663; June 17; v. 263; p. 339.

Jahlich, Iva, Gory, Ind. Bed-seat. No. 1,304,309; June 3; v. 263; p. 24.

James Manufacturing Company. (See James, William D., assignor.)

James, William D., assignor to James Manufacturing Company, Port Arthur, Wis. Guard for plug. No. 1,307,462; June 24; v. 263; p. 364.

Jamison, Charles V., Chicago, Ill. Take-up speed for music-stands. No. 1,307,367; June 17; v. 263; p. 441.

Jamison, Charles W. (See Thompson and Jamison.)

Jennette Machine Company. (See Kren, Alvaro E., assignor.)

Janney, Raymond, New York, N. Y., assignor to The Waterbury Tool Company, Waterbury, Conn. Reeling mechanism. No. 1,307,456; June 24; v. 263; p. 364.

Janzen, Victor, Los Angeles, Calif. Reel's winding mechanism. No. 1,304,664; June 3; v. 263; p. 149.

Janzen, Victor, Los Angeles, Calif. Reel's winding mechanism. No. 1,304,664; June 3; v. 263; p. 149.

Janzen, Victor, Los Angeles, Calif. Reel's winding mechanism. No. 1,304,664; June 3; v. 263; p. 149.

Jensen, Fernando G., Jr., assignor of one-half to The Central Tool Company, Providence, R. I. Mower-cutting-apparatus lock. No. 1,304,660; June 17; v. 263; p. 339.

Jensen, Thomas. (See Smith and Jensen.)

Jensen, Charles F., Washington, D. C. Motion-picture machine. No. 1,304,660; June 3; v. 263; p. 149.

Jensen, Samuel A. (See Hall and Jensen.)

Jensen, George C., Oakland, Calif. Lower-lock. No. 1,307,467; June 24; v. 263; p. 364.

Jensen, George C., Oakland, Calif. Tire-chamber. No. 1,307,468; June 24; v. 263; p. 364.

Jensen, James P., Brimley, Mich. Counter-brake. No. 1,304,660; June 17; v. 263; p. 339.

Seymour, Isaac B., Chicago, Ill. Armature. No. 1,304,665; June 10; v. 263; p. 297.

Jensen, Marie M. (See Jensen, James, Koenig, and Garret.)

Jensen, Hans H., East Hartford, assignor of two-thirds to J. C. Blodgett, Danvers, Conn. Winding and reeling device. No. 1,304,664; June 3; v. 263; p. 149.

Jensen, Ronald E., New Cumberland, assignor to H. A. Schindler, Philadelphia, Pa. Lifting-jack. No. 1,307,469; June 24; v. 263; p. 364.

Jensen, Anders J., and P. Hansen, Copenhagen, Denmark. Device for nail-pulling. No. 1,304,666; June 10; v. 263; p. 294.

Jeffries, Abraham, Los Angeles, Calif. Automobile-signal. No. 1,304,660; June 3; v. 263; p. 149.

Jehannet, Paul G., Chicago, Ill. Assignor to The Worthing Rotary Engine Company, Pierre, S. D. Internal-combustion engine. No. 1,304,660; June 17; v. 263; p. 339.

Jehannet, Oliver D., assignor, by means of assignment, to The Victor Adding Machine Company, Chicago, Ill. Adding-machine. No. 1,304,660; June 10; v. 263; p. 294.

John, Wesley E., Richmond, Va. Explosive-turbine. No. 1,304,660; June 10; v. 263; p. 294.

Johnson, Asbury Gas Company. (See Buckman, Floyd A., assignor.)

Johnson, Albert B., Beverly, Mass., assignor, by means of assignment, to United Shoe Machinery Corporation, Paterson, N. J. Machine for operating on soles. No. 1,307,450; June 24; v. 263; p. 363.

Johnson, Allen J., Detroit, Mich. Lock. No. 1,304,619; June 17; v. 263; p. 339.

Johnson, Alfred, A. C. Swanson, and A. H. Utterberg, Chicago, Ill. Automatic playing attachment for pianos. No. 1,307,462; June 17; v. 263; p. 441.

Johnson Automatic Sewer Company. (See Boyer, Henry E., assignor.)

Johnson, Charles T., assignor to The Dover Manufacturing Co., Dover, Ohio. Electric heater. No. 1,304,660; June 17; v. 263; p. 339.

Johnson, Clifton L., Savannah, Ga. Double-outlet container for filling-horn. No. 1,304,660; June 10; v. 263; p. 294.

Johnson, Edith, Cleveland, Ohio. Bread-cutter. No. 1,307,460; June 24; v. 263; p. 363.

Johnson, Ernest V., Chicago, Ill. Proposed the wall. No. 1,307,470; June 24; v. 263; p. 364.

Johnson, Forrest W., assignor of one-half to F. M. Wilson, Hartman, Colo. Force-feed attachment for all-fabricators and the like. No. 1,304,667; June 3; v. 263; p. 73.

Johnson, Fred L., West Falls, S. D. Carrying-bag handle. No. 1,304,660; June 3; v. 263; p. 149.

Johnson, Gustave A., assignor to Windward Beposting Arms Co., New Haven, Conn. Hand-lap for throwing clay pellets. No. 1,304,661; June 10; v. 263; p. 246.

Johnson, James A., Richmond, Va. Bottle-washing machine. No. 1,304,670; June 3; v. 263; p. 24.

Johnson, James T., Chicago, Ill. Die-stock. No. 1,304,667; June 17; v. 263; p. 339.

Johnson, Lewis H., Mansfield, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone system. No. 1,304,660; June 10; v. 263; p. 297.

Johnson, Oliver W., Cleveland, Ohio. Automatic cultivator attachment for plows. No. 1,307,472; June 24; v. 263; p. 364.

Johnson, Oliver W., Geneva, Ohio. Tractor. No. 1,307,473; June 24; v. 263; p. 364.

Johnson, Omar, New York, N. Y., assignor to The Auto Pneumatic Action Company, Tractor and aerial connections for player grand pianos. No. 1,307,467; June 17; v. 263; p. 441.

Johnson, Ross E., Christian, Iowa. Roll-chasing machine. No. 1,304,660; June 24; v. 263; p. 363.

Johnson, Sarah, executrix. (See Johnson, Stanley J.)

Johnson Service Company. (See Hobstad, Nels, assignor.) (Re-issue.)

Johnson, Stanley J., deceased; S. Johnson, executrix, assignor of one-half to W. C. Shultz, Manchester, N. J. Power-transmission mechanism. No. 1,304,661; June 3; v. 263; p. 27.

Johnson, Sullivan V. (See Leonard and Johnson.)

Johnson, Andrew L., Jr., Richmond, Va., assignor to Georgetown Electric Manufacturing Company, Cambridge, N. J. Electric switch. No. 1,307,460; June 17; v. 263; p. 441.

Johnson, Donald F., Toronto, Ontario, Canada, assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Instrument-board. No. 1,304,667; June 3; v. 263; p. 11.

Johnson, Karl W., Detroit, Mich. Heat-insulated receptacle. No. 1,304,660; June 3; v. 263; p. 127.

Johnson, Howard M., assignor to Messer-Harris Company, Limited, Toronto, Ontario, Canada. Canvas conveyor. No. 1,304,660; June 3; v. 263; p. 73.

Johnson, John M., Salem, Ohio. Trolley-harp. No. 1,304,660; June 10; v. 263; p. 302.

Johnson, Andrew B. et al. (See Dickinson, Raymond L., assignor.)

Johnson, Benjamin W., Schenectady, N. Y., assignor to General Electric Company. System of control for electric motors. No. 1,304,645; June 10; v. 263; p. 278.

Johnson, Charles W., Oakland, Calif. Steam-turbine. No. 1,307,464; June 24; v. 263; p. 363.

Johnson, George J. (See Partington and Jones.)

Jones, Harold B., Kansas City, Mo. Syringe. No. 1,304,664; June 10; v. 263; p. 210.

Jones, James H., Stowah, Tenn. Pipe-jack. No. 1,304,660; June 3; v. 263; p. 364.

Jones, John E. (See Weston and Jones.)

Jones, Louis C., Syracuse, assignor to Bonet-Solway Company, Solway, N. Y. Forming armature and air mixture. No. 1,307,470; June 24; v. 263; p. 364.

Jones, Palmer J., and P. D. Schreiber, Fort Washington, N. Y. Combination adjustable and convertible school desk and seat. No. 1,304,660; June 10; v. 263; p. 294.

Jones, Walter B., New York, N. Y. Water-motor. No. 1,304,667; June 10; v. 263; p. 294.

Joy, Edmund C., Garyville, La. Cartier. No. 1,304,647; June 3; v. 263; p. 60.

Joy, Joseph F., Columbus, Ohio, assignor to Joy Machine Company, Pittsburgh, Pa. Loading-machine. No. 1,304,664; June 10; v. 263; p. 187.

Joy, Joseph F., Belle Vernon, assignor to Joy Machine Company, Pittsburgh, Pa. Gathering mechanism for coal-loading machines. No. 1,307,000; June 17; v. 263; p. 364.

Joy Machine Company. (See Joy, Joseph F., assignor.)

Joy, Maynard T., New York, N. Y. Register-guide and gripper. No. 1,304,664; June 3; v. 263; p. 127.

Kabel, Bruce W., Kansas, Va., assignor to The American Brake Company, St. Louis, Mo. Brake arrangement for car-trucks. No. 1,304,660; June 3; v. 263; p. 46.

Kahn, Frederick L., New Rochelle, N. Y. System or method of concrete surrounding structural steel. No. 1,304,660; June 17; v. 263; p. 240.

Kahn, Frederick L., New Rochelle, N. Y. System or method of concrete surrounding structural steel. No. 1,304,661; June 17; v. 263; p. 240.

Kaiser, Henry, New Holstein, Wis. Draft appliance to prevent check. No. 1,304,660; June 3; v. 263; p. 34.

Kane, Edmund J., Chicago, Ill. Driving mechanism for motor-vehicles. No. 1,304,660; June 10; v. 263; p. 187.

Kane, Edmund J., Chicago, Ill. Driving mechanism for motor-vehicles. No. 1,304,667; June 10; v. 263; p. 218.

Karabin, Michael, and J. Shoshin, New Britain, Conn. Collar-button. No. 1,304,660; June 17; v. 263; p. 367.

Karnes, Emma, Clifton, N. J. Home-chop. No. 1,307,472; June 17; v. 263; p. 418.

Karnes, Emma, Clifton, N. J. Grade-finder. No. 1,307,473; June 17; v. 263; p. 418.

Kass, George B., assignor to The Denham Company, Berea, Ohio. Land-roller. No. 1,304,662; June 3; v. 263; p. 64.

Kass, Peter, Chicago, Ill. Metal tread. No. 1,304,660; June 10; v. 263; p. 241.

Kaufmann, Ferdinand H., Clark township, Union county, N. J. Clipping-machine. No. 1,307,361; June 24; v. 263; p. 444.

Kaufman, Alfonso, New York, N. Y., assignor, by means of assignment, to Air Reduction Company, Incorporated. Flushing-chamber for making nitrogen compounds. No. 1,307,462; June 24; v. 263; p. 364.

Kaupert, George, assignor of one-half to F. P. A. Brunswick and one-half to J. Kaupert, Chicago, Ill. Tooling apparatus. No. 1,304,660; June 10; v. 263; p. 167.

Kaupert, Josephine, et al. (See Kaupert, George, assignor.)

Keeper, Thomas, Philadelphia, Pa. Traveling step-ladder. No. 1,304,646; June 10; v. 263; p. 278.

Kear, Frederick, Minneapolis, Minn. Delivery-box. No. 1,304,660; June 3; v. 263; p. 93.

Kear, Frederick, and E. M. Colburn, Minneapolis, Minn. Automobile clock-holder. No. 1,307,463; June 17; v. 263; p. 444.

Keth, Alexander H., Chicago, Ill., assignor, by means of assignment, to Automatic Electric Company, Telephone system and apparatus. No. 1,307,477; June 24; v. 263; p. 664.

Kelley, George G. (See Landry and Kelley.)

Kelley, George G. (See Landry and Kelley.)

Kelley, George G. (See Landry and Kelley.)

Kelly, William H., Cleveland, Ohio. Boring or reaming tool. No. 1,304,660; June 10; v. 263; p. 210.

Kelly, William J., Cedar Rapids, assignor of one-half to Kelley, Frank L., et al. (See McGriff, Thomas C., assignor.)

Kelsey, William J., et al. (See McGriff, Thomas C., assignor.)
 Keim, Joseph, assignor to The McConway & Torley Company, Pittsburgh, Pa. Draft-rigging for railway-cars. No. 1,306,429; June 10; v. 263; p. 257.
 E. L. Barber, Wyoming, Iowa. Tire-choc. No. 1,307,445; June 24; v. 263; p. 569.
 Kemp, Charles, New York, N. Y. Lock. No. 1,306,460; June 3; v. 263; p. 45.
 Kemper-Thomas Company, The. (See Henderson, Charles F., assignor.)
 Kempny, Karol, Cleveland, Ohio. Scaffold. No. 1,306,723; June 3; v. 263; p. 33.
 Kempnith Manufacturing Co., The. (See Parsons, Fred A., assignor.)
 Kendall, Charles M., Illinois, Ill. Manifold heater. No. 1,307,780; June 24; v. 263; p. 569.
 Kendl, Julian H., Pittsburgh, Pa. Process and apparatus for drawing sheet-glass. No. 1,306,233; June 3; v. 263; p. 11.
 Kennedy, Albert H., Rockport, Ind. Educational appliance. No. 1,306,734; June 3; v. 263; p. 33.
 Kennedy, David B., Brooklyn, N. Y., assignor to Morganthaler Linotype Company. Typographical machine. No. 1,306,548; June 3; v. 263; p. 60.
 Kennedy, David B., Brooklyn, N. Y., assignor to Morganthaler Linotype Company. Typographical machine. No. 1,306,550; June 17; v. 263; p. 378.
 Kennedy, David B., Brooklyn, N. Y., assignor to Morganthaler Linotype Company. Typographical casting-machine. No. 1,306,909; June 17; v. 263; p. 378.
 Kennedy, Otto M., assignor to The Cunningham Piano Company of Philadelphia, Philadelphia, Pa. Suspension-controlling device for player-pianos. (Reissue.)
 Kennedy, Patrick, Brooklyn, assignor to Consolidated Railway Electric Lighting and Equipment Company, New York, N. Y. Car-lighting system. No. 1,306,976; June 3; v. 263; p. 140.
 No. 14,672; June 24; v. 263; p. 615.
 Kennedy, William J., Jersey City, N. J. Furnace. No. 1,307,300; June 24; v. 263; p. 563.
 Kenney, Carl L., assignor to Pittsburgh Coal Washer Company, Pittsburgh, Pa. Gearing. No. 1,307,502; June 17; v. 263; p. 421.
 Kent, Charles W., Peoria, Ill. Electric massage-machine. No. 1,306,728; June 3; v. 263; p. 34.
 Kent, Everett E., et al. (See Wolfard, Merl R., assignor.)
 Keppeler, George C., assignor of one-half to T. Dixon, West Haven, Ind. Fruit-squeezing tong. No. 1,306,906; June 3; v. 263; p. 100.
 Kern, Bernard, Sandusky, Ohio. Street-sweeping machine. No. 1,306,910; June 17; v. 263; p. 378.
 Kern, Bernard, Sandusky, Ohio. Street-sweeping machine. No. 1,306,911; June 17; v. 263; p. 378.
 Kerna, Edward J., Worcester, Mass. Contour-lathe. No. 1,307,490; June 24; v. 263; p. 519.
 Kerr, Alva L., Mount Gilead, Ohio. Toy camera. No. 1,306,507; June 3; v. 263; p. 100.
 Kerr, John, Toronto, Ontario, Canada. Non-refillable bottle. No. 1,306,549; June 3; v. 263; p. 60.
 Kerr, Matthew M., assignor to Detroit Dental Manufacturing Company, Detroit, Mich. Dental instrument. No. 1,307,446; June 24; v. 263; p. 569.
 Kerr Turbine Company. (See Dahlstrand, Josef Y., assignor.)
 Kerrigan, John F., Portland, Oreg. Automobile-bed. No. 1,306,258; June 10; v. 263; p. 236.
 Kershaw, Henry, Kearney, N. J. Combined punch and spacing device. No. 1,306,013; June 10; v. 263; p. 178.
 Kessler, Louis, assignor to Non-Explosive Can and Tube Company, Chicago, Ill. Draw-off device for explosive liquids or the like. No. 1,306,150; June 10; v. 263; p. 203.
 Ketch, Hylas E., Decatur, Ill. Garment. No. 1,307,553; June 24; v. 263; p. 529.
 Kettler, Carl W., Warwood, W. Va. assignor of one-half to A. Ingram and H. Ingram, Brooklyn, N. Y. Jar and other receptacle. No. 1,307,563; June 24; v. 263; p. 494.
 Keuser, Emanuel, Sr., Palmyra, N. J. Sash or window fastener. No. 1,306,550; June 3; v. 263; p. 61.
 Key, Frederick E., St. Louis, Mo. Expander. No. 1,306,906; June 3; v. 263; p. 100.
 Keyes, Frederick G., assignor to Cooper Hewitt Electric Company, Hoboken, N. J. Electric lamp. No. 1,306,258; June 10; v. 263; p. 236.
 Keyes, Frederick G., assignor to Cooper Hewitt Electric Company, Hoboken, N. J. Electric lamp. No. 1,306,912; June 17; v. 263; p. 379.
 Keyes, Frederick G., Boston, Mass., assignor to Cooper Hewitt Electric Company, Hoboken, N. J. Quartz-lamp. No. 1,307,500; June 24; v. 263; p. 519.
 Kidder, Frank W., Norton, Kans. Drainage-plug for water-cooling radiators. No. 1,306,186; June 10; v. 263; p. 210.
 Kidder, William C., Buffalo, N. Y. Mute for wind instruments. No. 1,307,250; June 17; v. 263; p. 441.
 Kieffer, John A., Emporia, Kans. Table. No. 1,306,900; June 3; v. 263; p. 100.
 Kihne, Fritz, Grunz-Lichterfelde, near Berlin, assignor to Titan-Werk, Gesellschaft mit beschränkter Haftung, Berlin, Germany. Universal joint. No. 1,307,074; June 24; v. 263; p. 550.

Kishale, Leo C., Elizabeth, N. J., assignor to The Singer Manufacturing Company. Stand for sewing-machine. No. 1,306,700; June 17; v. 263; p. 551.
 Kiehl, Alfred, Tromsø, Norway. Fitting for fastening rubber-vent-holes to wooden pipes or tubes. No. 1,307,555; June 24; v. 263; p. 529.
 Kierman, Thomas P., Ball, Cal. Direction-indicator for automobiles. No. 1,306,480; June 3; v. 263; p. 45.
 Kiewit, William F., Jr., Allentown, Pa. Steam-engine. No. 1,307,521; June 24; v. 263; p. 527.
 Kimbel, Martha, Annapolis, Md. Sewing-machine. No. 1,307,551; June 17; v. 263; p. 419.
 Kincaid, Charles W., Dallas, Tex. assignor to Gilbert & Barber Manufacturing Company, West Springfield, Mass. Fluid-dispensing apparatus. No. 1,306,380; June 3; v. 263; p. 12.
 King, Calvin P. (See Squires and King.)
 King, Charles B., and R. A. Young, assignors to The Marion Steam Shovel Company, Marion, Ohio. Metal bar. No. 1,307,554; June 17; v. 263; p. 495.
 King, Edward M., Brooklyn, Mass. Chain-link. No. 1,307,555; June 17; v. 263; p. 495.
 Kingston, P. C. (See Dickson, James T., assignor.)
 Kinsman, Clarence W., New York, N. Y. Elastic garment-halter. No. 1,307,010; June 17; v. 263; p. 397.
 Klayen, Alois G., assignor to Powdered Coal Bagging and Equipment Company, Chicago, Ill. Locomotive fire-box. No. 1,307,544; June 24; v. 263; p. 529.
 Klayen, Alois G., assignor to Powdered Coal Bagging and Equipment Company, Chicago, Ill. Device for aerating powdered fuel. No. 1,307,545; June 24; v. 263; p. 494.
 Kirk, Henry C., Roland Park, Md. Aluminum alloy. No. 1,306,551; June 3; v. 263; p. 61.
 Kirk, Robert, Belfast, Ireland. Drawer for filing drawing sheets of paper, linen, or the like. No. 1,306,551; June 17; v. 263; p. 397.
 Kirk, Walter L., assignor to Lyne & Healy, Chicago, Ill. Nut for stringed instruments. No. 1,307,551; June 24; v. 263; p. 529.
 Kinsane, John F., and F. H. Schoenmaker, Detroit, Mich. Door-locking mechanism. No. 1,306,550; June 10; v. 263; p. 237.
 Kinsane, John G. A., Scottsforth, Lancashire, England. Best steering and reversing gear. No. 1,306,515; June 17; v. 263; p. 379.
 Kitchin, John G. A., Scottsforth, Lancashire, England. Best steering and reversing gear. No. 1,306,516; June 17; v. 263; p. 379.
 Kitching, Cyrus, Chicago, Ill. Melian harp. No. 1,306,573; June 2; v. 263; p. 27.
 Klamroth, Albert. (See Klamroth, Otto, assignor.)
 Klamroth, Otto, Liberty, assignor to A. Klamroth, New York, N. Y. Antifouling device for ships and the like. No. 1,306,915; June 17; v. 263; p. 379.
 Klamt, Morris H. (See Yost, William F., assignor.)
 Klechler, Henry, Buffalo, N. Y., assignor to Curtiss Aeroplane and Motor Corporation. Aeroblast-wing wings. No. 1,306,704; June 17; v. 263; p. 351.
 Klechler, Henry, Buffalo, N. Y., assignor to Curtiss Aeroplane and Motor Corporation. Landing-gear for aircraft. No. 1,306,705; June 17; v. 263; p. 352.
 Klein, Charles F., St. Louis, Mo. Machine for cutting hides. No. 1,306,551; June 10; v. 263; p. 227.
 Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,306,552; June 17; v. 263; p. 397.
 Klein, Charles J., assignor to The Cutler-Hammer Mfg. Company, Milwaukee, Wis. Electric switch. No. 1,307,745; June 24; v. 263; p. 564.
 Klemm, Al C., Davenport, Iowa. Automobile-holst. No. 1,306,480; June 10; v. 263; p. 254.
 Klemm, Al C., Davenport, Iowa. Automobile-holst. No. 1,306,481; June 10; v. 263; p. 254.
 Kline, Fred H., Los Angeles, Calif. Pipe-cover. No. 1,307,970; June 24; v. 263; p. 607.
 Kling, Peter M., Lacuna, N. H. Post for windows. No. 1,307,523; June 24; v. 263; p. 577.
 Klotz, Simon, Birmingham, Ala., and Simon Lazarus, Louisville, Ky. Safety-cavap. No. 1,307,447; June 24; v. 263; p. 510.
 Knapp, William A., assignor to C. Schwartz, trustee, Washington, D. C. Fitting cast-iron articles to other bodies in connection with which they work and product. No. 1,307,970; June 24; v. 263; p. 607.
 Knight American Patent Company. (See Knight, Charles Y., assignor.)
 Knight, Amos L., assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Making matrices for casting elements of printing-forms. No. 1,307,578; June 24; v. 263; p. 594.
 Knight, Amos L., assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Matrix for casting elements of printing-forms. No. 1,307,578; June 24; v. 263; p. 594.
 Knight, Charles Y., Pasadena, Cal., assignor to The Knight American Patent Company, Chicago, Ill. Mechanism for facilitating the starting of internal-combustion engines. No. 1,306,550; June 3; v. 263; p. 127.
 Knowles, Thomas R., West Brookfield, England. Manufacture of rolled wire and glass. No. 1,306,550; June 10; v. 263; p. 237.

Knochen, Hans L., St. Charles, Mo. Coal-dust and liquid-fuel engine. No. 1,306,550; June 10; v. 263; p. 255.
 Knochen, Martin N., Hollister, Idaho, assignor of one-half to A. E. Caldwell, Twin Falls, Idaho. Spring control and shock-absorber for automobiles. No. 1,307,552; June 24; v. 263; p. 530.
 Koch, George, assignor to Dr. H. C. Gagnon and O. Berg, Paterson, N. J. Loom for weaving pile fabrics. No. 1,306,575; June 3; v. 263; p. 27.
 Kochendorfer, Frederick B., Chicago, Ill. assignor to Western Electric Company, Incorporated, New York, N. Y. Hydraulic press. No. 1,307,550; June 24; v. 263; p. 534.
 Koecher, Charles. (See McIntyre and Koecher.)
 Koenig, Walter J. (See Zimmers, Joseph, Koenig, and Garner.)
 Koerner, Fred. (See Ray and Koerner.)
 Koestel, Joseph, and M. Boudet, Lyon, assignors to Societe Chimique Des Usines Du Rhone, ancientment Gillard, P. Monnet et Cartier, Paris, France. Production of acetic aldehyde and polymerized or non-polymerized acetic aldehyde or acetic acid. No. 1,306,543; June 17; v. 263; p. 398.
 Koestel, Joseph, and M. Boudet, Lyon, assignors to Societe Chimique Des Usines Du Rhone, ancientment Gillard, P. Monnet et Cartier, Paris, France. Manufacture of ethylene diacetate. No. 1,306,544; June 17; v. 263; p. 398.
 Kohn, Otto H., Culmet, Mich. Check-row device for corn-planters. No. 1,306,531; June 17; v. 263; p. 392.
 Kohn, Milton M., assignor to The Ventilator Fan Co., Inc., New York, N. Y. Universal holding-bracket for power units. No. 1,307,011; June 17; v. 263; p. 397.
 Kohn, Samuel, Chicago, Ill. Film-roll. No. 1,307,554; June 24; v. 263; p. 539.
 Kohn, Nicholas, assignor to P. H. Weaver, Fond du Lac, Wis. Valved piston. No. 1,306,553; June 10; v. 263; p. 249.
 Kozaki, Kotaro, Tokyo, Japan. Waterproof paper. No. 1,307,445; June 24; v. 263; p. 529.
 Kunkle, George A., Monteville, Pa. Milk-strainer. No. 1,307,077; June 24; v. 263; p. 551.
 Kuntz, Pierce W., Los Angeles, Calif. Child's vehicle. No. 1,306,910; June 17; v. 263; p. 397.
 Kopal, Frank, Exline, Iowa. Trap. No. 1,307,578; June 24; v. 263; p. 581.
 Koppers Company, The. (See Koecher, Joseph, assignor.)
 Koppers Company, The. (See Van Acheren, Joseph, assignor.)
 Kopp, Daniel, New York, N. Y. Apparel-corset. No. 1,307,123; June 17; v. 263; p. 415.
 Korbet Company, The. (See Bush, Clarence A., assignor.)
 Korte, Louis, Brooklyn, N. Y. Cravat. No. 1,306,482; June 10; v. 263; p. 255.
 Koval, Martin M., Hallwood, Pa. Shade-bracket. No. 1,306,114; June 10; v. 263; p. 194.
 Kraft, Henry P., Elmwood, N. J. Tire-valve. No. 1,306,543; June 3; v. 263; p. 61.
 Kraft, Henry P., Elmwood, N. J. Tire-valve. No. 1,307,000; June 24; v. 263; p. 607.
 Kraft, William, assignor to Capital Motors Corporation, Fall River, Mass. Radiator-support. No. 1,306,516; June 3; v. 263; p. 309.
 Kraft, William, assignor to Capital Motors Corporation, Fall River, Mass. Radiator-support. No. 1,306,523; June 17; v. 263; p. 392.
 Kramer, Albert, et al. (See Crowley, Richard J., assignor.)
 Krantz, Hubert, assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Switchboard mechanism. No. 1,306,570; June 3; v. 263; p. 28.
 Krantz, Hubert, Brooklyn, N. Y., assignor to Krantz Manufacturing Company, Inc. Floor-box. No. 1,306,610; June 3; v. 263; p. 74.
 Krantz, Hubert, New York, N. Y., assignor to Krantz Manufacturing Company, Inc. Outlet-box. No. 1,306,611; June 3; v. 263; p. 74.
 Krantz, Hubert F., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Switchboard. No. 1,306,574; June 3; v. 263; p. 27.
 Krantz, Hubert F., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Motor-starting switch. No. 1,306,575; June 3; v. 263; p. 27.
 Krantz, Hubert F., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Electric switch. No. 1,306,540; June 10; v. 263; p. 241.
 Krantz, Hubert F., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Shift-cocket meter-panel. No. 1,306,541; June 10; v. 263; p. 241.
 Krantz, Hubert F., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Switch-panel. No. 1,306,542; June 10; v. 263; p. 241.
 Krantz, Hubert F., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Safety shutter-panel. No. 1,306,543; June 10; v. 263; p. 242.
 Krantz, Hubert F., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Safety-switchboard. No. 1,306,544; June 10; v. 263; p. 242.
 Krantz, Hubert F., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Safety panel-box. No. 1,306,545; June 10; v. 263; p. 242.
 Krantz, Hubert F., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Safety panel-box. No. 1,306,546; June 10; v. 263; p. 242.

Krantz, Hubert F., assignor to Krantz Manufacturing Company, Inc., Brooklyn, N. Y. Safety panel-box. No. 1,306,547; June 10; v. 263; p. 242.
 Krantz Manufacturing Company. (See Krantz, Hubert, assignor.)
 Krantz Manufacturing Company. (See Krantz, Hubert F., assignor.)
 Krantz, Charles H., Brooklyn, N. Y. Adjustable slicing-knife. No. 1,306,550; June 3; v. 263; p. 127.
 Kratz, Henry A., Danboro, Pa. Shirt. No. 1,306,228; June 10; v. 263; p. 219.
 Krause, David, Cleveland, Ohio. Hulling-machine. No. 1,306,511; June 3; v. 263; p. 110.
 Krause, Will T., Dinuba, Calif. Pump. No. 1,306,290; June 3; v. 263; p. 12.
 Krause, William F., assignor to Hanna Engineering Works, Chicago, Ill. Engine for punching-machine. No. 1,306,557; June 10; v. 263; p. 188.
 Kruth, Albert, assignor to Kruth & Benninghofen, Hamilton, Ohio. Autographic manfolding and cash register. No. 1,307,070; June 24; v. 263; p. 551.
 Kruth & Benninghofen. (See Kruth, Albert, assignor.)
 Kroger, Julius J., Bottinon, N. D. Shock-loader. No. 1,306,507; June 10; v. 263; p. 258.
 Kroll, Philip J., Pittsburgh, Pa. Electrolytic apparatus. No. 1,306,151; June 10; v. 263; p. 290.
 Krotz, Alvaro R., assignor to Janesville Machine Company, Janesville, Wis. Planting-machine marker. No. 1,306,483; June 10; v. 263; p. 263.
 Krotz, Alvaro R., assignor to Janesville Machine Company, Janesville, Wis. Planter valve mechanism. No. 1,306,484; June 10; v. 263; p. 264.
 Kroyer, John M., Stockton, Calif. Combination tractor-frame and transmission-housing. No. 1,307,555; June 24; v. 263; p. 539.
 Krag, William H., Oakbrook, Wis. Antiskid device. No. 1,306,577; June 3; v. 263; p. 28.
 Krag, William H., Oakbrook, Wis. Coupling for antiskid attachment. No. 1,307,055; June 17; v. 263; p. 405.
 Kraw, John, New Orleans, La. Insect-proof attachment for furniture and other articles. No. 1,306,553; June 3; v. 263; p. 61.
 Kuehn, Louis, Milwaukee, assignor to Milwaukee Corrugating Company, Greenfield, Wis. Sheet-metal shingle. No. 1,306,486; June 10; v. 263; p. 268.
 Kuhn, Frank, and J. A. Hand, assignors to American Electrical Heater Company, Detroit, Mich. Electric heater. No. 1,307,550; June 24; v. 263; p. 539.
 Kuhn, Frank, and J. A. Hand, assignors to American Electrical Heater Company, Detroit, Mich. Electrical heating unit. No. 1,307,557; June 24; v. 263; p. 535.
 Kuhn, Robert B., Canton, Ohio. Air-cooled engine. No. 1,307,000; June 24; v. 263; p. 551.
 Kuhn Tractor Truck Company. (See Kuhn, William O., assignor.)
 Kuhn, William O., assignor to Kuhn Tractor Truck Company, Seattle, Wash. Transmission-gearing for motor-vehicles. No. 1,307,423; June 24; v. 263; p. 542.
 Kuller, Cornelia W., Dan Hulet, a. d. Dedemsvaart, Netherlands. Brake mechanism for vehicles. No. 1,306,708; June 17; v. 263; p. 382.
 Kunes, Arthur F., Montreal, Quebec, Canada. Crib drop-side latch. No. 1,306,550; June 10; v. 263; p. 288.
 Kurmann, Nathan A., New York, N. Y., assignor to International Callphone Corporation. Loud-speaking inter-communicating telephone system. No. 1,307,981; June 24; v. 263; p. 607.
 Kirth, Alfred, Berlin-Wilmersdorf, assignor to Automobil- und Eisenbahnbau O. m. b. H. Berlin-Charlottenburg, Germany. Collapsible or folding hood particularly for vehicles. No. 1,306,554; June 3; v. 263; p. 62.
 L. G. McKnight & Son Company. (See Maier and McKnight, assignors.)
 L. & E. Co., Inc. (See Parkes, William N., assignor.)
 La Crosse Tractor Co. (See Meicher, Lee W., assignor.)
 La Societe Francaise des Glycerines. (See Huetel, Robert, assignor.)
 Lachmann Steel Company. (See Mathias, Thomas H., assignor.)
 Lacy, James L. (See Nelson, John T., assignor.)
 Ladd, James E., Ardmore, Pa. assignor to United States Cast Iron Pipe & Foundry Company, Burlington, N. J. Churning apparatus for centrifugal casting-machines. No. 1,307,525; June 24; v. 263; p. 577.
 Lafayette Rubber Company. (See Wohlsmuth and Lilly, assignors.)
 Laing, Clayton, Chicago, Ill. Apparatus for casting high-fusing metals. No. 1,307,290; June 17; v. 263; p. 440.
 Lake, Christopher J., Bridgeport, Conn. Airplane. No. 1,307,123; June 17; v. 263; p. 419.
 Lake, Christopher J., Bridgeport, Conn. Airplane. No. 1,307,124; June 17; v. 263; p. 419.
 Lake, Christopher J., Bridgeport, Conn. Hydroplane, also applicable to hydroaeroplanes. No. 1,307,125; June 17; v. 263; p. 419.
 Lake, Clair D., Binghamton, N. Y. Tabulating-machine. No. 1,307,744; June 24; v. 263; p. 592.
 Lamb, George L., Nappanee, Ind. Cleaning device. No. 1,306,470; June 3; v. 263; p. 45.
 Lambert, Ernest E., Attalla, Ala. Metal and rubber shoe sole. No. 1,306,512; June 3; v. 263; p. 110.
 Lampert, Archibald G., Clarkburg, W. Va. Flying-machine. No. 1,306,555; June 3; v. 263; p. 62.

Land, William A., assignor of one-third to M. H. Taylor, Hewitt, Kans. Cattle-guard. No. 1,305,997; June 3; v. 263; p. 128.

Landry, Gertrude L., Pawtucket, and G. S. Kelley, Providence, R. I. Hair-retaining device. No. 1,305,998; June 10; v. 263; p. 128.

Landau, Maxwell W. (See Adams and Landau.)

Lane, Howard, Ashford, England. Apparatus for hydro-culizing oils and fats. No. 1,307,550; June 24; v. 263; p. 525.

Lane, William E., Wilmington, N. C. Attachment for suspenders. No. 1,306,480; June 10; v. 263; p. 268.

Lang, Hans, Milwaukee, Wis. Viola-hair fastener. No. 1,307,557; June 24; v. 263; p. 525.

Langdale, Stonay L., et al. (See Feltz, Charles F., assignor.)

Langdale, William H., et al. (See Feltz, Charles F., assignor.)

Langdon-Davies, Walter, Weybridge, England. Electrically-controlled clutch. No. 1,305,613; June 3; v. 263; p. 74.

Lange, Henry, Quincy, Ill. Gas-burner for coal-ovens. No. 1,305,917; June 17; v. 263; p. 500.

Langenberg, Willis E., Milwaukee, Wis. Alarm device. No. 1,307,500; June 17; v. 263; p. 440.

Langley, Cortland J., and C. P. Wood, Philadelphia, Pa. Sterilizing-carrier for clinical thermometers. No. 1,304,471; June 3; v. 263; p. 44.

Lanier, Lewis H., Newport, Ky. Package for ice-cream cones. No. 1,305,908; June 3; v. 263; p. 128.

Lank, Clarence H., Philadelphia, Pa. Water-level bell-gauge. No. 1,307,563; June 24; v. 263; p. 527.

Lanning, Charles D. (See Field and Lanning.)

Lanning, James E. (See Canfield, John V., assignor.)

Lanston Monotype Machine Company. (See Bancroft and Indahl, assignors.)

Lanston Monotype Machine Company. (See Indahl, Maurits C., assignor.)

Lanston Monotype Machine Company. (See Knight, Amos L., assignor.)

Lanston Monotype Machine Company. (See Pierpont, Frank H., assignor.)

Lanston Monotype Machine Company. (See Wing, William, assignor.)

Lanyon, Samuel H., Oakland, Calif. Insulating-support. No. 1,305,670; June 10; v. 263; p. 502.

Lapelle, Frederick A., Middlebury, Vt. Toy boat. No. 1,307,560; June 17; v. 263; p. 441.

Larkin, Walter, assignor to H. Brinton Company, Philadelphia, Pa. French-wick-lighting machine. No. 1,307,547; June 24; v. 263; p. 524.

Larsen, Jacob F., assignor of one-half to J. Dehdanek, Chicago, Ill. Support for hinged members. No. 1,305,655; June 17; v. 263; p. 504.

Larsen, Werner R. B., Copenhagen, Denmark. Making screens for use in producing half-tone negatives. No. 1,307,524; June 24; v. 263; p. 519.

Larson, Edward, Lorain, Sweden. Safety device for firearms. No. 1,305,955; June 17; v. 263; p. 508.

Larson, Thelma, Area, Minn. Grain-drum. No. 1,304,823; June 17; v. 263; p. 502.

Lasher, William W., Brooklyn, assignor to Powers Accounting Machine Company, New York, N. Y. Interlocking release mechanism for keyboards. No. 1,305,654; June 3; v. 263; p. 63.

Lasher, William W., Brooklyn, assignor to Powers Accounting Machine Company, New York, N. Y. Perforating-machine. No. 1,305,657; June 3; v. 263; p. 62.

Lasher, William W., Brooklyn, assignor to Powers Accounting Machine Company, New York, N. Y. Card-feed-delivery mechanism. No. 1,307,601; June 24; v. 263; p. 531.

Lasher, William W., Brooklyn, assignor to Powers Accounting Machine Company, New York, N. Y. Keyboard mechanism for printing-machine. No. 1,307,602; June 24; v. 263; p. 532.

Lasher, William W., Brooklyn, assignor to Powers Accounting Machine Company, New York, N. Y. Flexible-connection. No. 1,307,603; June 24; v. 263; p. 533.

Lassalle, Antonio, San Francisco, Calif. Target. No. 1,305,668; June 3; v. 263; p. 61.

Lathaw, Wiley A., Clinton, Mich. Spark-plug. No. 1,305,618; June 3; v. 263; p. 74.

Lau, Harry M., et al. (See Bauman, Frank J., assignor.)

Lauby, Michael J., Lexington, Nbr. Draw-bar construction. No. 1,305,472; June 3; v. 263; p. 64.

Laureman, John D., Lake Hopatcong, N. J. Can receptacle and opener. No. 1,307,509; June 24; v. 263; p. 526.

Laurent, Louis E., et al. (See Cherry, Edward E., assignor.)

Laurentis, Jules G., Lake Arthur, La. Jet-trimming machine. No. 1,305,378; June 3; v. 263; p. 20.

Lawrence, Homer H., St. Albans, Vt. Automatic lathe. No. 1,305,473; June 3; v. 263; p. 64.

Lawrence, Samuel E., Raybrook, Ill. Vehicle-towing mechanism. No. 1,307,781; June 24; v. 263; p. 570.

Lawson, Abraham, Brooklyn, N. Y. Trench fountain-pen. No. 1,307,722; June 24; v. 263; p. 570.

Lawson, Joel R., St. James, assignor to The R. Thomas and Sons Company, New York, N. Y. Sewing connection. No. 1,305,900; June 3; v. 263; p. 123.

Lawver, George F. and J. W. Uniontown, Kans. Pump-supporting bracket. No. 1,305,999; June 10; v. 263; p. 268.

Lawver, James W. (See Lawver, George F. and J. W.)

Laxton, Albert H., Toronto, Ontario, Canada. Artificial-hand attachment. No. 1,307,506; June 24; v. 263; p. 526.

Lazarus, Peter L., Wichita, Kans. Bag-holder. No. 1,305,915; June 17; v. 263; p. 500.

Lazarus, Simon. (See Klotz and Lazarus.)

Le, Dait, Sylvania, San Jose, Calif. Artificial monument. No. 1,307,558; June 24; v. 263; p. 526.

Le Dou, Hector, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Suspension for looms. No. 1,307,613; June 17; v. 263; p. 507.

Leak, Louis C., Weymouth, Wis. Supporter. No. 1,307,548; June 24; v. 263; p. 524.

Leach, Henry M., Waltham, England. Refuse-distributor furnace. No. 1,307,559; June 24; v. 263; p. 527.

Leahon, Ferdinand L., Paris, France. Apparatus for igniting grenades. No. 1,307,604; June 24; v. 263; p. 532.

Leblanc, Maurice. (See Van Bruren, Delia, and Leblanc.)

Leblond, Julien F., Billancourt, France. Sparking plug for engines-motors in general. No. 1,307,510; June 24; v. 263; p. 520.

Lechner, Frederick E. (See Lechner, Friedrich and F. E.)

Lechner, Friedrich and F. E. Milwaukee, Wis. Automobile-bumper. No. 1,307,555; June 17; v. 263; p. 526.

Lee, Harlo F., assignor to North East Electric Company, Rochester, N. Y. Ignition-coil. No. 1,307,507; June 24; v. 263; p. 526.

Lee, Uyvesse G., Chicago, Ill. Bushman. No. 1,307,501; June 17; v. 263; p. 442.

Lee, William D., Oakland, Calif. Bolt and nut lock. No. 1,305,660; June 10; v. 263; p. 75.

Leeder, Ralph E., Chicago, Ill. Reinforced-concrete ship and constructing same. No. 1,305,579; June 3; v. 263; p. 22.

Leighty, John R., Kansas City, Mo., and B. E. Ahlberg, said Ahlberg assignor to Federal-Ahlberg Company, Chicago, Ill. Engine-burner. No. 1,307,504; June 24; v. 263; p. 520.

Leinbach, John F., Baltimore, Md. Work-holding clamp. No. 1,304,423; June 10; v. 263; p. 504.

Leitch, Meredith, Poughkeepsie, assignor to The De Laval Separator Company, New York, N. Y. Lubricating means for centrifugal separators. No. 1,305,613; June 3; v. 263; p. 74.

Leitner, Henry, Westminster, London, and W. H. Riley, Woking, England. Electric-accumulator plate. No. 1,305,614; June 3; v. 263; p. 75.

Leitman, Louis, Mount Vernon, N. Y. Water-flow alarm. No. 1,305,154; June 10; v. 263; p. 504.

Leisner, Adolf W. H., assignor to Douglas Company, Cedar Rapids, Iowa. Manufacture of dentures, gums, and modified starches. No. 1,305,504; June 3; v. 263; p. 12.

Leisner, Patrick A., M. F. Maloney, and R. Friedrich, Schenectady, N. Y. Fluid-pressure apparatus for burning powdered fuel. No. 1,305,736; June 3; v. 263; p. 61.

Leisner, William E. and S. V. Johnson, assignors to The Denver Rock Drill Manufacturing Company, Denver, Colo. Tool-bit. No. 1,307,511; June 24; v. 263; p. 520.

Letch, Fred, Virginia, Minn. Mechanical shovel. No. 1,307,448; June 24; v. 263; p. 519.

Leuchner, Joseph. (See Brider and Leuchner.)

Leuwer, Jean A. (See Gourdon, Charles E. P., assignor.)

Letord, Emile, Menden, France. Spring suspension device for indicating and registering instruments. No. 1,307,605; June 24; v. 263; p. 532.

Lev, Mark Jr., Los Angeles, Calif. Cap-opener. No. 1,307,501; June 17; v. 263; p. 442.

Levin, Walter B., assignor to The National Safety Appliance Company, San Francisco, Calif. Automatic train signal and stop. No. 1,305,500; June 3; v. 263; p. 20.

Levin, Walter B., assignor to The National Safety Appliance Company, San Francisco, Calif. Relay. No. 1,305,501; June 3; v. 263; p. 21.

Levin, Walter B., assignor to The National Safety Appliance Company, San Francisco, Calif. Automatic block-signal system. No. 1,305,502; June 3; v. 263; p. 22.

Levin, Walter B., assignor to The National Safety Appliance Company, San Francisco, Calif. Automatic block-signal system. No. 1,305,503; June 3; v. 263; p. 23.

Levin, Walter B., assignor to The National Safety Appliance Company, San Francisco, Calif. Track-operated device for automatic block-signal system. No. 1,305,504; June 3; v. 263; p. 24.

Levy, Alexander E. (See Chock, Harry M., assignor.)

Levin, Floyd V., Milwaukee, assignor to The Union Switch & Signal Company, Scranton, Pa. Railway-signal. No. 1,307,761; June 24; v. 263; p. 528.

Lewis, George H., assignor to The Fish Rubber Company, Chicago, Ill. Mass. Vulcanizer. No. 1,305,474; June 3; v. 263; p. 64.

Lewis, Guy L., Akron, Ohio. Device for breaking, containing, and expanding rims. No. 1,305,684; June 3; v. 263; p. 81.

Lewis, James N., Detroit, Mich. Separable aeroplane and gas-bag. No. 1,305,548; June 10; v. 263; p. 242.

Lewis, Lewis, McAlpin, W. Va. Case for holding and changing bottles. No. 1,305,504; June 10; v. 263; p. 247.

Lewis, Wilfred, Haverford, Pa. Casting chain. No. 1,307,550; June 17; v. 263; p. 520.

Lilly, Ford. (See Wohlgenuth and Lilly.)

Lindacore, Fred. (See Miller, Charles A., assignor.)

Lindell, Fred L., Laporte, Ind. Assignor to G. W. Upton, Warren, Ohio. Fishing-rod. No. 1,305,910; June 3; v. 263; p. 123.

Lindholm, Benjamin, New York, N. Y. Pivot. No. 1,305,615; June 3; v. 263; p. 75.

Lindberg, Marietta, Ocean Grove, N. J. Garment. No. 1,305,911; June 3; v. 263; p. 123.

Lindemann, Herman J., Ann Arbor, Mich. Window-opener. No. 1,304,614; June 3; v. 263; p. 74.

Lindner, Lachar, assignor to W. J. Stewart, London, England. Treatment of sewage or contaminated liquid. No. 1,307,600; June 24; v. 263; p. 532.

Lindquist, Carl O., Sarnow, N. D. Grain-checker. No. 1,304,708; June 17; v. 263; p. 541.

Lindquist, Albert V., Alexandria, Minn. Weedless tobacco. No. 1,305,558; June 10; v. 263; p. 240.

Lindsay Auto Parts Company. (See Henry, John A., assignor.)

Lindsay, Hamilton, Willoughby, Ohio. Locomotive-tycher. No. 1,305,608; June 3; v. 263; p. 81.

Lindsay Light Company. (See Ryan, Louis W., assignor.)

Lind, Frederick J., Falconer, N. Y. Padlock-wheel. No. 1,305,727; June 3; v. 263; p. 94.

Lindtype and Machinery Limited. (See Holbourne, John G., assignor.)

Linn, Joseph P. (See Smith and Linn.)

Linton, James C., Chester, Ill. Alarm and releasing attachment for windows. No. 1,305,708; June 17; v. 263; p. 240.

Little, Julian A. (See Brown, Philip A., assignor.)

Livory, Frank J., et al. (See Brown, Charles, assignor.)

Livens, William H., Hampstead, London, England. Prosthetic. No. 1,305,550; June 10; v. 263; p. 237.

Loch, William C. (See Dreyfus, Alfred, assignor.)

Lockwood, Charles R., Newark, assignor to Harriet Boiler Building Division, United States Corporation, Harrison, N. J. Cap for tubular rolls. No. 1,307,552; June 17; v. 263; p. 442.

Locomotive Stoker Company. (See Lower, Nathan M., assignor.)

Lodge, Lionel. (See Lodge, Oliver J. and L.)

Lodge, Oliver J. and L. Birmingham, England. Re-laid. Constructing of unidirectional high-tension electric cables. No. 1,307,705; June 24; v. 263; p. 529.

Lodge, Oscar, New Brighton, Pa. Tractor. No. 1,305,365; June 3; v. 263; p. 20.

Loe, Multiple Voting Machine Company. (See Lee, Syver, assignor.)

Loe, Syver, assignor to Lee Multiple Voting Machine Company, Minneapolis, Minn. Voting-machine. No. 1,305,604; June 17; v. 263; p. 612.

Loebner, Albert J., assignor to General Fire Extinguisher Company, Providence, R. I. Automatic sprinkler system. No. 1,305,912; June 3; v. 263; p. 120.

Logan, John L., Chicago, Ill. Treating grain. No. 1,307,597; June 24; v. 263; p. 528.

Loisard, Nathaniel, assignor to Holyoke Machine Company, Worcester, Mass. Speed-controlling mechanism. No. 1,305,555; June 3; v. 263; p. 20.

Long, David P., and D. O. Peterson, Portland, Ore. Rotary bearing-support for containers. No. 1,305,208; June 10; v. 263; p. 227.

Long, Edward L., Mayer, Ariz. Refrigerator. No. 1,307,507; June 17; v. 263; p. 442.

Long, George F., New York, N. Y. Bumper for automobile. No. 1,305,922; June 3; v. 263; p. 12.

Long, George H., Waterford, N. Y. Firearm-sight. No. 1,307,512; June 24; v. 263; p. 520.

Long, Hattie E., Nashville, Tenn. Sprinkler-head. No. 1,305,600; June 10; v. 263; p. 75.

Long, James F., San Antonio, Tex. Diving-armor. No. 1,305,608; June 3; v. 263; p. 71.

Long, Sidney L., assignor to A. W. Benson Manufacturing Company, Minneapolis, Minn. Dump-controlling mechanism for trucks. No. 1,305,540; June 10; v. 263; p. 242.

Long, Ulrich O., Los Angeles, Calif. Railway-tie. No. 1,305,616; June 10; v. 263; p. 77.

Lorenz, Ralph M., Meriden, N. H. Hand-truck. No. 1,307,607; June 24; v. 263; p. 532.

Lorenz, Fred H., Chicago, Ill. Assignor of one-half to O. F. Bird, Port Wayne, Ind. Traffic and sign board. No. 1,305,601; June 10; v. 263; p. 76.

Low, George A., San Jose, Calif. Pen-ink. No. 1,307,508; June 17; v. 263; p. 441.

Lovecraft, Fritz, Brooklyn, N. Y. Spark-gap device. No. 1,305,916; June 3; v. 263; p. 117.

Lower, Nathan M., assignor to Locomotive Stoker Company, Schenectady, N. Y. Engine-governor. No. 1,305,507; June 3; v. 263; p. 20.

Labbever, Fritz, assignor to Automatic Electric Company, Chicago, Ill. Semi-automatic telephone-exchange system. No. 1,305,824; June 17; v. 263; p. 362.

Laburg, Charles E. (See Houslin and Laburg.)

Ladlow Typograph Company, The. (See Horix, Carl, assignor.)

Ladwig, Verheide, Ahtolabog. (See Ar, Georg B., assignor.)

Lammie, Charles W., assignor to Morgan Construction Company, Worcester, Mass. Gas-producer. No. 1,305,913; June 3; v. 263; p. 120.

Land, Clemens. (See Muhleisen and Land, assignors.)

Landell, Alben E., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone-exchange system. No. 1,307,657; June 17; v. 263; p. 400.

Landquist, Frank A., New York, N. Y. Assignor to C. L. Redfield, trustee, Chicago, Ill. Automatic telephone-exchange. No. 1,307,600; June 24; v. 263; p. 532.

Landquist, Frank A., assignor to Western Electric Company, Incorporated, New York, N. Y. Telephone system. No. 1,307,606; June 24; v. 263; p. 533.

Laria, Adolfo, Chicago, Ill. Combined fold-out, surgical stretcher, and military knapsack. No. 1,305,586; June 3; v. 263; p. 20.

Laster, Emile J., assignor to The Laster-Jordan Company, Incorporated, Norristown, Pa. Automatic printing-machine. No. 1,305,543; June 10; v. 263; p. 238.

Laster-Jordan Company, The. (See Laster, Emile J., assignor.)

Lath, Joseph O., San Antonio, Tex. Separator for secondary batteries. No. 1,305,607; June 3; v. 263; p. 81.

Lath, Joseph O., San Antonio, Tex. Separator for secondary batteries. No. 1,305,608; June 3; v. 263; p. 82.

Latour, Arnold, Great Bend, Kans. Mail-carrier-discharging gun. No. 1,307,723; June 24; v. 263; p. 570.

Latsky, Mihaly, Detroit, Mich. Heater. No. 1,305,209; June 3; v. 263; p. 12.

Lyden, Richard P. (See Pittman and Lyden, assignors.)

Lyden, Arthur B., Bridgeport, Conn. Flash-light battery. No. 1,307,508; June 24; v. 263; p. 526.

Lyden, Henry G. (See Schmidt and Lyden.)

Lytle, Claude P., Atlanta, Ga. Ventilator. No. 1,305,599; June 3; v. 263; p. 80.

Lytle, William L. (See Vandervoer and Lytle.)

Lyman, James J., Port Huron, Mich. Cargo vessel. No. 1,307,508; June 24; v. 263; p. 526.

Lyons & Healy. (See Kirk, Walter L., assignor.)

Lyons, Leonidas N., Flatonia, Tex. Cultivation of soil. No. 1,305,547; June 10; v. 263; p. 270.

Lyons, Albert J., Milwaukee, Wis. Shipping-tag. No. 1,305,428; June 10; v. 263; p. 200.

Lytle, Harry, Liberal, Mo. Folding chicken-coop. No. 1,305,307; June 10; v. 263; p. 523.

M. D. Knowlton Company. (See De Smith, Henry, assignor.)

M-I Magneto Syndicate Limited, The. (See Watson, Ernest A., assignor.)

M. and M. Concrete and Machinery Company. (See McIntyre, David, assignor.)

Machette, Collis, Birmingham, assignor to The Dunlop Rubber Company, Limited, Westminster, London, England. Vehicle-wheel. No. 1,305,830; June 3; v. 263; p. 111.

Machette-Evans Glass Company. (See Baumann, Christy J., assignor.)

Machet, George P., Elmwood, N. J. Furnace-regulating device. No. 1,305,015; June 10; v. 263; p. 178.

Mack, James O., Houston, Tex. Washer for well-screens. No. 1,305,914; June 3; v. 263; p. 120.

Mack, James O., Houston, Tex. Well-screen. No. 1,305,915; June 3; v. 263; p. 120.

Mackay, William A., Coatesville, N. J. Assignor of one-half to J. O. Fisher, Lewistown, Me. Rendering objects less visible against backgrounds. No. 1,305,206; June 3; v. 263; p. 13.

Mackay, William A., East Orange, N. J. Sectional boiler. No. 1,305,678; June 10; v. 263; p. 872.

Mackey, Joseph L., Fowler, Ill. Folding table. No. 1,307,784; June 24; v. 263; p. 570.

Mackie, Peter H., Marquette, Wash. Pit-driver hammer. No. 1,307,580; June 24; v. 263; p. 528.

MacLean, John P., Hamilton, New South Wales, Australia. Shock-absorber. No. 1,305,916; June 10; v. 263; p. 178.

Macy, John E., administrator. (See Angell, Edwin E., assignor.)

Madern, Chresten T., Oakland, Calif. Combination-tool. No. 1,305,821; June 3; v. 263; p. 111.

Madern, Chresten T., Oakland, Calif. Coffee-pot. No. 1,305,822; June 3; v. 263; p. 112.

Maerly, George B., Kansas City, Mo. Assignor to Stromberg Motor Devices Company, Chicago, Ill. Circuit-breaker for traction systems. No. 1,305,071; June 10; v. 263; p. 180.

Magill, Charles T., San Francisco, Calif. Assignor to Bethlehem Shipbuilding Corporation, Ltd., Bethlehem, Pa. Furnace for annealing condenser-tubes. No. 1,307,744; June 24; v. 263; p. 542.

Maier, Karl F. G., South Ashburnham, Mass. Sanding-machine. No. 1,305,721; June 3; v. 263; p. 95.

Maier, Karl F. G., South Ashburnham, and E. J. McKnight, assignors to L. G. McKnight & Son Company, Gardner, Mass. Sanding-machine. No. 1,305,910; June 3; v. 263; p. 120.

Majmin, Hyman, New York, N. Y., assignor to H. Majmin Co., Inc. Fabric-cutting machine. No. 1,305,490; June 3; v. 263; p. 47.

Mala, Emerson E., Indianapolis, Ind. Spark-plug. No. 1,305,600; June 3; v. 263; p. 82.

Majima, Teijiro, Hyogo-Ken, Japan. Coll. plate. No. 1,307,407; June 24; v. 263; p. 502.

Malcom, Robert, Chicago, Ill. Goggles. No. 1,304,549; June 10; v. 263; p. 279.

Malcom, Robert, Chicago, Ill. Helmet. No. 1,304,550; June 10; v. 263; p. 279.

Malde, Emil, Portland, Oreg. Valve. No. 1,307,915; June 24; v. 263; p. 524.

Mallinowsky, Adolf, Throop, Pa. Coal-mining chute. No. 1,304,704; June 17; v. 263; p. 241.

Malone, Gus, Covina, Calif. Tractor. No. 1,305,481; June 3; v. 263; p. 47.

Malone, Elvi D., and H. E. Hubba, assignors to The Shelby Spring Hinge Company, Shelby, Ohio. Chain-bolt. No. 1,304,555; June 10; v. 263; p. 280.

Maloney, Michael P., et al. (See Leonard, Maloney, and Fandrich.)

Mancha, Raymond, and J. Teipel, assignors to Mancha Storage Battery Locomotive Company, St. Louis, Mo. Storage-battery locomotive. No. 1,304,671; June 10; v. 263; p. 302.

Mancha Storage Battery Locomotive Company. (See Mancha and Teipel, assignors.)

Mangan, James H., New Hampton, Iowa. Railway-crossing signal. No. 1,307,916; June 24; v. 263; p. 504.

Manigault, William F., Brooklyn, N. Y. Slip-crank. No. 1,304,603; June 10; v. 263; p. 289.

Manischewitz, Jacob U., assignor to The B. Manischewitz Company, Cincinnati, Ohio. Weighing and carton-filling device. No. 1,304,167; June 10; v. 263; p. 210.

Mann Corporation. (See Yeomans, Lucien L., assignor.)

Manning, Fred A. (See France, Frank D., assignor.)

Manning, William W., Mountmain, N. Mex. Pipe-hanging means. No. 1,307,505; June 24; v. 263; p. 520.

Manville, Loren E. (See Hohner and Manville.)

Maranhas, Idelfonso L. (See Barille and Maranhas.)

Marceau, Joseph E., Fairbury, Ill. Steering-gear. No. 1,305,297; June 3; v. 263; p. 13.

Marceau, Joseph E., Fairbury, Ill. Steering-gear. No. 1,305,298; June 3; v. 263; p. 13.

Marconi Wireless Company of America. (See Butcher, Elmer E., assignor.)

Marconi Wireless Telegraph Company of America. (See Weagant, Roy A., assignor.)

Marcoux, Alexander J., and R. G. Bray, Sherbrooke, Quebec, Canada. Ventilator. No. 1,304,546; June 17; v. 263; p. 286.

Marcuccilli, Dominico. (See Salchil, John F., assignor.)

Marcus, Henry D., Panama, N. J. Perculator. No. 1,307,745; June 24; v. 263; p. 503.

Marcy, Frank E., Salt Lake City, Utah. Mechanical classifier. No. 1,304,183; June 10; v. 263; p. 210.

Margraff, Arthur, et al. (See Olsen, Edwin O., assignor.)

Margraff, Harvey, et al. (See Olsen, Edwin O., assignor.)

Margraff, Frederick, et al. (See Olsen, Edwin O., assignor.)

Marianych, John, Lanuko, Alberta, Canada. Combined table and bed. No. 1,304,651; June 3; v. 263; p. 82.

Marion Steam Shovel Company, The. (See King and Young, assignors.)

Marks, Charles E., New York, N. Y., assignor to Westinghouse Electric & Manufacturing Company. Electrical regulator. No. 1,304,854; June 17; v. 263; p. 308.

Marqua, Edward C., Kansas City, Mo. Dome for concrete structures. No. 1,305,299; June 3; v. 263; p. 13.

Marsh, Edward S., Rochester, N. Y. Controlling mechanism for talking-machines. No. 1,307,014; June 17; v. 263; p. 280.

Marsh, Thomas A., assignor to Green Engineering Company, East Chicago, Ind. Furnace-stoker. No. 1,305,482; June 3; v. 263; p. 47.

Marshall, Andrew J., Richmond, Tex. Plow. No. 1,307,406; June 24; v. 263; p. 502.

Marshall, Harry R., Long Beach, Calif. Surf-mattress. No. 1,307,525; June 24; v. 263; p. 578.

Marshall, Robert A., assignor to Crompton & Knowles Loom Works, Worcester, Mass. Thread placer and cutter. No. 1,307,018; June 17; v. 263; p. 280.

Marshall, William J., Newark, N. J., assignor to H. Majmin Company, Inc. Cloth-cutting machine. No. 1,307,501; June 24; v. 263; p. 530.

Marsico, Gerard R., Brooklyn, N. Y. Signal. No. 1,304,493; June 10; v. 263; p. 269.

Marsico, Gerard R., Brooklyn, N. Y. Massage device. No. 1,306,917; June 3; v. 263; p. 130.

Martens, Harry E. (See Roswell and Martens.)

Martini, Alfred, and A. Oesch, Erie, Pa. Tool-holder. (Re-issue.) No. 14,064; June 10; v. 263; p. 205.

Martin, Haskon A., assignor to The National Cash Register Company, Dayton, Ohio. Credit-account register. No. 1,307,591; June 24; v. 263; p. 536.

Martin, James V., Detroit, Mich. Aircraft running and alighting device. No. 1,304,768; June 17; v. 263; p. 332.

Martin, Joseph B., Philadelphia, Pa. Safety device to compel proper observance of railway-signals. No. 1,305,391; June 3; v. 263; p. 31.

Martin, Perry B., assignor to Newton Giant Incubator Corporation, Harrisonburg, Va. Automatic egg-turning device. (Re-issue.) No. 14,073; June 24; v. 263; p. 616.

Martin, Talbot G. (See Willis and Martin.)

Martin, Talbot G., assignor to Automatic Electric Company, Chicago, Ill. Automatic telephone switching apparatus. (Re-issue.) No. 14,065; June 10; v. 263; p. 306.

Martin, Talbot G., assignor to Automatic Electric Company, Chicago, Ill. Party-line selective signaling system. No. 1,304,694; June 10; v. 263; p. 289.

Martin, William. (See Clark, William R., assignor.)

Maryland Products Company. (See Chasen, Trevor H., assignor.)

Mario, Giuseppe, Bari, Italy. Platable mfo. No. 1,307,363; June 17; v. 263; p. 442.

Mason, Archibald O., Chicago, Ill. Aluminum alloy. No. 1,304,306; June 3; v. 263; p. 14.

Mason, Joseph J., Rochester, N. Y. Mail-protecting apparatus. No. 1,306,783; June 3; v. 263; p. 65.

Massey, Edward T., New York, N. Y. Remotely-actuated and making it. No. 1,307,570; June 24; v. 263; p. 556.

Massey-Harris Company Limited. (See Johnston, Howard M., assignor.)

Mathias, Thomas H., Buffalo, assignor to Lackawanna Steel Company, Lackawanna, N. Y. Rail. No. 1,304,947; June 17; v. 263; p. 380.

Matson, Albert. (See Stolpe and Matson.)

Matsumura, Yoshio, Minami-Katsushika-Gun, Tokyo, Japan. Apparatus for searching and locating subaqueous matter by way of sweeping. No. 1,305,483; June 3; v. 263; p. 48.

Matteson, Arthur E., Stockton, Calif. Oil-can. No. 1,307,596; June 24; v. 263; p. 550.

Matthews, Charles H., and J. R. Druden, Kane, Meant for splicing and stretching fence-wires. No. 1,307,400; June 24; v. 263; p. 502.

Matthews, Chris, San Pedro, and C. R. Hall, Los Angeles, Calif. Aeroplane. No. 1,307,526; June 24; v. 263; p. 578.

Matthews, Jay E. (See Matthews, Charles H. and J. R.)

Maul, Henry C., assignor to The Michigan Stone Company, Detroit, Mich. Combined coal and gas range. No. 1,304,390; June 10; v. 263; p. 278.

Mauval, Ray. (See Jackson, James R., assignor.)

Max Amm Machine Company, The. (See Hrenninger, Julius, assignor.)

May, Charles L., Houghton, Mich. Soap-holder. No. 1,306,918; June 3; v. 263; p. 130.

May, David T., assignor to Western Electric Company, Incorporated, New York, N. Y. High-potential condenser. No. 1,307,597; June 24; v. 263; p. 531.

May, Harry E., assignor of one-half to H. Hall and one-fourth to W. D. O'Hannon, Seattle, Mo. Light-dimmer. No. 1,307,746; June 24; v. 263; p. 505.

Mayberry, Wilkins H., Kennett, Mo. Hay stacking and curing device. No. 1,306,233; June 3; v. 263; p. 112.

Mayeda, Stenck, New York, N. Y. Ventilator. No. 1,307,449; June 24; v. 263; p. 510.

Mayer, Charles F., Hingham, N. Y., assignor to Rotary Motor Company, Rotary-motor bearing. No. 1,304,824; June 3; v. 263; p. 112.

Mayer, Jacques, Berlin, Germany, assignor to Mergenthaler Linotype Company. Apparatus for automatically operating typographical and other selectively-operated machines. No. 1,304,919; June 17; v. 263; p. 309.

Mayer, Walter S. (See Downes and Mayer.)

Maynard, Basil A., and P. Standish, Whittier, Calif. Furnace. No. 1,304,617; June 10; v. 263; p. 178.

McAfee, Daniel B., New York, N. Y., assignor to The Dorr Company. Treating fine ores. No. 1,305,317; June 3; v. 263; p. 111.

McAnally, Samuel G., Hall, Quebec, Canada. Manufacture of bricks and furnace-linings from dead-burned magnesite. No. 1,304,478; June 3; v. 263; p. 49.

McArdle, Fred W., Boston, Mass. Furniture. No. 1,304,368; June 10; v. 263; p. 228.

McCaffrey, Harry J., and R. J. Roberts, Dallas, Tex. Brake-band clasher. No. 1,307,913; June 17; v. 263; p. 286.

McCarren, Joseph O., Rockford, Ill. Pot for use in annealing and carburizing metal. No. 1,304,991; June 10; v. 263; p. 288.

McCarthy, Daniel P., Paris, Ill. Voting-machine. No. 1,307,518; June 24; v. 263; p. 504.

McCarthy, Florence, assignor of one-half to J. Wile, New York, N. Y. Apparatus for enveloping mailing-matter. No. 1,304,290; June 3; v. 263; p. 39.

McCarty, William H., Chicago, Ill. Gate-closer. No. 1,306,690; June 3; v. 263; p. 82.

McCauley, Edward J., Philadelphia, Pa. Roller-supporting device. No. 1,304,125; June 10; v. 263; p. 304.

McClatchey, J. M. (See Cheney, Fred, assignor.)

McCollum, Earl E., Downers Grove, Ill. Internal-combustion engine. No. 1,304,728; June 3; v. 263; p. 64.

McCombs, George A., assignor to The Hartford Automatic Parts Company, Hartford, Conn. Universal joint. No. 1,307,743; June 24; v. 263; p. 556.

McConway & Torley Company, The. (See Baboup, Harry C., assignor.)

McConway & Torley Company, The. (See Koles, Joseph, assignor.)

McCorr, Arthur W., Washington, D. C. Soap-dispenser. No. 1,304,476; June 3; v. 263; p. 46.

McCorr, Charles J., Merrill, Wis. Spring-wheel. No. 1,304,588; June 3; v. 263; p. 62.

McCorr and Company. (See Schlect, William J., assignor.)

McDonald, Ervan L., Salt Lake City, Utah. Method of and apparatus for making electrical measurements. No. 1,304,699; June 10; v. 263; p. 188.

McElroy, Robert L. (See Arnold, Fred L., assignor.)

McEwen, Fred H., assignor to R. H. Goldberg, Chicago, Ill. Retreading tire. No. 1,304,602; June 10; v. 263; p. 289.

McFarland, John, assignor of one-half to C. M. Nixon, New York, N. Y. Cooking utensil. No. 1,305,519; June 3; v. 263; p. 111.

McGath, Hugh F., Philadelphia, Pa. Nut-lock. No. 1,304,739; June 3; v. 263; p. 94.

McGath, John T., Bloomington, Ill. Walking-chair. No. 1,307,648; June 17; v. 263; p. 464.

McGraw Tire & Rubber Company, The. (See Bundy, Elmer J., assignor.)

McGraw, Herman C., Salt Lake City, Utah. Cushion-support. No. 1,304,363; June 10; v. 263; p. 235.

McGriff, Thomas C., assignor of one-fourth to W. J. Kelly and one-fourth to F. L. Kelly, Winemucca, Nev. Wheel. No. 1,304,730; June 3; v. 263; p. 94.

McHenry, Samuel B., Bloomington, Pa. Broom-manufacturing machine. No. 1,304,307; June 10; v. 263; p. 230.

McHenry, Samuel B., Bloomington, Pa. Brush. No. 1,304,308; June 10; v. 263; p. 235.

McIlvina, William B., Manchester, N. H. Pencil extension. No. 1,305,477; June 3; v. 263; p. 47.

McIntire, Bartolomew, San Francisco, Calif. Excavating-machine. No. 1,304,350; June 10; v. 263; p. 243.

McIntire, Bartolomew, San Francisco, Calif. Reciprocating mechanism. No. 1,304,351; June 10; v. 263; p. 243.

McIntyre, David, assignor to M. and M. Concrete and Machine Company, Cleveland, Ohio. Building-tile. No. 1,305,294; June 3; v. 263; p. 13.

McIntyre, John J., and C. Kessler, Hartford, Conn. Automatic rough-ball grinder. No. 1,304,707; June 17; v. 263; p. 302.

McKay, Clarence H., Reading, Mass. Incandescent electric lamp. No. 1,305,295; June 3; v. 263; p. 13.

McKay Company, The. (See McKay, Stewart R., assignor.)

McKay Concrete Form Company. (See McKay, Stewart R., assignor.)

McKay, John A., Toronto, Ontario, Canada. Electric-riding connection. No. 1,307,000; June 24; v. 263; p. 504.

McKay, Stewart R., Cleveland, Ohio, assignor to McKay Concrete Form Company, Severn, N. J. Concrete-form. No. 1,306,884; June 10; v. 263; p. 249.

McKay, Stewart R., assignor to The McKay Company, Cleveland, Ohio. Demonstrable rim for vehicle-wheels. No. 1,304,623; June 17; v. 263; p. 293.

McKay, Stewart R., Cleveland, Ohio, assignor to McKay Concrete Form Company, Severn, N. J. Concrete-form. No. 1,307,368; June 24; v. 263; p. 495.

McKewitt, Frank B. (See Wood, William G., assignor.)

McKibben, Charles W., Houston, Tex. Telegraph-repeater. No. 1,307,585; June 24; v. 263; p. 506.

McKibben, Winifred P., Adams, Ohio. Rail-tie. No. 1,304,646; June 17; v. 263; p. 309.

McKnight, Elliott J. (See Baker and McKnight.)

McKnight, Robert, Pittsburgh, Pa. Making compounds of the rare metals. No. 1,304,070; June 10; v. 263; p. 126.

McKnight, Thomas R., assignor to Western Wheelbarrow Company, Aurora, Ill. Vehicle-axle. No. 1,304,115; June 10; v. 263; p. 197.

McLain, Robert H., and J. Bates, Schenectady, N. Y., assignors to General Electric Company. Motor-control system. No. 1,304,443; June 10; v. 263; p. 279.

McLaughlin, Carolina, St. Louis, Mo. Draft-yoke for cars and cattle. No. 1,307,914; June 24; v. 263; p. 584.

McLaughlin, Ewart, Oshawa, Ontario, Canada. Socket for automobile-curtain rods. No. 1,306,478; June 3; v. 263; p. 47.

McLukin, Robert G., Portland, Oreg. Tire for vehicle-wheels. No. 1,304,519; June 3; v. 263; p. 111.

McMasters, Donald J. (See Charland, Ernest, assignor.)

McMasters, John F., Danbury, Conn. Antiskid attachment for automobiles. No. 1,306,285; June 10; v. 263; p. 240.

McMurry, Henry R., Toronto, Ontario, Canada. Regulator. No. 1,307,586; June 24; v. 263; p. 506.

McMurry, Forrest, Milwaukee, Wis. Self-propelled territorial torpedo. No. 1,307,668; June 24; v. 263; p. 562.

McMurry, Stephen D. (See Smith, McMurphy, and Thompson.)

McPherson, Alexander, Windsor, Nova Scotia, assignor of one-half to W. O'Neil, St. John, New Brunswick, Canada. Tree-mowing machine. No. 1,305,479; June 3; v. 263; p. 47.

McQuay, John P., Kansas City, Mo. Traveler's check. No. 1,307,440; June 24; v. 263; p. 550.

Mead, Francis. (See Dallas and Mead.)

Mechlin, Edgar T., Berkeley, and F. R. Booth, San Francisco, Calif. Steam-cooker. No. 1,307,503; June 24; v. 263; p. 521.

Megala Company. (See Sinclair, John J., assignor.)

Meigs, Joseph V. (See Forrest and Meigs.)

Melanson, Philip P., Moncton, New Brunswick, Canada. Roof-bracket. No. 1,304,434; June 10; v. 263; p. 258.

Meicher, Lee W., assignor to La Crosse Tractor Co., La Crosse, Wis. Lubricating device for engines. No. 1,307,504; June 17; v. 263; p. 431.

Mellinger, Edward A., Chicago, Ill. Automatic telephone system. No. 1,304,339; June 17; v. 263; p. 263.

Mellinger, Edward F., Canton, Ohio. Kettle-lid. No. 1,304,625; June 3; v. 263; p. 112.

Melville Clark Piano Company. (See Clark, Melville, assignor.)

Melvin, Charles H., assignor to Deere & Company, Moline, Ill. Plow. No. 1,304,705; June 17; v. 263; p. 341.

Mendenhall, Parilla C., Farmland, Ind. Fender for seeders and planters. No. 1,305,536; June 3; v. 263; p. 112.

Mercer, Alfonso, Sr., Occoan, Norfolk, Va.; W. W. Mercer, administrator. Firearm. No. 1,306,017; June 24; v. 263; p. 614.

Mercer, W. W., administrator. (See Mercer, Alfonso, Sr.)

Mergenthaler Linotype Company. (See Kennedy, David R., assignor.)

Mergenthaler Linotype Company. (See Mayer, Jacques, assignor.)

Merrill, Barn B., Schenectady, N. Y., assignor to General Electric Company. Electric switch. No. 1,306,551; June 10; v. 263; p. 279.

Merritt, Benjamin F., East Orange, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Speed-control governor. No. 1,304,073; June 10; v. 263; p. 188.

Merritt, Henry. (See Bailey, Frederick T., assignor.)

Mertens, Louis E., Oiler, Mich. Clothes-pin. No. 1,304,073; June 10; v. 263; p. 180.

Messersmith, Orris A., Farmington, N. H. Disk-holder. No. 1,304,990; June 17; v. 263; p. 389.

Messiter, Edwin H., Brooklyn, assignor to Electric Weighing Company, New York, N. Y. Integrating mechanism. No. 1,307,300; June 24; v. 263; p. 495.

Metals Disintegrating Company. (See Hall, Everett J., assignor.)

Metcalfe, Cecil B. (See Quintile and Metcalfe.)

Metropolitan Electric Manufacturing Company. (See Johnston, Andrew L., Jr., assignor.)

Mettin, John F., Philadelphia, Pa. assignor to The William Crump & Sons Ship & Engine Building Company. Making turbine-nozzle structures. No. 1,307,783; June 24; v. 263; p. 571.

Metz, Abraham L., and G. O. Bergeron, New Orleans, La. Carbon-remover. No. 1,307,582; June 24; v. 263; p. 500.

Metzner, Irvin I., Stockton, Calif. Oil-cooling system for explosive-engines. No. 1,307,016; June 17; v. 263; p. 286.

Meyer, William. (See Sonderregger, Leo, assignor.)

Meyer, Frederick, Boardley Park, Conn. Wind-shield leader. No. 1,305,919; June 3; v. 263; p. 120.

Meyers, Otto, Watts, Calif. Fuel and mixing the same. No. 1,304,592; June 3; v. 263; p. 81.

Michael, W. J., et al. (See Dickinson, Raymond L., assignor.)

Michelson, Albert A., Chicago, Ill. Optical telemeter. No. 1,305,293; June 3; v. 263; p. 13.

Michigan Stone Company, The. (See Maul, Henry C., assignor.)

Middle, Gabriel. (See Pittman and Middle.)

Middleton, Leif. (See Sager and Middleton.)

Middley, Albert H., assignor of one-half to C. A. Vandervell, Acton Vale, England. Variable-speed dynamo-electric machine. No. 1,307,009; June 17; v. 263; p. 413.

Midgley, Arthur M., Sutton-in-Craven, near Keighley, and A. Sunderland, Keighley, England. Cutter for helical wheel-teeth. No. 1,307,633; June 24; v. 263; p. 543.

Mihalyi, Joseph, assignor to Crown Optical Company, Rochester, N. Y. Telemeter. No. 1,307,305; June 17; v. 263; p. 481.

Miles, Joseph. (See Taylor, Miles, and Burden.)

Miles, Thomas V. (See Elvth and Miles.)

Millard, Thomas Z., B. H. Osterhout, and C. E. Cheney, Bloomfield, Iowa. Gearless transmission and differential mechanism. No. 1,307,917; June 24; v. 263; p. 585.

Miles, Thomas D., Springfield, Mass. Valve-cap for automobile-tires. No. 1,304,495; June 10; v. 263; p. 269.

Miller, Andrew R., Northwood, N. D. End-gate. No. 1,305,920; June 3; v. 263; p. 120.

Miller, Charles E., Collinsville, Tex. Grease-dispensing pump. No. 1,306,937; June 3; v. 263; p. 118.

Miller, David M., Brooklyn, N. Y. Game apparatus. No. 1,307,571; June 24; v. 263; p. 506.

Miller, Edgar L., Guzman, Colo. Punch. No. 1,304,920; June 17; v. 263; p. 281.

Miller, Edwin L., Kansas City, Mo. Gas-generating off-burner. No. 1,307,206; June 17; v. 263; p. 482.

Miller, Frank E., New York, N. Y. Ear-protector. No. 1,305,528; June 3; v. 263; p. 113.

Miller, John M., assignor to H. Walker, Sewickley, Pa. Liquid storage and delivery apparatus. No. 1,307,887; June 24; v. 263; p. 578.

Miller, John M., assignor to H. Walker, Sewickley, Pa. Liquid storage and delivery apparatus. No. 1,307,888; June 24; v. 263; p. 578.

Miller, John M., assignor to H. Walker, Sewickley, Pa. Liquid storage and delivery apparatus. No. 1,307,889; June 24; v. 263; p. 579.

Miller, Joseph W., assignor of one-fourth to W. P. Neg, one-fourth to F. E. Smith, and one-fourth to J. C. Vaughan, Miami, Okla. Ore-separating machine. No. 1,306,270; June 10; v. 263; p. 228.

Miller Pasteurizing Machine Company, Inc. (See Plets, Leroy E., assignor.)

Miller, Peter J. N. (See Wingler, Ernest C., assignor.)

Miller, Robert H., assignor to Detroit Stove Works, Detroit, Mich. Stove construction. No. 1,305,884; June 3; v. 263; p. 31.

Miller, Robert P., and C. J. Bremer, St. Louis, Mo.; and Miller assignor to said Bremer. Brush. No. 1,306,733; June 3; v. 263; p. 85.

Miller, William E., Providence, assignor to Gilling Waltham Amusement Co., Pawtucket, R. I. Amusement device. No. 1,306,706; June 17; v. 263; p. 841.

Miller, William E., Elizabeth, N. J. Rim and tire. No. 1,307,372; June 24; v. 263; p. 586.

Milne, Lillie A., Fresno, Calif. Preservative for leather and leather substitutes. No. 1,307,080; June 17; v. 263; p. 400.

Milwaukee Corrugating Company. (See Kucha, Louis, assignor.)

Mims, Norman M., Seville, Fla. Cloth-pin-making machine. No. 1,306,921; June 3; v. 263; p. 121.

Minor, Charles A., assignor to Lincolnton Top Co., Kalamazoo, Mich. Vehicle-body. No. 1,307,707; June 24; v. 263; p. 571.

Minor, William H. (See O'Connor, John P., assignor.)

Minor, William H., Chazy, N. Y. Friction-gear. No. 1,307,303; June 17; v. 263; p. 480.

Mink, Conrad, Helgate, Ohio. Fruit-stemmer. No. 1,305,390; June 3; v. 263; p. 31.

Minnich, Mary C. (See Minnich, Simon B., assignor.)

Minnich, Simon B., assignor to M. C. Minnich, Landisville, Pa. Tobacco-press. No. 1,306,604; June 10; v. 263; p. 280.

Minorsky, Nicolai, Petrograd, Russia, assignor to The Sperry Gyroscope Company, Brooklyn, N. Y. Gyrometer. No. 1,306,532; June 10; v. 263; p. 279.

Minty, Alexander T., Brandon, Manitoba, Canada. Harrow-cart. No. 1,306,352; June 10; v. 263; p. 243.

Mitchell, Alexander, Pueblo, Colo. Flow. No. 1,307,918; June 24; v. 263; p. 585.

Mitchell, Henry J. (See Ford and Mitchell.)

Mitchell, James W., Lubec, Me., assignor to Crosby Steam Gate & Valve Company, Boston, Mass. Fluid-pressure-actuated valve. No. 1,307,307; June 17; v. 263; p. 432.

Mitro, George, Darby, Pa. Vehicle-wheel. No. 1,306,921; June 17; v. 263; p. 351.

Mittag, Frank O., Park Ridge, N. J. Boat. No. 1,307,573; June 24; v. 263; p. 587.

Mix, Ruth. (See Moravich, Max, assignor.)

Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,306,686; June 10; v. 263; p. 280.

Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,307,384; June 17; v. 263; p. 448.

Mohr, William H., West Philadelphia, Pa. Hat-pin head. No. 1,306,970; June 17; v. 263; p. 280.

Mohr, Peter, assignor to Standard Gas Engine Company, The, Oakland, Calif. Internal-combustion engine. No. 1,306,494; June 10; v. 263; p. 270.

Mohr, John L., Brooklyn, N. Y., and H. R. Stafford, Philadelphia, N. J. Lateral-thrust bearing for railway-axles. No. 1,306,387; June 10; v. 263; p. 250.

Moline Plov Company. (See Cass Henry J., assignor.)

Moline Plov Company. (See Trolley, Isaac, assignor.)

Moller, Hilding, assignor to F. W. Perry, Yonkers, N. Y. Bracket. No. 1,306,923; June 3; v. 263; p. 121.

Monk, Leroy C., Glenville, N. Y. Spark-plug. No. 1,306,924; June 3; v. 263; p. 121.

Monk, Leroy C., Glenville, N. Y. Fire-shovel. No. 1,307,305; June 17; v. 263; p. 443.

Monroe, Albert M., Taft, Calif. Slip-socket. No. 1,306,407; June 10; v. 263; p. 270.

Monroe Calculating Machine Company. (See Monroe, Jay R., assignor.)

Monroe, Jay R., assignor to Monroe Calculating Machine Company, New York, N. Y. Calculating-machine. No. 1,306,606; June 10; v. 263; p. 280.

Monson, Adolph, Chicago, Ill., assignor of one-half to N. Van Zandt, Logansport, Ind. Torison-rod for motor-vehicles. No. 1,307,137; June 17; v. 263; p. 429.

Monson, Adolph, assignor of one-half to N. Van Zandt, Logansport, Ind. Fuel-tank and means for supporting it. No. 1,307,138; June 17; v. 263; p. 429.

Montague, Frank. (See Rythier and Montague.)

Montgomery, James H., Butte, Mont. Gravel-discharging apparatus. No. 1,306,007; June 10; v. 263; p. 230.

Moore, Albert T., Columbus, Ohio. Fish-hook. No. 1,307,411; June 24; v. 263; p. 583.

Moore, Charles A., Kinney, Minn. Sawing-machine. No. 1,307,304; June 17; v. 263; p. 450.

Moore, Edwin E., assignor of one-half to M. De Maize, Middletown, Ohio. Trolley for electric railway. No. 1,306,680; June 10; v. 263; p. 280.

Moore, Harry G., Philadelphia, Pa. Band for vehicle-body. No. 1,306,680; June 10; v. 263; p. 280.

Moore, Hugh E. (See Hanson and Moore.)

Moore, John W. (See Nelson and Moore.)

Moore, Robert A., Detroit, Mich. Surface-cutting apparatus. No. 1,306,680; June 17; v. 263; p. 280.

Moore, Thomas F., Westfield, N. J. Trimming apparatus. No. 1,306,680; June 3; v. 263; p. 21.

Moore, Walter W., et al. (See Amberg, Thomas E., assignor.)

Moore, William J., Philadelphia, N. J., assignor to C. N. Thoma, A. M. Watkins, W. E. Bayley, and W. J. Moore. Self-propelled floor-planer. No. 1,306,734; June 3; v. 263; p. 84.

Moore, William W. (See Cobb and Moore.)

Moran, John P., Jersey City, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Signaling system. No. 1,306,074; June 10; v. 263; p. 188.

Morison, Charles W., Portland, Ore. Compressive-shortening of reversely-bent material. No. 1,307,139; June 17; v. 263; p. 429.

Morison, Jean A., Paris, France. Spark-plug. No. 1,306,271; June 10; v. 263; p. 228.

Moran, Swan E., Newark, Minn. Briquet-machine. No. 1,306,280; June 10; v. 263; p. 228.

Morgan Construction Company. (See Lemm, Charles W., assignor.)

Morgan & Wright. (See Hart, Homer J., assignor.)

Morgan, Charles, assignor to Arundo Manufacturing Company, Freeport, Ill. Grinding-mill. No. 1,306,810; June 10; v. 263; p. 280.

Morgans, Floyd W., Middletown, N. Y. Printer's furniture. No. 1,307,140; June 17; v. 263; p. 429.

Morh, Harry S., Brookline, Mass., assignor, by name assignments, to American La France Fire Engine Company, Inc., Boston, N. Y. Fire-extinguisher composition. No. 1,306,707; June 17; v. 263; p. 342.

Morh, Harry S., Brookline, Mass., assignor, by name assignments, to American La France Fire Engine Company, Inc., Boston, N. Y. Fire-extinguisher composition. No. 1,306,708; June 17; v. 263; p. 342.

Morh, Harry S., Brookline, Mass., assignor, by name assignments, to American La France Fire Engine Company, Inc., Boston, N. Y. Fire-extinguisher composition. No. 1,306,709; June 17; v. 263; p. 342.

Morris, Charles W., Toledo, Ohio. Saw-plow. No. 1,307,410; June 24; v. 263; p. 583.

Morris, Harold E., Glendale, Calif. Making materials for covering furniture. No. 1,306,910; June 20; v. 263; p. 228.

Morris, Melton, Hammar, Ala. Thrust-bearing. No. 1,307,000; June 24; v. 263; p. 581.

Morris, Patricia P., Boston, Mass. Circuit-closer for signal devices. No. 1,307,100; June 17; v. 263; p. 412.

Morris, Pratt C., assignor of one-half to C. W. Cooper, Thomsville, Ga. Self-clearing and retarding device for automobiles and the like. No. 1,306,823; June 3; v. 263; p. 121.

Morris, William L., Chicago, Ill. Oil-chaffing system and apparatus. No. 1,306,735; June 3; v. 263; p. 84.

Morrison, John, Jr., Glens Falls, N. Y. Shoe-brush set. No. 1,307,000; June 17; v. 263; p. 400.

Morrison, William D., Denver, Colo. Wrench. No. 1,306,453; June 10; v. 263; p. 280.

Morse, Frank L., Ithaca, N. Y. Lawn-sprinkler. No. 1,307,034; June 24; v. 263; p. 543.

Morse, Robert V., Ithaca, N. Y. Sight-controlling apparatus for anti-aircraft guns. No. 1,306,811; June 10; v. 263; p. 280.

Morton, Harry R., Boston, Mass. Valve. No. 1,307,430; June 24; v. 263; p. 583.

Moses, Alvin, Norfolk, Va. Ice-charging machine. No. 1,306,404; June 3; v. 263; p. 270.

Moses, Edmund Q., New York, N. Y., assignor of one-half to W. P. Hammond, Pennic, N. J. Vehicle-seat. No. 1,306,406; June 10; v. 263; p. 270.

Moses, Frank D., Truett, N. J. Apparatus for making hydrogen. No. 1,306,821; June 17; v. 263; p. 400.

Moss, William E., Watertown, Mass. Dynamoelectric machine. No. 1,306,618; June 10; v. 263; p. 170.

Moss, William E., Watertown, Mass. Ignition apparatus. No. 1,306,116; June 10; v. 263; p. 107.

Moss, Albert A., Newark, N. J. Wrench. No. 1,307,302; June 24; v. 263; p. 443.

Motac-Compressor Company, The. (See Spahr, Gregory J., assignor.)

Motta, Charles M., Paris, France. Driving and steering wheel. No. 1,306,664; June 10; v. 263; p. 280.

Movshovich, Max, assignor of one-half to E. Miny, New York, N. Y. Tool-holder. No. 1,307,017; June 17; v. 263; p. 384.

Mowbr, Walter U., Kingston, and A. T. Pether, Mottard, Mass.; and Palmer assignor to said Mowbr. Sheet-metal turner. No. 1,306,280; June 3; v. 263; p. 118.

Moynihan, Roger J., San Francisco, Calif. Reservoir-bucket. No. 1,307,747; June 24; v. 263; p. 584.

Mudd, Thomas O., Laredo, Tex. Side-belt. No. 1,306,880; June 3; v. 263; p. 111.

Muehler, Robert H., Decatur, Ill. Relief-valve. No. 1,306,618; June 3; v. 263; p. 78.

Muhleisen, Henry W., and C. Land, said Muhleisen assignor to W. H. Bush, Los Angeles, Calif. Timer. No. 1,306,550; June 3; v. 263; p. 62.

Muhleisen, John R. (See Stafford, Hal R., assignor.)

Mullen, Robert T., and J. W. Moore, Detroit, Mich. Wall-hanger for radiators. No. 1,306,273; June 10; v. 263; p. 228.

Muller, Emil, Basel, Switzerland, assignor to The Hoffmann-La Roche Chemical Works, New York, N. Y. Synthetically producing tropic acid. No. 1,306,501; June 3; v. 263; p. 14.

Mulligan, Francis M., assignor of one-fourth to J. A. Haley, Beaumont, Mont. Washing-machine. No. 1,307,010; June 24; v. 263; p. 583.

Mumford, Edgar H., deceased; E. A. Mumford, executrix. Philadelphia, N. J. Molding-machine. No. 1,306,878; June 10; v. 263; p. 188.

Mumford Molding Machine Company. (See Gates, Philadelphia W., assignor.)

Mumford, Rose A., executrix. (See Mumford, Edgar H.)

Mummet, Harvey C., Floral Park, N. Y. Button. No. 1,306,923; June 17; v. 263; p. 429.

Munger, James V., Portland, N. Y. Universal driving-joint. No. 1,306,302; June 3; v. 263; p. 14.

Muskers, James C., Falls City, Ore. Saw-carrying device. No. 1,306,551; June 3; v. 263; p. 111.

Munro, Fred C. (See Canning and Munro.)

Munro, William E., London, England. Tire for vehicle. No. 1,307,268; June 17; v. 263; p. 432.

Murdoch, Chester B., Bensenville, Ill. Valve-operating mechanism for engines. No. 1,306,207; June 3; v. 263; p. 82.

Murphy, Edwin J., Schenectady, N. Y., assignor to General Electric Company. Electromagnetic switch. No. 1,306,635; June 10; v. 263; p. 280.

Murphy, John, Hartford City, Ind., assignor to Window Glass Machine Company, Pittsburgh, Pa. Splitting-back for glass cylinders. No. 1,307,300; June 17; v. 263; p. 442.

Murphy, William L., assignor to Dewey Davenport Company, San Francisco, Calif. Scoop-bowl. No. 1,306,882; June 3; v. 263; p. 111.

Murray, Andrew P., Toledo, Ohio. Pasteurization apparatus. No. 1,307,000; June 24; v. 263; p. 583.

Murray, William A., and C. E. Putnam, Chisholm, Me. Valve. No. 1,306,120; June 10; v. 263; p. 264.

Muschenheim, Frederick A., and F. W. Chadale, New York, N. Y. Room-rack for bottles and the like. No. 1,307,593; June 24; v. 263; p. 583.

Myers, Clyde J., assignor to Swartz Electric Company, Indianapolis, Ind. Electric-current-changing means. No. 1,306,923; June 17; v. 263; p. 429.

Myers, Cornelius T., Detroit, Mich. Lubricating means for universal joints. No. 1,306,220; June 10; v. 263; p. 210.

Myers, Lewis C., Brooklyn, assignor to Royal Typewriter Company, Inc., New York, N. Y. Tabulating mechanism for type-writing machines. No. 1,306,823; June 17; v. 263; p. 344.

Myers, Morton H., and M. A. J. Harper, New York, N. Y. Cinematograph-machine. No. 1,307,984; June 24; v. 263; p. 583.

Nagelsch, Hans, Great Falls, Mont. Nest-box for hens. No. 1,306,780; June 3; v. 263; p. 78.

Nail, Edith A., executrix. (See Nail, Edward.)

Nail, Edward, deceased; E. A. Nail, executrix, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio. Method and machine for manufacture of asbestos gas-beds. No. 1,307,780; June 24; v. 263; p. 571.

Nail, Pamela, New Kensington, Pa. Milk-receptacle. No. 1,306,971; June 17; v. 263; p. 280.

National Auto Whelan Corporation. (See Phillips, Michael, assignor.)

National Brass Co. (See Byr, Harold, assignor.)

National Carbon Company. (See Hinchley, Arthur T., assignor.)

National Cash Register Company, The. (See Martin, Thomas A., assignor.)

National Cash Register Company, The. (See Sherr, Frances, assignor.)

National Metal Seal Corporation. (See Stone, William F., assignor.)

National Paper Products Co. (See Bartlett, George H., assignor.)

National Ring Traveler Co. (See Rohland, Curt J., assignor.)

National Safety Appliance Company, The. (See Levin, Walter E., assignor.)

Naylor, James, Arlington, N. J. Steam-condenser. No. 1,306,278; June 10; v. 263; p. 228.

Near, Walter V. (See Kupper and Near.)

Near, Samuel L., Lancaster, Kans. Signal-operating and cushion-providing apparatus. No. 1,306,823; June 17; v. 263; p. 344.

Neff, George W. E., and E. A. Jenkins, Sandy, Utah. Composition for the manufacture of dry cells. No. 1,306,880; June 3; v. 263; p. 111.

Neff, Robert C., Brooklyn, assignor to C. F. Baker, New York, N. Y. Bee-making machine. No. 1,306,880; June 3; v. 263; p. 111.

Neff, William P., et al. (See Miller, Joseph W., assignor.)

Negrescu, John, Chicago, Ill. Clutch. No. 1,307,830; June 24; v. 263; p. 578.

Nelson, Charles G., Chicago, Ill. Hoe-band. No. 1,306,787; June 3; v. 263; p. 80.

Nelson, Charles A., Utica, N. Y., assignor to Savage Arms Corporation. Machine-gun-magazine filler. No. 1,306,919; June 10; v. 263; p. 170.

Nelson, Charles A., Utica, N. Y., assignor to Savage Arms Corporation. Cartridge-magazine for firearms. No. 1,306,920; June 17; v. 263; p. 280.

Nelson, Gustaf T., assignor of one-half to O. R. Tam, Orange, Tex. Shaft-coupling. No. 1,306,555; June 3; v. 263; p. 121.

Nelson, John, Newton, Iowa. Gearing for washing-machines. No. 1,307,101; June 17; v. 263; p. 412.

Nelson, John A., Sioux Falls, S. D. Air-mechanism and dust-collector. No. 1,306,926; June 3; v. 263; p. 182.

Nelson, John T., Berclair, Minn., assignor of one-fourth to J. L. Lacy, Greenwood, Minn. Fireplace-lining. No. 1,306,412; June 10; v. 263; p. 291.

Nelson, Neil K., Lath, Minn., Iowa. End-gate fastener. No. 1,306,117; June 10; v. 263; p. 107.

Nelson, Victor E., Detroit, Mich. Tractor-wheel. No. 1,306,882; June 3; v. 263; p. 14.

Nelson, William V. (See Van Loon, Earl H., assignor.)

Ness, Arthur R. (See Compton, Ness, Gauswitz, and Green.)

Nestall, Raymond J., assignor to International Precipitation Company, Los Angeles, Calif. Utilization of cement-buff dust. No. 1,307,930; June 24; v. 263; p. 585.

Nester Manufacturing Company. (See Cumner and Golebush, assignors.)

Nesher, Richard J., Cleveland, Ohio. Paper-feeding machine. No. 1,306,880; June 3; v. 263; p. 111.

Nevins, Herbert R., Hartford, Conn., assignor to Nevins-Wallace Train Control Company. Train-stop mechanism. No. 1,306,733; June 3; v. 263; p. 87.

Nevins-Wallace Train Control Company. (See Nevins, Herbert R., assignor.)

Nevins-Wallace Train Control Company. (See Wallace, Lewis R., assignor.)

New American Ore Concentrator Company. (See Straton, Nathaniel A., assignor.)

New Jersey Optical Co. (See Scaries, Wayne S., assignor.)

New York Stamping Company. (See Rogers and Cogrove, assignors.)

Newbury, Frank D., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of load distribution for synchronous-type frequency-changers. No. 1,306,550; June 10; v. 263; p. 280.

Newcomb, Robert E., Holyoke, Mass. Fluid-pump. No. 1,307,210; June 17; v. 263; p. 432.

Newton, William P., Buchanan, W. Va. Garment-retractor. No. 1,307,211; June 17; v. 263; p. 432.

Newman, Clark A., New York, N. Y. Automatic gun. No. 1,307,004; June 24; v. 263; p. 583.

Newman, Linwood J. H., Burke, Va. Gate-latch. No. 1,307,780; June 24; v. 263; p. 571.

Newmont Company. (See Bacon, Raymond F., assignor.)

Newquist, Harvey R., Waukegan, Neb. Electrically-operated signal for mail-boxes. No. 1,307,305; June 17; v. 263; p. 443.

Newton, Richard T., New York, N. Y. Radiator-indicator. No. 1,306,557; June 10; v. 263; p. 280.

Newton, Richard T., New York, N. Y. Shock-absorber. No. 1,306,558; June 10; v. 263; p. 280.

Newton Giant Incubator Corporation. (See Martin, Perry S., assignor.)

Nichols Copper Company. (See Ferguson, William C., assignor.)

Nichols, James A., Atlanta, Ga. Steam-beller. No. 1,306,613; June 10; v. 263; p. 291.

Nichols, Thomas M., Ashland, Ky. Crane. No. 1,307,412; June 24; v. 263; p. 583.

Nicolson, Alexander M., New York, N. Y., assignor, by name assignments, to Western Electric Company, Incorporated. Thermic translating device. No. 1,307,510; June 24; v. 263; p. 521.

Nichols, Alexander M., assignor to Western Electric Company, Incorporated, New York, N. Y. Electric-wave-repeating apparatus. No. 1,307,511; June 24; v. 263; p. 521.

Nichols, Ernest, Brooklyn, N. Y. Diving-armor. No. 1,307,921; June 24; v. 263; p. 583.

Nick, Magnus, Stockholm, Sweden. Photographic camera. No. 1,307,512; June 24; v. 263; p. 521.

Nielson, Harold, Stratham, London, England. Filling material for absorption, reaction, mixing, and cooling towers. No. 1,307,285; June 24; v. 263; p. 542.

Nielson, Niels D., Myria, Ohio. Fluid-agitating mechanism. No. 1,307,505; June 24; v. 263; p. 520.

Nichols, Frank W., Quincy, Mass. Awning-guard. No. 1,307,000; June 24; v. 263; p. 521.

Niles, Gustaf E., New York, N. Y. Wrench. No. 1,306,600; June 10; v. 263; p. 280.

Ninan, Charles M. (See McFarland, John, assignor.)

Nobel's Explosives Company Limited. (See Binsted and Cross, assignors.)

Nomland, Samuel E., Porter, Minn. Tool. No. 1,307,018; June 17; v. 263; p. 388.

Oberkirch, Frank. (See Ashley, Robert W., assignor.)
Ochs, Henry L., Kansas City, Mo. Vehicle-circ. No. 1,307,706; June 17: v. 263: p. 562.
Ochs, Elmer H., Waynesboro, Pa. Vehicle-spring. No. 1,307,506; June 24: v. 263: p. 558.
Ochlik, Bertha M. (See Ochlik, Frederick H., assignor.)
Ochlik, Frederick H., Geneseo; L. A. Fenn, chemist, Ridgeville, assignor to R. M. Ochlik, West Dover, Ohio. Furnace. No. 1,307,571; June 24: v. 263: p. 490.
Oesch, Alfred. (See Marti and Oesch.) (Romania.)
Olsen, Jacob, Rotterdam, Netherlands. Cooking-stove. No. 1,306,430; June 10: v. 263: p. 320.
Olsen, Carl, Chicago, Ill. (See Aerial, Ray G., assignor.)
Olmsted, Darius, North Yakima, Wash. Hat and clothes rack. No. 1,306,500; June 8: v. 263: p. 92.
Olsson, Alvin O., assignor of one-half to G. A. Broadway, Scooby, Mont. Cue tip and ferrule. No. 1,307,025; June 24: v. 263: p. 500.
Olson, Johan W. T., Marstrand, Sweden. Mariner's compass. No. 1,307,437; June 24: v. 263: p. 543.
Olson, R. E., assignor to Allen E. Green, Conway, Danville, Ill. Bracket. No. 1,307,413; June 24: v. 263: p. 540.
Olley, Edwin A., assignor to Cross-Hinds Company, Syracuse, N. Y. Fan-board. No. 1,307,010; June 17: v. 263: p. 399.
Ollard, James C., Tacoma, Wash. Clutch. No. 1,306,320; June 10: v. 263: p. 310.
Ollico, Ralph, assignor to Frederick Osann Company, New York, N. Y. Heater-stick support. No. 1,307,574; June 24: v. 263: p. 567.
Oliver, Edwin O., assignor of one-fourth to F. Marggraf, one-fourth to A. Marggraf, and one-fourth to H. Marggraf, Milwaukee, Wis. Compressor for refrigerating apparatus. No. 1,307,081; June 17: v. 263: p. 490.
Olson, Alfred A., Riverdale, Ill. Locomotive driving mechanism. No. 1,307,142; June 17: v. 263: p. 421.
Olson, Hans A., Revore, Moen. Fishing appliance. No. 1,307,513; June 24: v. 263: p. 522.
Olympic Electric Lamp Company. (See Pearson, John H., assignor.) (England.)
Orange, John A., Schoenectady, N. Y., assignor to General Electric Company. Induced-arc device. No. 1,306,980; June 10: v. 263: p. 381.
Orlog, Nick, Sparrows Point, Md. Portable carrier. No. 1,307,597; June 24: v. 263: p. 536.
Orman, John A., Ashland, Mont. Broom-hanger. No. 1,306,480; June 8: v. 263: p. 45.
Ormsby, Charles T., St. Louis, Mo. Explosion-turbine. No. 1,306,380; June 10: v. 263: p. 340.
Osten, Charles, New Haven, Conn. Detachable bed. No. 1,306,389; June 10: v. 263: p. 330.
Ostenberg, Pontus, Santa Clara county, Calif. Impulse-starter. No. 1,307,791; June 24: v. 263: p. 572.
Osterberg, Axel E., and G. A. Oberg, Norway, Mich. Twine-holder. No. 1,307,042; June 17: v. 263: p. 497.
Ostradt, Burton H. (See Millard, Osteradt, and Ostradt.)
Ostrout, Michael, Coniston, Ontario, Canada. Folding tent-frame. No. 1,306,618; June 10: v. 263: p. 391.
Otis Elevator Company. (See Furrow, Floyd C., assignor.)
Ott, Charles A., Ottawa, Kan. Direction-indicator for motor-cars. No. 1,306,118; June 10: v. 263: p. 197.
Ouren, Anton O. (See Wilson, Ervon J., assignor.)
Overbech, John, Cleveland, Ohio. Fabric winding and measuring mechanism. No. 1,306,740; June 8: v. 263: p. 99.
Owen, Albert L., Santa Rita, N. Mex. Pump. No. 1,306,467; June 8: v. 263: p. 44.
Owen, Herbert W., Lewiston, Me., assignor to Draper Corporation, Hopedale, Mass. Method of and means for finishing the edges of woven fabrics. No. 1,307,004; June 24: v. 263: p. 554.
Owens, Charles C. (See Owens, Isaac B., assignor.)
Owens, Isaac B., New York, N. Y., assignor to C. C. Owens, Detroit, Mich. Spark-plug. No. 1,306,534; June 17: v. 263: p. 344.
Package Machinery Company. (See Smith, Elmer L., assignor.)
Pachard, Everett T., Aron, Mass. Log-strap. No. 1,306,402; June 8: v. 263: p. 82.
Pacher Auto Specialty Company. (See Pacher, Eben R., assignor.)
Pacher, Eben R., Wilmette, assignor to Pacher Auto Specialty Company, Chicago, Ill. Tire-holder. No. 1,306,712; June 17: v. 263: p. 342.
Page, Albert A. (See Voigt and Page.)
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Detent for pane-bolts and pins. No. 1,306,730; June 10: v. 263: p. 331.
Palmer, Mark S., assignor to Winchester Arms Co., New Haven, Conn. Luminous sight for firearms. No. 1,307,063; June 17: v. 263: p. 494.
Palmer, Frederick. (See Faraday, Harry J., assignor.)
Palmer, Kenneth A., and J. C. Irvin, New York, N. Y. Tube-folding machine. No. 1,306,909; June 8: v. 263: p. 83.
Palmer, Kenneth A., and J. C. Irvin, New York, N. Y. Machine. No. 1,307,372; June 24: v. 263: p. 464.
Palmer, William B., Canoga, Calif. Chest-bed. No. 1,307,143; June 17: v. 263: p. 421.

Fedrick Tool and Machine Company. (See Fedrick, Howard, assignor.)
Pelletier, Louis F. (See Cigna and Pelletier.) (Belosue.)
Pelouze Manufacturing Co. (See Schultz, Frank A., assignor.)
Pelton, John C. San Francisco, Calif. Compacting apparatus. No. 1,906,620; June 10; v. 263; p. 292.
Pendegast, Frederick W. Cambridge, Mass. Wind and water motor. No. 1,906,311; June 10; v. 263; p. 295.
Penny, Loren W. Newton, assignor to Saco-Lowell Shops, Boston, Mass. Carding-engine. No. 1,907,418; June 24; v. 263; p. 508.
Penny, Loren W. Newton, assignor to Saco-Lowell Shops, Boston, Mass. Machine for cleaning cards. No. 1,907,453; June 24; v. 263; p. 511.
Pennack, Dominicus J. Zevenbergen, Netherlands. Apparatus for treating and drying vegetables. No. 1,906,888; June 17; v. 263; p. 504.
Pennack, Lewis W. Cleveland, Ohio. Table-leaf combination. No. 1,907,145; June 17; v. 263; p. 421.
Pepkes, John S. Washington, D. C. Ammunition-ejecting case. No. 1,906,812; June 10; v. 263; p. 293.
Perry, Frank J. Brooklyn, N. Y. Turbine. No. 1,907,317; June 17; v. 263; p. 452.
Perrick, Robert. Milwaukee, Wis. Oil-burner. No. 1,907,044; June 17; v. 263; p. 407.
Perrick, Robert. Milwaukee, Wis. Reservoir for hot-stoves. No. 1,907,570; June 24; v. 263; p. 507.
Perriman, Jacques M. New York, N. Y. Vehicle-body. No. 1,907,375; June 17; v. 263; p. 505.
Perriman, Louis H. New York, N. Y. Wheel. No. 1,907,367; June 17; v. 263; p. 443.
Perriman, Louis H. New York, N. Y. Wheel. No. 1,907,368; June 17; v. 263; p. 443.
Perrier, Eugene R. Mattawa, Ontario, Canada. Can-opener. No. 1,906,929; June 2; v. 263; p. 153.
Perrine, Hammett B. Minneapolis, Minn. Pneumatic-deposit-box apparatus. No. 1,906,408; June 8; v. 263; p. 224.
Perry, F. W. (See Moller, Hilding, assignor.)
Perry, Frederick H. (See Wentworth and Perry.)
Perry, Harold B. and H. W. Chambers, Harrow-in-Purton, England. Reversible pontoon-raft. No. 1,906,276; June 10; v. 263; p. 229.
Perry, John E. assignor to Dexter Fielder Company, Pearl River, N. Y. Elastic sheet-registering mechanism. No. 1,906,741; June 3; v. 263; p. 97.
Perry, Ray F. Upper Montclair, N. J., assignor to The Barrett Company. Belt and making the same. No. 1,906,404; June 8; v. 263; p. 22.
Perry, Ray F. Upper Montclair, N. J., assignor to The Barrett Company. Manufacturing belts. No. 1,907,760; June 24; v. 263; p. 512.
Petersen, Fred. Machine Company, The. (See Arter, William, assignor.)
Peterson, Charles A. Worcester, Mass. Saddle. No. 1,906,682; June 10; v. 263; p. 303.
Peterson, Otto F. Erie, Pa., assignor to General Electric Company. Pump and strainer therefor. No. 1,906,621; June 10; v. 263; p. 302.
Peters, John H. Butte, Mont., and P. Hardies, Seattle, Wash. Typing-machine. No. 1,907,021; June 17; v. 263; p. 402.
Peters, Milton C. assignor to United Alfalfa Co., Omaha, Neb. Rotary dust-valve. No. 1,906,276; June 10; v. 263; p. 220.
Peterson, Asher, assignor to Boston Machinery Company, Boston, Mass. Braiding-machine. No. 1,906,490; June 8; v. 263; p. 40.
Peterson, Charles. Ludington, Mich. Hydroaeroplane. No. 1,907,516; June 17; v. 263; p. 452.
Peterson, John L. (See Anderson and Petersen.)
Peterson, Christian J. Chicago, Ill. Film-gate. No. 1,906,406; June 8; v. 263; p. 22.
Peterson, Christian J. Chicago, Ill. Lamp-holder. No. 1,906,406; June 8; v. 263; p. 22.
Peterson, Claus E. Worcester, assignor to Iverson Piano Player Company, Boston, Mass. Tracking-control mechanism for piano-players. No. 1,907,515; June 24; v. 263; p. 522.
Peterson, Daniel G. (See Long and Peterson.)
Peterson-Harnden Clutch Company. (See Peterson, Peter R., assignor.)
Peterson, Peter R. assignor to Peterson-Harnden Clutch Company, Salt Lake City, Utah. Packing-ring. No. 1,907,680; June 24; v. 263; p. 554.
Peterson, Peter R. assignor to Peterson-Harnden Clutch Company, Salt Lake City, Utah. Fluid-clutch. No. 1,907,697; June 24; v. 263; p. 554.
Pettersen, Arthur R. and A. F. Werme, Worcester, Mass. Power-operated tool casing. No. 1,907,146; June 17; v. 263; p. 421.
Phanofuel, Carl. Highland Park, assignor to Phanofuel Company, Inc., North Chicago, Ill. Compressing tungsten. No. 1,906,975; June 8; v. 263; p. 141.
Phanofuel Company. (See Dady, Arthur O., assignor.)
Phanofuel Company. (See Phanofuel, Carl, assignor.)
Phielborn, William L. et al. (See Schloerb, Albert P., assignor.)
Phifer, Winfred F. assignor to The Temco Electric Motor Company, Lorain, Ohio. Automatic motor-switch. No. 1,907,070; June 10; v. 263; p. 300.
Pine, John W. Buwinton, Calif. Danger-signal. No. 1,906,290; June 8; v. 263; p. 123.

Pfouts, Leroy S., assignor, by mesne assignments, to The Miller Patenting Machine Company, Canton, Ohio. Patent No. 1,305,533; June 3; v. 263; p. 114.

Pharo, Gordon C., Marysville, Calif. Lever. No. 1,306,119; June 10; v. 263; p. 197.

Philipp, Michael, assignor to National Auto Wheel Corporation, Wausau, Wis. Resilient wheel. No. 1,307,212; June 17; v. 263; p. 433.

Phillips, Willis E., Colbran, Colo., assignor to D. H. Saville, Toronto, Canada. Camera attachment. No. 1,307,596; June 24; v. 263; p. 537.

Phillips-Briston Company. (See Briston, William C., Jr., assignor.)

Phillips, Howard, and J. Greenwald, Detroit, Mich. Safety-hoist. No. 1,305,931; June 3; v. 263; p. 123.

Pickstone, Montague T., Hampstead, assignor to The Pneumatic Loom Syndicate Limited, Birmingham, England. Reed for weaving-loom. No. 1,306,189; June 10; v. 263; p. 211.

Pickstone, Montague T., Hampstead, assignor to The Pneumatic Loom Syndicate Limited, Birmingham, England. Picking apparatus for weaving-loom. No. 1,304,190; June 10; v. 263; p. 211.

Pieper, Alphonse F. (See Pieper, Oscar H. and A. F.)

Pieper, Chester R., assignor to Gund Manufacturing Company, La Crosse, Wis. Shaft-hanger. No. 1,306,623; June 10; v. 263; p. 293.

Pieper, Oscar H. and A. F., Rochester, N. Y. Switch-operating mechanism. No. 1,306,770; June 17; v. 263; p. 352.

Pierce, James H., Jr., Charleston, W. Va. Producing barium oxide. No. 1,305,618; June 3; v. 263; p. 75.

Pierpont, Frank H., Morley, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Matrix-holder for type-casting machine. No. 1,307,693; June 24; v. 263; p. 555.

Piller, William F., Dalton, Nebr. Screen attachment. No. 1,306,715; June 17; v. 263; p. 242.

Pine, James K. P., assignor to United Shirt and Collar Company, Troy, N. Y. Union-undergarment. No. 1,306,771; June 17; v. 263; p. 353.

Pine, James K. P., assignor to United Shirt and Collar Company, Troy, N. Y. Union-undergarment. No. 1,307,416; June 24; v. 263; p. 503.

Pineco, Charles F., Detroit, Mich. Spark-plug indicator. No. 1,306,281; June 10; v. 263; p. 220.

Piron, Emile, New York, N. Y. Overheating system. No. 1,306,623; June 10; v. 263; p. 293.

Pirwitz, Friedrich A. G., assignor to Eastman Kodak Company, Rochester, N. Y. Photographic shutter. No. 1,307,751; June 24; v. 263; p. 564.

Pitt, Henry H., Leabury, England. Machine for finishing tumblers and other glass articles. No. 1,307,453; June 24; v. 263; p. 511.

Pittman, Cloris C., New York, and G. Midboe, Brooklyn, assignors to R. F. Lyden, New York, N. Y. Connecting-rod. No. 1,307,454; June 24; v. 263; p. 511.

Pitts, Virginia, Denver, Colo. Copy-holder. No. 1,306,306; June 3; v. 263; p. 14.

Pittsburgh Coal Washer Company. (See Kenney, Carl L., assignor.)

Pittsburgh Meter Company. (See Chrisman, Horace, assignor.)

Plaidst, Harold M., Granite City, Ill. Reducing-machine. No. 1,306,772; June 17; v. 263; p. 353.

Platt, Clarence D., Bridgeport, Conn. Entrance-switch unit. No. 1,306,181; June 10; v. 263; p. 211.

Platz, Arthur C., Cincinnati, Ohio. Drilling and tapping machine. No. 1,307,831; June 24; v. 263; p. 579.

Plymale, Sebastian, Portland, Oreg. Spar-forming machine. No. 1,307,699; June 24; v. 263; p. 555.

Pneumatic Loom Syndicate Limited. (See Pickstone, Montague T., assignor.)

Pneumatic Scale Corporation. (See Field, Samuel R., assignor.)

Poeton, Lawrence, assignor to American Optical Company, Southbridge, Mass. Temple. No. 1,306,773; June 17; v. 263; p. 353.

Pokopac, Jack. (See Pokopac, Stephen and J.)

Pokopac, Stephen and J., Greensburg, Pa. Pipe-cleaner. No. 1,306,925; June 17; v. 263; p. 381.

Pojand, John L., Chetopa, Kan. Automobile-lock. No. 1,305,563; June 3; v. 263; p. 64.

Pole, Joseph C., New York, N. Y., assignor to Cooper Hewitt Electric Company, Hoboken, N. J. Vacuum electric apparatus. No. 1,307,455; June 24; v. 263; p. 511.

Pond, Clarke P., Philadelphia, Pa. Door-handle. No. 1,305,619; June 3; v. 263; p. 75.

Pope, Edwin, Quebec, Quebec, Canada. Telegraph system. No. 1,305,630; June 3; v. 263; p. 76.

Poppenshausen, Herman A., Hammond, assignor to Green Engineering Company, East Chicago, Ind. Ash-conveying system. No. 1,305,461; June 3; v. 263; p. 46.

Porter, Edgar G., Woodlawn, Pa. Apparatus for casting metal sheets. No. 1,307,832; June 24; v. 263; p. 579.

Porter, William R., and A. L. R. Ellis, Lynn, Mass., assignors to General Electric Company. Electrical measuring instrument. No. 1,306,654; June 10; v. 263; p. 293.

Poulsen, Gus, Perry, Iowa. Milk-dispensing apparatus. No. 1,306,213; June 10; v. 263; p. 236.

Powdered Coal Engineering & Equipment Company. (See Klayon, Alonzo G., assignor.)

Powell, Albert, New Britain, Conn. Spacer for pendant electric lights. No. 1,307,923; June 24; v. 263; p. 594.

Powell, Alonzo V., Bowling Green, Ohio. Nut-lock. No. 1,307,924; June 24; v. 263; p. 594.

Powell, Winfred T., assignor to Automatic Electric Company, Chicago, Ill. Selective signaling system. No. 1,306,716; June 17; v. 263; p. 342.

Powell, Winfred T., assignor to Automatic Electric Company, Chicago, Ill. Automatic telephone system. No. 1,306,627; June 17; v. 263; p. 343.

Powers Accounting Machine Company. (See Lasher, William W., assignor.)

Powers, Joseph V., Merrick, N. Y. Fruit-picker. No. 1,307,417; June 24; v. 263; p. 504.

Powers, William F., Los Angeles, Calif. Gas-supply regulator for gas-burners. No. 1,306,743; June 3; v. 263; p. 97.

Powers, William F., Los Angeles, Calif. Gas-regulator. No. 1,306,743; June 3; v. 263; p. 97.

Prabhar, Lester, assignor to L. Prabhar, New York, N. Y. Portable electric light. No. 1,307,456; June 24; v. 263; p. 511.

Prabhar, Lester. (See Prabhar, Lester, assignor.)

Pratt, Clarence M., Dallas, Tex. Engine. No. 1,306,717; June 17; v. 263; p. 343.

Pratt Read Player Action Company, The. (See Fisher, Stanley L., assignor.)

Procto Passenger-Truck Co. (See Prosty, William B., assignor.)

Procto, John H., London, England. Galvanic battery. No. 1,307,102; June 17; v. 263; p. 414.

Procto, John H. (See Starbuck and Procto.)

Price, Raymond B., New York, N. Y., assignor to Rubber Regenerating Company. Treatment of vulcanizable materials. No. 1,306,916; June 24; v. 263; p. 614.

Price, William J. (See Webster and Price.)

Priddy, James C., South Pasadena, Calif. One-piece automatic folding carton. No. 1,307,438; June 24; v. 263; p. 544.

Priddy, Augustus F., Chicago, Ill. Carburetor. No. 1,307,274; June 24; v. 263; p. 499.

Priddy, Edward D., Schenectady, N. Y., assignor to General Electric Company. Dynamo-electric machine. No. 1,306,626; June 10; v. 263; p. 293.

Priddy, Charles M., Long Beach, Calif. Life-preserver. No. 1,307,752; June 24; v. 263; p. 565.

Prince, John D., Boston, Mass. Leather substitute. No. 1,306,621; June 3; v. 263; p. 74.

Pritchett, Leland L. (See Bridges and Pritchett.)

Pritcheau, Winifred A. (See Van Hise and Pritcheau.)

Process Company, The. (See Coast, John W., Jr., assignor.)

Proctor, Solomon C., Eaton Rapids, Mich. Wire-splining tool. No. 1,307,516; June 24; v. 263; p. 523.

Proctor, Corporation. (See Shoemaker, John F., assignor.)

Prosty, William B., Evanston, assignor to Procto Passenger-Truck Co., Chicago, Ill. Vehicle-body. No. 1,306,497; June 3; v. 263; p. 23.

Pruden, Harry B., Chicago, Ill. Combustion of powdered fuel. No. 1,307,575; June 24; v. 263; p. 566.

Przybany, Roman. (See Radwanski, Henry, assignor.)

Ptaszek, Josef. (See Hopfich, Wlad, assignor.)

Purvis, George, Port Huron, Mich. Ash-ejector. No. 1,306,664; June 3; v. 263; p. 64.

Purvis, George, Detroit, Mich. Ash-ejector. No. 1,306,506; June 3; v. 263; p. 64.

Putnam, Charles E. (See Murray and Putnam.)

Putnam, Walter J., Deposit, N. Y. Fastening device. No. 1,306,777; June 10; v. 263; p. 359.

Pyle-National Company, The. (See Duke, Charles W., assignor.)

Pym, Charles F., Detroit, Mich., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Machine for placing lasting-bladders. No. 1,306,130; June 10; v. 263; p. 193.

Pym, Charles F., Detroit, Mich., assignor, by mesne assignments, to United Shoe Machinery Corporation, Paterson, N. J. Lasting-bladder. No. 1,306,131; June 10; v. 263; p. 193.

Q & C Company. (See Zimmerman, Emil C., assignor.)

Quade, Frank H., Jr., Fresno, Calif. Permeable separator. No. 1,306,664; June 10; v. 263; p. 124.

Quakman, George, Toledo, Ohio. Hair-drier. No. 1,306,122; June 10; v. 263; p. 193.

Quam, Charles E., assignor to J. F. O'Don, Canton, Ohio. Wall construction. No. 1,306,662; June 3; v. 263; p. 60.

Quinlan, Dennis, Blue Plains, D. C. Fastening device. No. 1,307,925; June 24; v. 263; p. 594.

Quinlan, James A., Southington, Conn. Insulator-holder for automobiles. No. 1,306,660; June 10; v. 263; p. 293.

Quintile, Joseph, Toronto, and C. R. Metcalfe, Guelph, Ontario, Canada. Manual cutting or more. No. 1,307,147; June 17; v. 263; p. 423.

Quiver, Theodore, Milwaukee, Wis. Christmas. Norway. Band and spiral cut-off for wood-pulp plants and the like. No. 1,306,663; June 10; v. 263; p. 293.

R. Thomas and Sons Company, The. (See Lawson, Joel A., assignor.)

Rager, George C., Waterloo, N. Y. Examination and testing device. No. 1,307,418; June 24; v. 263; p. 504.

Ragdale, Earl J. W., U. S. Army, assignor to United States Ordnance Company, Washington, D. C. Hand-grenade. No. 1,306,719; June 17; v. 263; p. 343.

Rail Joint Company. (See Thomson, William F., assignor.)

Rainey, Paul M., Glen Ridge, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y. Rectifier. No. 1,307,517; June 24; v. 263; p. 522.

Ralla, George E. D., Birmingham, England. Spring suspension mechanism of motor and other vehicles. No. 1,306,926; June 17; v. 263; p. 381.

Rand, Benjamin G., assignor to The Rand Company, North Tonawanda, N. Y. Wire-stitching machine. No. 1,306,925; June 10; v. 263; p. 190.

Rand, Company, The. See Rand, Benjamin G., assignor.)

Rand, James H., North Tonawanda, N. Y. Index. No. 1,306,926; June 10; v. 263; p. 190.

Rand, Richard G., Winston-Salem, N. C. Stone cutting and surfacing machine. No. 1,306,924; June 3; v. 263; p. 114.

Randall, Frank L., and L. E. Schmid, Erie, Pa. Valve. No. 1,307,696; June 24; v. 263; p. 556.

Randall, Victor E., assignor of one-half to R. Gwatkin, Battle Creek, Mich. Railway-tie. No. 1,306,437; June 10; v. 263; p. 230.

Rantlin, John A., Emporia, Kan. Feed-cutting machine. No. 1,306,500; June 10; v. 263; p. 270.

Rasmussen, Martin, assignor to Gold Medal Camp Furniture Manufacturing Co., Racine, Wis. Folding frame for portable buildings. No. 1,306,509; June 3; v. 263; p. 16.

Rasor, James H., Sherman, Tex. Vulcanizing apparatus. No. 1,305,406; June 3; v. 263; p. 83.

Rawdon, Charles E., and J. H. Hoffmann, St. Louis, Mo. Inner tube for pneumatic tires. No. 1,306,622; June 3; v. 263; p. 76.

Rawlings, Ruby M. (See Bamforth, Thomas H., assignor.)

Ray, Charles D., and F. Koerner, Le Mars, Iowa. Electric switch. No. 1,307,523; June 24; v. 263; p. 530.

Ray, John W., Philadelphia, Miss. Boll-weevil destroyer. No. 1,305,495; June 3; v. 263; p. 60.

Rayfield, Charles L., Chicago, Ill. Carburetor. No. 1,307,457; June 24; v. 263; p. 512.

Read, Charles O., et al. (See Flick, Lorenz, assignor.)

Rebora, Gino, Milan, Italy. Shutter mechanism for search-lights. No. 1,306,677; June 10; v. 263; p. 190.

Reddish, Harry E. (See Stokes and Reddish.)

Redfield, Camper L. (See Landevelt, Frank A., assignor.)

Redmond, Oliver, Schenectady, N. Y. Glass-shield. No. 1,306,626; June 10; v. 263; p. 293.

Redpath, Robert, and H. Hellberg, assignors to The Coventry Ordnance Works, Limited, Coventry, England. Automatic time-tune setter. No. 1,307,630; June 24; v. 263; p. 544.

Reducing Machine Co., The. (See Brennan, William E., assignor.)

Reducing Machine Company, The. (See Gardner, James P., assignor.)

Reed, Andrew H., assignor of one-half to H. Sahler, Kansas City, Mo. Adjustable mounting for tractor-controlling mechanism. No. 1,306,932; June 3; v. 263; p. 123.

Reed, William. (See Garrison, Perry J., assignor.)

Reese, Charles L., assignor to H. L. de Font de Nemours & Company, Wilmington, Del. Forming burning charges. No. 1,307,599; June 24; v. 263; p. 537.

Reese, James H., Oswego, N. Y., assignor to The Diamond Match Company, Chicago, Ill. Treating saline liquors. No. 1,306,666; June 3; v. 263; p. 64.

Reena, John, New Bedford, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Warp stop-motion. No. 1,307,623; June 17; v. 263; p. 380.

Reenberger, Conrad, and P. A. Ritter, Kiel, Germany. Working cylinder for internal-combustion engines. No. 1,305,494; June 3; v. 263; p. 60.

Reid, Edwin E. (See Smith, Henry A. W., assignor.)

Reid, Malcolm M., Waterbury, Conn., assignor to The Hope Manufacturing Company, New York, N. Y. Pen and pencil clip. No. 1,306,774; June 17; v. 263; p. 353.

Reilly, William J., Denver, Colo., assignor to The Babcock & Wilcox Company, Bayonne, N. J. Steam-bellows furnace. No. 1,306,460; June 3; v. 263; p. 24.

Reinbeck, Marcus H., Schoeggen county, Wis. Cheese-heap. No. 1,306,416; June 3; v. 263; p. 34.

Reinig, John F., Buffalo, N. Y. Garment attachment. No. 1,306,627; June 10; v. 263; p. 293.

Reiniger, Joseph, Carrington, N. D. Harvester-reel-tensioning clamp. No. 1,307,579; June 24; v. 263; p. 568.

Reiser, Daniel, Cleveland, Ohio. Folding and stacking machine. No. 1,307,145; June 17; v. 263; p. 423.

Reiss, George E., assignor of one-half to C. Snyder, Cincinnati, Ohio. Counter for telephone coin-receivers. No. 1,306,514; June 10; v. 263; p. 234.

Reitzel, Albert E., Washington, D. C. Threshing apparatus. No. 1,306,623; June 10; v. 263; p. 293.

Reley Automatic Telephone Company, The. (See Grahn, Oscar, assignor.)

Remater, William B. (See Williams, Lee L., assignor.)

Remer, Adam, and J. A. Tripp, Chicago, Ill. Train-hose coupling. No. 1,306,627; June 17; v. 263; p. 384.

Renault, Louis. (See Fuchs, Ernest, assignor.)

Renfrew Machinery Company Limited. (See Norris, Nelson H., assignor.)

Renne, George N., Kansas City, Mo. Transmission mechanism for windmills. No. 1,306,933; June 3; v. 263; p. 123.

Renold, Hans, and A. E. Carter, assignors to Hans Renold Limited, Manchester, England. Driving-chain. No. 1,306,078; June 10; v. 263; p. 190.

Renold, Hans, and A. E. Carter, assignors to Hans Renold Limited, Manchester, England. Driving-chain. No. 1,306,931; June 10; v. 263; p. 231.

Republic Metalware Company, The. (See Hallock, Eugene D., assignor.)

Reynolds Corporation. (See Reynolds, Richard S., assignor.)

Reynolds, Frank W., New Washington, Ohio. Dish-washer. No. 1,306,123; June 10; v. 263; p. 198.

Reynolds, George A., et al. (See Rover, Adolph B., assignor.)

Reynolds, John N., Greenwich, Conn., assignor to Western Electric Company, Incorporated, New York, N. Y. Line-switch. No. 1,306,124; June 10; v. 263; p. 198.

Reynolds, Richard S., assignor to Reynolds Corporation, Incorporated, Bristol, Tenn. Receptacle. No. 1,307,928; June 24; v. 263; p. 594.

Reynolds, Robert E., Houston Heights, Tex. Road-surfacing machine. No. 1,306,353; June 3; v. 263; p. 244.

Reynolds, Samuel W., et al. (See Rover, Adolph B., assignor.)

Rhineland, Harry W., Freedom, Pa. Safety-apron for locomotives. No. 1,306,438; June 10; v. 263; p. 230.

Rhodes, Alonzo E., assignor to Draper Corporation, Hope-dale, Mass. Yarn support and guide for winding machines. No. 1,307,700; June 24; v. 263; p. 555.

Rhodes, Alonzo E., assignor to Draper Corporation, Hope-dale, Mass. Yarn tension for winding-machines. No. 1,307,701; June 24; v. 263; p. 555.

Rhodes, Charles S., Jr., Indianapolis, Ind., assignor to Western Electric Company, Incorporated, New York, N. Y. Signaling system. No. 1,307,753; June 24; v. 263; p. 565.

Rhodes, Leonard H., assignor of one-half to H. Ames, Chicago, Ill. Carburetor. No. 1,305,744; June 3; v. 263; p. 97.

Rhodes, May E., New York, N. Y. Woman's working-apron. No. 1,306,307; June 3; v. 263; p. 15.

Rhodesman, Harley W., assignor to The Eli Lilly and Company, Indianapolis, Ind. Compounds of halogen acids with 2-phenyl quinolin 4-carboxylic acid. No. 1,306,439; June 10; v. 263; p. 259.

Rhodes, Joseph C., G. E. Guffey, and J. G. Sheehan, Danville, Ky. Steering-wheel brake. No. 1,306,934; June 3; v. 263; p. 124.

Ricardo, Harry E., London, England. Aircraft driving mechanism. No. 1,306,125; June 10; v. 263; p. 199.

Rice, John N., Ponca City, Okla. Power attachment for automobiles. No. 1,307,299; June 17; v. 263; p. 443.

Richards, Fordyce T., Portland, Oreg. Drier. No. 1,307,570; June 17; v. 263; p. 444.

Richards, George, Westminster, London, England. Cutter or hob for milling screw-threads. No. 1,306,855; June 17; v. 263; p. 363.

Richards, George, London, England. Cutter or hob for milling screw-threads. No. 1,306,856; June 17; v. 263; p. 363.

Richards-Wilcox Manufacturing Company. (See Fitch, William H., assignor.)

Richardson, Edward J., Windsor, assignor of one-third to S. A. Richardson, Springfield, Vt. Apparatus for curing, transporting, and stacking hay. No. 1,307,764; June 24; v. 263; p. 565.

Richardson, Samuel A. (See Richardson, Edward J., assignor.)

Richison, J. W., et al. (See Van Borkum, John A., assignor.)

Richter, Frederick W., St. Louis, Mo. Electric plug and socket. No. 1,305,908; June 3; v. 263; p. 15.

Richter, George A., assignor to Brown Company, Berlin, N. H. Manufacturing lactic acid. No. 1,305,623; June 3; v. 263; p. 76.

Rico, Bert E., Los Angeles, Calif. Hose-stand. No. 1,306,676; June 10; v. 263; p. 293.

Rico, Joseph E., Los Angeles, Calif. Water-sprinkler. No. 1,306,411; June 3; v. 263; p. 34.

Rieh, Herman, New York, N. Y. Ornamental article. No. 1,306,627; June 10; v. 263; p. 293.

Rieber, Frank, assignor, by mesne assignments, to Rieber Laboratories, San Francisco, Calif. Apparatus for exciting Roentgen-ray tubes. No. 1,305,465; June 3; v. 263; p. 60.

Rieber Laboratories. (See Rieber, Frank, assignor.)

Rieger, Walter N., and W. D. Candee, Taft, Calif. Pipe-reinforcement and coupling therefor. No. 1,305,668; June 3; v. 263; p. 83.

Rieger, Walter C., Philadelphia, Pa. Angularity-indicator. No. 1,305,935; June 3; v. 263; p. 124.

Riley, Lewis A., 24, White Plains, N. Y. Gas-burner. No. 1,306,501; June 10; v. 263; p. 270.

Rinaldi, Guercino, Wilmington, Del. Torpedo-guard. No. 1,307,623; June 17; v. 263; p. 399.

Ringer, Luther, assignor to The Simmen Automatic Railway Signal Company, Buffalo, N. Y. Signal system for moving vehicles. No. 1,306,936; June 3; v. 263; p. 124.

Rintoul, William, and D. Cross, assignors to Nobel's Explosives Company Limited, Stevenson, Scotland. Explosive. No. 1,306,440; June 10; v. 263; p. 230.

Rippl, Charles H., assignor to The Electric Controller & Manufacturing Company, Cleveland, Ohio. Electromagnetic overload device. No. 1,306,567; June 3; v. 263; p. 154.

Riser, Arthur J., assignor to U. S. Bottlers' Machinery Company, Chicago, Ill. Bottle-corking machine. No. 1,306,502; June 10; v. 263; p. 271.

Risinger, Harry E., Pittston, Pa. Collar-button. No. 1,307,271; June 17; v. 263; p. 444.

Ritter, Paul A. (See Repenbogen and Ritter.)

Ritter, Paul A., Kiel, assignor to Fried. Krupp Aktiengesellschaft, Germaniawerft, Kiel-Garden, Germany. Piston for internal-combustion engines. No. 1,306,567; June 3; v. 263; p. 64.

Ritter, Sophus P., assignor to F. O. Bloch, Copenhagen, Denmark. Cash-control apparatus. No. 1,306,973; June 17; v. 263; p. 390.

Rived, Francisco, Madrid, Spain. Angle-gage apparatus for use in mining. No. 1,307,987; June 24; v. 263; p. 608.

Robbins, Albert F., Waltham, Mass. Jeweler's tool chuck and handle. No. 1,306,354; June 10; v. 263; p. 244.

Robbins, Hugh P., assignor to Weller Manufacturing Company, Chicago, Ill. Receiving apparatus for sugar-beets. No. 1,307,458; June 24; v. 263; p. 512.

Robbins, John W., assignor of one-half to Henry Doherty Silk Company, Paterson, N. J. Winding-machine. No. 1,307,376; June 24; v. 263; p. 497.

Roberts, Edgar J. (See McCaffrey and Roberts.)

Robert, Augusta E., Oakland, Calif. Adjustable support for curtains and draperies. No. 1,306,412; June 3; v. 263; p. 24.

Robert, Louis F. (See Farland and Robert.)

Roberts, Alonso J., assignor to Williams Patent Crumber and Pulverizer Co., St. Louis, Mo. Pneumatic metal-catcher. No. 1,306,775; June 17; v. 263; p. 353.

Roberts, Harry G., assignor to The Williams, Greene & Home Company Limited, Kitchener, Ontario, Canada. Collar. No. 1,306,278; June 10; v. 263; p. 230.

Roberts, John A., assignor to United Alkali Company, Limited, Liverpool, England. Permanent way of railway and tramways. No. 1,307,880; June 24; v. 263; p. 588.

Roberts, Lyman R., Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Multiple-bellows pump. No. 1,307,480; June 24; v. 263; p. 512.

Robertson, Gilbert, Vancouver, British Columbia, Canada. Trolling-spoon. No. 1,306,719; June 17; v. 263; p. 343.

Robertson, Peter, et al. (See Robertson, William, assignor.)

Robertson, William, assignor of one-half to P. Robertson, New Hartford, N. Y., and one-fourth to W. Robertson, St. Catharines, Scotland. Golf-club. No. 1,306,029; June 10; v. 263; p. 181.

Robertson, William, Sr., et al. (See Robertson, William, assignor.)

Robinson, Albert E., Weston, Colo. Tube-expander. No. 1,306,600; June 3; v. 263; p. 83.

Robinson, Clarence P., Swarthmore, Pa., assignor to R. I. du Pont de Nemours & Company, Wilmington, Del. Cleaning and polishing composition. No. 1,307,149; June 17; v. 263; p. 422.

Robinson, Charles W., Hamilton, Ontario, Canada, assignor to International Harvester Company of Canada, Limited. Disk-bearing for grain-drills. No. 1,304,770; June 17; v. 263; p. 324.

Robinson, George A. (See Droege and Robinson.)

Robinson, George E., Portland, Ore. Engine-lathe attachment. No. 1,306,720; June 17; v. 263; p. 343.

Robinson, Girard C., Detroit, Mich. Circuit-closer for automobile-signals. No. 1,307,927; June 24; v. 263; p. 598.

Robinson, Thomas J., Chicago, Ill. Boiler-furnace. No. 1,306,628; June 10; v. 263; p. 294.

Robison, Samuel B., Lamar, Colo. Beet-harvester. No. 1,307,372; June 17; v. 263; p. 444.

Rodd, Ernest H. (See Rosenbain and Rodd.)

Rodgers, Aleri A., Estlin, Saskatchewan, Canada. Disk-scraper. No. 1,306,629; June 10; v. 263; p. 294.

Rogers, Albert N., Middleboro, Mass., assignor to United Shoe Machinery Corporation, Paterson, N. J. Shoe-beating machine. No. 1,306,630; June 10; v. 263; p. 294.

Rogers, Almira V., administratrix. (See Rogers, Charles W., assignor.)

Rogers, Charles W., deceased; A. V. Rogers, administratrix, Marion, Ind. Beet-harvesting machine. No. 1,307,640; June 24; v. 263; p. 544.

Rogers, Joseph J., and P. J. Cosgrove, assignors to New York Stamping Company, Brooklyn, N. Y. Carrycomb. No. 1,307,762; June 24; v. 263; p. 555.

Rogers, Joseph M., Louisville, Ky. Projectile. No. 1,307,419; June 24; v. 263; p. 504.

Rogers, Robert H., Schenectady, N. Y., assignor to General Electric Company. Recording device. No. 1,306,631; June 10; v. 263; p. 294.

Rohland, Curt J., assignor to National Ring Traveler Co., Providence, R. I. Fastening. No. 1,306,270; June 10; v. 263; p. 230.

Rohman, Harry D., New York, N. Y., assignor, by means assignments, to J. Stone & Company, Limited, Deptford, England. Car-lighting system. No. 1,306,070; June 10; v. 263; p. 190.

Rohr, Emil, assignor to A. Willis, St. Ouen, France. Glass delivering and melting apparatus. No. 1,307,180; June 17; v. 263; p. 422.

Rollason, Ernest R., Sydney, New South Wales, Australia. Ornamental hair-comb. No. 1,306,890; June 3; v. 263; p. 154.

Romano, Hippolyte W., New York, N. Y. Vehicle. No. 1,306,080; June 10; v. 263; p. 190.

Romanoff, Hippolyte, New York, N. Y. Valve. No. 1,306,561; June 10; v. 263; p. 271.

Ronstrom, Thomas A., Chicago, Ill. Heating appliance. No. 1,307,232; June 17; v. 263; p. 455.

Ross, Alphonse, Chicago, Ill. Wave-motor. No. 1,306,974; June 17; v. 263; p. 390.

Roskloffe, George G., San Gabriel, Calif. Sticher. No. 1,307,722; June 24; v. 263; p. 572.

Ropicky, Wasi, assignor of one-half to J. Ptacek, Detroit, Mich. Transformable wheel. No. 1,304,380; June 10; v. 263; p. 220.

Rosenberg, Benjamin, Brooklyn, N. Y. Display-receptacle. No. 1,306,612; June 10; v. 263; p. 294.

Rosenfeld, Fred, et al. (See Sloan, Alonzo H., assignor.)

Rose, Christian H., and A. Helms, Milwaukee, Wis. Automobile-jack. No. 1,307,600; June 24; v. 263; p. 557.

Rose, George D. (See Greenbaum, Harry V., assignor.)

Rose, Harri, Rosemont, Neb. Device to pull automobiles out of mud. No. 1,304,721; June 17; v. 263; p. 344.

Rosenbain, Walter, and E. H. Rodd, Teddington, assignors to themselves, the Imperial Trust for the Encouragement of Scientific and Industrial Research, Westminster, London, and E. T. Glasbrook, Teddington, England. Manufacture of a compound of pure silicon and its application in the production of pure silicon. No. 1,307,881; June 24; v. 263; p. 588.

Rosenbain, Walter, and E. H. Rodd, Teddington, assignors to themselves, the Imperial Trust for the Encouragement of Scientific and Industrial Research, Westminster, and E. T. Glasbrook, Teddington, England. Basic oxychloride of silicon and making same. No. 1,307,882; June 24; v. 263; p. 588.

Rosenbain, Walter, and E. H. Rodd, Teddington, assignors to themselves, the Imperial Trust for the Encouragement of Scientific and Industrial Research, Westminster, and E. T. Glasbrook, Teddington, England. Basic silicon sulfide. No. 1,307,883; June 24; v. 263; p. 588.

Ross, Frank E. (See Frederick and Ross.)

Ross, John H., Kansas City, Mo. Plug for liquid-containers. No. 1,307,784; June 24; v. 263; p. 548.

Ross, William J., assignor of one-fourth to L. H. Beane, Racket Harbor, N. Y. Automatic safety-racer. No. 1,306,441; June 10; v. 263; p. 230.

Rosenthal, Frederick, Baltimore & Hose Co., The. (See Barton and Cotterill, assignors.)

Rosell, Giuseppe, Natick, R. I. Aerial torpedo. No. 1,307,923; June 24; v. 263; p. 597.

Rosell, Joseph, Portsmouth, N. J. Ash-difter. No. 1,306,632; June 10; v. 263; p. 295.

Rosman, Allen M., Wilmette, Ill. Internal-combustion engine. No. 1,304,777; June 17; v. 263; p. 354.

Rotary Meter Company. (See Mayer, Charles F., assignor.)

Rothman, Max, et al. (See Crowley, Richard J., assignor.)

Roulier, Rodolph. (See Collin, Joseph A., assignor.)

Rousselle, Charles, London, England. Heat-conserver. No. 1,304,521; June 10; v. 263; p. 229.

Rover, Adolph E., assignor of one-half to G. A. Reynolds and B. W. Reynolds, Birmingham, N. Y. Control mechanism for hydraulic elevators. No. 1,307,784; June 24; v. 263; p. 548.

Rowden, Albert and E. A. Hafford, Greenvale, N. H. Paper-cutter. No. 1,307,151; June 17; v. 263; p. 422.

Royal, Belford G., Camden, N. J., assignor to Victor Talking Machine Company. Talking-machine. No. 1,306,745; June 3; v. 263; p. 87.

Royal Typewriter Company. (See Myers, Lewis C., assignor.)

Rubber Regenerating Company. (See Price, Raymond E., assignor.)

Ruckman, Floyd A., Columbia City, Ind., assignor to Johnson Acetylene Gas Company, Crawfordsville, Ind. Reserve magazine and signal. No. 1,306,585; June 10; v. 263; p. 244.

Rudge-Whitworth Limited. (See Blair, William, assignor.)

Ruechert, Curtis, Chicago, Ill. Fluid-fuel burner. No. 1,307,212; June 17; v. 263; p. 422.

Ruggieri, Vincenza, Wendell, W. Va. Potable box. No. 1,307,757; June 24; v. 263; p. 548.

Rush, Albert, Columbus, Ohio. Joint for metallic mesh and the like. No. 1,306,746; June 3; v. 263; p. 88.

Rush, William E. (See Mulholland, Henry W., assignor.)

Russ, Harry M., Woodstock, Ontario, Canada. Dump-wagon. No. 1,306,670; June 3; v. 263; p. 84.

Rust, Edwin G., Philadelphia, Pa. Blast-furnace top. No. 1,307,684; June 24; v. 263; p. 558.

Rust Engineering Company, The. (See Yeomann, Warner M., assignor.)

Ruth, Robert W., Belle Vernon, Pa. Swaging-machine. No. 1,304,222; June 10; v. 263; p. 220.

Ruthsamer, Emil A., Aurora, Ill. Rail-joint. No. 1,307,885; June 24; v. 263; p. 588.

Ryan, John C., Toronto, Ontario, Canada. Propeller. No. 1,307,684; June 24; v. 263; p. 558.

Ryan, Louis W., assignor to Lindsay Light Company, Chicago, Ill. Treatment of thorium sesquioxide. No. 1,307,182; June 17; v. 263; p. 422.

Ryan, Louis W., assignor to Lindsay Light Company, Chicago, Ill. Recovery of thorium. No. 1,307,183; June 17; v. 263; p. 422.

Rydquist, Adolph, Rochester, N. Y. Delivering mechanism. No. 1,307,377; June 24; v. 263; p. 497.

Ryan, Eppa H., Waltham, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Welt-replenishing mechanism. No. 1,307,024; June 17; v. 263; p. 400.

S. & H. Gilkey. (See Gilkey, Harry, assignor.)

Saulburg, Charles W., Richmond Hill, N. Y., assignor to Animated Picture Products Company. Changeable picture. No. 1,305,535; June 3; v. 263; p. 114.

Sabin, Jasper J., Yakima, Wash. Automatic door. No. 1,306,962; June 3; v. 263; p. 143.

Saco-Lowell Shops. (See Penney, Loren W., assignor.)

Sadlovsky, Henry, Newark, N. J., assignor of one-half to R. Prydzinsky. Handle for bags, etc. No. 1,304,778; June 17; v. 263; p. 354.

Safety Car Heating and Lighting Company. (See Creveling, John L., assignor.)

Safety First Devices Company. (See Harshart, Lucien T., assignor.)

Sagberg, Paul, and L. Middelthun, Christiansia, Norway. Means for preventing racing in jet-turbines. No. 1,307,703; June 24; v. 263; p. 553.

Sahler, H. (See Reed, Andrew H., assignor.)

Saichell, John F., Frankfurt, assignor to D. Marcucilli, Louisville, Ky. Railway-signal. No. 1,306,967; June 17; v. 263; p. 143.

Sallbury, Charles K., assignor of one-half to G. Barber and one-half to J. A. Harbaugh, Milwaukee, Wis. Milling-machine. No. 1,306,934; June 10; v. 263; p. 295.

Salley, Thomas P., Brooklyn, N. Y. Hose-coupling. No. 1,307,273; June 17; v. 263; p. 444.

Salt, Wellington, Buffalo, N. Y. Level. No. 1,305,400; June 3; v. 263; p. 80.

Salter, William A., Kansas City, Mo. Clamp. No. 1,306,868; June 17; v. 263; p. 548.

Sampson, Robert V., Denver, Colo. Collar-button. No. 1,306,930; June 3; v. 263; p. 135.

Samuel Cabot, Inc. (See Cabot, Samuel, assignor.)

Samuel L. Moore & Sons Corporation. (See Busch, Arthur L., assignor.)

Sanderson, Wilbur J., San Leandro, Calif. Track for tractor. No. 1,306,223; June 10; v. 263; p. 231.

Sandstedt, Charles F., Manitowish, Mich. Automobile-head-light. No. 1,307,758; June 24; v. 263; p. 548.

Sandwith, Donald A. M., Pittsburgh, Pa. Finger-tip protector. No. 1,306,442; June 10; v. 263; p. 230.

Sapansk, Mike, New York, N. Y. Submarine fender. No. 1,307,518; June 24; v. 263; p. 522.

Sargent & Company. (See Page, Albert A., assignor.)

Sargent & Company. (See Voight, Henry G., assignor.)

Sather, Edmund G., Oakland, Calif. Control mechanism for carburetors. No. 1,307,704; June 24; v. 263; p. 554.

Saunders, Addison T., Chicopee, Mass. Apparatus for testing complex liquids. No. 1,307,601; June 24; v. 263; p. 537.

Saunders, Richard N., Auckland, New Zealand. Milking-machine. No. 1,307,920; June 24; v. 263; p. 597.

Sauvage, William H., Flushing, assignor to The Atlantic Hand Brake Company, Buffalo, N. Y. Railway hand-brake. No. 1,304,635; June 10; v. 263; p. 625.

Savage Arms Corporation. (See Nelson, Charles A., assignor.)

Saville, Douglas H. (See Phillips, Willie B., assignor.)

Sayles, Frank A., et al. (See Flick, Loren, assignor.)

Scaizli, Robert F., Trenton, N. J. Radiator. No. 1,306,562; June 10; v. 263; p. 281.

Scanes, Arthur E. L., Ashton-upon-Mersey, assignor to The British Westinghouse Electric & Manufacturing Company, Limited, London, England. Steam-condenser of the jet or contact type. No. 1,307,765; June 24; v. 263; p. 556.

Scannell, Albert T., Chicago, Ill. Mechanical belt for motor-vehicles. No. 1,307,154; June 17; v. 263; p. 422.

Scarborough, Charles F., Mount Oilead, N. C. Bottle-cap remover and alarm. No. 1,307,519; June 24; v. 263; p. 522.

Schaben, Joseph. (See Blomster and Schaben.)

Schachat, Abraham, Brooklyn, assignor to Bloem, Avram & Bloem, Laboratories, Inc., New York, N. Y. Square. No. 1,306,723; June 17; v. 263; p. 344.

Schachter, Nathan, Chicago, Ill. Shock-absorber. No. 1,307,750; June 24; v. 263; p. 548.

Schachter, Nathan, Chicago, Ill. Shock-absorber. No. 1,307,835; June 24; v. 263; p. 550.

Schaeffer, William E., Duluth, Minn. Tank-heater joint. No. 1,307,706; June 24; v. 263; p. 554.

Schatman, Joe. (See Fader, Schatman, and Goldberg.)

Schaub, Jacob, Newark, N. J., assignor to American Liquefied Gas Company. Apparatus for containing and consuming fuel. No. 1,306,671; June 3; v. 263; p. 84.

Schiebendorff, Matyas, St. Louis, Mo. Wheel-scoring machine. No. 1,307,700; June 24; v. 263; p. 548.

Schiller, Lewis. (See Gibson, James, assignor.)

Schirmer, James O., Cleveland, Ohio, assignor to The Viking Pump Company, Cedar Falls, Iowa. Automatic reversing device for rotary pumps. No. 1,307,602; June 24; v. 263; p. 537.

Schlicks, William J., assignor to McCord and Company, Chicago, Ill. Force-feed lubricator. No. 1,307,988; June 24; v. 263; p. 608.

Schlieder, Augustus E., assignor to Schlieder Manufacturing Co., Detroit, Mich. Stock-feeding mechanism. No. 1,306,672; June 3; v. 263; p. 84.

Schlieder Manufacturing Co. (See Schlieder, Augustus E., assignor.)

Schloerb, Albert P., assignor of one-third to A. H. Hammetter and one-third to W. L. Pfefferkorn, Milwaukee, Wis. Extension-table slide. No. 1,306,310; June 3; v. 263; p. 16.

Schmid, Louis E. (See Randall and Schmid.)

Schmidt, Herman C. (See Bergman, Zakaria N., assignor.)

Schmidt, John C., Chicago, Ill. Door check and closer. (Release.) No. 14,674; June 24; v. 263; p. 610.

Schmidt, Karl C., and H. G. Lykken, Grand Forks, N. D. Clamps for surveyors' band-chains. No. 1,307,707; June 24; v. 263; p. 556.

Schmidt, Robert, Boston, Mass. Combined chair and ironing-board. No. 1,307,420; June 24; v. 263; p. 504.

Schmidt, Walter A., and E. R. Wolcott, assignors to International Precipitation Company, Los Angeles, Calif. Process and apparatus for electrically accelerating chemical reactions. No. 1,307,930; June 24; v. 263; p. 597.

Schmidt, Walter A., and E. R. Wolcott, assignors to International Precipitation Company, Los Angeles, Calif. Treating petroleum. No. 1,307,931; June 24; v. 263; p. 597.

Schmidt, William F., Ridgewood, N. J. Filing units of intelligence. No. 1,306,933; June 3; v. 263; p. 135.

Schmitt, Henry, Jr. (See Harding, Lester E., assignor.)

Schmitt, Herman, et al. (See Evers, William H., assignor.)

Schneider, Alfred. (See Schneider, William, assignor.)

Schneider & Co. (See Schneider, Eugene, assignor.)

Schneider, Eugene, assignor to Schneider & Co., Paris, France. Piston for heat-engines. No. 1,306,830; June 17; v. 263; p. 358.

Schneider, Harry and J., Jr., Sloatsburg, N. Y. Basin. No. 1,306,624; June 3; v. 263; p. 76.

Schneider, John, Jr. (See Schneider, Harry and J., Jr.)

Schneider, William, assignor to A. Schneider, Rockville, Conn. Apparatus for making woven-wire fabrics. No. 1,306,850; June 17; v. 263; p. 350.

Schneider, William E., and G. E. Voelken, Daney, N. D. Rag-beater. No. 1,306,497; June 3; v. 263; p. 80.

Schneibach, Harry A. (See Jester, Ronald B., assignor.)

Schnarr, Peter, Chicago, Ill. Rag-beater. No. 1,307,023; June 17; v. 263; p. 400.

Schoeninger, Ferdinand L., Brooklyn, N. Y. Signal. No. 1,306,536; June 3; v. 263; p. 114.

Schoonmaker, Frank E. (See Kinsane and Schoonmaker.)

Schramm, Adolph W., Riverton, N. J. Antenna construction for aerial vessels. No. 1,307,185; June 17; v. 263; p. 422.

Schramm, Hans K., New York, N. Y. Envelop. No. 1,307,421; June 24; v. 263; p. 504.

Schreiber, Edward A., Chicago, Ill., assignor, by means assignments, to Vapor Car Heating Company, Inc. Tank-car heater. No. 1,306,837; June 17; v. 263; p. 358.

Schreiber, Paul D. (See Jones and Schreiber.)

Schroeder, John W., Zurich, Mont. Stone-gathering machine. No. 1,306,940; June 3; v. 263; p. 135.

Schroeder, William A., Seattle, Wash. Controllable head-light-screen. No. 1,306,498; June 3; v. 263; p. 81.

Schultz, August L., Cleveland, Ohio. Turnstile. No. 1,307,922; June 24; v. 263; p. 597.

Schultz, Frank A., Chicago, Ill., assignor to Pelouse Manufacturing Co. Automatic switch for flat-iron. No. 1,304,722; June 17; v. 263; p. 344.

Schulz, A. Steven, assignor of one-half to F. Howath, Jr., Budapest, Hungary. Producing variously-colored decorative disks or slabs. No. 1,307,886; June 24; v. 263; p. 588.

Schulz, Gustav O., Revere, Mass. Wall construction. No. 1,307,790; June 24; v. 263; p. 572.

Schumacher, Elmer L., assignor to American Optical Company, Southbridge, Mass. Ophthalmic mounting. No. 1,306,779; June 17; v. 263; p. 354.

Schurger, John J., Cleveland, Ohio. Attachment for lathes. No. 1,307,830; June 24; v. 263; p. 522.

Schuts Hawley Company. (See Schutz, Joseph M., assignor.)

Schutz, Joseph M., assignor to Schutz Hawley Company, Chicago, Ill. Self-contained pulverizing and separating mill. No. 1,306,418; June 3; v. 263; p. 34.

Schutz, Joseph M., assignor to Schutz Hawley Company, Chicago, Ill. Art of burning fuel. No. 1,306,233; June 10; v. 263; p. 220.

Schutz, Joseph M., assignor to Schutz Hawley Company, Chicago, Ill. Integrogenerative furnace. No. 1,306,234; June 10; v. 263; p. 221.

Schutz, Joseph M., assignor to Schutz Hawley Company, Chicago, Ill. Fuel-burning apparatus. No. 1,306,235; June 10; v. 263; p. 221.

Schwartz, Charles, trustee. (See Knapp, William A., assignor.)

Schwartz, Justin O., New York, N. Y., and G. Bjorklund, West New York, N. J. Pedal mechanism for pneumatic devices. No. 1,306,081; June 10; v. 263; p. 190.

Schweitzer, Edmund O., Chicago, Ill. Electricity-metering. No. 1,306,356; June 10; v. 263; p. 244.
 Schyllander, Alfred T., assignor of one-half to C. E. Adamson, Toledo, Ohio. Tire. No. 1,306,724; June 17; v. 263; p. 244.
 Scott, George L., Shawnee, Okla. Car-brake. No. 1,307,422; June 24; v. 263; p. 505.
 Scott, Lewis L., St. Louis, Mo. Igniting hydrocarbons. No. 1,307,214; June 17; v. 263; p. 433.
 Scott, Paul C., Omaha, Nebr. Advertising-machine. No. 1,306,975; June 17; v. 263; p. 390.
 Scott and Williams. (See Childrey, William H., assignor.)
 Sealy, Christopher, Brooklyn, N. Y. Torpedo-guard. No. 1,307,274; June 17; v. 263; p. 444.
 Searies, Herbert N., New York, N. Y. Radiator. No. 1,306,976; June 17; v. 263; p. 390.
 Searies, Wayne S., assignor to New Jersey Optical Co., Newark, N. J. Spectacle-frame. No. 1,306,392; June 10; v. 263; p. 251.
 Sears, Roebuck & Company. (See Brandstetter, Josef, assignor.)
 Sears, Willard T., New York, N. Y. Throttle-controlling apparatus. No. 1,307,704; June 24; v. 263; p. 572.
 Seaton, Hugo, Cleveland, Ohio. Vehicle-wheel. No. 1,306,192; June 10; v. 263; p. 211.
 Sebolt, Frank B. (See Christensen, Martin J., assignor.)
 Sechrist, Albert, assignor to The Albert Sechrist Manufacturing Company, Denver, Colo. Safety-valve. No. 1,305,747; June 3; v. 263; p. 98.
 Sedano, Rafael D., Habana, Cuba. Interior reflector for incandescent lights. No. 1,306,837; June 3; v. 263; p. 116.
 Seder, Harry, Pittsburgh, Pa. Lock mechanism. No. 1,306,193; June 10; v. 263; p. 211.
 Sedgwick, Henry F. F., Millwall, London, England. Banding-machine. No. 1,306,126; June 10; v. 263; p. 199.
 Seely, Alfred. (See Holt and Seely.)
 Segal Lock & Hardware Co. (See Segal, Samuel, assignor.)
 Segal, Samuel, assignor to Segal Lock & Hardware Co., Inc., New York, N. Y. Key-duplicating machine. No. 1,307,378; June 24; v. 263; p. 497.
 Segal, Samuel, assignor to Segal Lock & Hardware Co., Inc., New York, N. Y. Gage for filing tumblers of locks. No. 1,307,379; June 24; v. 263; p. 497.
 Seidenfeld, Fannie, et al. (See Hodgson, George F., assignor.)
 Seidl, Rudolf, Minneapolis, Minn. Toy submarine. No. 1,306,284; June 10; v. 263; p. 231.
 Selby, George M., Millwall, London, England. Abrasive wire rope. No. 1,306,636; June 10; v. 263; p. 295.
 Semet-Solvay Company. (See Jones, Louis C., assignor.)
 Setchell, Frederick J. (See Barry, Cornelius J., assignor.)
 Severns, William, Chicago, Ill. Mop. No. 1,307,216; June 17; v. 263; p. 433.
 Seymour, Ralph C., Larchmont, N. Y., assignor to Goetz Printing Press Company. Printing-press. No. 1,305,568; June 3; v. 263; p. 64.
 Seymour, Stedman. (See Gardner, Benjamin F., assignor.)
 Shafer, Howard S., Nazareth, Pa. Carbon-removing means for internal-combustion engines. No. 1,306,637; June 10; v. 263; p. 295.
 Shafer, Robert R., Crawfordsville, Iowa. Stock-fountain. No. 1,307,521; June 24; v. 263; p. 523.
 Shannock Narrow Fabric Company. (See Waterfield, John, assignor.)
 Shapiro, Heyman, Brooklyn, N. Y. Folding-machine. No. 1,305,748; June 3; v. 263; p. 98.
 Sharp-Hughes Tool Company. (See Hughes, Howard R., assignor.)
 Sharp, Isaac M., San Francisco, Calif. Burner. No. 1,307,320; June 17; v. 263; p. 453.
 Sharps, John A., and I. G. Cutright, Buchanan, W. Va. Shade-roller. No. 1,306,127; June 10; v. 263; p. 199.
 Shaw, Byron A. (See Covert and Shaw.)
 Shaw, John K., Minneapolis, assignor to E. G. Dahlberg, St. Paul, Minn. Machine for perforating insulate boards. No. 1,306,283; June 10; v. 263; p. 231.
 Shaw, Robert S., Port Hope, Ontario, Canada. Circuit-controlling device. No. 1,306,638; June 10; v. 263; p. 296.
 Sheehan, James G. (See Rhodes, Guffey, and Sheehan.)
 Shelby Spring Hinge Company, The. (See Malone and Hubbs, assignors.)
 Sheldon, Ward J., and C. H. Allen, Electra, Tex. Sucker-rod or pull-rod coupling. No. 1,305,311; June 3; v. 263; p. 10.
 Shelton, Harry J., St. Louis, Mo. Grinder and shredder. No. 1,307,761; June 24; v. 263; p. 523.
 Shero, Isaac K. (See Basolo and Shero.)
 Sherrerd, William H., Seattle, Wash. Headlight-lens. No. 1,306,780; June 17; v. 263; p. 354.
 Shindel, Harry F., assignor to T. A. Willson & Co., Inc., Reading, Pa. Frame-edging for goggles. No. 1,306,357; June 10; v. 263; p. 244.
 Shirley, Frank, Phoenix, Ariz. Toe-spreader. No. 1,305,749; June 3; v. 263; p. 98.
 Shives, Marion. (See Getz and Shives.)
 Shockless Electric Corporation. (See Houchin and Leburg, assignors.)

Shoemaker, John F., Des Moines, Iowa, assignor, by mesne assignments, to Protective Corporation, Chicago, Ill. Combined chest, chest-book holder, and cutter. No. 1,306,941; June 8; v. 263; p. 386.
 Shupe Brick Co., The. (See Shupe, David F., assignor.)
 Shupe, David F., assignor to The Shupe Brick Co., Portland, Oreg. Brickmaking-machine. No. 1,306,977; June 17; v. 263; p. 390.
 Shuler, Isaac, et al. (See Hughes, John L., assignor.)
 Shultz, Walter C. (See Johnson, Sinclair J., assignor.)
 Shur, Edward J., New Orleans, La. Inner door for cars. No. 1,306,388; June 8; v. 263; p. 378.
 Sibley, Edward W., assignor to Winchester Repeating Arms Co., New Haven, Conn. Hand-trap for clay pigeons. No. 1,306,389; June 10; v. 263; p. 381.
 Sindenfeld, Samuel, et al. (See Hodgson, George F., assignor.)
 Siegler, Otto, Belleville, Ill. Combined gas and coal range. No. 1,307,762; June 24; v. 263; p. 524.
 Siemens & Halske. (See Von Marchthal, Edward, assignor.)
 Slevorling, Fred A., Great Bend, Kans. Underfed furnace. No. 1,306,194; June 10; v. 263; p. 212.
 Sigouin, Adolphe, St. Agathe des Monts, Quebec, Canada. Finishing device for talcots. No. 1,306,255; June 10; v. 263; p. 221.
 Sikirica, Mosler, Fort Barrancas, Fla. Landing device for aeroplanes. No. 1,305,512; June 3; v. 263; p. 10.
 Hill Store Works. (See Hill, Fildes and F., assignors.)
 Silliman, Justus M., London, Ontario, Canada. Demountable metal tire for vehicle-wheels. No. 1,306,290; June 10; v. 263; p. 221.
 Silva, Antonio J., Santa Maria, Calif. Automobile-thaft signal. No. 1,307,328; June 24; v. 263; p. 504.
 Simank, Charles, Calder Station, Saskatchewan, Canada. Flying-machine. No. 1,306,682; June 10; v. 263; p. 190.
 Simmen Automatic Railway Signal Company, The. (See Chaffield, Clarence R., assignor.)
 Simmen Automatic Railway Signal Company. (See Ringer, Lecher, assignor.)
 Simmons Company. (See Friel, Patrick H., assignor.)
 Simon, Arthur, assignor to The Cuthbertson Mfg. Co., Milwaukee, Wis. Motor-controller. No. 1,307,390; June 24; v. 263; p. 500.
 Simons, Chris R., Armour, & D. Draft appliance. No. 1,306,443; June 10; v. 263; p. 280.
 Simplex Electric Heating Company. (See Hewitt, Frank W., assignor.)
 Simpson, James R. (See Smith, McHugh, and Simpson.)
 Simpson, Rufus A., Oakland, Calif. Dumping butter-mold. No. 1,306,128; June 10; v. 263; p. 199.
 Simpson, George, British Navy, assignor of one-half to Sir W. G. Armstrong, Whitworth and Company, Limited, Newcastle-upon-Tyne, England. Gun-mounting. No. 1,306,539; June 3; v. 263; p. 126.
 Sinclair, John J., Upper Montclair, N. J., assignor to Mequinn Company, Inc. Voltage-regulating means for storage batteries. No. 1,306,315; June 10; v. 263; p. 224.
 Sinding-Larsen, Alf, Vestre Aker, near Christiania, Norway. Transforming iron sponge into solid iron. No. 1,306,928; June 17; v. 263; p. 392.
 Singer Manufacturing Company, The. (See De Vos, Albert H., assignor.)
 Singer Manufacturing Company, The. (See F. A. Hale, Lee C., assignor.)
 Singer Manufacturing Company, The. (See Gatchell, George A., assignor.)
 Sings, Ira W., Wilmette, Ill. Steam-ash bracket. No. 1,306,929; June 17; v. 263; p. 392.
 Siqueira, Edward C., Oakland, Calif. Coin sorter and register. No. 1,306,195; June 10; v. 263; p. 212.
 Sir W. G. Armstrong, Whitworth and Company, Limited. (See Simpson, George, assignor.)
 Six, Joseph F. (See Fromager and Six.)
 Skalla, Charles N., Milwaukee, Wis. Sanitary overflow-valve. No. 1,307,400; June 24; v. 263; p. 512.
 Skelton, L. A. (See Westbury, William, assignor.)
 Skerr, Francesco, assignor to The National Cash Register Company, Dayton, Ohio. Ticket-printing machine. No. 1,307,008; June 24; v. 263; p. 507.
 Skociak, John. (See Karabin and Skociak.)
 Sloan, Alonzo H., assignor of one-third to F. Mansfield and one-third to R. C. Striker, Detroit, Mich. Expansion-joint. No. 1,306,395; June 10; v. 263; p. 251.
 Slocum, Abram & Slocum, Laboratories. (See Schacht, Abraham, assignor.)
 Slocum, Edward M., Medan, Sumatra, Dutch East Indies, assignor to General Rubber Company. Treating latex and product thereof. No. 1,306,838; June 17; v. 263; p. 393.
 Small, Frank A., New York, N. Y. Bridge-abutment construction. No. 1,306,735; June 17; v. 263; p. 344.
 Smiley, Albert A., Albia, Iowa. Building-block. No. 1,306,781; June 17; v. 263; p. 354.
 Smiley, Harry D., Albia, Iowa. Powder-charging device. No. 1,306,516; June 10; v. 263; p. 290.
 Smith, Barnes & Strohler Company. (See Smith, Charles H., assignor.)
 Smith Cannery Machines Company. (See Waugh, Edward H., assignor.)

Smith, Charles C., Des Moines, Iowa. Adjustable door-jamb. No. 1,307,316; June 17; v. 263; p. 453.
 Smith, Charles H., assignor to Smith, Barnes & Strohler Company, Chicago, Ill. Tone-regulator for phonographs. No. 1,306,198; June 10; v. 263; p. 212.
 Smith, David J., London, England. Scrubber, cleanser, and cooler for gas. No. 1,307,321; June 17; v. 263; p. 453.
 Smith, Edmund S. (See Tane and Smith.)
 Smith & Hays Mfg. Co., The. (See Smith, Friend W., Jr., assignor.)
 Smith, Elbert D., Brooklyn, assignor to American Machine & Foundry Company, New York, N. Y. Cigarette-tipping machine. No. 1,306,318; June 3; v. 263; p. 10.
 Smith, Elmer L., assignor to Package Machinery Company, Springfield, Mass. Wrapping-machine. No. 1,306,258; June 10; v. 263; p. 245.
 Smith, Elmer L., assignor to Package Machinery Company, Springfield, Mass. Mechanism for applying stamps, labels and the like. No. 1,306,359; June 10; v. 263; p. 245.
 Smith, Ernest S., assignor to The Goss Printing Press Company, Chicago, Ill. Planographic machine. No. 1,306,728; June 17; v. 263; p. 344.
 Smith, Eugene S., Pittsburg, Kans. Draft adjustment for plows. No. 1,307,795; June 24; v. 263; p. 572.
 Smith, Floyd, San Diego, Calif. Airplane landing and launching equipment. No. 1,306,880; June 17; v. 263; p. 399.
 Smith, Frank B., Maywood, Ill. Clothes-wringer attachment. No. 1,307,317; June 17; v. 263; p. 433.
 Smith, Franklin E., et al. (See Miller, Joseph W., assignor.)
 Smith, Friend W., Jr., assignor to The Smith & Hays Mfg. Co., Bridgeport, Conn. Wire chain. No. 1,306,678; June 3; v. 263; p. 84.
 Smith, Galliard, Glen Ridge, N. J., assignor to World Harvester Corporation, New York, N. Y. Walking-cultivator. No. 1,305,674; June 3; v. 263; p. 54.
 Smith, George P., Boise, assignor of one-half to J. C. Jackson, Langston, Okla. Orchestra. No. 1,306,943; June 3; v. 263; p. 135.
 Smith, Henry, assignor to Standard Check Book Company, Incorporated, Richmond, Va. Check-book. No. 1,307,788; June 24; v. 263; p. 550.
 Smith, Henry A. W., assignor of one-half to E. S. Reid, Chatham, Va. Recliner. No. 1,306,635; June 3; v. 263; p. 76.
 Smith, Henry A. W., assignor of one-half to E. S. Reid, Chatham, Va. Recliner. No. 1,306,636; June 3; v. 263; p. 76.
 Smith, James A. R., Stamford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Typewriter machine. No. 1,307,641; June 24; v. 263; p. 544.
 Smith, John, Southbridge, Mass. Railway-track signal device. No. 1,307,590; June 24; v. 263; p. 497.
 Smith, John H., Chicago, Ill. Pocket for suit-bags. No. 1,306,953; June 10; v. 263; p. 191.
 Smith, John L., and R. A. Hamilton, Ontario, Canada. Retarder for rod-mills. No. 1,307,166; June 17; v. 263; p. 423.
 Smith, Lily B., Atlanta, Ga. Retaining means for shoe-laces. No. 1,306,940; June 17; v. 263; p. 395.
 Smith, Link, E. D. McCosker, and J. E. Simpson, Bald, Okla. Detachable heel. No. 1,307,423; June 24; v. 263; p. 504.
 Smith, Nicholas A., assignor of one-half to A. F. Winters, Grand Rapids, Mich. Toy bank. No. 1,306,769; June 3; v. 263; p. 80.
 Smith, Raymond D., Arlington, assignor to Tremont Products Company, Boston, Mass. Humidifier. No. 1,306,942; June 3; v. 263; p. 125.
 Smith, Raymond D., Arlington, assignor to Tremont Products Company, Boston, Mass. Humidifier apparatus. No. 1,306,944; June 3; v. 263; p. 126.
 Smith, Sheridan A. (See Smith, John L. and R. A. Hamilton.)
 Smith, Sheridan A., Hamilton, Ontario, Canada. Inter-bearing-block. No. 1,306,678; June 10; v. 263; p. 303.
 Smith, Theron A., San Jose, Calif. Tire-rim-locking device. No. 1,307,461; June 24; v. 263; p. 512.
 Smith, Walter C., Roselle, N. J., assignor to United States Smelting, Refining & Mining Company. Making copper cadmium alloy. No. 1,307,642; June 24; v. 263; p. 544.
 Smith, Walter L., Pittsburgh, Pa. Shade-guide. No. 1,307,709; June 24; v. 263; p. 554.
 Smith, Wilbur J., Coldwater, Kans. Collapsible funnel. No. 1,306,637; June 3; v. 263; p. 77.
 Smith, William A., Olympia, Wash. Pocket-book. No. 1,306,509; June 3; v. 263; p. 65.
 Smith, William G., Scarsdale, and J. P. Link, Brooklyn, N. Y. Humidifier. No. 1,306,945; June 3; v. 263; p. 126.
 Smith, William W., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Organized thrust-bearing and reduction-gearing. No. 1,306,157; June 10; v. 263; p. 204.
 Smith, Marvin, Lawrenceville, Va. Meter. No. 1,307,187; June 17; v. 263; p. 423.
 Smolinsky, Theodore, Gary, Ind. Work-support. No. 1,306,762; June 17; v. 263; p. 385.

Smolinsky, Theodore, Gary, Ind. Kitchen utensil. No. 1,306,763; June 17; v. 263; p. 385.
 Smelling, Walter O., Allentown, Pa. Preparation of colloid sodas. No. 1,305,946; June 3; v. 263; p. 124.
 Snyder, Charles. (See Bates, George E., assignor.)
 Snyder, Frederick T., Oak Park, Ill. Apparatus for the production of metallic nitride. No. 1,306,414; June 3; v. 263; p. 25.
 Soames, Alfred, and W. L. Davies, London, England. Electromagnetic clutch. No. 1,306,784; June 17; v. 263; p. 393.
 Societe Anonyme pour l'Exploitation des Procédés Westinghouse Leblanc. (See Van Deuren, Delas, and Leblanc, assignors.)
 Societe Chimique Des Usines Du Rhone, anciennement Guillard, P. Monnet et Cartier. (See Koetschet and Boudet, assignors.)
 Soderstrom, John A. (See Zagel, Jacob, assignor.)
 Soderstrom, John A., assignor of one-half to J. Zagel, Chicago, Ill. Necktie-fastener. No. 1,305,947; June 3; v. 263; p. 154.
 Soderstrom, Oscar W., New York, N. Y., and W. Fuhrmann, Westfield, N. J. Button-machine. No. 1,305,570; June 3; v. 263; p. 63.
 Soemer, Joseph C., Newark, N. J. Internal-combustion engine. No. 1,306,539; June 10; v. 263; p. 290.
 Solinas, John, Port Richmond, N. Y. Rotary engine. No. 1,306,314; June 3; v. 263; p. 10.
 Sommer, William H., assignor, by mesne assignments, to The First Trust and Savings Company, Cleveland, Ohio, and W. E. Stone, Peoria, Ill. Machine for manufacturing wire-fence fabrics. No. 1,307,563; June 24; v. 263; p. 530.
 Sommers, Edward F., Los Angeles, Calif. Starter for internal-combustion engines. No. 1,307,026; June 17; v. 263; p. 400.
 Sonderger, Leo, assignor of one-half to W. Meyer, New York, N. Y. Window-cleaner. No. 1,305,948; June 3; v. 263; p. 124.
 Sotham, John C. (See Carpmel and Sotham.)
 Soole, Solomon A., Frances, Wash. Fair-leader. No. 1,307,309; June 24; v. 263; p. 499.
 Southgate, Louis W., Worcester, Mass., assignor to Standard Pneumatic Action Co., New York, N. Y. Roll-shifting mechanism for automatic musical instruments. No. 1,307,424; June 24; v. 263; p. 505.
 Sperry, Arthur L., Beaconsfield, Hilt, England. Fountain-pen. No. 1,306,944; June 10; v. 263; p. 251.
 Spierden, John G., Birmingham, Ala. Drawing apparatus. No. 1,306,561; June 17; v. 263; p. 299.
 Spaulding, Roy H., Battle Creek, Mich. Runner attachment for baby-carriages. No. 1,307,375; June 17; v. 263; p. 444.
 Spence, Charles L., Sturgis, Mich. Manifolding or duplicating paper. No. 1,306,785; June 17; v. 263; p. 395.
 Spence, John C., Worcester, Mass., assignor to Forten Company. Abrasive-wheel centering and balancing device. No. 1,305,978; June 3; v. 263; p. 142.
 Spencer, Josephine M., Florence, Nebr. Doll. No. 1,307,318; June 17; v. 263; p. 434.
 Speranza, John N., assignor of one-half to J. L. Black, Hamilton, Ohio. Device for polishing shoes. No. 1,307,376; June 17; v. 263; p. 445.
 Sperry, Frank H., Batavia, Ill. Bearing-surface. No. 1,307,264; June 24; v. 263; p. 531.
 Sperry Gyroscope Company, The. (See Minor, Nicolai, assignor.)
 Sperry, Theodore A., and C. E. Unbenhauer, Indianapolis, Ind. Concrete-block machine. No. 1,307,766; June 24; v. 263; p. 578.
 Spitz, Herman, Nashville, Tenn. Steam-sterilizer. No. 1,305,499; June 3; v. 263; p. 51.
 Spitzner, Felix. (See Bretscher, Hans, assignor.)
 Spitzer, Gregory J., East Orange, N. J., assignor to The Motor-Compressor Company, Aeroplans. No. 1,306,964; June 10; v. 263; p. 161.
 Sporn, Andrew, Bureau, Calif. Automatically-adjustable wrench. No. 1,306,571; June 3; v. 263; p. 65.
 Spott, Matthew S., Scranton, and T. Jeffrey, Dunmore, Pa. Auto-wheel. No. 1,307,277; June 17; v. 263; p. 445.
 Spranger, Frank, assignor to Spranger Wire Wheel Company, Detroit, Mich. Hub construction. No. 1,306,503; June 10; v. 263; p. 271.
 Spranger Wire Wheel Company. (See Spranger, Frank, assignor.)
 Spray Engineering Company. (See Parker, Lee H., assignor.)
 Squires, John, Grosse Point Park, Mich., and C. P. King, Chicago, Ill. Liquid-fuel igniter and burner. No. 1,307,797; June 24; v. 263; p. 578.
 St. Clair, Charles L., Concordia, Kans. Machine for threshing or shelling grain. No. 1,307,322; June 17; v. 263; p. 453.
 St. Clair, Stelbert M. (See Farnsworth and St. Clair.)
 St. John, James A., Decatur, Ill. Corn-harvester. No. 1,306,317; June 10; v. 263; p. 226.
 Stack, Elmer S., West Somerville, Mass. Water-beater. No. 1,306,197; June 10; v. 263; p. 212.
 Stafford, Hal E. (See Mohun and Stafford.)
 Stafford, Hal E., Plainfield, N. J., assignor of one-third to J. E. Muhlfeld, Scarsdale, N. Y. Locomotive exhaust-pipe. No. 1,306,444; June 10; v. 263; p. 260.

Stahl, Albert L., Memphis, Tenn. Tire-deflating indicator. No. 1,305,315; June 3; v. 263; p. 16.
 Stallord, Edwin D., Baltimore, Md. Cushion-heel. No. 1,307,900; June 24; v. 263; p. 609.
 Standard Check Book Company. (See Smith, Henry, assignor.)
 Standard Fuel Engineering Company. (See Roeman, Joseph J., assignor.)
 Standard Gas Engine Company, The. (See Mohrdeck, Peter, assignor.)
 Standard Machine Company. (See Houseman, Harold M., assignor.)
 Standard Pneumatic Action Co. (See Southgate, Louis W., assignor.)
 Standfield, Perry. (See Maynard and Standfield.)
 Standish, Frederick, Shelton, Conn. Reversible cut. No. 1,307,984; June 24; v. 263; p. 598.
 Standish, Katharine L., New York, N. Y. Telephone-receiver support. No. 1,306,445; June 10; v. 263; p. 260.
 Standley, William E., assignor to Window Glass Rotary Pot Company, Pittsburgh, Pa. Window-glass-blowing head. No. 1,307,381; June 24; v. 263; p. 494.
 Staneky, Joseph G., assignor of one-half to J. J. Zabolca, Chicago, Ill. Brush. No. 1,307,937; June 24; v. 263; p. 580.
 Stanley, George E., Coventry, England. Internal-combustion engine. No. 1,306,166; June 10; v. 263; p. 212.
 Stanton, Frederick L. and G. D. Fish, New York, N. Y.; said Fish assignor to said Stanton. Means for placing teeth in correct positions. No. 1,307,323; June 24; v. 263; p. 498.
 Stapley, Philip H., Milford, assignor to Geo. Stanley Manufacturing Corporation, Bridgeport, Conn. Half-lubricating piston for air-pumps. No. 1,306,640; June 10; v. 263; p. 294.
 Stanwood Equipment Co. (See Stanwood, Frank H., assignor.)
 Stanwood, Frank H., Arlington, assignor to Stanwood Equipment Co., Boston, Mass. Hand deer-pad for automobiles. No. 1,305,166; June 10; v. 263; p. 212.
 Starke, Paul A., Berkeley, assignor to The Halfour-Guthrie Investment Company, San Francisco, Calif. Producing cyanogen and ammonia. No. 1,306,922; June 17; v. 263; p. 268.
 Starker, Charles W., Pittsburgh, and R. E. Hollmann, Erievale, Pa., assignors to Westinghouse Electric and Manufacturing Company. Frame for dynamo-electric machines. No. 1,306,543; June 10; v. 263; p. 281.
 Starker, Charles W., Pittsburgh, Pa., and A. E. Pröhl, Cleveland, Ohio, assignors to Westinghouse Electric & Manufacturing Company. Frame for dynamo-electric machines. No. 1,306,544; June 10; v. 263; p. 282.
 Starling, Sydney G., Forest Gate, and Arthur J. Hughes, London, England, assignors to Henry Hughes and Son Ltd., London, England. Magnetic compass. No. 1,307,935; June 24; v. 263; p. 598.
 Statham, Roland J., Vancouver, British Columbia, Canada. Wrench. No. 1,306,628; June 3; v. 263; p. 77.
 Starns, Marcus C., Buffalo, N. Y. Incendiary bomb. No. 1,305,751; June 3; v. 263; p. 98.
 Steadman, H. H., et al. (See Cooper, Benjamin F., assignor.)
 Steele, Benjamin M., assignor to Hart Grain Weigher Co., Peoria, Ill. Seeding-machine. No. 1,306,560; June 3; v. 263; p. 51.
 Steele, Daniel B., Seattle, Wash. Resilient tire. No. 1,306,287; June 10; v. 263; p. 221.
 Steele, Lawrence C., Beaver, Pa. Catching and packing mechanism. No. 1,305,501; June 3; v. 263; p. 51.
 Steelreath, Victor, Basic, Va. Writing instrument. No. 1,307,169; June 17; v. 263; p. 423.
 Steensrup, Christian, Schenectady, N. Y., assignor to General Electric Company. Gas-shell and the like. No. 1,306,641; June 10; v. 263; p. 294.
 Steffens, Fred, St. Joseph, Mo. assignor of one-half to H. L. Doherty, New York, N. Y. Elevated-railway system. No. 1,305,415; June 3; v. 263; p. 36.
 Steffens, Fred, St. Joseph, Mo. Entrance and exit control and signal mechanism for street-cars. No. 1,306,786; June 17; v. 263; p. 265.
 Steffenon, Herbert J., Poy Sippi, Wis. Ball-bearing worm-gear. No. 1,307,462; June 24; v. 263; p. 613.
 Stegmeyer, Ernest J., Detroit, Mich. Window-strap clutch. No. 1,307,936; June 24; v. 263; p. 598.
 Stein, Samuel F., Williamsport, Pa. Motion-picture apparatus. No. 1,307,323; June 17; v. 263; p. 493.
 Steinhart, Alfred, Pittsburgh, Pa. Gas-burner. No. 1,306,446; June 10; v. 263; p. 260.
 Stember, John, New York, N. Y. Lady's pocket-book. No. 1,307,324; June 17; v. 263; p. 494.
 Stenberg, Arvid E., Reed City, Mich. Transmission. No. 1,306,978; June 17; v. 263; p. 391.
 Stepanoff, Peter, Petrograd, Russia. Automatic powder-measuring device. No. 1,306,447; June 10; v. 263; p. 260.
 Stephan, Paul M., San Francisco, Calif. Full-circle collapsible retread-mold. No. 1,307,798; June 24; v. 263; p. 573.
 Stephenson, Elson. (See Boagie and Stephenson.)
 Stephenson, William C., Woburn, Mass., assignor to Vose & Sons Piano Company. Valve structure. No. 1,305,976; June 3; v. 263; p. 142.

Sterbens, Joseph, Nashua, Minn. Animal-trap. No. 1,307,793; June 24; v. 263; p. 567.
 Stevens, William C., assignor to The Firestone Tire & Rubber Company, Akron, Ohio. Salvage-trimmer. No. 1,306,642; June 10; v. 263; p. 264.
 Stevenson, Charles E., Chicago, Ill. Power attachment for motor-vehicles. No. 1,306,448; June 10; v. 263; p. 261.
 Stevenson, Minerva G., Orange Lake, Fla. Mattress. No. 1,306,787; June 17; v. 263; p. 264.
 Stewart, Alexander, assignor to Tapp-Stewart Tractor Co., Cliftonville, Wis. Power steering mechanism. No. 1,306,686; June 10; v. 263; p. 181.
 Stewart, Kenneth D., Youngstown, Ohio. Clip for reinforcing bars for concrete construction-work. No. 1,306,129; June 10; v. 263; p. 198.
 Stewart-Warner Speedometer Corporation. (See Duffy, Thomas L., assignor.)
 Stewart-Warner Speedometer Corporation. (See Johnston, Donald F., assignor.)
 Stewart, William J. (See Linden, Lucian, assignor.)
 Stichel, Frederick, Chicago, Ill. Oscillatory water-motor. No. 1,306,688; June 17; v. 263; p. 182.
 Stinchcomb, John H., Indianapolis, Ind. Automatic brake-applying safety-valve. No. 1,306,564; June 10; v. 263; p. 271.
 Stiger, Charles W., assignor to Stenberg Motor Devices Company, Chicago, Ill. Carburetor. No. 1,306,681; June 10; v. 263; p. 181.
 Still, William J., London, England. Internal-combustion engine. No. 1,306,979; June 17; v. 263; p. 391.
 Stirling, Clarence C., assignor to The Hart & Hageman Manufacturing Company, Hartford, Conn. Snap-switch. No. 1,306,569; June 10; v. 263; p. 244.
 Stoddard, Elliott J., Detroit, Mich. Driving mechanism for automobiles. No. 1,306,934; June 17; v. 263; p. 379.
 Stoddard, Elliott J., Detroit, Mich. Prime mover. No. 1,306,935; June 17; v. 263; p. 379.
 Stokes, Charles W. and H. R. Roddick, Center City, Pa. Means for heating oil in oil-tanks. No. 1,306,385; June 10; v. 263; p. 222.
 Stokes, Fremont, Clarksville, Ark. Coupling. No. 1,307,160; June 17; v. 263; p. 424.
 Stollmeyer, Henry W., Milwaukee, Wis. Split-rim expanding-tool. No. 1,306,299; June 10; v. 263; p. 212.
 Stolpe, John, and A. Matson, McPherson, Kans. Oil-stove. No. 1,307,319; June 17; v. 263; p. 424.
 Stone, Harris D., assignor to The A. C. Gilbert Company, New Haven, Conn. Rheostat. No. 1,307,945; June 24; v. 263; p. 544.
 Stone, William R., et al., trustees. (See Sommer, William H., assignor.)
 Stone, William F., Portland, Me., assignor to National Metal Seal Corporation. Crimping-tool. No. 1,306,782; June 3; v. 263; p. 98.
 Stoneback, Samuel A., Philadelphia, Pa. Waterproof railway-tie. No. 1,307,505; June 24; v. 263; p. 521.
 Storts, John H., assignor to Henry Schmidt & Bro. Inc., Philadelphia, Pa. Machine for creasing cardboard. No. 1,307,095; June 17; v. 263; p. 497.
 Story, Lester, Leola, S. D. Dispensing-can. No. 1,305,573; June 3; v. 263; p. 94.
 Stover, Avery M., and W. E. Sturges, Stockton, Ill. Playing-cards. No. 1,306,949; June 3; v. 263; p. 187.
 Stoughton, Joseph M., Yonkers, N. Y. Clutch. No. 1,307,463; June 24; v. 263; p. 613.
 Stout, George W., Merchantsville, N. J. Package-tie. No. 1,306,739; June 3; v. 263; p. 99.
 Stowe, Floyd D., Wilmington, Del., assignor, by mesne assignments, to R. I. du Pont de Nemours and Company, Newark, No. 1,306,449; June 10; v. 263; p. 261.
 Stowe, Francis B., Sydney, New South Wales, Australia. Vertically sliding or swinging sash-window. No. 1,306,316; June 3; v. 263; p. 17.
 Straight, Ann W., Chicago, Ill. Photographer's flash-light. No. 1,307,320; June 17; v. 263; p. 494.
 Strain, Alma, administratrix. (See Strain, Henry.)
 Strain, Henry, deceased; A. Strain, administratrix, Trolgar, Mo. Traction-wheel. No. 1,306,977; June 3; v. 263; p. 142.
 Strane, Archibald J. (See Hill and Strane.)
 Stratton, Harry F., assignor to The Electric Controller & Manufacturing Company, Cleveland, Ohio. Electric controller. No. 1,306,966; June 3; v. 263; p. 187.
 Stratton, Harry F., assignor to The Electric Controller & Manufacturing Company, Cleveland, Ohio. Electric controller. No. 1,306,961; June 3; v. 263; p. 187.
 Stratton, Nathaniel A., assignor to New American Ore Concentrator Company, Boston, Mass. Ore-concentrating machine. No. 1,306,450; June 10; v. 263; p. 261.
 Straub, William F., Chicago, Ill. Interchangeable tool-holder. No. 1,307,367; June 24; v. 263; p. 599.
 Stricker, Eric C. (See Dunlap, Everett B., assignor.)
 Strickland, Frederick R., Alexandria, La. Foldable umbrella. No. 1,307,938; June 24; v. 263; p. 599.
 Stricker, Raymond C., et al. (See Sloan, Alonzo H., assignor.)
 Strobbridge, William, Biverton, assignor to United States Cast Iron Pipe & Foundry Company, Burlington, N. J. Apparatus for casting shells to core-bars. No. 1,306,618; June 3; v. 263; p. 123.
 Strodel, Otto F. (See Lovelace, Fred H., assignor.)

Stromberg Motor Devices Company. (See Edwards, Francis B., assignor.)
 Stromberg Motor Devices Company. (See Gustafson, Charles J., assignor.)
 Stromberg Motor Devices Company. (See Maagly, George B., assignor.)
 Stromberg Motor Devices Company. (See Stiger, Charles W., assignor.)
 Stroad, John B., Pass Christian, Miss. Filler-cap for tire-rim clamps. No. 1,306,990; June 17; v. 263; p. 391.
 Struve, Felix L., et al. (See Bolton, Williams, and Struve.)
 Stubbled, James L., Angiola, assignor of one-half to A. T. Parker, Stockton, Calif. Locking device. No. 1,307,161; June 17; v. 263; p. 424.
 Studebaker Corporation, The. (See Graff, Edwin E., assignor.)
 Sturk, John H., Midway, Wis. Far-stretcher. No. 1,307,325; June 24; v. 263; p. 522.
 Sturges, Joseph, Honolulu, Hawaii. Stabilizer. No. 1,306,318; June 10; v. 263; p. 207.
 Sturtevant, B. F. (See Allen, George W., assignor.)
 Sumner, Ann B., Springfield, Mass. Golf-club. No. 1,306,563; June 3; v. 263; p. 187.
 Sullivan, Denis R., assignor of one-half to J. R. Grace, Longville, La. Emergency railway-signal. No. 1,307,533; June 24; v. 263; p. 523.
 Sullivan, Glen V., San Francisco, Calif., assignor to Bethlehem Steel-rolling Corporation, Ltd., South Bethlehem, Pa. Hydraulic press for turbine-wheels. No. 1,307,764; June 24; v. 263; p. 597.
 Summers, Bertrand S., Port Huron, Mich. Flax-cutcher. No. 1,306,982; June 10; v. 263; p. 181.
 Summers, Caleb H., Kansas City, Mo., assignor to L. A. Summers, Oaktown, Ind. Carburetor. (Reissue.) No. 14,000; June 17; v. 263; p. 455.
 Summers, Laura A. (See Summers, Caleb H., assignor.)
 Summers, Lewis C., et al. (See Ryan and Jackson, assignor.)
 Sunbeam Chemical Company. (See Cates, Leland C., assignor.)
 Sunbeam Motor Car Company. (See Coatsman, Louis, assignor.)
 Sunderland, Sam. (See Midgley and Sunderland.)
 Swanton Hay Stacker Mfg. Co. (See Vroom, Otis F., assignor.)
 Swartz, John, Barberton, Ohio. Double safety-envelope. No. 1,307,378; June 17; v. 263; p. 444.
 Swarthout, Benjamin F., McGill, Nev. Slag attachment for automobiles, &c. No. 1,306,630; June 3; v. 263; p. 77.
 Svider, Stanislaw, and J. Lechnicki, Fort Hill, Ohio. Padlock. No. 1,307,168; June 17; v. 263; p. 423.
 Swan, Alfred, Montclair, N. J., assignor to General Electric Company. Apparatus for heating incandescent lamps. No. 1,306,645; June 10; v. 263; p. 297.
 Swan, John C., Marietta, Ohio. Extending water from drilled wells for oil. No. 1,307,627; June 17; v. 263; p. 460.
 Swanson, Arthur C. (See Johnson, Swanson, and Utterberg.)
 Swanson, Frederick J., Christchurch, New Zealand. Means for lighting and extinguishing gas-lamps. No. 1,307,644; June 24; v. 263; p. 545.
 Swartz Electric Company. (See Myers, Clyde J., assignor.)
 Sweet, Burton W., assignor to The Van Dorn Electric Tool Company, Cleveland, Ohio. Brush-holder for dynamo-electric machines. No. 1,307,923; June 17; v. 263; p. 491.
 Sweetland, Ernest J., Montclair, N. J., assignor, by mesne assignments, to United Filters Corporation. Filter. No. 1,306,317; June 3; v. 263; p. 17.
 Swardfeger, Ray H., Los Angeles, Calif. Receptacle. No. 1,306,639; June 3; v. 263; p. 77.
 Swift, George W., Jr., Bordenstown, N. J. Binding and heading band for barrels, boxes, and the like. No. 1,307,765; June 24; v. 263; p. 597.
 Swint, Wendell E., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del. Explosive composition. No. 1,307,766; June 24; v. 263; p. 597.
 Sylvan, Joseph, Chicago, Ill. Ventilator. No. 1,306,993; June 17; v. 263; p. 379.
 Synthetic Patents Co. (See Grüttsen, Wilhelm, assignor.)
 T. A. Wilson & Co. (See Shindler, Harry F., assignor.)
 T. A. Wilson & Co. (See Wilson, Frederick, assignor.)
 Taggart, Alfred, Baltimore, Md. Plaster's dolly. No. 1,307,939; June 24; v. 263; p. 599.
 Tallaferra, John C. (See Warme and Tallaferra.)
 Tam, Oscar H. (See Nelson, Gustaf T., assignor.)
 Tampion, Rene J. C., Boulogne-sur-Mer, France. Valve mechanism. No. 1,306,667; June 17; v. 263; p. 379.
 Tarvin, John T., El Dorado, Ark. Insect-guard for casters. No. 1,306,999; June 17; v. 263; p. 322.
 Tate, Henry C., Memphis, Tenn. Cultivator. No. 1,306,502; June 3; v. 263; p. 61.
 Tate, William R., Rippon Lee, and A. V. Park, Malvern, Victoria, Australia. Discharge of liquids from vessels or containers. No. 1,306,764; June 3; v. 263; p. 99.
 Taylor, Donald E. N., Sydney, New South Wales, Australia. Printing apparatus. No. 1,307,535; June 17; v. 263; p. 454.
 Taylor, John W., Philadelphia, Pa. Sanitary shield. No. 1,307,162; June 17; v. 263; p. 424.

Taylor, Marshall H. (See Land, William A., assignor.)
 Taylor, Russell F., Scotts, Mich. Internal-combustion engine. No. 1,306,416; June 3; v. 263; p. 35.
 Taylor, Van B., Klamman, Ind. Crossing-gate. No. 1,306,633; June 10; v. 263; p. 181.
 Taylor, Virgil M., Dandridge, Miss. Shoe-fastening device. No. 1,307,379; June 17; v. 263; p. 445.
 Taylor, W. C. (See Gage and Taylor.)
 Taylor, Wallace, J. Miles, and H. Burden, Newark, N. J. Signaling means. No. 1,307,710; June 24; v. 263; p. 557.
 Taylor, William F., Minneapolis, Minn. Vending-machine. No. 1,306,301; June 10; v. 263; p. 212.
 Technical Supply Company. (See Hagerstrom, John A., assignor.)
 Telpe, Joseph. (See Mancha and Telpe.)
 Tenth Electric Motor Company, The. (See Pfister, Winfred F., assignor.)
 Templeton, Walter B., Chicago, Ill. Record card or sheet. No. 1,306,318; June 3; v. 263; p. 17.
 Tennant, Herbert B., et al. (See Crowley, Richard J., assignor.)
 Tennant, Thomas E., et al. (See Crowley, Richard J., assignor.)
 Terry, Aaron, Springfield, Mass. Means and system of heating. No. 1,306,765; June 3; v. 263; p. 99.
 Thelmer, William H., assignor to The Winton Company, Cleveland, Ohio. Vehicle-spring lubricator. No. 1,307,464; June 24; v. 263; p. 512.
 Thoma, Andrew, Cambridge, Mass., assignor to North American Chemical Company, New York, N. Y. Machine for siling shoe-bottoms. No. 1,306,737; June 17; v. 263; p. 345.
 Thomas, Charles E., Wilmington, Del. Combination shovel and ash-cifter. No. 1,306,931; June 17; v. 263; p. 382.
 Thomas, John H., Medindie, South Australia, Australia. Bogie for railway and tramway vehicles. No. 1,307,236; June 17; v. 263; p. 454.
 Thomas, John N. (See Broome, Ernest L., assignor.)
 Thomas Walker & Son Limited. (See Dorey, Edgar W., assignor.)
 Thompson, John E. and C. W. Jamison, Chicago, Ill., assignors, by mesne assignments, to Atlas Electric Devices Co. Automatic controller. No. 1,306,202; June 10; v. 263; p. 212.
 Thompson, John T., Newport, Ky. Means for lubricating ammunition. No. 1,307,096; June 17; v. 263; p. 498.
 Thompson, Nello M., and E. F. O'Leary, Pueblo, Colo. Copy-holder. No. 1,306,785; June 17; v. 263; p. 356.
 Thompson, Robert G., Seattle, Wash. Car opener and sealer. No. 1,307,940; June 24; v. 263; p. 599.
 Thompson, Thomas, Scarborough, England. Machinery or apparatus for handling, manipulating, or transporting steel and like metal plates. No. 1,306,319; June 3; v. 263; p. 17.
 Thomson, Waddy R., Lancaster, S. C. Spot-welding. No. 1,306,503; June 3; v. 263; p. 51.
 Thomson, William P., assignor to The Rail Joint Company, New York, N. Y. Rail-joint. No. 1,306,981; June 17; v. 263; p. 391.
 Thomson, William P., assignor to The H. D. Smith & Company, Plainville, Conn. Bearing. No. 1,307,029; June 17; v. 263; p. 401.
 Thorn, Charles N., et al. (See Moore, William J., assignor.)
 Thornhill, James O., Jelle, Minn. Cotton-chopping machine. No. 1,306,540; June 3; v. 263; p. 115.
 Thornton, Frank Jr., Pittsburgh, and O. A. Colby, Larimer, Pa., assignors to Westinghouse Electric & Manufacturing Company. Electric furnace. No. 1,306,289; June 10; v. 263; p. 222.
 Tibbels, Lewis D., Clayton, Wash. Inner tube for tires. No. 1,306,130; June 10; v. 263; p. 200.
 Tibbits, Armand A., Omaha, Nebr. Tractor. No. 1,306,644; June 10; v. 263; p. 297.
 Tice, Percival S., Detroit, Mich. Governing apparatus. No. 1,306,320; June 3; v. 263; p. 17.
 Tideman, Carl E., assignor of one-half to V. G. Anderson, Worcester, Mass. Hand-valve grinder. No. 1,306,952; June 17; v. 263; p. 385.
 Tiel, Charles G., assignor, by mesne assignments, to Todd Protectograph Company, Rochester, N. Y. Check-writer. No. 1,307,566; June 24; v. 263; p. 531.
 Tiel, Charles G., assignor, by mesne assignments, to Todd Protectograph Company, Rochester, N. Y. Check-writer. No. 1,307,567; June 24; v. 263; p. 531.
 Tierney, William, Seattle, Wash. Burglar-alarm. No. 1,306,769; June 17; v. 263; p. 356.
 Tilman, Albert G., Vicksburg, Miss. Tooth-brush holder and sterilizer. No. 1,306,933; June 17; v. 263; p. 383.
 Time-Systems Company. (See Hale, Charles B., assignor.)
 Tinsla Olsen Testing Machine Company. (See Foster, Louis E., assignor.)
 Tippet, Thomas O., Blossom, Tex. Pencil attachment. No. 1,306,263; June 10; v. 263; p. 218.
 Tips Aero Motor Company. (See Tips, Maurice A., assignor.)
 Tips, Maurice, Woonsocket, R. I. Obturator. No. 1,306,034; June 10; v. 263; p. 162.
 Tips, Maurice A., assignor to Tips Aero Motor Company, Inc., Woonsocket, R. I. Internal-combustion engine. No. 1,306,035; June 10; v. 263; p. 162.

Tips, Maurice A., assignor to Tips Aero Motor Company, Inc., Woonsocket, R. I. Valve-operating mechanism. No. 1,306,036; June 10; v. 263; p. 183.

Titanium-Werk, Gesellschaft mit beschränkter Haftung. (See Klehne, Fritz, assignor.)

Tittle, Leonidas L., Jr., Dayton, Ohio. Funnel. No. 1,306,319; June 10; v. 263; p. 231.

Todd, James T. A., Fort Worth, Tex. Bale-tie buckle. No. 1,306,565; June 10; v. 263; p. 232.

Todd Protectograph Company. (See Angell, Edwin E., assignor.)

Todd Protectograph Company. (See Tiedel, Charles G., assignor.)

Tolbert, Harry C., Hoyt, Colo. Bean-harvester. No. 1,306,204; June 10; v. 263; p. 213.

Toledo Scale Company. (See Bergen, Harry S., assignor.)

Toledo Scale Company. (See Chapman, Frank H., assignor.)

Tolhurst, Louis H., Los Angeles, Calif. Camera. No. 1,305,541; June 3; v. 263; p. 115.

Toll, Herman H., and F. C. Dug, Clarinda, Iowa. Power washing-machine. No. 1,305,963; June 3; v. 263; p. 137.

Topp-Stewart Tractor Co. (See Stewart, Alexander, assignor.)

Tone, Frank J., and E. S. Smith, assignors to The Carborundum Company, Niagara Falls, N. Y. Can. No. 1,306,756; June 3; v. 263; p. 99.

Toney, Jay, Omaha, Nebr. Amusement device. No. 1,305,842; June 3; v. 263; p. 115.

Tooker, Harold A., Seneca, N. Mex. Vise. No. 1,306,321; June 3; v. 263; p. 18.

Torcrete Shipbuilding Corporation. (See Weber, Carl, assignor.)

Tornblom, Ernst A. E., Eskilstuna, Sweden. Electric regulating resistance. No. 1,306,085; June 10; v. 263; p. 191.

Torrie, George, Seven Kings, England. Boat-lowering gear. No. 1,306,645; June 10; v. 263; p. 297.

Tower, Elmer V., Detroit, Mich. Compression-strip. No. 1,307,711; June 24; v. 263; p. 537.

Towler, David L., Newark, N. J. Wheel-puller. No. 1,306,322; June 3; v. 263; p. 18.

Townsend, Charles F., Onarga, Ill. Stovepipe-fastener. No. 1,306,504; June 3; v. 263; p. 52.

Townsend, Clinton P., Washington, D. C., assignor to Hooker Electrochemical Company, New York, N. Y. Electrolytic cell. No. 1,306,237; June 10; v. 263; p. 221.

Townsend, Ernest F., Los Angeles, Calif. Tractor. No. 1,305,508; June 3; v. 263; p. 52.

Townsend, Ernest F., Los Angeles, Calif. Tractor. No. 1,305,506; June 3; v. 263; p. 52.

Townsend, Harry M., Minatare, Nebr. Engine-starter. No. 1,307,941; June 24; v. 263; p. 599.

Trabin, Frank A., Detroit, Mich. Engine-manifold. No. 1,307,604; June 24; v. 263; p. 533.

Travell, Warren, New York, N. Y. Broom. No. 1,305,631; June 3; v. 263; p. 77.

Trebert, Henry L. F., Rochester, N. Y. Ice-cutting machine. No. 1,307,524; June 24; v. 263; p. 523.

Trebert, Henry L. F., Rochester, N. Y. Ice-cutting tool. No. 1,307,525; June 24; v. 263; p. 524.

Tremain, Malvina F., Westfield, Pa. Attachment for stoves. No. 1,307,163; June 17; v. 263; p. 434.

Tremont Products Company. (See Smith, Raymond D., assignor.)

Trent, Lamartine C., Los Angeles, Calif. Apparatus for treating solid-bearing solutions. No. 1,307,429; June 17; v. 263; p. 484.

Trier, James M., New York, N. Y. Cleaner for offset-winding drums of printing-presses. No. 1,306,646; June 10; v. 263; p. 297.

Trimble, Edward, near St. Joseph, Mo. Marginal check-cutter. No. 1,305,417; June 3; v. 263; p. 35.

Trinkle, Christopher C., Romney, Ind. Compound for tempering steel. No. 1,307,465; June 24; v. 263; p. 513.

Tripp, John S. (See Remer and Tripp.)

Triumph Trap Co. (See Greene and Adams, assignors.)

Trolley, Isaac, Poughkeepsie, N. Y., assignor to Moline Plow Company. Tongue-truck. No. 1,305,843; June 3; v. 263; p. 116.

Trudeau, Maximilian O., Stamford, Conn. Internal-combustion engine. No. 1,307,221; June 17; v. 263; p. 434.

Trundle, George T., Jr., assignor to The American Multi-graph Company, Cleveland, Ohio. Multiple drilling-machine. No. 1,306,037; June 10; v. 263; p. 182.

Trundle, George T., Jr., assignor to The American Multi-graph Company, Cleveland, Ohio. Column-rule. No. 1,306,038; June 10; v. 263; p. 183.

Tuft, James K., Boston, Mass. Tool-holder. No. 1,306,039; June 10; v. 263; p. 183.

Tunks, Nelson H., Lima, Ohio. Signaling device. No. 1,306,844; June 3; v. 263; p. 116.

Tuomi, Uno E., St. Louis, Mo. Mechanism for operating window-sash. No. 1,306,868; June 17; v. 263; p. 370.

Turck, Frederick M., and B. C. White, New York, N. Y. Sheet-controlling device for printing-presses. No. 1,306,086; June 10; v. 263; p. 191.

Turck, Frederick M., and B. C. White, New York, N. Y. Sheet-feeding device for printing-presses. No. 1,306,087; June 10; v. 263; p. 192.

Turck, Frederick M., and B. C. White, New York, N. Y. Sheet-delivering device for printing-presses. No. 1,306,088; June 10; v. 263; p. 192.

Turbeltaub, Abraham M., New York, N. Y. Combination-button. No. 1,306,451; June 10; v. 263; p. 261.

Turner, Anthony V. (See Turner, Nicholas L. and A. V.)

Turner, Frank E., assignor of one-half to L. W. Daval, Ocala, Fla. Resilient wheel-tire and adjustable rim. No. 1,307,164; June 17; v. 263; p. 434.

Turner, Nicholas L. and A. V., Baltimore, Md. Air and gas mixer for gas-burners. No. 1,306,632; June 3; v. 263; p. 78.

Turner, Walter V., Wilkesburg, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Braking-release device. No. 1,307,165; June 17; v. 263; p. 424.

Turner, Walter V., Wilkesburg, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Swab-protector and nut-lock. No. 1,307,166; June 17; v. 263; p. 425.

Turney, Eugene T., New York, N. Y., assignor of one-half to E. C. Wilcox, Meriden, Conn. Sound reproducing and recording apparatus. No. 1,306,131; June 10; v. 263; p. 200.

Tuttle, Walter L., Providence, R. I. Reel construction. No. 1,307,526; June 24; v. 263; p. 524.

Twiss Bobbin Sewing Machine Company. (See Bell, Frederick J. T. and H. C., assignors.)

Twyman, Frank, assignor to Adam Hilger, Limited, London, England. Graduating range-finder. No. 1,306,330; June 10; v. 263; p. 237.

U. S. Bottlers Machinery Company. (See Elmer, Arthur L., assignor.)

U. S. Industrial Alcohol Co. (See Backhaus, Arthur A., assignor.)

Uebelmeyer, Charles, New York, N. Y., assignor to Cru Patents Corporation. Motion-picture camera. No. 1,306,633; June 3; v. 263; p. 78.

Ueda, Toyokatsu, Kioto, Japan. Glass-mattings process. No. 1,306,505; June 10; v. 263; p. 571.

Ulland, Even, Minneapolis, Minn. Rotary engine. No. 1,306,230; June 10; v. 263; p. 222.

Ulrich, Charles B., Jamestown, N. Y. Filing-cabinet. No. 1,306,728; June 17; v. 263; p. 545.

Umbach, Cornelius K. (See Sperry and Umbach.)

Umbower, Benjamin F., Royer, Pa. Plow-tractor, step draft-gear. No. 1,307,333; June 24; v. 263; p. 493.

Umsted, Judd L., Dayton, Iowa. Driving-gear and transmission. No. 1,306,306; June 10; v. 263; p. 214.

Underwood Computing Machine Company. (See Gumprecht, William L., assignor.)

Underwood Typewriter Company. (See Cook, Frank A., assignor.)

Underwood Typewriter Company. (See Roberts, Lyman R., assignor.)

Underwood Typewriter Company. (See Smith, Jesse A., assignor.)

Underwood Typewriter Company. (See Wherry, John A., assignor.)

Union Connector Company. (See Woodruff, Leonidas D., assignor.)

Union Special Machine Company. (See Moffatt, James E., assignor.)

Union Switch & Signal Company, The. (See Cox, Elmer E., assignor.)

Union Switch & Signal Company, The. (See Holliday, John S., assignor.)

Union Switch & Signal Company, The. (See Lewis, Lloyd V., assignor.)

Union Technical Corporation. (See Davenport, James E., assignor.)

United Alfalfa Co. (See Peters, Milton C., assignor.)

United Alkali Company. (See Roberts, John A., assignor.)

United Filters Corporation. (See Sweetland, Ernest J., assignor.)

United Shirt and Collar Company. (See Pine, James K. F., assignor.)

United Shoe Machinery Corporation. (See Alexander, Alexander M., assignor.)

United Shoe Machinery Corporation. (See Benson, Charles F., assignor.)

United Shoe Machinery Corporation. (See Brock, Mat-thias, assignor.)

United Shoe Machinery Corporation. (See Brogan, Michael F., assignor.)

United Shoe Machinery Corporation. (See Engel, Karl, assignor.)

United Shoe Machinery Corporation. (See Epler and Neal, assignors.)

United Shoe Machinery Corporation. (See Johnson, Albert E., assignor.)

United Shoe Machinery Corporation. (See Pym, Charles F., assignor.)

United Shoe Machinery Corporation. (See Rogers, Albert N., assignor.)

United Shoe Machinery Corporation. (See Westworth and Perry, assignors.)

United Shoe Machinery Corporation. (See Westworth, Samuel J., assignor.)

United States Cast Iron Pipe & Foundry Company. (See Ladd, James B., assignor.)

United States Cast Iron Pipe & Foundry Company. (See Streibridge, William, assignor.)

United States Ordnance Company. (See Ragsdale, Earl J. W., assignor.)

United States Printing and Lithograph Company, The. (See Parste, Henry, assignor.)

United States Smelting Refining & Mining Company. (See Smith, Walter C., assignor.)

Universal Optical Corporation. (See Beatty, Marie J. E., assignor.)

Universal Film Company. (See Baker, Eric K., assignor.)

Universal Sickle Bar Company. (See Abenssler, Alfred D., assignor.)

Upton, George W. (See Liddell, Fred R., assignor.)

Upton, James M., Sabinal, Tex. Folding chicken or poultry coop. No. 1,306,123; June 10; v. 263; p. 266.

Utterberg, Alfred H. (See Johnson, Swanson, and Utterberg.)

Van Achteren, Joseph, assignor to The Koppers Company, Pittsburgh, Pa. Ammonia and tar recovery process. No. 1,307,571; June 24; v. 263; p. 532.

Van Alsty, Albert T., New York, N. Y. Garment-supporter. No. 1,306,513; June 3; v. 263; p. 35.

Van Alsty, Albert T., New York, N. Y. Garment-supporter. No. 1,306,419; June 3; v. 263; p. 36.

Van Borkum, John A., assignor of one-half to R. H. Armstrong, Beatrice, and one-sixth to J. W. Richison, Fairbury, Nebr. Egg-transferer. No. 1,306,290; June 10; v. 263; p. 232.

Van Deuren, Pierre, Calais, A. Delas, and M. Lablanc, Paris, assignors to Societe Anonyme pour l'Exploitation des Processus Westinghouse Leblanc, Paris, France. Mortar or cannon and projectile adapted for use therewith. No. 1,307,354; June 24; v. 263; p. 493.

Van Dera Electric Tool Company, The. (See Sweet, Burton E., assignor.)

Van Dera, Herbert E., Chicago, Ill. One-coupling. No. 1,306,040; June 10; v. 263; p. 183.

Van Dyke, Thomas H., Kansas City, Mo. Variable-stroke operating mechanism for engines. No. 1,307,167; June 17; v. 263; p. 433.

Van Housen, Charles M., Albany, N. Y. Chime attachment for telephone signal-bells. No. 1,307,448; June 24; v. 263; p. 513.

Van Housen, Charles M., Albany, N. Y. Chime attachment for telephone signal-bells. No. 1,307,467; June 24; v. 263; p. 514.

Van Housen, John M., Jamaica Plain, Mass. Collar. No. 1,307,425; June 24; v. 263; p. 503.

Van Kannal, Theophilus, Jardville, N. J. Artificial-limb socket. No. 1,306,573; June 3; v. 263; p. 63.

Van Lee, Earl H., assignor, by mesne assignments, of one-half to W. V. Nelson, New York, N. Y. Electric pull-switch. No. 1,306,672; June 10; v. 263; p. 302.

Van Nort, James L., Los Angeles, Calif. Wheel-cultivator. No. 1,307,237; June 17; v. 263; p. 454.

Van Riper, John C., Jr., and S. A. Pritchard, assignors to Banner Gas Range Works, South Bend, Ind. Combination coal and gas range. No. 1,307,713; June 24; v. 263; p. 557.

Van Riper, John C., Jr., and S. A. Pritchard, assignors to Banner Gas Range Works, South Bend, Ind. Combination coal and gas range. No. 1,307,713; June 24; v. 263; p. 557.

Van Riper, John C., Jr., and S. A. Pritchard, assignors to Banner Gas Range Works, South Bend, Ind. Combination coal and gas range. No. 1,307,713; June 24; v. 263; p. 557.

Van Valkenburg, John J., Atlin, British Columbia, Canada. Sheave attachment. No. 1,307,535; June 17; v. 263; p. 484.

Vance, Walter N., Chicago Heights, assignor to Durand Steel Locker Co., Chicago, Ill. Combination-locker. No. 1,307,713; June 24; v. 263; p. 557.

Van Vleet, Norton. (See Moore, Adolph, assignor.)

Vanderhorst, Jewell W., and W. L. Lynch, Liverpool, N. Y. Bark-removing machine. No. 1,306,960; June 17; v. 263; p. 371.

Vandervell, Charles A. (See Midgley, Albert H., assignor.)

Vapor Car Heating Company. (See Schreiner, Edward A., assignor.)

Vaughan, Harry L., Chicago, Ill. Bottle-carrier. No. 1,307,607; June 17; v. 263; p. 468.

Vaughan, James C. (See Miller, Joseph W., assignor.)

Vaughan Manufacturing Company. (See Vaughan, Timothy C., assignor.)

Vaughan, Timothy C., assignor to Vaughan Manufacturing Company, Morris, Minn. Grain-separator. No. 1,306,870; June 17; v. 263; p. 371.

Venning, Frank J., Cincinnati, Ohio. Track-grinding machine. No. 1,306,954; June 3; v. 263; p. 128.

Ventilator Fan Co., The. (See Kohn, Milton M., assignor.)

Vergara, Bartolome, Mexico, Mexico. Cutter for perforating music-sheets. No. 1,306,323; June 3; v. 263; p. 18.

Verrill, James J., and A. W. White, Odessa, Wis. Timber-tong. No. 1,307,357; June 24; v. 263; p. 509.

Vickers Limited. (See Dawson and Buchanan, assignors.)

Victor Adding Machine Company, The. (See Johnston, Oliver D., assignor.)

Victor Tanning Machine Company. (See Royal, Belford G., assignor.)

Viger, Theodore D., Port Chester, N. Y. Ball-joint. No. 1,307,168; June 17; v. 263; p. 435.

Viking Pump Company, The. (See Schirmer, James O., assignor.)

Villanelli, Josef L., Habana, Cuba. Coupling device. No. 1,306,934; June 17; v. 263; p. 383.

Vin, Gerhard N., Paris, France. Regenerating catalysts containing nickel and its compounds which have been employed for the hydrogenation of fatty bodies or other organic products. No. 1,306,572; June 17; v. 263; p. 371.

Vochten, Gus E. (See Schneider and Vochten.)

Vogel, William, New York, N. Y. Snap-buttoner. No. 1,306,790; June 17; v. 263; p. 386.

Voight, Henry G., New Britain, assignor to Sargent & Company, New Haven, Conn. Decr-stop. No. 1,306,676; June 3; v. 263; p. 65.

Voight, Henry G., New Britain, and A. A. Page, East Haven, assignors to Sargent & Company, New Haven, Conn. Transom-operator. No. 1,306,291; June 10; v. 263; p. 232.

Voight, Henry G., New Britain, assignor to Sargent & Company, New Haven, Conn. Transom-operator. No. 1,306,292; June 10; v. 263; p. 233.

Vogt, Axel E., Altoona, Pa. Truck-scale. (Reissue.) No. 14,670; June 24; v. 263; p. 610.

Von Marchthal, Edmund M., Vienna, Austria, assignor to Siemens & Halske Aktiengesellschaft, Berlin, Germany. Justifying mass in writing-machine. No. 1,307,066; June 17; v. 263; p. 443.

Von Zweigbergk, Otilia. (See Von Zweigbergk, Thorsten and G.)

Von Zweigbergk, Thorsten, Lancaster, and G. von Zweigbergk, Fulwood, Preston, England; and G. von Zweigbergk, assignor to said Thorsten von Zweigbergk. Change-speed gearing. No. 1,307,290; June 17; v. 263; p. 436.

Vollers, Edward, St. Louis, Mo. Foldable bath-tub. No. 1,307,943; June 24; v. 263; p. 599.

Voorhees, Gardner T. (See Fourness, Wilfred, assignor.)

Voss & Sons Piano Company. (See Stephenson, William C., assignor.)

Vroom, Oler P., assignor to Superior Hay Wrecker Mfg. Co., Lincoln, Mo. Hay-stacker. No. 1,305,429; June 3; v. 263; p. 34.

Vuestela, Frank, Fort Atkinson, Iowa. Depth-gage for carpenters. No. 1,305,324; June 3; v. 263; p. 13.

W. A. Tyler Company, The. (See Diabro, Roger W., assignor.)

Wade, George V. (See Wade, William G. and G. V.)

Wade, William G., St. Catharines, and G. V. Wade, Dundas, Ontario, Canada. Steering-strap-relieving device for automobiles. No. 1,305,635; June 3; v. 263; p. 78.

Wadsworth, Frank L. O., Pittsburgh, Pa., assignor to Ball Brothers Glass Manufacturing Company, Muncie, Ind. Glass-working. No. 1,307,527; June 24; v. 263; p. 534.

Wagner, Mary, Akron, Ohio. Dish-washer. No. 1,306,660; June 10; v. 263; p. 182.

Waggoner, Ira E., Lexington, Ky. Window-curtain holder. No. 1,307,233; June 17; v. 263; p. 434.

Wagner, George E., et al. (See Cooper, Benjamin F., assignor.)

Wahl, Henry E. (See Aurand, Frank H., assignor.)

Wahl, Henry E., Chicago, Ill. Hydraulic separator for crushed ore. No. 1,306,561; June 10; v. 263; p. 245.

Wahlberg, Nile J. A., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, Trolley-conductor device. No. 1,306,506; June 10; v. 263; p. 233.

Wald, Calvin B., Birmingham, Ala. Segmental grate-bar. No. 1,306,729; June 17; v. 263; p. 545.

Walke, Harry F., New York, N. Y. X-ray-tube holder and shield. No. 1,307,385; June 24; v. 263; p. 490.

Walke, Harry F., Whitestone Landing, N. Y. Film-holder for X-ray apparatus. No. 1,307,386; June 24; v. 263; p. 490.

Walke, Harry F., Whitestone Landing, N. Y. X-ray-tube current-measuring system. No. 1,307,645; June 24; v. 263; p. 545.

Walshman, Charles A., Oshkosh, Wis. Wood-shaving machine. No. 1,306,421; June 3; v. 263; p. 36.

Walsh, Herman C., Minneapolis, Minn. Grapple. No. 1,306,306; June 10; v. 263; p. 214.

Walsh, Harry, New York, N. Y. Knickerbockers. No. 1,306,935; June 17; v. 263; p. 383.

Walden, Nathan D., David City, Nebr. Locking mechanism. No. 1,306,955; June 3; v. 263; p. 128.

Walker, Franklin R., Pittsburgh, Pa. Loading and unloading apparatus. No. 1,306,158; June 10; v. 263; p. 204.

Walker, Hopburn. (See Miller, John M., assignor.)

Walker, John R., Providence, R. I. Eye-protector. No. 1,307,223; June 17; v. 263; p. 435.

Walker, William E., Arkansas City, Kans. Recovery of gasoline and other hydrocarbons. No. 1,307,280; June 17; v. 263; p. 445.

Wall, Ormond E., Honolulu, Hawaii. Toy boat. No. 1,306,362; June 10; v. 263; p. 245.

Wallace, Lewis E., Waltham, Mass., assignor to Nevins-Wallace Train Control Company. Train-control system. No. 1,305,757; June 3; v. 263; p. 100.

Wallace, William, Edinburgh, Scotland. Hydraulic tele-motor. No. 1,307,281; June 17; v. 263; p. 444.
 Waller, Charles E., Allentown, Pa., assignor to Independent Non-Freezing Powder Company, Newark, N. J. Nitro-starch explosive. No. 1,306,845; June 3; v. 263; p. 116.
 Waller, Charles E., Allentown, Pa., assignor to Independent Non-Freezing Powder Company, Newark, N. J. Nitro-starch explosive. No. 1,306,846; June 3; v. 263; p. 116.
 Wallis, Gustav W., assignor to Guilberson-Dickinson Company, Chicago, Ill. Pneumatic motor. No. 1,306,150; June 10; v. 263; p. 304.
 Wallmuth, August W., Elgin, Ill. Letter-sheet, envelop, and coin-holder. No. 1,306,847; June 10; v. 263; p. 207.
 Walls, James W., Kansas City, Mo. Switch operating and locking mechanism. No. 1,306,567; June 10; v. 263; p. 232.
 Walsh, Emmet, San Antonio, Tex. Tube-expander. No. 1,306,933; June 17; v. 263; p. 391.
 Wannamaker, Roscoe L., Toledo, Ohio. Train-despatch deliverer. No. 1,306,996; June 10; v. 263; p. 371.
 Warman, Percy S., Roselle, N. J., assignor to The Fundamental Corporation, New York, N. Y. Radiator-guard. No. 1,306,383; June 10; v. 263; p. 345.
 Warman, Percy S., Roselle, N. J., assignor to The Fundamental Corporation, New York, N. Y. Radiator-guard. No. 1,306,384; June 10; v. 263; p. 344.
 Warne, Ivar F., Syracuse, N. Y., and J. C. Tallaferra, Baltimore, Md., assignors to Continental Can Company, Incorporated, Syracuse, N. Y. Multiple-spindle double seamer. No. 1,306,648; June 10; v. 263; p. 297.
 Warne, Ivar F., assignor to Continental Can Company, Inc., Syracuse, N. Y. Can-closing machine. No. 1,307,855; June 24; v. 263; p. 559.
 Ward, John P., McKinney, Tex. Internal-combustion engine. No. 1,307,232; June 17; v. 263; p. 444.
 Warner Manufacturing Company. (See Cadman, Adlai D., assignor.)
 Warnock, Robert, assignor to Empire Cream Separator Company, Bloomfield, N. J. Air-pump. No. 1,306,758; June 3; v. 263; p. 100.
 Warwick, Rogers M., assignor to General Wire Tie Co., Chicago, Ill. Machine for tying objects with wire. No. 1,306,422; June 3; v. 263; p. 34.
 Waschek, Franz, Hamtramck, Mich. Reed-organ. No. 1,307,715; June 24; v. 263; p. 555.
 Washburne, Alva C., et al. (See Hammond, Grant, assignor.)
 Waterbury Farrel Foundry and Machine Company. (See Wilcox, Richard L., assignor.)
 Waterbury Tool Co., The. (See Williams, Harvey D., assignor.)
 Waterbury Tool Company, The. (See Janney, Reynolds, assignor.)
 Waterfield, John, Providence, assignor, by means assignments, to Shannon Narrow Fabric Company, Pawtucket, R. I. Knitting-machine. No. 1,304,321; June 10; v. 263; p. 237.
 Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Potato-planter. No. 1,305,423; June 3; v. 263; p. 34.
 Waters, Arthur C., Newcastle, New South Wales, Australia. Dumping barge or lighter. No. 1,306,322; June 10; v. 263; p. 234.
 Watkins, Arthur M., et al. (See Moore, William J., assignor.)
 Watson, Earle F., Dumont, N. J. Sight for firearms. No. 1,307,646; June 24; v. 263; p. 545.
 Watson, Earle F., Dumont, N. J. Sight for firearms. No. 1,307,647; June 24; v. 263; p. 545.
 Watson, Ernest A., assignor to The M-L Magneto Syndicate Limited, Coventry, England. Condenser for ignition-magneto. No. 1,307,716; June 24; v. 263; p. 558.
 Watson, James A., Marion, Ind. Traction-engine. No. 1,307,944; June 24; v. 263; p. 600.
 Watson, William A., Malden, Mass. Ratchet-regulator for note-sheet control. No. 1,306,207; June 10; v. 263; p. 214.
 Watt, James A. (See De Hart and Watt.)
 Watt, James A., New York, N. Y. Receptacle-closure. No. 1,307,109; June 17; v. 263; p. 425.
 Watts, Orlando S., Camden, N. J. Stencil-cutting machine. No. 1,305,847; June 3; v. 263; p. 116.
 Waugh, Edward H., assignor to Smith Cannery Machines Company, Seattle, Wash. Fish-cleaning device. No. 1,306,841; June 17; v. 263; p. 305.
 Wax, Louis, Philadelphia, Pa. Coin-controlled dispensing-machine. No. 1,305,424; June 3; v. 263; p. 34.
 Weagant, Roy A., Roselle Park, N. J., assignor to Marconi Wireless Telegraph Company of America. Wireless telegraphy. No. 1,306,308; June 10; v. 263; p. 214.
 Weaver, Clayton B., assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa. Apparatus for making irregularly-shaped stampings. No. 1,307,170; June 17; v. 263; p. 425.
 Weaver, Philip H. (See Koltz, Nicholas, assignor.)
 Webb, George W., Johnson, assignor, by means assignments, of twelve and one-half one-hundredths to J. C. Conn, Boonton, N. J., and thirty-nine and one-half one-hundredths to J. A. Webb, Johnson county, Kans. Means for connecting the ends of belts. No. 1,306,507; June 10; v. 263; p. 272.

Webb, James A., et al. (See Webb, George W., assignor.)
 Webb, Robin M., Bessemer, Ala. Collapsible core. No. 1,307,283; June 17; v. 263; p. 444.
 Weber, Carl, Chicago, Ill., assignor to Torrcato Shipbuilding Corporation, New York, N. Y. Concrete structure and constructing the same. No. 1,307,324; June 17; v. 263; p. 435.
 Webster, Frank A., Lillbourn, Mo. Device for heating bags. No. 1,306,365; June 10; v. 263; p. 344.
 Weder, Hermann, Sr., and C. H. Wolf, Philadelphia, Pa. Scalpel or handle for surgical instruments. No. 1,307,717; June 24; v. 263; p. 554.
 Weed, Chester A., Milltown, Me. Thermo-container for hand-olders. No. 1,306,677; June 3; v. 263; p. 35.
 Wagner, Gustave A., Rochester, N. Y. Refrigerating apparatus. No. 1,306,425; June 3; v. 263; p. 37.
 Weddell, Louis, Stratford, Conn. Salt-shaker. No. 1,307,638; June 24; v. 263; p. 550.
 Weill, William H., Brighton, Colo. Spirit-level attachment. No. 1,306,686; June 3; v. 263; p. 71.
 Weillheimer, Louis H. (See Flower and Weillheimer.)
 Weinhold, Emil, New York, N. Y. Apparatus for the manufacture of substitute hide-leather. No. 1,306,848; June 3; v. 263; p. 116.
 Weinhold, Emil, New York, N. Y. Manufacture of substitute hide-leather. No. 1,306,849; June 10; v. 263; p. 296.
 Weinhold, Emil, New York, N. Y. Apparatus for impregnating fragile fabric. No. 1,306,850; June 10; v. 263; p. 296.
 Weintraub, Moschel, New York, N. Y., assignor to General Electric Company. Producing pure elements. No. 1,306,549; June 10; v. 263; p. 282.
 Weiss, Frank S., Baltimore, Md. Printing-machine. No. 1,306,849; June 3; v. 263; p. 117.
 Weismantel, Joseph and W. Newark, N. J. Bow or tassel making and forming attachment or device. No. 1,307,639; June 17; v. 263; p. 400.
 Weismann, William. (See Weismann, Joseph and W.)
 Weiss, George W., New York, N. Y. Winding and measuring machine. No. 1,306,680; June 10; v. 263; p. 192.
 Welch, Albert G., trustee. (See Alfred, Torris H., assignor.)
 Welch, Herman L., El Centro, Calif. Copy-holder. No. 1,307,945; June 24; v. 263; p. 600.
 Wellendorf, Carl, Idagrove, Iowa. End-gate. No. 1,306,426; June 3; v. 263; p. 37.
 Walker Manufacturing Company. (See Robbins, Hugh P., assignor.)
 Wells, Albert B., Southbridge, Mass. Lens-comparator. No. 1,307,526; June 24; v. 263; p. 524.
 Wells, Benjamin F., Lorland, Colo. Climbing device. No. 1,307,469; June 24; v. 263; p. 514.
 Wells, Elbert W., Kallispell, Mont. Grinding-machine for sickle-bars. No. 1,304,963; June 17; v. 263; p. 391.
 Wells, Frank O., assignor to Greenfield Tap and Die Corporation, Greenfield, Mass. Limit-gage. No. 1,307,426; June 24; v. 263; p. 504.
 Wells, Raymond, Homer, N. Y., assignor to Cobwell Corporation, Cleveland, Ohio. Extracting valves from car-bags and the like. No. 1,307,991; June 24; v. 263; p. 600.
 Wells, Raymond, Homer, N. Y., assignor to Cobwell Corporation, Cleveland, Ohio. Extracting valves from car-bags and the like. No. 1,307,992; June 24; v. 263; p. 600.
 Wennagel, George F., Baltimore, Md. Dissipating heat from underground conduits. No. 1,307,070; June 17; v. 263; p. 400.
 Wendell, Theodore, South Bend, Ind. Street-cleaning machine. No. 1,307,508; June 24; v. 263; p. 531.
 Wentworth, Oliver P., Fergus, Okla. Wheat-stacker. No. 1,306,843; June 17; v. 263; p. 304.
 Wentworth, Samuel J., Newport, Ky., assignor, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J. Heel-seat-forming machine. No. 1,307,264; June 17; v. 263; p. 444.
 Wentworth, Samuel J., Newport, Ky., and P. H. Perry, Beverly, Mass., assignors, by means assignments, to United Shoe Machinery Corporation, Paterson, N. J. Heel-seat-forming machine. No. 1,307,265; June 17; v. 263; p. 444.
 Werner, Andrew P. (See Patterson and Werner.)
 Wernli, Joseph, Coffeyville, Kans. Gun-stock attachment. No. 1,307,629; June 24; v. 263; p. 534.
 Werner, William F., Brooklyn, N. Y. Furniture-foot. No. 1,306,427; June 3; v. 263; p. 37.
 Wernicke, Adolph J., assignor of one-half to R. B. Farrar and one-half to A. E. Wernicke, Los Angeles, Calif. Self-adjusting grinder. No. 1,306,789; June 3; v. 263; p. 100.
 Wernicke, Annie M., et al. (See Wernicke, Adolph J., assignor.)
 Wesoluk, Richard A., Toledo, Ohio. Circuit-closer. No. 1,307,266; June 17; v. 263; p. 447.
 West, James. (See Jacques, Edna, assignor.)
 West, James E., Merced, Ariz. Water-gage. No. 1,307,226; June 17; v. 263; p. 425.
 Westberg, William, assignor to L. S. Shelton, Okmulgee, Okla. Drawing glass cylinders. No. 1,306,651; June 10; v. 263; p. 304.
 Westbury, William, Okmulgee, Okla. Glass-drawing apparatus. No. 1,307,943; June 24; v. 263; p. 600.
 Westbury, William, Okmulgee, Okla. Drawing glass cylinders. No. 1,307,946; June 24; v. 263; p. 601.

Western Electric Company. (See Bell, John H., assignor.)
 Western Electric Company. (See Buckley, Oliver E., assignor.)
 Western Electric Company. (See Clausen and Goodrum, assignors.)
 Western Electric Company. (See Dyson, Alfred H., assignor.)
 Western Electric Company. (See Field, Joseph C., assignor.)
 Western Electric Company. (See Hiarichsen, Edward E., assignor.)
 Western Electric Company. (See Johnson, Lewis H., assignor.)
 Western Electric Company. (See Kochendorfer, Frederic B., assignor.)
 Western Electric Company. (See Lundall, Alben H., assignor.)
 Western Electric Company. (See Lundquist, Frank A., assignor.)
 Western Electric Company. (See May, David T., assignor.)
 Western Electric Company. (See Merritt, Benjamin F., assignor.)
 Western Electric Company. (See Moran, John F., assignor.)
 Western Electric Company. (See Nicolson, Alexander M., assignor.)
 Western Electric Company. (See Rainey, Paul M., assignor.)
 Western Electric Company. (See Reynolds, John N., assignor.)
 Western Electric Company. (See Rhoads, Charles E., Jr., assignor.)
 Western Wheel and Scraper Company. (See McKnight, Thomas B., assignor.)
 Westinghouse Air Brake Company, The. (See Donovan, Patrick H., assignor.)
 Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Eddie, Clarence A., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Chubb, Lewis W., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Colby, Ora A., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Cole, Gurney H., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Eaton and Holy, assignors.)
 Westinghouse Electric and Manufacturing Company. (See Eaton, George M., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Eisehoff, Bernard, assignor.)
 Westinghouse Electric and Manufacturing Company. (See Fortuene, Charles L., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Hall, Arthur J., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Hatcher, Frederick C., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Hellmuth, Rudolf E., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Holy, George H. F., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Marks, Charles E., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Smith, William W., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Newberry, Frank D., assignor.)
 Westinghouse Electric and Manufacturing Company. (See Starter and Hellmuth, assignors.)
 Westinghouse Electric and Manufacturing Company. (See Starter and Frihl, assignors.)
 Westinghouse Electric and Manufacturing Company. (See Thornton and Colby, assignors.)
 Westinghouse Electric and Manufacturing Company. (See Wahlberg, Nils J. A., assignor.)
 Westlin, Richard V., Pittsburg, Mass. Adjustable gas-burner. No. 1,307,229; June 17; v. 263; p. 425.
 Weston, Leopold, and J. R. Jones, Northcote, Auckland, New Zealand. Blige-pump. No. 1,306,506; June 3; v. 263; p. 52.
 Weston, Leopold, and J. R. Jones, Northcote, Auckland, New Zealand. Blige-pump. No. 1,306,509; June 3; v. 263; p. 52.
 Weston, William S., Houston, Tex. Hydraulic clutch and traction equalizer. No. 1,306,572; June 17; v. 263; p. 371.
 Wetmore, Albert G. (See Puchler, John R., assignor.)
 Wheeler Automatic Machine Co. (See Wheeler, Omar A., assignor.)
 Wheeler, Omar A., Portland, Oreg., assignor to Wheeler Automatic Machine Co. Method and machine for making cuffs automatically. No. 1,306,510; June 3; v. 263; p. 53.
 Whelan, Leo H., Youngstown, Ohio. Timer for engines. No. 1,306,791; June 17; v. 263; p. 534.
 Wherry, John A., New Orleans, La., assignor to Underwood Typewriter Company, New York, N. Y. Type-writer. No. 1,307,648; June 24; v. 263; p. 545.
 Whitcher, Richard P. (See Coggin and Whitcher.)
 White, Alexander W. (See Verrette and White.)

White, Arthur, Sheboygan Falls, Wis. Furniture-joint. No. 1,306,453; June 10; v. 263; p. 361.
 White, Birdora H., Chicago, Ill. Buckle. No. 1,306,061; June 10; v. 263; p. 192.
 White, Bruce C. (See Torck and White.)
 White, Delbert M., et al. (See Bauman, Frank J., assignor.)
 White, Gilbert E., Kewanee, Ill. Air-blast plastering-machine. No. 1,306,574; June 3; v. 263; p. 64.
 White, James K., Salina, Kans. Grain-separator. No. 1,306,230; June 10; v. 263; p. 222.
 White, John W., Brooklyn, N. Y. Signaling device. No. 1,306,385; June 3; v. 263; p. 134.
 White, Robert N., Jr., Greenville, Tex. Attachment for cash-registers. No. 1,306,240; June 10; v. 263; p. 222.
 White, Thomas, Talmage, Ky. Coupling. No. 1,307,237; June 17; v. 263; p. 424.
 White, William E., and A. R. Acres, Fleet, Alberta, Canada. Combined seeding and cultivating attachment for plows. No. 1,306,850; June 3; v. 263; p. 117.
 White Motor Company, The. (See Farmer, Frank H., assignor.)
 White, William E., Springfield, Mass. Means for spacing reinforcing-bars. No. 1,306,904; June 17; v. 263; p. 392.
 White, William T., Philadelphia, Pa. Train-controlling mechanism. No. 1,306,351; June 3; v. 263; p. 117.
 Whitehurst, John L. (See Bell, Thomas S., assignor.)
 Whitin Machine Works. (See O'Malley, Michael T., assignor.)
 Whiting & Davis Company. (See Berkley, Richard H., assignor.)
 Whitney, George F., South Orange, N. J., assignor to Whitney Yeast Corporation, New York, N. Y. Dry yeast and making same. No. 1,306,568; June 10; v. 263; p. 252.
 Whitney Yeast Corporation. (See Whitney, George F., assignor.)
 Whitten, John S., Conway, Ark. Valve. No. 1,307,257; June 17; v. 263; p. 447.
 Wickman, Axel C., Brighton, England. Springing of motor road-vehicles. No. 1,307,005; June 24; v. 263; p. 553.
 Wickstrom, Joseph H., Berensford, S. D. Ventilating ridge-roll for buildings. No. 1,307,223; June 17; v. 263; p. 424.
 Widdowson, Frank J., South Kensington, London, England. Method of and means for holding notes, bills, and other paper money. No. 1,306,320; June 3; v. 263; p. 19.
 Widmer, Christian U., Upland, Calif. Electric-lamp support. No. 1,306,552; June 3; v. 263; p. 118.
 Widmer, Christian U., Upland, Calif. Boat-support. No. 1,306,553; June 3; v. 263; p. 118.
 Wiederhold, Henry, assignor to The Barber Asphalt Paving Company, Philadelphia, Pa. Bituminous lining for surfaces exposed to corrosive action. No. 1,306,678; June 3; v. 263; p. 65.
 Wiederhold, Peter, Detroit, Mich. Power and hand steering mechanism for tractors. No. 1,306,325; June 3; v. 263; p. 19.
 Wieman, Hugo O., Philadelphia, Pa., assignor to H. W. Butterworth & Sons Company, Cloth-clamp. No. 1,307,098; June 24; v. 263; p. 534.
 Wiel, Fannie K., San Francisco, Calif. Receiving and distributing mail-box. No. 1,307,649; June 24; v. 263; p. 546.
 Wigg, William, London, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Typographic composing-machine. No. 1,307,718; June 24; v. 263; p. 553.
 Wigington, Charles E., et al. (See Dickerson, Herbert M., assignor.)
 Wigton, George H., Eureka, Utah. Treating silicious ores. No. 1,306,527; June 3; v. 263; p. 19.
 Wilck, Axel F. O., Stockholm, Sweden. Push-button. No. 1,306,062; June 10; v. 263; p. 192.
 Wilcomb, Frank, assignor to Wildman Mfg. Co., Norristown, Pa. Board-opener for spring-board-needle knitting-machines. No. 1,306,576; June 3; v. 263; p. 60.
 Wilcox, Ernest C. (See Turner and Wilcox, assignors.)
 Wilcox, Richard L., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Angle-gate. No. 1,306,323; June 3; v. 263; p. 19.
 Wilcox, Richard L., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Feed mechanism. No. 1,306,329; June 3; v. 263; p. 19.
 Wilcox, Walter A., Pontiac, Mich. Portable housing structure. No. 1,306,576; June 3; v. 263; p. 60.
 Wilder, Edward M., Canonbury, London, England. Tap for cutting screw-threads. No. 1,307,103; June 17; v. 263; p. 414.
 Wilder, Edward M., Canonbury, London, England. Device for cutting screw-threads by chasers. No. 1,307,104; June 17; v. 263; p. 414.
 Wildman Mfg. Co. (See Wilcomb, Frank, assignor.)
 Wile, Jerome. (See McCarthy, Florence, assignor.)
 Wilkes, Lillie B., Chicago, Ill. Window construction. No. 1,307,287; June 24; v. 263; p. 408.
 Wilkins, Willie A., Orange, Tex. Projectila. No. 1,307,907; June 24; v. 263; p. 538.

Wilkinson, Clayton P., R. L. Edall, and S. Wilkinson, Leamington, Ontario, Canada; said Edall assignor to said C. P. Wilkinson and said S. Wilkinson. Automatic electric railway-gate. No. 1,306,508; June 10; v. 263; p. 272.

Wilkinson, James, Pittsfield, Mass., assignor to General Electric Company. Electrical apparatus. No. 1,306,570; June 10; v. 263; p. 283.

Wilkinson, Stanley. (See Wilkinson and Edall.)

Will, Frederick. (See Will, Philip and F.)

Will, Philip and F., assignors to Hill Stove Works, Rochester, N. Y. Combination-stove. No. 1,307,388; June 24; v. 263; p. 499.

Williett, Alfred H., West New York, N. J., assignor to American Arch Company, New York, N. Y. Locomotive-boiler furnace. No. 1,306,133; June 10; v. 263; p. 200.

William Cramp & Sons Ship & Engine Building Company, The. (See Metten, John F., assignor.)

William Schollhorn Company, The. (See Bernard, William A., assignor.)

Williams, Anders, Christiania, Norway. Device for measuring liquid-levels. No. 1,306,453; June 10; v. 263; p. 262.

Williams, Green & Rome Company. (See Roberts, Harry G., assignor.)

Williams, Harvey D., Wallingford, Conn., assignor to The Waterbury Tool Co., Waterbury, Conn. Back-pressure release-valve. No. 1,307,850; June 24; v. 263; p. 580.

Williams, Hopkin J., Nanticoke, Pa. Pick. No. 1,307,389; June 17; v. 263; p. 447.

Williams, John D., et al. (See Bolton, Williams, and Struve.)

Williams, Leo L., Cleveland, Ohio, assignor, by mesne assignments, to W. B. Rematore, New Haven, Conn. Folding-seat. No. 1,307,840; June 24; v. 263; p. 581.

Williams, Lloyd, Cadishead, near Manchester, England. Electrically-operated ink-recorder. No. 1,306,985; June 17; v. 263; p. 392.

Williams, Milton F., assignor to Williams Patent Crusher & Pulverizer Co., St. Louis, Mo. Forging-block. No. 1,305,864; June 3; v. 263; p. 118.

Williams Patent Crusher & Pulverizer Co. (See Williams, Milton F., assignor.)

Williams, Ralph O., Vicksburg, Mich. Dust and valve cap. No. 1,307,947; June 24; v. 263; p. 601.

Williams, William M., Harlem, Mont. Artificially compelling the fecundation of alfalfa. No. 1,306,306; June 10; v. 263; p. 214.

Williamson, A. G., trustee. (See Gray, Gardner B., assignor.)

Williamson, Richard L., Tiburon, Calif. Tractor. No. 1,307,330; June 17; v. 263; p. 465.

Willis, Bernard D., and T. G. Martin, assignors to Automatic Electric Company, Chicago, Ill. Telephone district exchange system. No. 1,306,825; June 17; v. 263; p. 362.

Willis, Bernard D., assignor to Automatic Electric Company, Chicago, Ill. Semi-automatic telephone system. No. 1,306,826; June 17; v. 263; p. 362.

Willis, Dick, and E. H. Martens, Westside, Iowa. Traction and anti-kick device for truck-tires. No. 1,306,730; June 17; v. 263; p. 345.

Willis, Walter B., Baltimore, Md. Strainer. No. 1,307,580; June 24; v. 263; p. 531.

Willis, Wayne, Chicago, Ill., assignor, by mesne assignments, to American Seating Company, Boston, Mass. No. 1,306,683; June 3; v. 263; p. 145.

Willson, Frederick, assignor to T. A. Willson & Co., Inc., Reading, Pa. Eye-protector. No. 1,306,506; June 10; v. 263; p. 246.

Willson, Frederick, assignor to T. A. Willson & Co., Inc., Reading, Pa. Eye-protector. No. 1,306,507; June 10; v. 263; p. 246.

Willson, Alexander R., Seattle, Wash. Type-distributor. No. 1,306,523; June 10; v. 263; p. 238.

Willson, Allen P. (See Willson, Robert A. and A. P.)

Willson, Catherine V. (See Willson, Charles D., assignor.)

Willson, Charles D., assignor of one-half to C. V. Willson, Toledo, Ohio. Hand-grip for guns. No. 1,307,400; June 24; v. 263; p. 514.

Willson, David H., Franklin township, Bergen county, N. J. Electric welding system. No. 1,306,294; June 10; v. 263; p. 232.

Willson, David H., Ridgewood Park, N. J. Welding cast-iron. No. 1,306,295; June 10; v. 263; p. 233.

Willson, David H., Paterson, N. J. Electric welding system. No. 1,307,030; June 17; v. 263; p. 401.

Willson, Delbert T. (See Willson, William E., assignor.)

Willson, Edward T., Washington, D. C. Self-locking cotter-pin. No. 1,306,018; June 24; v. 263; p. 614.

Willson, Ervon J., assignor of one-half to A. O. Ouren, Minneapolis, Minn. Cuspidor. No. 1,305,428; June 3; v. 263; p. 37.

Willson, Floyd M. (See Johnson, Forrest W., assignor.)

Willson, George, Albert Lea, Minn. Condenser for motor-driven railway section-cars. No. 1,306,986; June 17; v. 263; p. 392.

Willson, James G., Houston, Tex. Wire-tightener. No. 1,307,050; June 24; v. 263; p. 546.

Willson, Robert A., Watertown, and A. P. Willson, assignors to Boston Pencil Pointer Company, Waltham, Mass. Chip-receptacle for pencil-pointers. No. 1,305,985; June 3; v. 263; p. 118.

Wilson, Walter G., Farmingham, England. Driving mechanism for heavy mechanically-propelled vehicles. No. 1,306,652; June 10; v. 263; p. 259.

Wilson, William E., assignor of one-half to D. T. Wilson, Union City, Ind. Auxiliary air-inlet device. No. 1,306,987; June 17; v. 263; p. 392.

Wilsin, Arthur. (See Rotrant, Emilio, assignor.)

Winchester Repeating Arms Co. (See Johnson, Gustave A., assignor.)

Winchester Repeating Arms Co. (See Sibley, Edward W., assignor.)

Winchester Repeating Arms Company. (See Palmer, Erik S., assignor.)

Window Glass Machine Company. (See Murphy, John, assignor.)

Window Glass Rotary Pot Company. (See Standley, William E., assignor.)

Wingfield, Bernard L., West Drayton, England. Power-transmission toothed gearing. No. 1,306,653; June 10; v. 263; p. 259.

Wingire, Ernest C., Minneapolis, Minn., assignor of one-half to P. J. N. Miller, Miller, S. D. Self-anchoring windlass. No. 1,307,380; June 24; v. 263; p. 499.

Wingquist, Sven G., assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden. Ball-bearing. No. 1,307,790; June 24; v. 263; p. 573.

Winholt, Elmar A., Springfield, Ill. Oiling device. No. 1,307,889; June 24; v. 263; p. 599.

Winkel, Herbert, assignor to E. I. du Pont de Nemours & Company, Wilmington, Del. Producing dialkyl-diarylureas. No. 1,307,570; June 24; v. 263; p. 532.

Winkley, Frank D., Madison, Wis. Lubricating system. (Reissue.) No. 14,067; June 10; v. 263; p. 306.

Winson, William, Milford, England. Steam-trap. No. 1,307,388; June 17; v. 263; p. 447.

Winter, William E., Williamsport, Pa. Furniture. No. 1,306,886; June 3; v. 263; p. 118.

Winters, Alexander F. (See Smith, Nicholas A., assignor.)

Winton Company, The. (See Talcott, William H., assignor.)

Wirebonds Corporation. (See Bauwens, Seraphine F., assignor.) (Reissue.)

Wirth, Edward J., St. Louis, Mo. Door-fastener. No. 1,307,229; June 17; v. 263; p. 496.

Wirth, Carl, Rochester, N. Y. Pump. No. 1,307,071; June 17; v. 263; p. 498.

Wirtz, Louis, Edgbaston, Birmingham, England. Chain. No. 1,306,936; June 17; v. 263; p. 383.

Wiener, James T., New York, N. Y. Apparatus for forming blocks of concrete. No. 1,307,903; June 24; v. 263; p. 610.

Wiseman, Gilbert M., Washington, D. C. Folding bed. No. 1,306,887; June 3; v. 263; p. 118.

Wittlinger, John J., Detroit, Mich. Power-transmission mechanism. No. 1,306,760; June 3; v. 263; p. 169.

Wittmann, Joseph H., Kansas City, Mo. Camp-bellot. No. 1,306,941; June 10; v. 263; p. 168.

Wittmann, Joseph H., Kansas City, Mo. Camp furniture. No. 1,306,942; June 10; v. 263; p. 168.

Wohlgenuth, Jacob J., and F. Lamy, assignors to Lafayette Rubber Company, Chicago, Ill. Resilient tire-cara. No. 1,307,890; June 24; v. 263; p. 573.

Wolcott, Edwin R. (See Schmidt and Wolcott.)

Wolcott, Franklin H., and W. J. Price, assignors to Ideal Roller Company, Chicago, Ill. Roller. No. 1,306,550; June 3; v. 263; p. 129.

Wolf, Albert, Trarion City, Mich. Folding tooth-brush. No. 1,307,530; June 24; v. 263; p. 533.

Wolfe, Merl E., Cambridge, assignor of one-fourth to L. A. Ames, Spencer, and one-fourth to E. R. Kent, Newton, Mass. Internal-combustion engine. No. 1,306,577; June 3; v. 263; p. 64.

Wolfe, Merl E., Cambridge, assignor of one-fourth to L. A. Ames, Spencer, and one-fourth to E. R. Kent, Newton, Mass. Internal-combustion engine. No. 1,306,580; June 3; v. 263; p. 67.

Wolfe, Merl E., Cambridge, assignor of one-fourth to L. A. Ames, Spencer, and one-fourth to E. R. Kent, Newton, Mass. Internal-combustion engine. No. 1,306,581; June 3; v. 263; p. 68.

Wolf, Charles H. (See Weber and Wolf.)

Wolgemutt, Samuel B., assignor of one-half to L. F. Grimeley, Stockton, Calif. Engine-cylinder. No. 1,306,243; June 17; v. 263; p. 304.

Wood, Arthur G., Rockville, Ind. Automatic coupling. No. 1,306,654; June 10; v. 263; p. 259.

Wood, Clarence P. (See Langley and Wood.)

Wood, Edward N., Chicago, Ill. Wall construction. No. 1,307,767; June 24; v. 263; p. 567.

Wood, Henry A. W., assignor to Wood Newspaper Machinery Corporation, New York, N. Y. Web-renewing device for printing-presses. No. 1,306,430; June 3; v. 263; p. 38.

Wood, Henry A. W., assignor to Wood Newspaper Machinery Corporation, New York, N. Y. Molding pump and pot. No. 1,306,430; June 3; v. 263; p. 38.

Wood, Henry A. W., assignor to Wood Newspaper Machinery Corporation, New York, N. Y. Web-printing machine. No. 1,307,890; June 24; v. 263; p. 573.

Wood, Kenneth F., et al. (See Flick, Lorenz, assignor.)

Wood, Leland D. (See Inman, Gilbert H., assignor.)

Wood Newspaper Machinery Corporation. (See Wood, Henry A. W., assignor.)

Wood, William G., San Francisco, assignor of one-half to F. B. McKerritt, Sacramento, Calif. Drag-bucket. No. 1,306,578; June 17; v. 263; p. 372.

Wood, William H. (See Bickley, John H., assignor.)

Woodington, Joseph H., Cleveland, and C. A. Young, Bristol, England. Abrasive wheel. No. 1,306,019; June 24; v. 263; p. 614.

Woodruff, Leonidas D., Norwood, Ohio, assignor to Union Connector Company, Wilmington, Del. Fluid-pressure coupling. No. 1,306,582; June 3; v. 263; p. 68.

Woodruff, Leonidas D., Norwood, Ohio, assignor to Union Connector Company, Wilmington, Del. Gasket-retaining means. No. 1,306,648; June 10; v. 263; p. 185.

Woodstock Typewriter Company. (See Hohanson, Otto A., assignor.)

Woodward, Alva W., Akron, Ohio. Vehicle-wheel. No. 1,306,761; June 3; v. 263; p. 100.

Woodward, Garrett W., assignor to J. H. Benjamin, Chicago, Ill. Self-operating talking-machine. No. 1,306,341; June 10; v. 263; p. 223.

Woodward, Harry W., Cleveland, Ohio. Coupling. No. 1,307,427; June 24; v. 263; p. 564.

Woodward, John P., Seattle, Wash. Vegetable-bucket. No. 1,307,608; June 24; v. 263; p. 538.

Woodworth, Edward M., Detroit, Mich. Door-check. No. 1,307,948; June 24; v. 263; p. 601.

Woodworth, Robert H., Pittsburgh, Pa. Sectional bull-wheel. No. 1,306,792; June 17; v. 263; p. 356.

Woolums, William H. (See Gumpfer, John K., assignor.)

Worren, Frederic E., assignor to Hansen Manufacturing Company, Hudson, Mich. Water-change valve. No. 1,306,559; June 3; v. 263; p. 65.

World Harvester Corporation. (See Smith, Gaillard, assignor.)

Worsley, Otto G., Chicago, Ill. Resilient vehicle-wheel. No. 1,306,454; June 10; v. 263; p. 282.

Wright, Charles V., Tamaqua, Pa., assignor to Atlas Powder Company, Wilmington, Del. Press. No. 1,306,455; June 10; v. 263; p. 282.

Wright, Morris S., Worcester, Mass. Pumping apparatus for medical instruments. No. 1,306,937; June 17; v. 263; p. 383.

Wright, Samuel D., Cleveland, Ohio. Dump-car. No. 1,307,425; June 24; v. 263; p. 564.

Wright, William H., Indianapolis, Ind. Fluid-stream-pressure governor. No. 1,306,762; June 3; v. 263; p. 101.

Yable, Earl I., Newark, N. J. Apparatus for filling containers. No. 1,306,584; June 3; v. 263; p. 68.

Yabres, Jacob A., Akron, Ohio. Belt-splitting device. No. 1,307,290; June 17; v. 263; p. 446.

Yarnall, David R., assignor to Yarnall-Waring Company, Philadelphia, Pa. Sensitive wet-meter inlet control. No. 1,307,009; June 24; v. 263; p. 535.

Yarnall-Waring Company. (See Yarnall, David R., assignor.)

Yeagley, John E., Ashland, Ohio. Building-scaffold. No. 1,307,610; June 24; v. 263; p. 559.

Yeomans, Lucien I., Chicago, assignor to Mann Corporation, Kankakee, Ill. Sewing-machine. No. 1,306,556; June 3; v. 263; p. 119.

Yeomans, Warner M., assignor to The Rust Engineering Company, Pittsburgh, Pa. Sectional mold. No. 1,307,470; June 24; v. 263; p. 514.

York, Patrick, Washington, Pa. Structural-steel derick. No. 1,306,793; June 17; v. 263; p. 356.

Yost, William F., assignor of one-half to M. H. Klamt, Chicago, Ill. Oil-burner for take-overs. No. 1,306,670; June 3; v. 263; p. 65.

Young, Charles A. (See Woodington and Young.)

Young, Eugene K., Syracuse, N. Y. Carbon-eliminator and lubricator for gas-engines. No. 1,306,380; June 3; v. 263; p. 110.

Young, Francis L., New York, N. Y., assignor to The Aeolian Company. Sound-record. No. 1,306,030; June 24; v. 263; p. 615.

Young, John, Welland, Ontario, Canada. Automatic locking device for electric-furnace regulators of the Thury type. No. 1,307,765; June 24; v. 263; p. 567.

Young, Michael J., Stockton, Calif. Watering device. No. 1,307,429; June 24; v. 263; p. 566.

Young, Ralph A. (See King and Young.)

Young, William F., Bremerton, Wash. Bolting-up jack. No. 1,306,680; June 3; v. 263; p. 85.

Yount, James E., Fort Worth, Tex. Vibrating churn. No. 1,306,800; June 3; v. 263; p. 119.

Zabel, Jacob. (See Bodstrom, John A., assignor.)

Zabel, Jacob, assignor of one-half to J. A. Bodstrom, Chicago, Ill. Necktie-fastener. No. 1,307,073; June 17; v. 263; p. 499.

Zajac, Marcin, Chicopee, Mass. Armored automobile. No. 1,306,637; June 3; v. 263; p. 78.

Zebolen, Joseph J. (See Staneky, Joseph G., assignor.)

Zeh, Edmund W., Newark, N. J. Press-guard. No. 1,306,763; June 3; v. 263; p. 101.

Zeller, Firm of Carl. (See Henker, Otto, assignor.)

Ziegler, Leslie L., assignor to Nordyke & Marrison Company, Indianapolis, Ind. Elevator. No. 1,306,500; June 10; v. 263; p. 272.

Zimmer, Paul H., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electromagnetic switch. No. 1,306,574; June 17; v. 263; p. 372.

Zimmerman, Emil C., assignor to Q & C Company, New York, N. Y. Guard-rail clamp. No. 1,306,968; June 17; v. 263; p. 392.

Zimmers, David F., Altoona, E. N. Jessop, Glasgowport, W. J. Keogh, Springfield, and J. E. Garner, Pittsburgh, assignors to Hope Natural Gas Company, Pittsburgh, Pa. Manufacturing carbon black. No. 1,307,430; June 24; v. 263; p. 568.

Zucker, Gottlieb F., Berwyn, Ill. Auxiliary priming and air-controlling device for internal-combustion engines. No. 1,306,210; June 10; v. 263; p. 214.

Zvermann, Carl H., Kalamazoo, Mich. Truck for tunnel-boring. No. 1,306,160; June 10; v. 263; p. 205.

Zvermann, Carl H., Kalamazoo, Mich. Kiln. No. 1,306,161; June 10; v. 263; p. 205.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Acher, Maurice J., Marion, Ind. Flag, pennant, curtain, table-cover, pillow, poster, or an article of similar nature. No. 53,423; June 17; v. 263; p. 456.

Ahlmgren, Walborg, assignor of one-third to C. A. Burall, New York, N. Y., and one-third to H. C. Karlson, Hackensack Heights, N. J. Game-board. No. 53,430; June 17; v. 263; p. 456.

American Can Company. (See Hoffman, Edmund, assignor.)

American Electrical Heater Company. (See Kuhn and Hand, assignors.)

Arnold, Samuel E., Toronto, Ontario, Canada. Rocking-chair and cradle attachment. No. 53,392; June 3; v. 263; p. 143.

Art Hand-Bag Frame Co., The. (See Montroni, Giuseppe, assignor.)

B. F. Goodrich Company, The. (See Renner, Irvin E., assignor.)

Blankinship, John S., Lynchburg, Va. Combined settee and phonograph-cabinet. No. 53,431; June 17; v. 263; p. 456.

Bell, Wilhelm H. P., et al. (See Keiman, Harriet E., assignor.)

Brightman, Joseph F., assignor to The Syracuse Fan- and Valve Company, Syracuse, N. Y. Radiator-valve control and handle. No. 53,406; June 10; v. 263; p. 204.

Bromall, Louis, Southington, Conn. Machine-standard. No. 53,433; June 17; v. 263; p. 456.

Brown, William H., Cleveland, Ohio. Spring-oller. No. 53,406-7; June 10; v. 263; p. 204.

Bunting, James H., assignor to Snaguchanna Silk Mills, New York, N. Y. Printed silk. Nos. 53,432-4; June 17; v. 263; pp. 456-7.

Burrell, Charles A., et al. (See Ahlmgren, Walborg, assignor.)

Caldwell, Eugene S., Philadelphia, Pa. Castings for thermodynamic valves. No. 53,398; June 3; v. 263; p. 143.

Chicago Coach & Carriage Co. (See Heinrich, Otto W., assignor.)

Chipman, William H., Easton, Pa. Stocking. No. 53,435; June 17; v. 263; p. 457.

Clarke, Christopher W., Chicago, Ill. Ring or similar article of jewelry. No. 53,436; June 17; v. 263; p. 457.

Chen, Mathias, Sherburn, Minn. Double clevia. No. 53,408; June 10; v. 263; p. 206.

Commerce Motor Car Company, The. (See Granger, Charles I., assignor.)

Comstock, Genesee, Newark, N. J. Umbrella attachment. No. 53,437; June 17; v. 263; p. 457.

Congray, Mark C., assignor to The Matthews Engineering Company, Sandusky, Ohio. Combined engine crank-cas and dynamo-shell. No. 53,409; June 10; v. 263; p. 207.

Cutbush, Charles, et al. (See Keiman, Harriet E., assignor.)

Davis, Laurence R., Providence, R. I., assignor to Revere Rubber Company. Elastic vehicle-tire. No. 53,410; June 10; v. 263; p. 207.

Dodge Manufacturing Company. (See Pilkington, Robert G., assignor.)

E. B. Hotes & Sons. (See Estes, Webster C., assignor.)
 Eberhart, Cleburne, Jr., assignor to Play-O-Lite Co., Inc., Buffalo, N. Y. Piano-lamp and bracket. No. 53,394; June 3; v. 263; p. 464.
 Edwards, Earl A., Shelby, Idaho. Bucket. No. 53,436; June 17; v. 263; p. 467.
 Empire Phone Parts Company. (See McNamara, William J., assignor.)
 Estes, Webster C., assignor to E. B. Hotes & Sons, New York, N. Y. Pin-holder. No. 53,411; June 10; v. 263; p. 307.
 Finn, George, Newark, N. J. Gas-store top. No. 53,439; June 17; v. 263; p. 467.
 Fraser, Allan, assignor to Play-O-Lite Company, Buffalo, N. Y. Piano-lamp and bracket. No. 53,395; June 3; v. 263; p. 144.
 Gerhardt, Leonard, assignor to Tin Decorating Company of Baltimore, Baltimore, Md. Sifter-top can or similar receptacle. No. 53,412; June 10; v. 263; p. 307.
 Granger, Charles L., assignor to The Commerce Motor Car Company, Detroit, Mich. Radiator-casing. No. 53,413; June 10; v. 263; p. 307.
 Green, Harry E., St. John, New Brunswick, Canada. Necktie-rack. No. 53,440; June 17; v. 263; p. 465.
 Hansen, Jacob M., assignor to Hartmann-Malcom Co., Chicago, Ill. Electric-lamp standard. No. 53,396; June 3; v. 263; p. 144.
 Hartmann-Malcom Co. (See Hansen, Jacob M., assignor.)
 Heinrich, Otto W., assignor to Chicago Coach & Carriage Co., Chicago, Ill. Roof for an automobile-body. No. 53,441; June 17; v. 263; p. 465.
 Hoffman, Edmund, Brooklyn, assignor to American Can Company, New York, N. Y. Cap or cover for talcum-powder boxes. No. 53,442; June 17; v. 263; p. 465.
 Hogan, Daniel, Hoboken, N. J., assignor to Melnecke & Company, New York, N. Y. Bed-pan. No. 53,443; June 17; v. 263; p. 465.
 Holden, Crofton C., assignor to Royal Comb Company, Loomister, Mass. Bag-frame. No. 53,414-15; June 10; v. 263; p. 308.
 Holton, Albert O., New York, N. Y. Radiator. No. 53,444; June 17; v. 263; p. 465.
 Humphrey, Glen R., Brooklyn, N. Y. Container for toilet and other powders. No. 53,445; June 17; v. 263; p. 465.
 Insurance Credit Company, The. (See Pfum, William, assignor.)
 Jackson, Emil, Anacosta, Mont. Service-button. No. 53,446; June 17; v. 263; p. 465.
 Karlson, Henry C., et al. (See Ahlmgren, Walborg, assignor.)
 Kasal, Kanichiro, New York, N. Y. Powder-box, cream-jar, or similar toilet article. No. 53,447; June 17; v. 263; p. 465.
 Kasal, Kanichiro, New York, N. Y. Mirror, hair-brush, or similar toilet article. No. 53,448; June 17; v. 263; p. 465.
 Kelman, Harriet E., assignor to W. H. Boll, Sydney, New South Wales, and C. Cutbush, Kalgoolie, Western Australia, Australia. Doll. No. 53,449-50; June 17; v. 263; p. 465.
 Kinder, August, Seattle, Wash. Clothes rack and stand. No. 53,451; June 17; v. 263; p. 465.
 Klapp, Elmer A., New York, N. Y. Badge or similar article of manufacture. No. 53,452; June 17; v. 263; p. 465.
 Kuhn, Frank, and J. A. Hand, assignors to American Electrical Heater Company, Detroit, Mich. Stove. No. 53,416; June 10; v. 263; p. 308.
 Kuhn, Frank, and J. A. Hand, assignors to American Electrical Heater Company, Detroit, Mich. Electric-heater casing. No. 53,417; June 10; v. 263; p. 308.
 Levin, Alexander, and J. Medina, Calumet, Mich. Watch-case. No. 53,418-19; June 10; v. 263; p. 308.
 Levin, Alexander, and J. Medina, Calumet, Mich. Watch-dial. No. 53,420; June 10; v. 263; p. 308.
 Lightbourne, Henry, Detroit, Mich. Tire-protector. No. 53,421; June 10; v. 263; p. 308.
 Lloyd, Converse W., Chicago, Ill., assignor to The Sanifield Co. of California. Tooth-brush. No. 53,453; June 17; v. 263; p. 465.
 Lutteringhaus, Walter, Maywood, Ill. Berlin saucers. No. 53,454; June 17; v. 263; p. 465.
 Macdonald, Angus R., Great Neck Station, N. Y., assignor to The Sneed & Co. Iron Works, Jersey City, N. J. Ash-tray. No. 53,397; June 3; v. 263; p. 144.
 Maguire, George E., assignor to Trenton Porcelain Company, Trenton, N. J. Porcelain transmitter-mouth-piece. No. 53,455; June 17; v. 263; p. 465.
 Malicable Iron Fittings Company, The. (See Pickop, George B., assignor.)
 Manus Candy Company, The. (See Manus, Robert S., assignor.)
 Manus, Robert S., assignor to The Manus Candy Company, Cleveland, Ohio. Bar or cake of candy or confectionery. No. 53,422; June 10; v. 263; p. 309.
 Marcus, Alex., Brooklyn, N. Y. Powder-puff. No. 53,398; June 3; v. 263; p. 144.
 Matthews Engineering Company, The. (See Cosgray, Mark C., assignor.)
 Mann, Charles, Brooklyn, N. Y. Hand-bag frame. No. 53,423; June 10; v. 263; p. 309.

McNamara, William J., assignor to Empire Phone Parts Company, Cleveland, Ohio. Tone-arm. No. 53,456; June 17; v. 263; p. 465.
 Madin, Joseph. (See Levin and Madin.)
 Melnecke & Company. (See Hogan, Daniel, assignor.)
 Montreal Giuseppe, Hoboken, N. J., assignor to The Art Hand-Bag Frame Co., New York, N. Y. Hand-bag frame. No. 53,424-5; June 10; v. 263; p. 309.
 Moore, William J. P., New York, N. Y. Wheel. No. 53,426; June 10; v. 263; p. 309.
 Moskowitz, Sam, Brooklyn, N. Y. Buffet. No. 53,457; June 17; v. 263; p. 465.
 Myers, Harry B., Cherokee, Kans. Military-service badge. No. 53,458; June 17; v. 263; p. 461.
 Orcutt, Leon F., assignor to Susquehanna Silk Mills, New York, N. Y. Printed silk. No. 53,459; June 17; v. 263; p. 461.
 Pape, Herman G., New York, N. Y. Telephone-carriage or similar phonetic device. No. 53,460; June 17; v. 263; p. 461.
 Pamedach, John A., Chicago, Ill. Toy. No. 53,461; June 17; v. 263; p. 461.
 Pfum, William, assignor to The Insurance Credit Company, Dayton, Ohio. Token-coin. No. 53,462; June 17; v. 263; p. 461.
 Pickop, George B., New Haven, assignor to The Malleable Iron Fittings Company, Branford, Conn. Air-blast cleaning device. No. 53,463; June 3; v. 263; p. 144.
 Pilkington, Robert G., Chicago, Ill., assignor to Dodge Manufacturing Company, Milwaukee, Ind. Package-delivery-car body. No. 53,464; June 3; v. 263; p. 144.
 Platt, Clarence D., Bridgeport, Conn. Electric-switch handle. No. 53,465; June 3; v. 263; p. 144.
 Play-O-Lite Co. (See Eberhart, Cleburne, Jr., assignor.)
 Racine Auto Tire Company. (See Wright, Clarence, assignor.)
 Reith, William G., assignor to Susquehanna Silk Mills, New York, N. Y. Printed silk. No. 53,463-4; June 17; v. 263; p. 461.
 Reiser, Irvia E., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Pneumatic tire. No. 53,427; June 10; v. 263; p. 310.
 Revere Rubber Company. (See Davis, Laurence R., assignor.)
 Richardson, Harry E. (See Borg and Richardson.)
 Romko, Joseph L., Cleveland, Ohio. Lamp-standard. No. 53,466; June 3; v. 263; p. 145.
 Royal Comb Company. (See Holden, Crofton C., assignor.)
 Rustant, Ferdinand, San Francisco, Calif. Bottle-stopper. No. 53,428; June 10; v. 263; p. 310.
 Rustant, Ferdinand, San Francisco, Calif. Bottle-stopper. No. 53,468; June 17; v. 263; p. 462.
 Rustant, Ferdinand, Manila, Philippine Islands. Bottle-stopper. No. 53,467; June 17; v. 263; p. 462.
 Samuel, Truman M., Roxbury, Mass. Wind-wheel. No. 53,469; June 17; v. 263; p. 462.
 Sanifield Co. of California, The. (See Lloyd, Converse W., assignor.)
 Shapiro & Aronson. (See Westphal, Gottfried, assignor.)
 Smith, Raymond D., Arlington, assignor to Tremont Products Company, Boston, Mass. Humidifier. No. 53,468; June 3; v. 263; p. 145.
 Sork, Emil G., Buffalo, and H. B. Richardson, Eden, N. Y. Musical instrument. No. 53,470; June 17; v. 263; p. 463.
 Soud & Co. Iron Works, The. (See MacDonald, Angus R., assignor.)
 Susquehanna Silk Mills. (See Bunting, James H., assignor.)
 Susquehanna Silk Mills. (See Orcutt, Leon F., assignor.)
 Susquehanna Silk Mills. (See Reith, William G., assignor.)
 Sweeney, William J., East Orange, N. J. Flag, pennant, or similar article. No. 53,471; June 17; v. 263; p. 463.
 Syracuse Faucet and Valve Company, The. (See Brightman, Joseph F., assignor.)
 Tin Decorating Company of Baltimore. (See Gerhardt, Leonard, assignor.)
 Trenton Porcelain Company. (See Maguire, George E., assignor.)
 Tremont Products Company. (See Smith, Raymond D., assignor.)
 Westphal, Gottfried, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y. Arm for lighting-fixture. No. 53,472; June 17; v. 263; p. 463.
 Westphal, Gottfried, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y. Spindle for lighting-fixture. No. 53,473; June 17; v. 263; p. 463.
 Westphal, Gottfried, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y. Canopy for lighting-fixture. No. 53,474; June 17; v. 263; p. 463.
 Westphal, Gottfried, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y. Arm for lighting-fixture. No. 53,475; June 17; v. 263; p. 464.
 Westphal, Gottfried, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y. Spindle for lighting-fixture. No. 53,476; June 17; v. 263; p. 464.

Westphal, Gottfried, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y. Plate for lighting-fixture. No. 53,477; June 17; v. 263; p. 464.
 Westphal, Gottfried, Guttenberg, N. J., assignor to Shapiro & Aronson, Inc., New York, N. Y. Ring for lighting-fixture. No. 53,478; June 17; v. 263; p. 464.

Will & Baumer Co., The. (See Will, Harold H., assignor.)
 Will, Harold H., assignor to The Will & Baumer Co., Syracuse, N. Y. Candle. No. 53,404; June 3; v. 263; p. 145.
 Wright, Clarence, assignor to Racine Auto Tire Company, Racine, Wis. Vehicle tire or casing. No. 53,479; June 17; v. 263; p. 464.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. & A. Underberg, Chicago, Ill. Washing compound. No. 125,685; June 3; v. 263; p. 162.
 A. D. Adair & McCarty Bros. Inc., Atlanta, Ga. Cotton-plant fertilizer. No. 125,774; June 17; v. 263; p. 477.
 Advance Automobile Accessories Corp., Chicago, Ill. Fabric linings for transmissions and brakes. No. 125,690; June 3; v. 263; p. 164.
 Alfred Wright, Inc., Philadelphia, Pa. Certain named toilet preparations. No. 125,699; June 17; v. 263; p. 479.
 American La France Fire Engine Co., Inc., Elmira, N. Y. Fire-engine, water-tower, &c. No. 125,561; June 24; v. 263; p. 631.
 American Manufacturing Company, Boston, Mass., and Brooklyn, N. Y. Rope, cord, twine. No. 125,775; June 17; v. 263; p. 477.
 American Products Company, Detroit, Mich. Non-infecting cereal beverage. No. 125,776; June 17; v. 263; p. 477.
 Amory Brown Export Corp., Boston, Mass., and New York, N. Y. Cotton piece goods. No. 125,716; June 10; v. 263; p. 327.
 Arthur N. Christy & Co., Newark, N. Y. Egg substitute. No. 125,864; June 24; v. 263; p. 631.
 Arthur Stegman, Inc., New York, N. Y. Ladies' and gentlemen's cravats. No. 125,762; June 10; v. 263; p. 328.
 Atlantic Seed Company, Inc., The, Philadelphia, Pa. Field-seeds. No. 125,806; June 3; v. 263; p. 161.
 Auer & Twitchell, Inc., Dover, Del., and Philadelphia, Pa. Writing, printing, &c., paper. No. 125,700; June 3; v. 263; p. 164.
 Augustine & Kyr, Seattle, Wash. Lard. No. 125,607; June 3; v. 263; p. 161.
 Batterman Fruit Company, Chicago, Ill. Electrically-operated fans, motors, and blowers. No. 125,608; June 3; v. 263; p. 161.
 Beatty, Peter A., New Orleans, La. Night-tapers. No. 125,717; June 10; v. 263; p. 327.
 Beecherturian, Puissant, Cambridge, Mass. Massaging instrument. No. 125,609; June 3; v. 263; p. 161.
 Beverage, Non-alcoholic maltine. M. Elsenberg. No. 125,669; June 24; v. 263; p. 631.
 Blomster and Schaben, Alpena, Iowa. Spark-plugs. No. 125,612; June 3; v. 263; p. 161.
 Bonney Floyd Company, Columbus, Ohio. Mine or pit cars and the wheels and components for same. No. 125,610; June 3; v. 263; p. 161.
 Borden's Condensed Milk Company, New York, N. Y. Chocolate coatings as applied to confectionery. No. 125,718; June 10; v. 263; p. 327.
 Bourasalis, John, Pittsburgh, Pa. Pharmaceutical preparation for general debility, &c. No. 125,719; June 10; v. 263; p. 327.
 Bourasalis, John, Pittsburgh, Pa. Medicinal tonic for the nervous system, &c. No. 125,720; June 10; v. 263; p. 327.
 Brick, Samuel E., Salina, Kans. Adhesive paste. No. 125,777; June 17; v. 263; p. 477.
 Brooklyn Automobile Company, Brooklyn, N. Y. Automobile-trucks. No. 125,613; June 3; v. 263; p. 161.
 Brundage, Henry H., assignor to A. Mieros, New York, N. Y. Automobile and furniture polish. No. 125,778; June 17; v. 263; p. 477.
 Bryn Mawr Fruit-Growers Association, Bryn Mawr and Redlands, Calif. Fresh citrus fruits. No. 125,615; June 3; v. 263; p. 161.
 Burkhardt Brewing Company, Boston and Roxbury, Mass. Maltine cereal beverage. No. 125,779; June 17; v. 263; p. 477.
 C. A. Gambrell Manufg Company, Baltimore, Md. Self-rising pancake-flour. No. 125,672; June 24; v. 263; p. 631.
 C. L. Centlivre Brewing Co., Fort Wayne, Ind. Non-alcoholic maltine beverage sold as a soft drink. No. 125,780; June 17; v. 263; p. 477.
 Celsia Company, Atlanta, Ga. Purgative liver-tablets. No. 125,722; June 10; v. 263; p. 327.
 Cheney Brothers, South Manchester, Conn. Spun silk yarn, machine-twist, knitting, &c., silks. No. 125,616-17; June 3; v. 263; p. 161.
 Cheney Brothers, South Manchester, Conn. Fabrics of silk and silk mixtures. No. 125,781-83; June 17; v. 263; p. 477.
 Chicago Apparatus Company, Chicago, Ill. Demonstration motors and dynamos, lamp-rheostats, &c. No. 125,622; June 3; v. 263; p. 161.
 Chicago Pneumatic Tool Company, Chicago, Ill. Pneumatic riveting-hammers. No. 125,618-19; June 3; v. 263; p. 161.

Chicago Pneumatic Tool Company, Chicago, Ill. Automobiles and automobile-trucks. No. 125,620; June 3; v. 263; p. 161.
 Chicago Pneumatic Tool Company, Chicago, Ill. Pneumatic riveting-hammers. No. 125,621; June 3; v. 263; p. 161.
 Chrym, William D., Chicago, Ill. Remedy for piles. No. 125,784; June 17; v. 263; p. 477.
 Daley Cup Company, Incorporated, The, New York, N. Y. Columbian Enameling & Stamping Company, Terre Haute, Ind. Certain named enameled ware for household use. No. 125,865; June 24; v. 263; p. 631.
 Commins, Mack, Gadsden, Ala. Hair-tonic. No. 125,733; June 10; v. 263; p. 327.
 Conclin, David R., Cincinnati, Ohio. Powder for cleaning, &c., carpets, rugs, &c. No. 125,624; June 3; v. 263; p. 161.
 Consumers Fruit Company of America, Chicago, Ill. Fresh fruits. No. 125,866; June 24; v. 263; p. 631.
 Cooper Underwear Company, Kenosha, Wis. Certain named clothing for men, women, and children. No. 125,705; June 17; v. 263; p. 477.
 Crocker & Company, Seattle, Wash. Canned food consisting principally of codfish and potatoes. No. 125,724; June 10; v. 263; p. 327.
 Crucible Steel Company of America, Pittsburgh, Pa. Steel. No. 125,725; June 10; v. 263; p. 327.
 Paper-pulp spoons. No. 125,790; June 17; v. 263; p. 477.
 Davis Bros. Fisheries, Inc., Gloucester, Mass. Fish. No. 125,626; June 3; v. 263; p. 161.
 De Luxe Brush Company, Wilmington, Del., and Philadelphia, Pa. Shaving-brushes. No. 125,795; June 17; v. 263; p. 477.
 Den Kongelige Porcelainsfabrik, Copenhagen, Denmark. Porcelain ware. No. 125,799; June 17; v. 263; p. 477.
 Denver Rock Drill Manufacturing Company, The, Denver, Colo. Rock-drills. No. 125,800; June 17; v. 263; p. 477.
 Despard & Gordon Company, Chicago, Ill. Electric-lamp sockets. No. 125,627; June 3; v. 263; p. 161.
 Diem and Wing Paper Company, The, Cincinnati, Ohio. Roofing made from asphalt and wool felt. No. 125,629; June 3; v. 263; p. 161.
 Dietz, George H., Stockton, Calif. Cough-drops. No. 125,701; June 3; v. 263; p. 164.
 Domestic Mills Company, Lowell, Mass. Textile threads and yarns. No. 125,867; June 24; v. 263; p. 631.
 Dorach, Peter M., Washington, D. C. Bread, rolls, and cakes. No. 125,726; June 10; v. 263; p. 327.
 Drueger Oxygen Apparatus Company, New York, N. Y., and Pittsburgh, Pa. Resuscitating apparatus, apparatus to permit breathing while in a noxious atmosphere, &c. No. 125,727; June 10; v. 263; p. 327.
 Driver-Harris Company, Harrison, N. J. Certain named metals and metal castings and forgings. No. 125,630; June 3; v. 263; p. 161.
 Dublin Distillers Co. Ltd., The, Dublin, Ireland. Whisky. No. 125,801; June 17; v. 263; p. 477.
 Dubee Paper Company, Chicago, Ill. Gummed paper on which labels are to be printed. No. 125,631; June 3; v. 263; p. 161.
 Duplicator Manufacturing Company, Chicago, Ill. Duplicating-machines. No. 125,632; June 3; v. 263; p. 161.
 E. Clarke Company, Baltimore, Md. Peanut-oil. No. 125,633; June 3; v. 263; p. 161.
 E. Leitz, Inc., New York, N. Y. Glass slides in microscopic work. No. 125,634; June 17; v. 263; p. 478.
 Edgar-Morgan Company, Memphis, Tenn. Stock feed. No. 125,635; June 3; v. 263; p. 162.
 Elpis Confectionery Co., New York, N. Y. Candy. No. 125,636; June 24; v. 263; p. 631.
 Emery Heel Sales Company, Boston, Mass. Taps for boots and shoes. No. 125,637; June 17; v. 263; p. 477.
 Empire Silk Company, Wilmington, Del., and New York, N. Y. Silk piece goods. No. 125,803-4; June 17; v. 263; p. 477.
 Engineering Magazine Company, The, New York, N. Y. Monthly periodicals. No. 125,635; June 3; v. 263; p. 162.
 Eugene Ruter & Company, New York, N. Y. Dyes. No. 125,840; June 17; v. 263; p. 479.
 Everette R. Peacock Co., Chicago, Ill. Onion-seeds, garden-seeds, bulbs, and plants. No. 125,671; June 3; v. 263; p. 163.
 Excelsior Motor Mfg. and Supply Co., Chicago, Ill. Motor-cycles and bicycles. No. 125,637-8; June 3; v. 263; p. 162.
 Eye Brand Confectionery Inc., Brooklyn, N. Y. Candies. No. 125,670; June 24; v. 263; p. 631.

F. W. Belgiano & Company, Inc., Washington, D. C. Vegetable, garden, and field seeds. No. 125,603; June 24; v. 263; p. 631.

F. W. Hampshire & Co. Ltd., Derby, England. Emollient tablets for treatment of the skin. No. 125,600; June 17; v. 263; p. 478.

Fairfax Textile Mills, Inc., New York, N. Y. Textile goods for underwear. No. 125,728; June 10; v. 263; p. 327.

Falstrom & Torquist Co., Pasmatic, N. J. Roof-ventilators and tin fire-doors. No. 125,871; June 24; v. 263; p. 631.

Farnsworth, Hoyt Co., Boston, Mass. Cotton-twist shoe-linings in the piece. No. 125,729; June 10; v. 263; p. 327.

Federal Button Company, Newark, N. J. Buttons. No. 125,636; June 3; v. 263; p. 163.

Federal Tool & Alloy Steel Corporation, New York, N. Y. Iron and steel. No. 125,730; June 10; v. 263; p. 327.

Fiske Brothers Refining Co., New York, N. Y. Cooling preparation for use during the machining of metal. No. 125,731; June 10; v. 263; p. 327.

Fiske Brothers Refining Co., New York, N. Y. Launching-grease. No. 125,732; June 10; v. 263; p. 327.

Fitz Gerald, William H., Hartford, Conn. Surgical devices to compress the flesh and thereby abrade and score it. No. 125,733; June 10; v. 263; p. 327.

Flinthote Company, The, Boston, Mass. Roofing material. No. 125,806; June 17; v. 263; p. 478.

Ford Motor Company, Highland Park, Mich. Rubber tires. No. 125,702; June 3; v. 263; p. 164.

Frank H. Davis Company, Gloucester, Mass. Certain named foods. No. 125,625; June 3; v. 263; p. 161.

Frank Kats Hat Co., Inc., New York, N. Y. Men's, women's, and children's hats. No. 125,819; June 17; v. 263; p. 478.

Friant Bros. Rubber Co., Baltimore, Md. Food-jar rubbers. No. 125,640; June 3; v. 263; p. 162.

Friedman Bros. & Son Neckwear Company, Inc., New York, N. Y. Ties, cravats, four-in-hand and bow ties. No. 125,734; June 10; v. 263; p. 327.

Fuld, Traube & Co., Inc., New York, N. Y. Vells and vellings. No. 125,735; June 10; v. 263; p. 327.

Gavalla & Barpar, New York, N. Y. Winter-pressed cotton-seed salad-oil. No. 125,641; June 3; v. 263; p. 162.

General Insulating & Manufacturing Company, St. Louis, Mo., and Alexandria, Ind. Heat and cold insulation materials. No. 125,806; June 17; v. 263; p. 478.

Geo. W. Pack & Son, Inc., Syracuse, N. Y. Wall-plaster. No. 125,670; June 3; v. 263; p. 163.

George Borgfeldt & Co., New York, N. Y. Brushes with handles and backs of pyroxylin. No. 125,611; June 3; v. 263; p. 161.

Gill, Julius Q., Peoria, Ill. Composition for cooling hot boxes. No. 125,736; June 10; v. 263; p. 327.

Goldberg, Max, Chicago, Ill. Ice-cream cones and wafers. No. 125,642; June 3; v. 263; p. 163.

Gold-Patent Manufacturing Co., Inc., New York, N. Y. Taps for vehicles. No. 125,873; June 24; v. 263; p. 631.

Gondier Gum Co., Boston, Mass. Chewing-gum. No. 125,737; June 10; v. 263; p. 327.

Greenberg, Morris H., Houston, Tex. Certain named furniture and house-furnishings. No. 125,808; June 17; v. 263; p. 478.

H. Kohnstamm & Co., New York, N. Y. Coloring for foods. No. 125,747; June 10; v. 263; p. 328.

H. Weinbaum, New York, N. Y. Thermometers. No. 125,694-5; June 3; v. 263; p. 163.

H. A. Johnson Co., Boston, Mass. Certain named foods. No. 125,657; June 3; v. 263; p. 163.

H. D. Jost & Son, Philadelphia, Pa. Artificial teeth. No. 125,658; June 3; v. 263; p. 163.

H. G. Hill Grocery Company, Nashville, Tenn. Canned vegetables and fruits, soups, coffee. No. 125,741; June 10; v. 263; p. 327.

H. G. Prince & Co., Oakland, Calif. Canned fruits and berries. No. 125,879; June 24; v. 263; p. 631.

H. W. Gordinier & Sons Co., Troy, N. Y. Flower, seed, and vegetable seeds. No. 125,648; June 3; v. 263; p. 162.

Haas, Baruch & Co., Los Angeles, Calif. Certain named foods. No. 125,703; June 3; v. 263; p. 164.

Hardy, John, Buffalo, N. Y. Piano-polish. No. 125,738; June 10; v. 263; p. 327.

Harris, Charles H., Oil City, Pa. Roofing—name's felt saturated with asphaltum. No. 125,810; June 17; v. 263; p. 478.

Hartman, Fred H., Ottumwa, Iowa. Wheat-flour. No. 125,645; June 3; v. 263; p. 163.

Hathaway & Sons, C. F., North Cambridge, Mass. Bread. No. 125,874; June 24; v. 263; p. 631.

Hawaiian Pineapple Co. Ltd., Honolulu, Hawaii. Canned pineapples. No. 125,646; June 3; v. 263; p. 163.

Hawaiian Pineapple Co. Ltd., Honolulu, Hawaii. Canned pineapples. No. 125,648; June 3; v. 263; p. 163.

Heimerlingner, Mary E., Louisville, Ky. Mule-shoers. No. 125,649; June 3; v. 263; p. 163.

Heinrich, Edward O., Tacoma, Wash. Hair-shampoo. No. 125,704; June 3; v. 263; p. 164.

Henry H. Ottens Mfg Co., Inc., Philadelphia, Pa. Vanilla flavoring extracts and powders. No. 125,600; June 3; v. 263; p. 163.

Herman Klansman Co., New York, N. Y. Cotton-seed salad-oil. No. 125,600; June 3; v. 263; p. 163.

Herrman, Daniel W., New York, N. Y. Cotton, silk, linen, and canvas shoe fabrics. No. 125,739; June 10; v. 263; p. 327.

Heust-Mills Drug Co., Memphis, Tenn. Hair color-restorer and tonic, depilatory, shampoos. No. 125,811; June 17; v. 263; p. 478.

Heyward & Canfield Co., Grand Rapids, Mich. Paints, varnishes, etc. No. 125,740; June 10; v. 263; p. 327.

Hill and Griffith Company, The, Cincinnati, Ohio. Core compound used in metal-foundries, etc. No. 125,801; June 3; v. 263; p. 162.

Hitz, Jacobs & Company, New York, N. Y. Porch-shades. No. 125,652; June 3; v. 263; p. 163.

Hittman, Linda, Fort Wayne, Ind. Women's and girls' combination-undergarment. No. 125,812; June 17; v. 263; p. 478.

Holley Milling Company, The, Ogden, Utah. Wheat-flour. No. 125,643; June 3; v. 263; p. 163.

Home Brewing Co., The, Bridgeport, Conn. Ale, lager, and porter. No. 125,813; June 17; v. 263; p. 478.

Hosco, Lumsden, Indianapolis, Ind. Cloth athletic belt for women. No. 125,814; June 17; v. 263; p. 478.

Hyde, Charles L., Plainfield, N. J. Electrically-operated visible-signal device for an automobile or other vehicle. No. 125,654; June 3; v. 263; p. 162.

Hyman, Maurice N., New York, N. Y. Certain named ladies' wearing-apparel. No. 125,815; June 17; v. 263; p. 478.

Ideal Marketeria Company, Lockport, N. Y. Certain named foods. No. 125,645; June 3; v. 263; p. 163.

Ideal Tire & Rubber Company, The, Cleveland, Ohio. Rubber tires and tubes for pneumatic tires. No. 125,656; June 3; v. 263; p. 163.

Irvine, George H., Detroit, Mich. Automobile-body and furniture polishes. No. 125,742; June 10; v. 263; p. 327.

Irving Iron Works Company, Long Island City, N. Y. Metal floorings or gratings. No. 125,816; June 17; v. 263; p. 478.

J. Kridel, Sons & Co., New York, N. Y. Sattins and vestings. No. 125,653; June 17; v. 263; p. 478.

J. J. Badgenoch Co., Chicago, Ill. Stock and poultry feed. No. 125,652; June 24; v. 263; p. 631.

Jack Daniel Distilling Company, St. Louis, Mo. Whisky. No. 125,707; June 17; v. 263; p. 477.

Jellico Clothing Manufacturing Co., Jellico, Tenn. Overalls and jumpers. No. 125,817; June 17; v. 263; p. 478.

John A. Balzer Seed Company, La Crosse, Wis. Seeds. No. 125,677; June 3; v. 263; p. 163.

John C. Dettre & Company, Inc., Ocala, Fla. Flags. No. 125,628; June 3; v. 263; p. 161.

John B. Brown & Sons, Limited, Belfast, Ireland. Certain named articles made of cotton and linen. No. 125,721; June 10; v. 263; p. 327.

Johnson, Cowdin & Co., New York, N. Y. Ribbons. No. 125,743-4; June 10; v. 263; p. 327.

Joe Melkenthin & Sons, Newark, N. J. Razors and razor-blades. No. 125,746; June 10; v. 263; p. 328.

Joseph Barnett Company, Boston, Mass. Flavoring compounds. No. 125,614; June 3; v. 263; p. 161.

Karp, Joseph H., New York, N. Y. Disinfectant. No. 125,818; June 17; v. 263; p. 478.

Kassman, Maurice P., Binghamton, N. Y. Preparation for coughs, bronchitis, croup, etc. No. 125,745; June 10; v. 263; p. 328.

Kaufmann Bros. & Bondy, New York, N. Y. Smokers' pipes, cigar and cigarette holders. No. 125,830; June 17; v. 263; p. 478.

Keating, Harry A., Kansas City, Mo. Unpopped popcorn. No. 125,746; June 10; v. 263; p. 328.

Klapco, John, Los Angeles, Calif. Shoe dressings and cleaners, polishes and renewers for leather, gloves, and shoes. No. 125,821; June 17; v. 263; p. 478.

King E. Graham, Inc., New York, N. Y. Margarin cooking compound. No. 125,644; June 3; v. 263; p. 163.

Kochanowski, Joseph, Donora, Pa. Medicinal wax. No. 125,705; June 3; v. 263; p. 164.

Lawson Manufacturing Company, Pittsburgh, Pa. Gas-operated water-heaters and heating-stoves. No. 125,600; June 3; v. 263; p. 162.

Ledger Sons & Co., London, England. Cigars, cigarettes, cheroots, manufactured tobacco. No. 125,661-3; June 3; v. 263; p. 162.

Lerner & Goldsmith, New York, N. Y. Ladies' dresses. No. 125,824; June 17; v. 263; p. 478.

Lerity Systems Corporation, Edwardsville, Ill. Automatic account-finding machines. No. 125,635; June 17; v. 263; p. 478.

Ligon, Blunkie & Co., Inc., Petersburg, Va. Certain named clothing. No. 125,826; June 17; v. 263; p. 478.

Loomis-Boardley Mfg. Co., The, Columbus, Ohio. Valve-operating tools for internal-combustion engines. No. 125,663; June 3; v. 263; p. 163.

Mahan, Cyril C., Baltimore, Md. Candy. No. 125,748; June 10; v. 263; p. 328.

Mammoth Spring Milling Company, Mammoth Spring, Ark. Wheat-flour. No. 125,706; June 3; v. 263; p. 164.

Marshall Field & Company, Chicago, Ill. Men's and women's shoes. No. 125,707; June 3; v. 263; p. 164.

Martin, Anson V., Chicago, Ill. Fly-swatters. No. 125,878; June 24; v. 263; p. 631.

Mather, Frank C., and Jacob Pash, Bloomington, Ind. Coloring substances used to produce an oxidized finish on silverware, etc. No. 125,827; June 17; v. 263; p. 478.

Michigan State Auto School, Inc., Detroit, Mich. Catalogues and monthly magazines. No. 125,644; June 3; v. 263; p. 162.

Mocuter, Henry, Los Angeles, Calif. Tablets used as a mouth and throat antiseptic. No. 125,605; June 3; v. 263; p. 162.

Monard Food and Tool Company, Inc., New York, N. Y. Twist, flat, straightway, and abrad drills and files. No. 125,750; June 10; v. 263; p. 329.

Mumford, Donald R., New Orleans, La. Fracture-sealing compositions for pneumatic tires. No. 125,606; June 3; v. 263; p. 162.

Munday, Edgar F., London, England. Certain named paints and painter's materials. No. 125,828; June 17; v. 263; p. 478.

Mummy-Lyon Co., Ltd., Detroit, Mich. Die-cast, bronze, etc., bearings. No. 125,830; June 17; v. 263; p. 478.

Myers, Anton O., St. Louis, Minn. Bird-lime. No. 125,830; June 17; v. 263; p. 478.

Nafziger, Ralph L., Kansas City, Mo. Bread. No. 125,751; June 10; v. 263; p. 328.

Nakamura, Kontaro, Los Angeles, Calif. Japanese food. No. 125,607; June 3; v. 263; p. 163.

Nathan, Edwin R., New York, N. Y. Certain named receptacles. No. 125,601; June 17; v. 263; p. 478.

National Enameling & Stamping Co., New York, N. Y. Enamelled metal ware. No. 125,763; June 10; v. 263; p. 328.

Native Products Co., Inc., New York, N. Y. Baking-powder. No. 125,708; June 3; v. 263; p. 164.

Nell, George L., Pittsburgh, Pa. Coffee, tea, cocoa, lemon, and vanilla extracts. No. 125,763; June 10; v. 263; p. 328.

Newman, Herman & Co., New York, N. Y. Woven cotton piece goods. No. 125,832; June 17; v. 263; p. 478.

Newell, Clifford W., Oklahoma, Okla. Rheumatism medicine. No. 125,754; June 10; v. 263; p. 328.

North American Dye Corporation, New Rochelle, N. Y. Dyes. No. 125,755; June 10; v. 263; p. 328.

O'Brien, J. P., Cincinnati, Ohio. Evaporated milk. No. 125,608; June 3; v. 263; p. 163.

Ohio Dairy Company, The, Toledo, Oak Harbor, and Lima, Ohio, and Norwood, Mich. Evaporated milk. No. 125,709; June 3; v. 263; p. 164.

Osborne, Fred H., Detroit, Mich. Preparations for the treatment of earache, toothache, headache. No. 125,756; June 10; v. 263; p. 328.

Owego Shade Cloth Company, Owego, N. Y. Shade-cloth. No. 125,833; June 17; v. 263; p. 478.

Ottawa Milling Company, Kansas City, Mo., and Ottawa, Kans. Wheat-flour. No. 125,876; June 24; v. 263; p. 631.

Parber, George H., Stamford, Conn. Game-boards and pieces therefor. No. 125,834; June 17; v. 263; p. 478.

Parson's Chemical Works, Grand Lodge, Mich. Medicine for live stock. No. 125,710; June 3; v. 263; p. 164.

Pell, George W., Denver, Colo. Certain named foods. No. 125,877; June 24; v. 263; p. 631.

Pickering, John W., Leominster, Mass. Certain named receptacles made of pyroxylin. No. 125,672; June 3; v. 263; p. 163.

Pierce-Arrow Motor Car Company, Buffalo, N. Y. Motor-vehicles. No. 125,673-4; June 3; v. 263; p. 163.

Pratt & Whitney Company, New York, N. Y. Certain named metal and wood working machines, parts thereof, and accessories therefor. No. 125,835; June 17; v. 263; p. 478.

Preservative Paint Company, Seattle, Wash. Paints and varnishes. No. 125,650; June 17; v. 263; p. 478.

Price, Sterling S., Lexington, Ky. Pork, mutton, and lard. No. 125,878; June 24; v. 263; p. 631.

Princo, W. M., Tacoma, Wash. Fabric and rubber tire-patches. No. 125,675; June 3; v. 263; p. 163.

Paritan Chocolate Co., The, Cincinnati, Ohio. Chocolate candy. No. 125,609; June 24; v. 263; p. 631.

R. H. Canning Co., San Francisco and Orwood, Calif. Canned asparagus. No. 125,660; June 3; v. 263; p. 162.

Restoff & Bettmann, New York, N. Y. Leather-dye. No. 125,757; June 10; v. 263; p. 328.

Rialto Corporation, Long Beach, Calif. Baked sandwich-billing. No. 125,758; June 10; v. 263; p. 328.

Rice-Six Dry Goods Company, St. Louis, Mo. Silk and silk-mixed piece goods. No. 125,836; June 17; v. 263; p. 478.

Richardson Silk Company, Chicago, Ill. Certain named threads and yarns. No. 125,831; June 24; v. 263; p. 631.

Rine, Ramon P., Trenton, N. J. Ointment for certain named ailments. No. 125,711; June 3; v. 263; p. 164.

Rink, Fred, Pittsburgh, Pa. Adhesive shoe-lining. No. 125,680; June 17; v. 263; p. 479.

Robert H. Hander, Inc., Indianapolis, Ind. Shock-absorber for Ford cars. No. 125,647; June 3; v. 263; p. 162.

Rockland Products Company, Milwaukee, Wis. Limestone-rock chicken feed. No. 125,832; June 24; v. 263; p. 631.

Rogers Foot Company, New York, N. Y. Men's hats. No. 125,840; June 17; v. 263; p. 479.

Romayne Super-Film Corporation, Los Angeles, Calif. Motion-picture films. No. 125,841; June 17; v. 263; p. 479.

Rosenstein, Jacob, New York, N. Y. Wheat-flour. No. 125,676; June 3; v. 263; p. 163.

Rothacker Film Mfg. Co., Chicago, Ill. Motion-picture films. No. 125,759; June 10; v. 263; p. 328.

Rothacker Film Mfg. Co., Chicago, Ill. Motion-picture films. No. 125,842; June 17; v. 263; p. 479.

Rubins, Anthony, New York, N. Y. Olive-oil. No. 125,683; June 24; v. 263; p. 631.

Sale & Company, New York, N. Y. Men's outer wearing-apparel. No. 125,843; June 17; v. 263; p. 479.

Samuel Stores, Inc., The, New York, N. Y. Ladies' outer apparel. No. 125,847; June 17; v. 263; p. 479.

Scherbel, Hermann W., Aberdeen, Wash. Ryglasene. No. 125,844; June 17; v. 263; p. 479.

Schedel Oil Co., Inc., New York, N. Y. Lubricating-oils. No. 125,760; June 10; v. 263; p. 328.

Schoonman, Emil J., Philadelphia, Pa. Candy, and more particularly chocolates and bonbons. No. 125,804; June 24; v. 263; p. 631.

Scott, Louis H., Oklahoma, Okla. Tire-patch. No. 125,678; June 3; v. 263; p. 163.

Scott, Wilhelmise M., Kansas City, Mo. Ready-mixed paints. No. 125,845; June 17; v. 263; p. 479.

Shawcross, Frank L., New York, N. Y. Tennis-rackets. No. 125,679; June 3; v. 263; p. 163.

Sensara Phonograph Corporation, New York, N. Y. Talking-machine and phonograph cabinets. No. 125,680; June 3; v. 263; p. 163.

Southwestern Milling Company, Inc., New York, N. Y., and Kansas City, Mo. Self-rising flour. No. 125,761; June 10; v. 263; p. 328.

Standard Oil Company, Bayonne, N. J. White mineral oil. No. 125,762; June 10; v. 263; p. 328.

Standard Paint Company, Boundbrook, N. J., and New York, N. Y. Prepared roofings. No. 125,846; June 17; v. 263; p. 479.

Steele Packing Company, San Diego, Calif. Canned tomatoes. No. 125,681; June 3; v. 263; p. 163.

Stowell Coffee Co., The, Cincinnati, Ohio. Coffee. No. 125,848; June 17; v. 263; p. 479.

Sugar Products Company, New York, N. Y. Molasses. No. 125,764; June 10; v. 263; p. 328.

Syracuse Milling Company, Syracuse, N. Y. Stock food. No. 125,849; June 24; v. 263; p. 631.

Taylor, William, Hampton Hill, England. Antiseptic and healing balm. No. 125,765; June 10; v. 263; p. 328.

Thermalene Company, The, Chicago Heights, Ill. Gas-generators and generator-cartridges. No. 125,682; June 3; v. 263; p. 163.

Thomas A. Edison, Incorporated, West Orange, N. J. Blank or forms upon which to inscribe talk or conversation which has been recorded photographically. No. 125,837; June 3; v. 263; p. 162.

Thorndike Company, Thorndike, Mass. Cotton piece goods. No. 125,766; June 10; v. 263; p. 328.

Touraine Company, The, Boston, Mass. Candles. No. 125,850; June 24; v. 263; p. 631.

Turnbull Motor Truck and Wagon Co., The, Defiance, Ohio. Automobiles, wagons, trucks, etc. No. 125,683; June 3; v. 263; p. 163.

Twin City Varnish Co., St. Paul, Minn. Paints and varnishes. No. 125,850; June 17; v. 263; p. 479.

Ulmer Leather Co., The, Norwich, Conn. Leather belt-ing. No. 125,684; June 3; v. 263; p. 163.

Ulmer Leather Company, The, Norwich, Conn. Leather belt-ing. No. 125,712; June 3; v. 263; p. 164.

Ulmer Leather Company, The, Norwich, Conn. Waterproof adhesive cement. No. 125,851; June 17; v. 263; p. 479.

Ulrich, Christ J., St. Louis, Mo. Chemical carbon-remover and chemical gas-sover. No. 125,767; June 10; v. 263; p. 328.

Union Manufacturing Company, New Britain, Conn. Carpenters' planes and lathe-chucks, etc. No. 125,852; June 17; v. 263; p. 479.

United Cigars Manufacturing Company, (now by change of name General Cigar Co., Inc.) Cigars. No. 125,713; June 3; v. 263; p. 164.

United Growers Association of Turlock, Turlock, Calif. Fresh cantaloups. No. 125,686; June 3; v. 263; p. 163.

United Sanitary Products Co., Inc., New York, N. Y. Disinfectants and insecticides. No. 125,768; June 10; v. 263; p. 328.

United States Macaroni Company, Los Angeles, Calif. Macaronic foods. No. 125,769; June 10; v. 263; p. 328.

United States of America, Washington, D. C. Internal-combustion engines and parts thereof. No. 125,853; June 17; v. 263; p. 479.

United States Rubber Company, New York, N. Y. Oil or rubber treated rainproof-overcoats. No. 125,854; June 17; v. 263; p. 479.

Utica Steam & Mohawk Valley Cotton Mills, Utica, N. Y. Sheets, shoptings, etc. No. 125,855; June 17; v. 263; p. 479.

W. F. Anson Canning Co., Baltimore, Md. Canned fruits and vegetables. No. 125,606; June 3; v. 263; p. 161.

1 ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

W. R. Grace & Co., New York, N. Y., and San Francisco, Calif. Cotton piece goods. No. 125,307; June 17; v. 263; p. 478.
W. S. Forbes & Co., Inc., Richmond, Va. Vegetable shortening. No. 125,389; June 8; v. 263; p. 162.
Wallins, Isador A., Decatur, Ill. Eggs. No. 125,687; June 8; v. 263; p. 163.
Wappler Electric Co., Inc., New York, N. Y. X-ray tubes. No. 125,688; June 8; v. 263; p. 163.
Ward Baking Company, New York, N. Y. Cakes. No. 125,689; June 8; v. 263; p. 163.
Washburn Crosby Co., Minneapolis, Minn. Wheat-flour. No. 125,690-2; June 8; v. 263; p. 163.
Watts, Stebbins & Co., New York, N. Y. Cotton piece goods. No. 125,770; June 10; v. 263; p. 323.
Waukesha Pure Food Company, Waukesha, Wis. Jelly-powders. No. 125,693; June 8; v. 263; p. 163.
Weisbach Company, Gloucester City, N. J. Gas mantles and lamps. No. 125,693; June 8; v. 263; p. 163.
West, Augustus A., Philadelphia, Pa. Hair-net. No. 125,771; June 10; v. 263; p. 323.
West, Augustus A., Philadelphia, Pa. Shampoo. No. 125,856; June 17; v. 263; p. 479.

Willard Storage Battery Company, Cleveland, Ohio. Storage batteries and parts thereof. No. 125,773-3; June 10; v. 263; p. 323.
Williams Brush Co., Philadelphia, Pa. Tooth-brushes. No. 125,857; June 17; v. 263; p. 479.
Williams, Frank R., Dover, N. H. Side and cut lace-leather. No. 125,697; June 8; v. 263; p. 163.
Williams, Frank R., Dover, N. H. Oak-tanned leather belting and cut lace-leather. No. 125,714; June 8; v. 263; p. 164.
Wineland, Benjamin C., Great Bend, Kans. Lintiment for toothache, rheumatism, la grippe, pneumonia. No. 125,858; June 17; v. 263; p. 479.
Wingate Chemical Co. Limited, The, Montreal, Quebec, Canada. Local anesthetic. No. 125,715; June 8; v. 263; p. 164.
World Film Corporation, New York, N. Y. Cinematographic films. No. 125,694; June 8; v. 263; p. 164.
Young, Frank C., New Haven, Conn. Lintiment for certain named diseases and ailments. No. 125,859; June 17; v. 263; p. 479.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Burger, Iwan, New York, N. Y. "Patria." (For Food Products.) No. 21,275; June 17; v. 263; p. 480.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF JUNE, 1919.

Abrasive wheel. J. H. Woodington and C. A. Young. No. 1,306,019; June 24; v. 263; p. 614.
Account register. Credit. H. A. Martin. No. 1,307,301; June 24; v. 263; p. 633.
Acetic anhydride and acetic aldehyde or acid. Production of. J. Kortschak and M. Brodet. No. 1,306,063; June 17; v. 263; p. 333.
Acetylene generator. C. J. and G. J. Clifton. No. 1,305,564; June 8; v. 263; p. 4.
Acid manufacturing kettle. G. A. Richter. No. 1,305,623; June 8; v. 263; p. 73.
Acid, synthetically producing tropic. E. Müller. No. 1,305,501; June 8; v. 263; p. 14.
Acids with 3-phenyl quinolin 4-carboxylic acid. Compounds of halogen. H. W. Rhodochmel. No. 1,306,430; June 10; v. 263; p. 259.
Acoustic apparatus. E. H. Clement. No. 1,306,248; June 10; v. 263; p. 324.
Adding-machine. O. D. Johantgen. No. 1,306,112; June 10; v. 263; p. 193.
Adhesive, moisture-proof. R. E. Field. No. 1,307,247; June 17; v. 263; p. 439.
Adjustable chair and cot. Combined. C. C. Chittim. No. 1,306,103; June 10; v. 263; p. 194.
Adjustable hanger. A. M. Hiss. No. 1,307,000; June 24; v. 263; p. 609.
Adjustable wrench. Automatically. A. Sportup. No. 1,306,871; June 8; v. 263; p. 65.
Advertising device. E. T. Bell. No. 1,306,730; June 17; v. 263; p. 347.
Advertising-machine. P. C. Scott. No. 1,306,975; June 17; v. 263; p. 359.
Aerial torpedo. G. Rossi. No. 1,307,933; June 24; v. 263; p. 697.
Aerial vessel. Antenna construction for. A. W. Schramm. No. 1,307,155; June 17; v. 263; p. 423.
Aeroplane. G. A. Brewer. No. 1,307,303; June 24; v. 263; p. 674.
Aeroplane. H. M. Chiron. No. 1,306,524; June 8; v. 263; p. 63.
Aeroplane. W. C. Higley. No. 1,306,498; June 8; v. 263; p. 45.
Aeroplane. C. Matthews and C. S. Hall. No. 1,307,323; June 24; v. 263; p. 675.
Aeroplane. G. J. Spohrer. No. 1,306,064; June 10; v. 263; p. 191.
Aeroplane and gas-bag. Separable. J. N. Lewis. No. 1,306,149; June 10; v. 263; p. 242.
Aeroplane-controlling mechanism. W. H. Gettemy, Jr. No. 1,306,002; June 10; v. 263; p. 176.
Aeroplane-motor. Self-starter for. A. W. Backman. No. 1,307,331; June 17; v. 263; p. 434.
Aeroplane-wing hinge. H. Klockler. No. 1,306,764; June 17; v. 263; p. 351.
Aeroplane-wing truss. G. H. Curtiss. No. 1,306,750; June 17; v. 263; p. 349.
Aeroplane. Combination landing-gear for. G. H. Curtiss. No. 1,306,751; June 17; v. 263; p. 349.
Aeroplane. Landing device for. M. Sukirica. No. 1,305,812; June 8; v. 263; p. 19.
Agitator implement. A. B. Antisell. No. 1,306,422; June 8; v. 263; p. 64.
Air-chest plastering-machine. G. E. White. No. 1,305,574; June 8; v. 263; p. 64.
Air-brake. F. S. Cravens. No. 1,306,536; June 10; v. 263; p. 275.
Air-circulating device. N. J. Cavagnaro. No. 1,306,760; June 8; v. 263; p. 102.
Air-cooled engine. E. B. Kuhn. No. 1,307,000; June 24; v. 263; p. 651.
Air-cooling machine. S. and D. S. Camberos. No. 1,307,000; June 24; v. 263; p. 547.
Air-inlet device. Auxiliary. W. E. Wilson. No. 1,306,967; June 17; v. 263; p. 392.
Air-moistener and dust-collector. J. S. Nelson. No. 1,306,950; June 8; v. 263; p. 182.
Aircraft-driving mechanism. H. R. Ricardo. No. 1,306,129; June 10; v. 263; p. 199.
Aircraft. Landing-gear for. H. Klockler. No. 1,306,765; June 17; v. 263; p. 352.
Aircraft running and alighting device. J. V. Martin. No. 1,306,766; June 17; v. 263; p. 352.
Airplane. F. J. Bauman. No. 1,307,730; June 24; v. 263; p. 653.
Airplane. C. J. Labe. No. 1,307,123; June 17; v. 263; p. 419.
Airplane. C. J. Labe. No. 1,307,134; June 17; v. 263; p. 419.

Airplane landing and launching equipment. F. Smith. No. 1,306,890; June 17; v. 263; p. 369.
Airplane-propelling mechanism. F. J. Bauman. No. 1,307,731; June 24; v. 263; p. 650.
Airship. J. Paulauski. No. 1,307,414; June 24; v. 263; p. 608.
Alarm. See—
Automatic theft-alarm. Water-flow alarm.
Burglar-alarm.
Alarm and releasing attachment for windows. J. C. Liston. No. 1,306,702; June 17; v. 263; p. 340.
Alarm device. W. E. Langenberg. No. 1,307,300; June 17; v. 263; p. 440.
Alfalfa. Artificially compelling the fecundation of. W. M. Williams. No. 1,306,300; June 10; v. 263; p. 214.
Alloy. Aluminum. H. C. Kirk. No. 1,306,551; June 8; v. 263; p. 61.
Alloy. Aluminum. A. O. Mason. No. 1,306,300; June 8; v. 263; p. 14.
Ammonia-and-air mixture. Forming. L. C. Jones. No. 1,307,730; June 24; v. 263; p. 602.
Ammonia and tar recovery process. J. Becker. No. 1,307,533; June 24; v. 263; p. 525.
Ammonia and tar recovery process. J. Van Ackeren. No. 1,307,511; June 24; v. 263; p. 522.
Ammonia, tar, and benzol recovery process. J. Becker. No. 1,307,534; June 24; v. 263; p. 523.
Ammonium nitrate. Manufacture of. J. R. Partington and G. J. Jones. No. 1,306,924; June 17; v. 263; p. 381.
Amusement device. W. E. Miller. No. 1,306,708; June 17; v. 263; p. 341.
Amusement device. J. Toney. No. 1,306,842; June 8; v. 263; p. 115.
Anchor. Check-row. W. F. Biermann. No. 1,306,045; June 10; v. 263; p. 174.
Anchor. Sheet. L. V. W. Frager. No. 1,306,507; June 8; v. 263; p. 62.
Angle-guard. R. L. Wilcox. No. 1,306,328; June 8; v. 263; p. 19.
Angularity-indicator. W. C. Rieker. No. 1,305,935; June 8; v. 263; p. 124.
Animal-trap. J. E. and G. W. Elder. No. 1,307,933; June 24; v. 263; p. 604.
Animal-trap. J. Sterbens. No. 1,307,763; June 24; v. 263; p. 567.
Annealing-box. P. E. Hunter. No. 1,305,605; June 8; v. 263; p. 73.
Annealing-furnace. J. J. Beeman. No. 1,305,691; June 10; v. 263; p. 174.
Antacid attachment for automobiles. J. F. McNamara. No. 1,306,355; June 10; v. 263; p. 249.
Antacid attachments. Coupling for. W. H. Krag. No. 1,307,055; June 17; v. 263; p. 405.
Antacid device. W. H. Krag. No. 1,306,377; June 8; v. 263; p. 25.
Aperture-plate and film guide and tension device. M. L. Farret. No. 1,306,571; June 8; v. 263; p. 141.
Arc cutting and welding apparatus. Alternating-current metallic. C. J. Holding. No. 1,305,363; June 8; v. 263; p. 25.
Arc device. Inclosed. J. A. Orange. No. 1,306,559; June 10; v. 263; p. 251.
Arc-welding or allied work. Mask for use in. C. J. Holding. No. 1,306,364; June 8; v. 263; p. 25.
Arch-form. Collapsible. G. A. Compton. A. B. Ness. W. H. Cassarini and G. A. Green. No. 1,306,172; June 10; v. 263; p. 207.
Ash-ejector. G. Purvis. No. 1,306,544; June 8; v. 263; p. 64.
Auto direction-signal. B. Itrowitz. No. 1,305,901; June 8; v. 263; p. 126.
Auto-wheel. M. S. Spott and T. Jeffrey. No. 1,307,277; June 17; v. 263; p. 446.
Automatic controller. J. E. Thompson and C. W. Jamison. No. 1,306,262; June 10; v. 263; p. 213.
Automatic coupling. A. G. Wood. No. 1,306,654; June 10; v. 263; p. 259.
Automatic feeder. W. L. Goldstein. No. 1,305,714; June 8; v. 263; p. 92.
Automatic sprinkler system. A. J. Loepsinger. No. 1,305,812; June 8; v. 263; p. 125.
Automobile. Armored. M. Zajac. No. 1,305,637; June 8; v. 263; p. 73.
Automobile attachment. H. B. Hollifield. No. 1,307,402; June 24; v. 263; p. 601.
Automobile-bed. J. F. Kerrigan. No. 1,306,255; June 10; v. 263; p. 226.

Automobile-bumper. F. A. and F. B. Lederer. No. 1,307,050; June 17; v. 263; p. 466.
 Automobile-curtain. G. Glauzel. No. 1,305,400; June 3; v. 263; p. 44.
 Automobile-curtain rods, Socket for. E. McLaughlin. No. 1,305,478; June 3; v. 263; p. 47.
 Automobile direction-indicator. T. F. Kiernan. No. 1,305,609; June 3; v. 263; p. 74.
 Automobile drip-trough. J. T. Allmand. No. 1,307,801; June 24; v. 263; p. 574.
 Automobile driving mechanism. E. J. Stoddard. No. 1,306,944; June 17; v. 263; p. 570.
 Automobile fan belt. C. C. Gates. No. 1,307,731; June 24; v. 263; p. 561.
 Automobile fender. Resilient. H. B. Bowling. No. 1,306,742; June 17; v. 263; p. 347.
 Automobile fire-engine. W. G. Hawley. No. 1,306,760; June 17; v. 263; p. 351.
 Automobile heater. F. J. Cullen. No. 1,304,551; June 10; v. 263; p. 285.
 Automobile-hoist. A. C. Klemme. No. 1,304,430; June 10; v. 263; p. 258.
 Automobile-hoist. A. C. Klemme. No. 1,306,431; June 10; v. 263; p. 258.
 Automobile insignia-holder. J. A. Quinlan. No. 1,306,800; June 10; v. 263; p. 250.
 Automobile-jack. J. H. Chumbley. No. 1,307,000; June 17; v. 263; p. 410.
 Automobile-jack. C. H. Rose and A. Helms. No. 1,307,000; June 24; v. 263; p. 337.
 Automobile-lock. W. T. Rathberg. No. 1,305,786; June 3; v. 263; p. 105.
 Automobile-lock. A. D. Fenno. No. 1,307,001; June 17; v. 263; p. 388.
 Automobile-lock. J. L. Poland. No. 1,305,543; June 3; v. 263; p. 64.
 Automobile-signal. B. H. Bruce. No. 1,307,038; June 17; v. 263; p. 402.
 Automobile-signal. A. Joffria. No. 1,305,980; June 3; v. 263; p. 26.
 Automobile-signals. Circuit-closer for. G. C. Robinson. No. 1,307,927; June 24; v. 263; p. 590.
 Automobile-theft alarm. E. G. Bader. No. 1,307,002; June 24; v. 263; p. 574.
 Automobile-theft alarm. H. A. Beall. No. 1,307,575; June 24; v. 263; p. 532.
 Automobile-theft-detector means. T. C. Gettell. No. 1,305,832; June 3; v. 263; p. 23.
 Automobile-theft signal. A. J. Silva. No. 1,307,933; June 24; v. 263; p. 588.
 Automobile-top. B. H. Alvey. No. 1,307,073; June 17; v. 263; p. 309.
 Automobile traction mechanism. F. H. Farmer. No. 1,305,452; June 3; v. 263; p. 42.
 Automobile traction mechanism. F. H. Farmer. No. 1,305,531; June 3; v. 263; p. 54.
 Automobile tractor attachment. E. R. Hanson. No. 1,305,717; June 3; v. 263; p. 92.
 Automobiles and the like. Self-steering and reinforcing device for. F. C. Morris. No. 1,305,923; June 3; v. 263; p. 131.
 Automobiles. Bumper for. G. F. Long. No. 1,305,292; June 3; v. 263; p. 12.
 Automobiles. Fastening device for. A. Chambers. No. 1,306,799; June 17; v. 263; p. 359.
 Automobiles. Hand door-pad for. F. H. Stanwood. No. 1,306,100; June 10; v. 263; p. 213.
 Automobiles. Out of mud. Device to pull. H. Rose. No. 1,306,721; June 17; v. 263; p. 344.
 Automobiles. Power attachment for. J. N. Rice. No. 1,307,269; June 17; v. 263; p. 443.
 Automobiles. Shade for. W. L. Bensolo. No. 1,305,515; June 3; v. 263; p. 54.
 Automobiles. Sleigh attachment for. R. F. Sutherland. No. 1,305,629; June 3; v. 263; p. 77.
 Automobiles. Spring control and shock-absorber for. M. N. Knudson. No. 1,307,502; June 24; v. 263; p. 520.
 Awning-arm. R. B. Hughes. No. 1,307,201; June 17; v. 263; p. 431.
 Awning-guard. F. W. Nightingale. No. 1,307,080; June 24; v. 263; p. 553.
 Axle. Internal-drive rear. F. H. Farmer. No. 1,305,454; June 3; v. 263; p. 43.
 Axle. Vehicle. T. R. McKnight. No. 1,306,115; June 10; v. 263; p. 197.
 Axles. Lateral-thrust bearing for railway. J. L. Mohun and H. R. Stafford. No. 1,306,387; June 10; v. 263; p. 250.
 Backgrounds. Rendering objects less visible against. W. A. Machay. No. 1,305,298; June 3; v. 263; p. 13.
 Bag. See—
 Aeroplane and gas-bag. School-bag.
 Bag-holder. A. J. Farnsworth and E. M. St. Claire. No. 1,307,420; June 24; v. 263; p. 508.
 Bags. Handle for. H. Sadiovsky. No. 1,306,778; June 17; v. 263; p. 354.
 Baking-pan. H. H. Davis. No. 1,307,942; June 24; v. 263; p. 604.
 Balle-forming compress. Automatic. A. T. Dudley. No. 1,305,344; June 3; v. 263; p. 22.
 Ball-mill. J. B. Ball. No. 1,307,951; June 24; v. 263; p. 602.
 Balloon. R. G. Fernandez. No. 1,305,992; June 3; v. 263; p. 70.
 Bank-sped. S. E. W. M. Baggs. No. 1,307,574; June 24; v. 263; p. 532.
 Bank-support. M. Farrar. No. 1,305,270; June 3; v. 263; p. 8.
 Bar. See—
 Corner and division bar. Stick-bar.
 Grate-bar. Type-bar.
 Metal bar.
 Barge or lighter. Dumping. A. C. Waters. No. 1,306,322; June 10; v. 263; p. 328.
 Bark-removing machine. J. W. Vandervoer and W. L. Lynch. No. 1,304,580; June 17; v. 263; p. 571.
 Barium oxide. Producing. J. B. Pierce, Jr. No. 1,304,618; June 3; v. 263; p. 74.
 Barn-door lock. F. R. Henrichsen. No. 1,307,401; June 24; v. 263; p. 501.
 Barrels, boxes, and the like. Binding and heading band for. G. W. Swift, Jr. No. 1,307,765; June 24; v. 263; p. 567.
 Bars. Apparatus for applying shills to core. W. Stre-bridge. No. 1,306,675; June 3; v. 263; p. 95.
 Basic oxychloride of aluminum and making same. W. Rosenbalm and E. H. Rodd. No. 1,307,943; June 24; v. 263; p. 538.
 Basic siliconum sulfate. W. Rosenbalm and E. H. Rodd. No. 1,307,943; June 24; v. 263; p. 538.
 Basin. H. and J. Schneider, Jr. No. 1,306,434; June 3; v. 263; p. 76.
 Basket. J. L. Barna. No. 1,306,941; June 17; v. 263; p. 334.
 Bath-tub. Foldable. E. Volterra. No. 1,307,942; June 24; v. 263; p. 600.
 Batteries. Separator for secondary. J. O. Lathy. No. 1,306,657; June 3; v. 263; p. 81.
 Batteries. Separator for secondary. J. O. Lathy. No. 1,306,658; June 3; v. 263; p. 82.
 Battery. See—
 Flash-light battery. Galvanic battery.
 Battery. K. J. Crowley. No. 1,306,814; June 10; v. 263; p. 215.
 Battery arrangement. S. B. Hess. No. 1,306,147; June 10; v. 263; p. 302.
 Bean-vise forkers. Attachment for. J. R. Cottrell. No. 1,306,189; June 10; v. 263; p. 261.
 Bearings. W. A. Thomson. No. 1,307,020; June 17; v. 263; p. 461.
 Bearing. Adjustable. W. Arter. No. 1,306,807; June 10; v. 263; p. 251.
 Bearing and support therefor. Yieldable. E. M. Cruthers. No. 1,306,961; June 17; v. 263; p. 366.
 Bearing. Antifriction. E. M. W. Hanson. No. 1,307,408; June 24; v. 263; p. 518.
 Bearing. Antifriction slide. T. H. Alfreds. No. 1,306,675; June 17; v. 263; p. 572.
 Bearing. Ball. S. G. Wingquist. No. 1,307,790; June 24; v. 263; p. 573.
 Bearing. Rotary meter. C. P. Mayer. No. 1,305,834; June 3; v. 263; p. 112.
 Bearing-surface. F. M. Sperry. No. 1,307,544; June 24; v. 263; p. 531.
 Bearing. Thrust. M. Morris. No. 1,307,500; June 24; v. 263; p. 521.
 Bearings. Ball-cage for ball. O. H. Bursell. No. 1,306,575; June 3; v. 263; p. 122.
 Bearings. Machine for greasing and finishing jewel. F. H. Chapman. No. 1,307,577; June 24; v. 263; p. 523.
 Beater. Rag. F. Schnurr. No. 1,307,026; June 17; v. 263; p. 400.
 Beater-stick support. E. Ollea. No. 1,307,574; June 24; v. 263; p. 537.
 Bed. Adjustable. M. Novick. No. 1,306,614; June 10; v. 263; p. 251.
 Bed. Camp. J. H. Brewer. No. 1,306,440; June 3; v. 263; p. 40.
 Bed. Clamping and stopping machine. H. Dubé. No. 1,306,585; June 10; v. 263; p. 294.
 Bed. Folding. G. Fischrupp. No. 1,306,784; June 17; v. 263; p. 350.
 Bed. Folding. G. M. Wiseman. No. 1,305,837; June 3; v. 263; p. 118.
 Bed-frame. Foldable. G. L. Harpham. No. 1,307,390; June 24; v. 263; p. 501.
 Bed. Invalid. J. J. Henderson. No. 1,307,908; June 24; v. 263; p. 549.
 Bed-seat. L. Jählich. No. 1,305,908; June 3; v. 263; p. 20.
 Bed. Sofa. W. L. Murphy. No. 1,306,680; June 3; v. 263; p. 82.
 Beds. Receiving apparatus for cigar. H. P. Robbins. No. 1,307,454; June 24; v. 263; p. 512.
 Belt-splitting device. J. A. Yahren. No. 1,307,230; June 17; v. 263; p. 445.
 Belt-topping machine. T. M. Daniels. No. 1,306,673; June 10; v. 263; p. 302.
 Belt. Traction. J. E. Green. No. 1,305,280; June 3; v. 263; p. 10.
 Belts. Means for connecting the ends of. G. W. Webb. No. 1,306,507; June 10; v. 263; p. 372.
 Belting and forming machine. C. J. Barry. No. 1,306,900; June 10; v. 263; p. 174.
 Belting machine. H. P. F. Sedgwick. No. 1,306,126; June 10; v. 263; p. 186.
 Bessel and the like. Process and apparatus for the treatment of. M. W. Blyth and T. V. Miles. No. 1,306,570; June 3; v. 263; p. 121.
 Binder. Lasting. C. F. Fym. No. 1,306,121; June 10; v. 263; p. 190.
 Binders. Machine for placing lasting. C. F. Fym. No. 1,306,120; June 10; v. 263; p. 190.
 Bit. See—
 Drill-bit. Boller-bit.
 Bituminous distributor. A. Fricker. (Belgium.) No. 1,306,322; June 17; v. 263; p. 454.
 Bituminous lining for surfaces exposed to corrosive action. H. Wiedersheim. No. 1,306,678; June 3; v. 263; p. 64.
 Blast-furnace top. E. G. Rust. No. 1,307,804; June 24; v. 263; p. 504.
 Blind and ventilator. Window. R. F. Balte. No. 1,307,470; June 24; v. 263; p. 516.
 Block. See—
 Building-block. Interbearing-block.
 Capstan and cleave block. V-block.
 Purling-block.
 Block-signal system. Automatic. W. S. Levin. No. 1,306,323; June 3; v. 263; p. 26.
 Block-signal system. Automatic. W. S. Levin. No. 1,306,323; June 3; v. 263; p. 26.
 Block-signal system. Track-operated device for automatic. W. S. Levin. No. 1,306,324; June 3; v. 263; p. 29.
 Board. See—
 Bulletin and sign board. Instrument-board.
 Cutting-board. Ironing-board.
 Game-board. Panel-board.
 Boards. Machine for perforating insulite. J. K. Shaw. No. 1,306,263; June 10; v. 263; p. 251.
 Boat. F. O. Mitting. No. 1,307,573; June 24; v. 263; p. 537.
 Boat launching and lowering gear. R. Beaton. No. 1,305,943; June 3; v. 263; p. 70.
 Boat-lowering gear. G. Torric. No. 1,306,445; June 10; v. 263; p. 297.
 Boat or vessel. S. Golden. No. 1,305,806; June 3; v. 263; p. 120.
 Boat. Unsinkable life. B. Goldman. No. 1,305,254; June 3; v. 263; p. 23.
 Boats. Apparatus for detecting and indicating the presence of submarine. G. B. Hila. No. 1,305,908; June 24; v. 263; p. 611.
 Boats. Method and system of building. E. B. Patrick. No. 1,307,144; June 17; v. 263; p. 421.
 Body treatment. Apparatus for. W. E. Brannan. No. 1,306,490; June 3; v. 263; p. 20.
 Body-treatment machine. J. F. Gardner. No. 1,306,505; June 3; v. 263; p. 71.
 Bolt-thrower. Destroyer. J. W. Ray. No. 1,306,408; June 3; v. 263; p. 50.
 Boiler. See—
 Sectional boiler. Steam-boiler.
 Boiler-furnace. T. J. Robinson. No. 1,306,623; June 10; v. 263; p. 294.
 Boiler-protecting device. L. J. Bordo. No. 1,306,107; June 10; v. 263; p. 294.
 Bolt. See—
 Chain-bolt. Ribs-bolt.
 Door-bolt.
 Bolt and nut lock. W. D. Lee. No. 1,306,000; June 10; v. 263; p. 284.
 Bolts and the like. Detent for panic. A. A. Page. No. 1,306,500; June 10; v. 263; p. 281.
 Bolt-nut lock. W. F. Young. No. 1,305,000; June 3; v. 263; p. 25.
 Bomb. Incendiary. M. C. Starnes. No. 1,306,751; June 3; v. 263; p. 54.
 Bombs. Receptacle for incendiary aerial. A. Chanard. No. 1,306,747; June 17; v. 263; p. 343.
 Book. Check. W. B. Palmer. No. 1,307,143; June 17; v. 263; p. 421.
 Book. Check. H. Smith. No. 1,307,708; June 24; v. 263; p. 554.
 Book-support. C. U. Widmer. No. 1,305,858; June 3; v. 263; p. 116.
 Bookcase. U. G. Lee. No. 1,307,261; June 17; v. 263; p. 442.
 Booklet-cover. G. L. Costa. No. 1,306,691; June 17; v. 263; p. 328.
 Boom. W. Travell. No. 1,305,621; June 3; v. 263; p. 77.
 Boats and shore. Wall for. W. B. Arnold. No. 1,307,174; June 17; v. 263; p. 426.
 Boring or reaming tool. W. E. Kelly. No. 1,306,186; June 10; v. 263; p. 219.
 Bottle-cap remover and alarm. C. F. Scarborough. No. 1,307,610; June 24; v. 263; p. 522.
 Bottle-capping machine. T. S. Ball. No. 1,307,943; June 24; v. 263; p. 561.
 Bottle-carrier. H. L. Vaughan. No. 1,307,607; June 17; v. 263; p. 406.
 Bottle-corking machine. A. L. Elmer. No. 1,306,802; June 10; v. 263; p. 271.
 Bottle filling and corking machine. L. Dunn. No. 1,307,943; June 24; v. 263; p. 561.
 Bottle filling and corking machine. A. Callahan. (Belgium.) No. 1,306,750; June 10; v. 263; p. 304.
 Bottle-filling device. J. E. Godfrey. No. 1,306,800; June 17; v. 263; p. 375.
 Bottle. Non-refillable. E. G. Castillo. No. 1,306,947; June 17; v. 263; p. 385.
 Bottle. Non-refillable. W. D. Crocker. No. 1,306,775; June 3; v. 263; p. 108.
 Bottle. Non-refillable. J. Kerr. No. 1,305,549; June 3; v. 263; p. 60.
 Bottle receptacle. Milk. W. H. Arbogast. No. 1,306,885; June 3; v. 263; p. 120.
 Bottle-washing machine. J. A. Johnson. No. 1,306,870; June 3; v. 263; p. 28.
 Bottles. Case for holding and shipping. L. Lewis. No. 1,306,944; June 10; v. 263; p. 227.
 Bottles. Mouldings for feeding. F. Graham-Yocell. No. 1,306,493; June 10; v. 263; p. 204.
 Bow or tail making and forming attachment or device. J. and W. Weismantel. No. 1,307,060; June 17; v. 263; p. 408.
 Box. See—
 Assembling-box. Locomotive fire-box.
 Delivery-box. Mail-box.
 Flexible-connection box. Plant-box.
 Foldable box. Safety panel-box.
 Floor-box. Safety receiving-box.
 Hen's nest-box. Sound-box.
 Journal-box. Vent-box.
 Box-blank machine. S. F. Bauwens. (Belgium.) No. 1,306,944; June 24; v. 263; p. 615.
 Box lock. Switch and coil. D. T. Grimth. No. 1,307,253; June 17; v. 263; p. 440.
 Box-making machine. E. C. Neff. No. 1,305,298; June 3; v. 263; p. 32.
 Bracket. See—
 Pump-supporting bracket. Storm-wash bracket.
 Roof-bracket. Window-shade and curtain bracket.
 Shade-bracket.
 Bracket. H. Moller. No. 1,305,923; June 3; v. 263; p. 131.
 Bracket. R. B. Older. No. 1,307,413; June 24; v. 263; p. 503.
 Braiding-machine. A. Petersen. No. 1,305,490; June 3; v. 263; p. 40.
 Brake. See—
 Air-brake. Railway hand-brake.
 Cap-brake. Steering-wheel brake.
 Coaster-brake.
 Brake-band. H. B. Cobb. No. 1,306,404; June 10; v. 263; p. 263.
 Brake-band carrier. A. G. Herreshoff. No. 1,306,899; June 17; v. 263; p. 576.
 Brake-band clencher. H. J. McCaffrey and E. J. Roberge. No. 1,307,012; June 17; v. 263; p. 398.
 Brake-beam with removable transoms. T. L. Burton. No. 1,306,618; June 24; v. 263; p. 540.
 Brake-operating mechanism. J. D. Compton. No. 1,307,494; June 24; v. 263; p. 517.
 Brake-operating mechanism. C. C. Crewson. No. 1,306,903; June 17; v. 263; p. 258.
 Brake-rigging release device. W. V. Turner. No. 1,307,165; June 17; v. 263; p. 424.
 Brake system. Fluid-pressure. J. A. Hicks. No. 1,306,600; June 10; v. 263; p. 301.
 Brackets. S. Jerome. No. 1,305,595; June 10; v. 263; p. 287.
 Bread-cutter. E. Johnson. No. 1,307,552; June 24; v. 263; p. 520.
 Bread-labeling device. O. C. Buehlt. No. 1,306,745; June 17; v. 263; p. 344.
 Bread-slicing machine. W. H. Garlock. No. 1,307,397; June 24; v. 263; p. 500.
 Brick. Apparatus for burning. W. W. Dickinson, Jr. No. 1,306,447; June 3; v. 263; p. 41.
 Brick-mold-handling apparatus. I. C. Frey. No. 1,306,477; June 10; v. 263; p. 306.
 Brickmaking-machine. D. F. Shope. No. 1,306,977; June 17; v. 263; p. 290.
 Bridge. G. H. Day. No. 1,307,118; June 17; v. 263; p. 417.
 Brine abatement construction. F. S. Small. No. 1,306,725; June 17; v. 263; p. 344.
 Briquet-machine. S. H. Moran. No. 1,306,800; June 10; v. 263; p. 225.
 Broom-hanger. J. A. Orman. No. 1,305,456; June 3; v. 263; p. 48.
 Broom-manufacturing machine. S. B. McHenry. No. 1,306,907; June 10; v. 263; p. 225.
 Brush. S. B. McHenry. No. 1,306,908; June 10; v. 263; p. 225.
 Brush. R. P. Miller and C. J. Bremser. No. 1,305,783; June 3; v. 263; p. 94.
 Brush. J. G. Stabucky. No. 1,307,937; June 24; v. 263; p. 560.
 Brush. Bottle-washer. H. Grass. No. 1,306,478; June 10; v. 263; p. 267.
 Brush. Fountain. C. A. Garvey. No. 1,305,709; June 3; v. 263; p. 81.
 Brush. Folding tooth. A. Wolf. No. 1,307,530; June 24; v. 263; p. 525.
 Brush holder and sterilizer. Tooth. A. G. Tillman. No. 1,306,933; June 17; v. 263; p. 283.
 Brush set. Shoe. J. Morrison, Jr. No. 1,307,080; June 17; v. 263; p. 408.
 Bucket. Drag. W. G. Wood. No. 1,306,873; June 17; v. 263; p. 372.
 Bucket. Elevator. E. J. Moynihan. No. 1,307,747; June 24; v. 263; p. 564.
 Bucket. Self-dumping conveying. J. F. Godfrey. No. 1,306,758; June 17; v. 263; p. 350.

Bottle. Non-refillable. W. D. Crocker. No. 1,306,775; June 3; v. 263; p. 108.
 Bottle. Non-refillable. J. Kerr. No. 1,305,549; June 3; v. 263; p. 60.
 Bottle receptacle. Milk. W. H. Arbogast. No. 1,306,885; June 3; v. 263; p. 120.
 Bottle-washing machine. J. A. Johnson. No. 1,306,870; June 3; v. 263; p. 28.
 Bottles. Case for holding and shipping. L. Lewis. No. 1,306,944; June 10; v. 263; p. 227.
 Bottles. Mouldings for feeding. F. Graham-Yocell. No. 1,306,493; June 10; v. 263; p. 204.
 Bow or tail making and forming attachment or device. J. and W. Weismantel. No. 1,307,060; June 17; v. 263; p. 408.
 Box. See—
 Assembling-box. Locomotive fire-box.
 Delivery-box. Mail-box.
 Flexible-connection box. Plant-box.
 Foldable box. Safety panel-box.
 Floor-box. Safety receiving-box.
 Hen's nest-box. Sound-box.
 Journal-box. Vent-box.
 Box-blank machine. S. F. Bauwens. (Belgium.) No. 1,306,944; June 24; v. 263; p. 615.
 Box lock. Switch and coil. D. T. Grimth. No. 1,307,253; June 17; v. 263; p. 440.
 Box-making machine. E. C. Neff. No. 1,305,298; June 3; v. 263; p. 32.
 Bracket. See—
 Pump-supporting bracket. Storm-wash bracket.
 Roof-bracket. Window-shade and curtain bracket.
 Shade-bracket.
 Bracket. H. Moller. No. 1,305,923; June 3; v. 263; p. 131.
 Bracket. R. B. Older. No. 1,307,413; June 24; v. 263; p. 503.
 Braiding-machine. A. Petersen. No. 1,305,490; June 3; v. 263; p. 40.
 Brake. See—
 Air-brake. Railway hand-brake.
 Cap-brake. Steering-wheel brake.
 Coaster-brake.
 Brake-band. H. B. Cobb. No. 1,306,404; June 10; v. 263; p. 263.
 Brake-band carrier. A. G. Herreshoff. No. 1,306,899; June 17; v. 263; p. 576.
 Brake-band clencher. H. J. McCaffrey and E. J. Roberge. No. 1,307,012; June 17; v. 263; p. 398.
 Brake-beam with removable transoms. T. L. Burton. No. 1,306,618; June 24; v. 263; p. 540.
 Brake-operating mechanism. J. D. Compton. No. 1,307,494; June 24; v. 263; p. 517.
 Brake-operating mechanism. C. C. Crewson. No. 1,306,903; June 17; v. 263; p. 258.
 Brake-rigging release device. W. V. Turner. No. 1,307,165; June 17; v. 263; p. 424.
 Brake system. Fluid-pressure. J. A. Hicks. No. 1,306,600; June 10; v. 263; p. 301.
 Brackets. S. Jerome. No. 1,305,595; June 10; v. 263; p. 287.
 Bread-cutter. E. Johnson. No. 1,307,552; June 24; v. 263; p. 520.
 Bread-labeling device. O. C. Buehlt. No. 1,306,745; June 17; v. 263; p. 344.
 Bread-slicing machine. W. H. Garlock. No. 1,307,397; June 24; v. 263; p. 500.
 Brick. Apparatus for burning. W. W. Dickinson, Jr. No. 1,306,447; June 3; v. 263; p. 41.
 Brick-mold-handling apparatus. I. C. Frey. No. 1,306,477; June 10; v. 263; p. 306.
 Brickmaking-machine. D. F. Shope. No. 1,306,977; June 17; v. 263; p. 290.
 Bridge. G. H. Day. No. 1,307,118; June 17; v. 263; p. 417.
 Brine abatement construction. F. S. Small. No. 1,306,725; June 17; v. 263; p. 344.
 Briquet-machine. S. H. Moran. No. 1,306,800; June 10; v. 263; p. 225.
 Broom-hanger. J. A. Orman. No. 1,305,456; June 3; v. 263; p. 48.
 Broom-manufacturing machine. S. B. McHenry. No. 1,306,907; June 10; v. 263; p. 225.
 Brush. S. B. McHenry. No. 1,306,908; June 10; v. 263; p. 225.
 Brush. R. P. Miller and C. J. Bremser. No. 1,305,783; June 3; v. 263; p. 94.
 Brush. J. G. Stabucky. No. 1,307,937; June 24; v. 263; p. 560.
 Brush. Bottle-washer. H. Grass. No. 1,306,478; June 10; v. 263; p. 267.
 Brush. Fountain. C. A. Garvey. No. 1,305,709; June 3; v. 263; p. 81.
 Brush. Folding tooth. A. Wolf. No. 1,307,530; June 24; v. 263; p. 525.
 Brush holder and sterilizer. Tooth. A. G. Tillman. No. 1,306,933; June 17; v. 263; p. 283.
 Brush set. Shoe. J. Morrison, Jr. No. 1,307,080; June 17; v. 263; p. 408.
 Bucket. Drag. W. G. Wood. No. 1,306,873; June 17; v. 263; p. 372.
 Bucket. Elevator. E. J. Moynihan. No. 1,307,747; June 24; v. 263; p. 564.
 Bucket. Self-dumping conveying. J. F. Godfrey. No. 1,306,758; June 17; v. 263; p. 350.

Bucket, Vegetable. J. P. Woodward. No. 1,307,000; June 24; v. 263; p. 638.
 Buckle. D. A. Carpenter. No. 1,306,408; June 10; v. 263; p. 253.
 Buckle. B. H. White. No. 1,306,001; June 10; v. 263; p. 252.
 Buckle, Bale-tie. J. T. A. Todd. No. 1,306,505; June 10; v. 263; p. 252.
 Building-block. E. A. Christoph. No. 1,307,331; June 17; v. 263; p. 455.
 Building-block. K. E. W. Jagdmann. No. 1,306,963; June 17; v. 263; p. 388.
 Building-block. A. A. Smiley. No. 1,306,781; June 17; v. 263; p. 355.
 Building construction. M. B. Armstrong. No. 1,307,333; June 24; v. 263; p. 489.
 Bulletin and sign board. P. H. Lovelace. No. 1,306,401; June 10; v. 263; p. 260.
 Bundling device. W. Brammer. No. 1,307,182; June 17; v. 263; p. 427.
 Bundling-press. H. Abele. No. 1,306,571; June 10; v. 263; p. 283.
 Buoy, Life. T. Imalsumi. No. 1,305,606; June 3; v. 263; p. 78.
 Burglar-alarm. W. Tierney. No. 1,306,789; June 17; v. 263; p. 354.
 Burner. See—
 Fluid-fuel burner. Liquid-fuel burner.
 Gas-burner. Oil-burner.
 Lamp-burner.
 Burner. I. M. Sharp. No. 1,307,320; June 17; v. 263; p. 453.
 Burners, Air and gas mixer for gas. M. L. and A. V. Turner. No. 1,306,632; June 3; v. 263; p. 78.
 Butane and propane, Recovery of. J. B. Garner and H. P. Cooper. No. 1,307,333; June 24; v. 263; p. 492.
 Button. H. C. Mummert. No. 1,306,922; June 17; v. 263; p. 381.
 Button and making. Emblematic. E. T. Massey. No. 1,307,870; June 24; v. 263; p. 586.
 Button. Circuit-controlling. W. A. Frederick. No. 1,307,830; June 24; v. 263; p. 584.
 Button. Collar. M. Karabin and J. Shochokh. No. 1,306,850; June 17; v. 263; p. 367.
 Button. Collar. H. E. Risinger. No. 1,307,271; June 17; v. 263; p. 444.
 Button. Collar. R. V. Sampson. No. 1,306,938; June 3; v. 263; p. 135.
 Button. Combination. A. M. Turkelstau. No. 1,306,451; June 10; v. 263; p. 261.
 Button-form. B. M. Geen. No. 1,306,275; June 3; v. 263; p. 9.
 Button-machine. O. W. Soderstrom and W. Fuhrmann. No. 1,306,670; June 3; v. 263; p. 65.
 Cabinet, Medicine. H. G. Albrecht. No. 1,307,940; June 24; v. 263; p. 601.
 Cabinet for typograph-matrices and the like. C. Horiz. No. 1,306,257; June 10; v. 263; p. 226.
 Cabinet, Kitchen. H. W. Bertram. No. 1,306,248; June 3; v. 263; p. 4.
 Cabinet, Safety cash. J. M. Gale. No. 1,307,581; June 24; v. 263; p. 584.
 Cabinet, Ticker. O. B. Arntsen. No. 1,306,790; June 17; v. 263; p. 357.
 Cable-clamping device. W. T. Goddard. No. 1,306,713; June 3; v. 263; p. 91.
 Cable-head. J. W. Dickson. No. 1,306,501; June 3; v. 263; p. 70.
 Calculating-machine. J. R. Monroe. No. 1,306,606; June 10; v. 263; p. 259.
 Calipers and compasses, Folding inside and outside. I. O. Hewitt. No. 1,306,284; June 3; v. 263; p. 11.
 Calipers, Indicating. H. B. Douglass. No. 1,306,701; June 3; v. 263; p. 89.
 Cam. W. M. Evensen. No. 1,306,419; June 10; v. 263; p. 255.
 Camera. H. L. Boyer. No. 1,305,585; June 3; v. 263; p. 68.
 Camera. L. H. Tolhorst. No. 1,305,841; June 3; v. 263; p. 115.
 Camera attachment. W. E. Phillips. No. 1,307,396; June 24; v. 263; p. 537.
 Camera, Focusing. J. Becker. No. 1,307,339; June 24; v. 263; p. 490.
 Camera-holder. W. G. Cramer. No. 1,306,590; June 10; v. 263; p. 285.
 Camera, Motion-picture. C. Uebelmesser. No. 1,306,633; June 3; v. 263; p. 78.
 Camera, Photographic. M. Niell. No. 1,307,512; June 24; v. 263; p. 521.
 Camera-tripod. L. A. Gates. No. 1,306,067; June 10; v. 263; p. 186.
 Can. See—
 Dispensing-can. Oil-can.
 Jacketed can. Tobacco-can.
 Can. C. W. Graham. No. 1,306,509; June 17; v. 263; p. 359.
 Can. F. J. Tene and E. S. Smith. No. 1,305,756; June 3; v. 263; p. 90.
 Can-bodies, Apparatus for re-forming. J. A. Gray. No. 1,306,610; June 17; v. 263; p. 300.
 Can-closing machine. I. F. Warne. No. 1,307,888; June 24; v. 263; p. 589.

Can-closing machine, Packing device for. G. Frank. No. 1,307,348; June 17; v. 263; p. 456.
 Can-closing apparatus. J. A. Gray. No. 1,306,811; June 17; v. 263; p. 302.
 Can-closing machine, Assembling and feeding device for. J. Brownlee. No. 1,306,744; June 17; v. 263; p. 348.
 Can-holder. H. M. Cheek. No. 1,307,483; June 24; v. 263; p. 516.
 Can-opener. M. M. Bet. No. 1,307,692; June 24; v. 263; p. 500.
 Can-opener. M. L. Jr. No. 1,307,501; June 17; v. 263; p. 449.
 Can-opener. E. R. Parrier. No. 1,306,939; June 3; v. 263; p. 133.
 Can opener and sealer. E. G. Thompson. No. 1,307,940; June 24; v. 263; p. 590.
 Can receptacle and opener. J. D. Lawrence. No. 1,307,806; June 24; v. 263; p. 593.
 Candle, Electric. C. Ammentorp. No. 1,306,990; June 17; v. 263; p. 393.
 Candles, Method and apparatus for testing. A. C. Fielder. No. 1,307,513; June 24; v. 263; p. 576.
 Canning. J. C. Hodgson. No. 1,306,813; June 17; v. 263; p. 360.
 Cannon. J. Jackson. No. 1,306,612; June 10; v. 263; p. 178.
 Cap, Insulator. W. T. Goddard. No. 1,306,712; June 3; v. 263; p. 91.
 Cap, Miner's. M. J. Gibbons. No. 1,306,995; June 3; v. 263; p. 128.
 Capital-mold. Adjustable. A. J. DeLaurens. No. 1,307,496; June 24; v. 263; p. 517.
 Cap and shoe block. E. E. Cherry. No. 1,307,578; June 24; v. 263; p. 533.
 Car-brake. G. L. Scott. No. 1,307,422; June 24; v. 263; p. 508.
 Car construction. J. F. O'Connor. No. 1,307,308; June 17; v. 263; p. 481.
 Car construction, Elevator. R. W. Diabro. No. 1,307,187; June 17; v. 263; p. 428.
 Car-coupling. J. M. Holland. No. 1,307,254; June 17; v. 263; p. 446.
 Car-coupling. H. E. Van Dora. No. 1,306,640; June 10; v. 263; p. 188.
 Car, Cycle. K. Hino. No. 1,306,483; June 10; v. 263; p. 267.
 Car-door, Balance device for motor. G. Haarnagell. No. 1,306,356; June 3; v. 263; p. 24.
 Car, Dump. R. D. Wright. No. 1,307,428; June 24; v. 263; p. 506.
 Car, Freight. A. Gaudet. No. 1,305,351; June 3; v. 263; p. 23.
 Car inner door. E. J. Shur. No. 1,306,338; June 3; v. 263; p. 115.
 Car-lighting system. P. Kennedy. No. 1,305,970; June 3; v. 263; p. 140.
 Car-lighting system. H. D. Rehman. No. 1,306,079; June 10; v. 263; p. 190.
 Car, Refrigerator. J. M. Coleman. No. 1,305,772; June 3; v. 263; p. 102.
 Car-shield, Glass. Motor. E. B. Fleming. No. 1,306,456; June 3; v. 263; p. 43.
 Car-stop-operating mechanism. J. A. Collin. No. 1,307,550; June 24; v. 263; p. 583.
 Car, Tank. T. S. K. Hawhurst. No. 1,307,494; June 24; v. 263; p. 518.
 Car, War. A. Callin. No. 1,307,238; June 17; v. 263; p. 428.
 Cars, Condenser for motor-driven railway section. G. Wilson. No. 1,306,966; June 17; v. 263; p. 392.
 Cars, Direction-indicator for motor. C. A. Ott. No. 1,306,118; June 10; v. 263; p. 197.
 Cars, Draft-rigging for railway. J. Kolos. No. 1,306,429; June 10; v. 263; p. 257.
 Cars, Entrance and exit control and signal mechanism for street. F. Stofens. No. 1,306,769; June 17; v. 263; p. 355.
 Cars, Side bearing for railway. J. F. O'Connor. No. 1,306,664; June 3; v. 263; p. 62.
 Cars, Steam-radiator for traction-railway. F. F. Coglia and E. P. Whitteher. No. 1,307,540; June 24; v. 263; p. 543.
 Carbon article, Baked. A. T. Hachley. No. 1,307,736; June 24; v. 263; p. 562.
 Carbon-black, Manufacturing. D. F. Zimmerman, E. N. Joseph, W. J. Koenig, and J. B. Garner. No. 1,307,430; June 24; v. 263; p. 504.
 Carbon-remover. A. L. Metz and G. O. Burgess. No. 1,307,562; June 24; v. 263; p. 580.
 Carburetor. F. I. Arnold. No. 1,307,107; June 17; v. 263; p. 418.
 Carburetor. E. Ciglia and L. R. Palletier. (Reissue.) No. 14,658; June 10; v. 263; p. 304.
 Carburetor. W. R. Goodale and M. L. Ballard. No. 1,306,144; June 10; v. 263; p. 202.
 Carburetor. W. A. Golder. No. 1,307,005; June 24; v. 263; p. 548.
 Carburetor. D. T. Hastings. No. 1,306,464; June 3; v. 263; p. 44.
 Carburetor. C. J. Igan. No. 1,307,978; June 24; v. 263; p. 606.
 Carburetor. A. F. Priest. No. 1,307,374; June 24; v. 263; p. 494.

Carburetor. C. L. Rayfield. No. 1,307,467; June 24; v. 263; p. 512.
 Carburetor. L. H. Rhoads. No. 1,306,744; June 3; v. 263; p. 97.
 Carburetor. C. W. Stiger. No. 1,306,081; June 10; v. 263; p. 181.
 Carburetor. C. H. Summers. (Reissue.) No. 14,690; June 17; v. 263; p. 455.
 Carburetor control mechanism. R. O. Sather. No. 1,307,704; June 24; v. 263; p. 564.
 Carburetor for explosion-engines. R. Feroldi. No. 1,307,386; June 24; v. 263; p. 509.
 Carburetors, Air-valve for. J. L. Fritz. No. 1,306,273; June 3; v. 263; p. 8.
 Card or sheet, Record. W. B. Templeton. No. 1,305,318; June 3; v. 263; p. 17.
 Cards, Means for cleaning. L. W. Penney. No. 1,307,453; June 24; v. 263; p. 511.
 Cards, Playing. A. M. Stouffer and W. Ehrler. No. 1,306,949; June 3; v. 263; p. 57.
 Cardboard, Machine for crumpling. J. H. Storts. No. 1,307,085; June 17; v. 263; p. 407.
 Carding-machine. L. W. Penney. No. 1,307,415; June 24; v. 263; p. 503.
 Carriages, Runner attachment for baby. R. H. Spaulding. No. 1,307,375; June 17; v. 263; p. 444.
 Carrier. See—
 Bottle-carrier. Portable carrier.
 Brake-band carrier. Tire-carrier.
 Draw-bar carrier. Wheel and tire carrier.
 Package-carrier.
 Carrier-machine. L. W. Bieler. No. 1,306,228; June 10; v. 263; p. 239.
 Carrying-bag handle. F. L. Johnson. No. 1,306,140; June 10; v. 263; p. 203.
 Cart, Harrow. A. T. Minty. No. 1,306,353; June 10; v. 263; p. 243.
 Carton. H. Furste. No. 1,305,707; June 3; v. 263; p. 80.
 Carton, One-piece automatic folding. J. C. Pridham. No. 1,307,638; June 24; v. 263; p. 544.
 Cartons, Machine for making, charging, and sealing. J. Fossel. No. 1,300,422; June 10; v. 263; p. 254.
 Cartridge-belt, Woven. W. Achtmeyer. No. 1,306,243; June 10; v. 263; p. 222.
 Case. See—
 Bookcase. Packing-case.
 Cigarette-case.
 Cash-control apparatus. S. F. Ritter. No. 1,306,973; June 17; v. 263; p. 380.
 Cash-register, Attachment for. R. N. White, Jr. No. 1,306,240; June 10; v. 263; p. 222.
 Casing, Inclosing. A. A. Bowser. No. 1,306,748; June 17; v. 263; p. 547.
 Cast-iron articles to other bodies and product, Fitting. W. A. Knapp. No. 1,307,979; June 24; v. 263; p. 607.
 Caster. E. C. Joseph. No. 1,305,547; June 3; v. 263; p. 60.
 Caster, Furniture. J. Gibson. No. 1,306,276; June 3; v. 263; p. 9.
 Casters, Insect-guard for. J. T. Tarvin. No. 1,306,930; June 17; v. 263; p. 382.
 Casting chains. W. Lewis. No. 1,307,136; June 17; v. 263; p. 419.
 Casting, High-fusing metals, Apparatus for. C. Laing. No. 1,307,290; June 17; v. 263; p. 449.
 Casting-machine, Charging apparatus for centrifugal. J. B. Ladd. No. 1,307,323; June 24; v. 263; p. 577.
 Casting machine, Matrix-holder for type. F. H. Pierpont. No. 1,307,086; June 24; v. 263; p. 554.
 Catalysts containing nickel and its compounds for the hydrogenation of fatty bodies, Ac. Regenerating. G. N. Via. No. 1,306,671; June 17; v. 263; p. 371.
 Catching and packing mechanism. L. C. Stead. No. 1,306,501; June 3; v. 263; p. 51.
 Cattle-guard. W. A. Land. No. 1,305,307; June 3; v. 263; p. 128.
 Cell-plate. T. Majima. No. 1,307,407; June 24; v. 263; p. 502.
 Cells, Manufacture of dry. C. F. Burgess. No. 1,306,250; June 3; v. 263; p. 4.
 Cells, Manufacture of dry. C. F. Burgess. No. 1,306,251; June 3; v. 263; p. 4.
 Cells, Manufacture of dry. C. F. Burgess. No. 1,306,252; June 3; v. 263; p. 4.
 Cement-kills dust, Utilization of. R. J. Nottall. No. 1,307,320; June 24; v. 263; p. 595.
 Centrifugal-machine bearing. L. Grice. No. 1,306,796; June 3; v. 263; p. 107.
 Centrifugal separator. W. S. Estop. No. 1,307,000; June 17; v. 263; p. 505.
 Centrifugal separators, Lubricating means for. M. Lettich. No. 1,306,513; June 3; v. 263; p. 110.
 Chain. W. A. Hager. No. 1,306,307; June 3; v. 263; p. 126.
 Chain. L. Wirtz. No. 1,306,986; June 17; v. 263; p. 232.
 Chain-belt. L. D. Malone and H. E. Hubbs. No. 1,306,266; June 10; v. 263; p. 266.
 Chain-cockey. C. J. Cooper. No. 1,307,436; June 24; v. 263; p. 508.

Chain, Driving. H. Renold and A. E. Carter. No. 1,306,078; June 10; v. 263; p. 180.
 Chain-link. S. E. King. No. 1,307,298; June 17; v. 263; p. 446.
 Chair. See—
 Walking-chair.
 Chair. R. Berninghaus. No. 1,307,108; June 17; v. 263; p. 418.
 Chair and ironing-board, Combined. R. Schmidt. No. 1,307,430; June 24; v. 263; p. 564.
 Chairs, Attachment for barber. J. Baron and H. Greenwood. No. 1,306,211; June 10; v. 263; p. 215.
 Chassis construction. W. Krafft. No. 1,306,822; June 17; v. 263; p. 362.
 Check-book. T. J. Donnell. No. 1,306,781; June 3; v. 263; p. 104.
 Check, check-book holder, and cutter, Combined. J. F. Shoumaker. No. 1,305,941; June 3; v. 263; p. 135.
 Check-cutter, Marginal. E. Trimble. No. 1,305,617; June 3; v. 263; p. 35.
 Check-holder for cool-rooms. H. W. Obenauer. No. 1,306,739; June 3; v. 263; p. 98.
 Check, Traveler's. J. F. McQueeney. No. 1,307,560; June 24; v. 263; p. 590.
 Checkwriter. C. G. Tietel. No. 1,307,506; June 24; v. 263; p. 531.
 Checkwriter. C. G. Tietel. No. 1,307,567; June 24; v. 263; p. 531.
 Checkbook. M. H. Reinking. No. 1,305,410; June 3; v. 263; p. 34.
 Chicken-coop, Folding. H. Lytle. No. 1,306,267; June 10; v. 263; p. 228.
 Chimney-sweep, Automatic. R. L. Hlman. No. 1,305,543; June 3; v. 263; p. 59.
 Chipper and making same. R. B. Glichrst. No. 1,305,711; June 3; v. 263; p. 91.
 Chlorid and the like, Making magnesium. E. O. Barstow. No. 1,306,641; June 3; v. 263; p. 79.
 Chlorid and the like, Making magnesium. E. O. Barstow. No. 1,306,642; June 3; v. 263; p. 79.
 Chuck. J. C. Dufresne. No. 1,306,257; June 3; v. 263; p. 5.
 Churn. H. J. Favorite. No. 1,306,177; June 10; v. 263; p. 208.
 Churn-dasher. F. P. Bridges and L. L. Pritchett. No. 1,306,797; June 17; v. 263; p. 357.
 Churn, Vibrating. J. E. Yount. No. 1,305,860; June 3; v. 263; p. 119.
 Chute, Coal-mining. A. Malinowsky. No. 1,306,704; June 17; v. 263; p. 341.
 Chute construction, Adjustable. C. D. Heyer. No. 1,307,190; June 17; v. 263; p. 430.
 Cigarette-case. J. Denmark. No. 1,305,690; June 3; v. 263; p. 69.
 Cigarette-maker. L. Friedberg. No. 1,307,003; June 17; v. 263; p. 395.
 Cigarette-tipping machine. E. D. Smith. No. 1,305,318; June 3; v. 263; p. 10.
 Cinematograph-machine. M. E. Myers and M. A. J. Harper. No. 1,307,084; June 24; v. 263; p. 608.
 Circuit-closer. E. A. Wesolek. No. 1,307,286; June 17; v. 263; p. 447.
 Circuit-closer, Lock-operated. H. Gottesman. No. 1,307,625; June 24; v. 263; p. 542.
 Circuit-controller. C. T. Evans. No. 1,305,268; June 3; v. 263; p. 6.
 Circuit-controlling device. R. S. Shaw. No. 1,306,638; June 10; v. 263; p. 296.
 Clamp. See—
 Cloth-clamp. Wire or cable clamp.
 Guard-rail clamp. Work-holding clamp.
 Lever-locking clamp.
 Clamp. C. L. Gipson. No. 1,305,353; June 3; v. 263; p. 22.
 Clamp. W. A. Saltar. No. 1,306,838; June 17; v. 263; p. 508.
 Clamp for surveyor's band-chains. K. C. Schmidt and H. G. Lyken. No. 1,307,707; June 24; v. 263; p. 536.
 Clamp. See—
 Hinge-clamp.
 Cleaner. See—
 Car-shield cleaner. Pneumatic cleaner.
 Pipe-cleaner. Window-cleaner.
 Cleaning and polishing composition. C. F. Robinson. No. 1,307,146; June 17; v. 263; p. 422.
 Cleaning device. G. L. Lamb. No. 1,305,470; June 3; v. 263; p. 46.
 Cleaning device, Rake. H. F. Brockman. No. 1,305,874; June 3; v. 263; p. 122.
 Cleaning machine, Street. T. Wendorf. No. 1,307,568; June 24; v. 263; p. 551.
 Cleaning device. B. F. Walls. No. 1,307,468; June 24; v. 263; p. 514.
 Clip. See—
 Pen and pencil clip.
 Clipping-machine. F. H. Kaufmann. No. 1,307,361; June 24; v. 263; p. 494.
 Clock-holder, Automobile. F. Kees and S. M. Calburn. No. 1,307,663; June 17; v. 263; p. 405.
 Clock, Chronographic. F. M. Gill. No. 1,305,506; June 3; v. 263; p. 71.
 Cloth-clamp. H. O. Wiegand. No. 1,307,604; June 24; v. 263; p. 533.

Cloth-cutting machine. W. J. Marshall. No. 1,307,561; June 24; v. 263; p. 530.
 Cloth-rod, collapsible. F. T. Bailey. No. 1,307,175; June 17; v. 263; p. 426.
 Clothes-pin. L. E. Mertens. No. 1,306,078; June 10; v. 263; p. 180.
 Clothes-pin-making machine. N. M. Mims. No. 1,305,921; June 3; v. 263; p. 181.
 Clothes-stringer attachment. F. R. Smith. No. 1,307,217; June 17; v. 263; p. 423.
 Clutch. F. E. Aurand. No. 1,306,518; June 10; v. 263; p. 273.
 Clutch. J. Negrescou. No. 1,307,830; June 24; v. 263; p. 579.
 Clutch. J. C. Ollard. No. 1,306,230; June 10; v. 263; p. 210.
 Clutch. J. M. Stoughton. No. 1,307,463; June 24; v. 263; p. 513.
 Clutch and traction equalizer. Hydraulic. W. B. Weston. No. 1,306,872; June 17; v. 263; p. 571.
 Clutch, Electrically-controlled. W. Langdon-Davies. No. 1,305,612; June 3; v. 263; p. 74.
 Clutch, Electromagnetic. A. Soames and W. L. Davies. No. 1,306,784; June 17; v. 263; p. 385.
 Clutch, Friction. E. E. Brown. No. 1,306,465; June 10; v. 263; p. 264.
 Clutch, Friction. T. Cooper. No. 1,306,902; June 10; v. 263; p. 234.
 Clutch mechanism. G. D. Parker. No. 1,307,095; June 24; v. 263; p. 554.
 Clutch, Window-strap. E. J. Stegmeyer. No. 1,307,936; June 24; v. 263; p. 598.
 Coal-dust and liquid-fuel engine. H. L. Knudsen. No. 1,306,696; June 10; v. 263; p. 289.
 Counter-brake. J. P. Jensen. No. 1,306,066; June 17; v. 263; p. 340.
 Coating apparatus, Surface. R. A. Moore. No. 1,306,330; June 17; v. 263; p. 363.
 Coffee-pot. C. T. Madsen. No. 1,306,822; June 3; v. 263; p. 112.
 Coffee-strainers, Bag-holder for. A. D. Barker. No. 1,307,475; June 24; v. 263; p. 515.
 Coll. A. W. Houchin and C. E. Laburg. No. 1,306,815; June 17; v. 263; p. 261.
 Coin-controlled dispensing-machine. L. Wax. No. 1,305,424; June 3; v. 263; p. 36.
 Coin sorter and register. E. C. Sigeltra. No. 1,306,195; June 10; v. 263; p. 312.
 Collar. H. G. Roberts. No. 1,306,278; June 10; v. 263; p. 230.
 Collar. J. M. Van Heugen. No. 1,307,425; June 24; v. 263; p. 505.
 Collod bottles, Preparation of. W. O. Swelling. No. 1,305,946; June 3; v. 263; p. 130.
 Combination-lock. G. W. Follick. No. 1,307,194; June 17; v. 263; p. 439.
 Compacting apparatus. J. C. Polton. No. 1,306,630; June 10; v. 263; p. 302.
 Compass, Magnetic. S. G. Stirling and A. J. Hughes. No. 1,307,945; June 24; v. 263; p. 599.
 Compass, Mariner's. J. W. T. Olan. No. 1,307,637; June 24; v. 263; p. 643.
 Compound fabric. J. N. Briones. No. 1,306,818; June 10; v. 263; p. 274.
 Compression-strip. E. V. Tower. No. 1,307,711; June 24; v. 263; p. 537.
 Compressor. G. B. Az. No. 1,306,680; June 17; v. 263; p. 337.
 Compressor-unloader. H. V. Haight. (Reliance) No. 1,306,623; June 10; v. 263; p. 304.
 Computer. E. Horino. No. 1,306,579; June 10; v. 263; p. 248.
 Concrete, Apparatus for forming blocks of. J. T. Wismer. No. 1,307,998; June 24; v. 263; p. 610.
 Concrete-block machine. T. A. Sperry and C. R. Umbenhower. No. 1,307,796; June 24; v. 263; p. 573.
 Concrete construction. R. F. Allbright. No. 1,307,081; June 17; v. 263; p. 401.
 Concrete construction. T. Aten. No. 1,307,432; June 24; v. 263; p. 507.
 Concrete construction-work, Clip for reinforcing-bars for. K. D. Stewart. No. 1,306,129; June 10; v. 263; p. 199.
 Concrete spreading structural steel, System or method of. F. P. Kaffa. No. 1,306,700; June 17; v. 263; p. 240.
 Concrete spreading structural steel, System or method of. F. P. Kaffa. No. 1,306,701; June 17; v. 263; p. 240.
 Concrete-form. S. R. McKay. No. 1,306,884; June 10; v. 263; p. 249.
 Concrete-form. S. R. McKay. No. 1,307,368; June 24; v. 263; p. 495.
 Concrete mixer and conveyor. D. C. Rasco and I. K. Shero. No. 1,307,903; June 24; v. 263; p. 574.
 Concrete structure and constructing the same. C. Weber. No. 1,307,224; June 17; v. 263; p. 438.
 Concrete structures, Dome for. E. C. Marqua. No. 1,306,299; June 3; v. 263; p. 13.
 Concrete walls, Forming. W. D. Burgin. No. 1,305,687; June 3; v. 263; p. 67.
 Condenser, High-potential. D. T. May. No. 1,307,507; June 24; v. 263; p. 521.

Condenser, Steam. J. Naylor. No. 1,306,278; June 10; v. 263; p. 239.
 Condensers, Making electrical. W. C. Briston, Jr. No. 1,307,241; June 24; v. 263; p. 460.
 Conduit. J. M. Pitts Gerald. No. 1,306,142; June 10; v. 263; p. 302.
 Confection-machines, Sanitary stringer attachment for. J. Di Giorgio. No. 1,306,216; June 10; v. 263; p. 215.
 Connecting device. L. S. Chadwick. No. 1,306,100; June 10; v. 263; p. 194.
 Connecting-rod. C. C. Pittman and G. Midbee. No. 1,307,454; June 24; v. 263; p. 511.
 Container. D. W. Davis. No. 1,306,408; June 10; v. 263; p. 253.
 Container-closures, Retainer for. R. K. Ford. No. 1,307,351; June 24; v. 263; p. 492.
 Container, Sealings. W. K. Emerson. No. 1,306,978; June 10; v. 263; p. 247.
 Containers, Apparatus for filling. E. I. Yalla. No. 1,305,584; June 3; v. 263; p. 68.
 Containers, Partition member for. F. B. Davidson. No. 1,307,621; June 24; v. 263; p. 541.
 Control device. N. Hofstad. (Reliance) No. 1,306,671; June 24; v. 263; p. 615.
 Control system. A. J. Hall. No. 1,306,537; June 10; v. 263; p. 277.
 Control system. R. M. Hallmund. No. 1,306,539; June 10; v. 263; p. 277.
 Controller. A. J. Hall. No. 1,306,539; June 10; v. 263; p. 276.
 Conveyor, Amortizing. H. E. Harnish. No. 1,306,909; June 3; v. 263; p. 129.
 Conveyor, Canvas. H. M. Johnston. No. 1,305,608; June 3; v. 263; p. 73.
 Conveyers and the like, Shutter mechanism for. R. G. Coburn. No. 1,306,103; June 10; v. 263; p. 184.
 Conveying mechanism. H. J. Case. No. 1,305,880; June 3; v. 263; p. 123.
 Conveying system. Ash. H. A. Poppenhusen. No. 1,305,491; June 3; v. 263; p. 40.
 Cooper, Steam. K. T. Meakin and F. K. Meoth. No. 1,307,899; June 24; v. 263; p. 521.
 Cooking utensil. R. J. Boggs. No. 1,307,078; June 17; v. 263; p. 410.
 Cooking utensil. J. McFarland. No. 1,305,818; June 3; v. 263; p. 111.
 Coop, Folding chicken or poultry. J. M. Upton. No. 1,306,123; June 10; v. 263; p. 200.
 Copper-cadmium alloy, Making. W. C. Smith. No. 1,307,642; June 24; v. 263; p. 544.
 Copy-holder. E. T. Gibson. No. 1,306,610; June 24; v. 263; p. 613.
 Copy-holder. V. Pitta. No. 1,305,305; June 3; v. 263; p. 14.
 Copy-holder. N. M. Thompson and R. P. O'Leary. No. 1,306,788; June 17; v. 263; p. 384.
 Copy-holder. H. L. Welch. No. 1,307,945; June 24; v. 263; p. 600.
 Copy-holder line-guide. R. T. Gibson. No. 1,306,909; June 17; v. 263; p. 384.
 Core, Collapsible. E. J. Bundy. No. 1,307,435; June 24; v. 263; p. 507.
 Core, Collapsible. R. M. Webb. No. 1,307,283; June 17; v. 263; p. 444.
 Core-making machines, Ejecting mechanism for. J. Graves. No. 1,306,379; June 3; v. 263; p. 10.
 Core or the like, Apparatus for use in making. R. C. Pattison. No. 1,306,567; June 3; v. 263; p. 63.
 Cork or storage container. W. A. De Hart and J. A. Watt. No. 1,306,648; June 17; v. 263; p. 307.
 Cork for storage, Method and apparatus for preparing. J. Gots and M. Shlven. No. 1,307,046; June 17; v. 263; p. 404.
 Corn-bushing table, Adjustable. W. G. Bromley. No. 1,307,956; June 24; v. 263; p. 602.
 Corner and division bar. G. C. Hester. No. 1,307,972; June 24; v. 263; p. 606.
 Corner and division bar. G. C. Hester. No. 1,307,973; June 24; v. 263; p. 606.
 Cornets and similar instruments, Mouthpiece for. E. Christone. No. 1,306,691; June 3; v. 263; p. 27.
 Corset, Apparel. D. Kopa. No. 1,307,123; June 17; v. 263; p. 419.
 Corset-fastener. G. C. Green. No. 1,307,987; June 24; v. 263; p. 548.
 Cot, surgical stretcher, and military hammock, Combined fold. A. Loria. No. 1,306,595; June 3; v. 263; p. 29.
 Cotton-chopping machine. J. O. Thornhill. No. 1,306,946; June 3; v. 263; p. 118.
 Cotton-picking device. J. H. C. Boag. No. 1,306,900; June 3; v. 263; p. 130.
 Cotton-pla. Self-locking. E. C. Wilson. No. 1,306,018; June 24; v. 263; p. 614.
 Cotton-rod for separating meats from bolls, Treating. E. H. Ault. No. 1,306,991; June 17; v. 263; p. 594.
 Countersinking-machine. G. V. Curtis. No. 1,307,997; June 24; v. 263; p. 591.
 Coupling. See—
 Automatic coupling. Rod-coupling.
 Car-coupling. Shaft-coupling.
 Fluid-pressure coupling. Train-base coupling.
 Hose-coupling. Vehicle-coupling.
 Pipe-coupling.

Coupling. F. Stokes. No. 1,307,100; June 17; v. 263; p. 434.
 Coupling. T. White. No. 1,307,227; June 17; v. 263; p. 438.
 Coupling. H. W. Woodward. No. 1,307,427; June 24; v. 263; p. 500.
 Coupling device. J. L. Villanil. No. 1,306,984; June 17; v. 263; p. 383.
 Craft navigating. Build medium, Method and means for propelling. L. Bostedo. No. 1,305,340; June 3; v. 263; p. 21.
 Crane. T. M. Nichols. No. 1,307,412; June 24; v. 263; p. 503.
 Crane, Warehouse. G. H. Hallett. No. 1,305,902; June 3; v. 263; p. 104.
 Crank, Slip. W. F. Mangels. No. 1,306,608; June 10; v. 263; p. 299.
 Cranking device. I. F. Harris. No. 1,307,400; June 24; v. 263; p. 501.
 Crate. J. R. Buechler. No. 1,307,424; June 24; v. 263; p. 507.
 Crate, Folding. E. P. and J. L. Carpenter. No. 1,306,136; June 10; v. 263; p. 306.
 Crate, Folding. A. Hirlinger. No. 1,306,238; June 10; v. 263; p. 341.
 Cravat. L. Kookle. No. 1,306,432; June 10; v. 263; p. 258.
 Crib, Ventilating means for corn. E. M. Buechler. No. 1,306,401; June 10; v. 263; p. 282.
 Crimping-tool. W. F. Stone. No. 1,305,752; June 3; v. 263; p. 94.
 Crooking gate. V. B. Taylor. No. 1,306,033; June 10; v. 263; p. 181.
 Crutch-tip. M. Atlas. No. 1,305,307; June 3; v. 263; p. 120.
 Cue tip and ferrule. A. O. Olafson. No. 1,307,922; June 24; v. 263; p. 593.
 Cuff, Double. A. Fisher. No. 1,305,989; June 3; v. 263; p. 125.
 Cuff, Reversible. F. Standish. No. 1,307,984; June 24; v. 263; p. 598.
 Cuffs automatically, Method and means for making. O. A. Wheeler. No. 1,305,510; June 3; v. 263; p. 53.
 Cultivator. H. C. Tate. No. 1,305,502; June 3; v. 263; p. 51.
 Cultivator, planting attachment. R. A. Hines. No. 1,306,990; June 17; v. 263; p. 576.
 Cultivator, Walking. G. Smith. No. 1,305,674; June 3; v. 263; p. 64.
 Cultivator, Wheel. J. L. Van Nort. No. 1,307,327; June 17; v. 263; p. 464.
 Cap. See—
 Orange-cap.
 Current-indicator. A. F. Berry. No. 1,305,514; June 3; v. 263; p. 64.
 Current rectifier, Alternating. J. F. G. P. Hartmann. No. 1,306,535; June 10; v. 263; p. 240.
 Current regulator, Constant. G. H. Cole. No. 1,306,826; June 10; v. 263; p. 276.
 Current-wheel. W. B. Driscoll and W. F. Davis. No. 1,305,883; June 3; v. 263; p. 134.
 Curtain-drier. R. H. Hoyt. No. 1,306,008; June 17; v. 263; p. 298.
 Curtain-fastener. E. S. Church. No. 1,306,894; June 10; v. 263; p. 274.
 Curtain-drawers. W. H. Bradley. No. 1,307,292; June 17; v. 263; p. 448.
 Curtain holder, Window. I. E. Waggoner. No. 1,307,232; June 17; v. 263; p. 434.
 Curtains and draperies, Adjustable support for. A. H. Robert. No. 1,306,412; June 3; v. 263; p. 34.
 Curtains, Bow-top holder for tops with non-detachable run. C. L. Blair. No. 1,306,169; June 10; v. 263; p. 264.
 Currycomb. J. J. Rogers and P. J. Congrova. No. 1,307,702; June 24; v. 263; p. 588.
 Cushion-support. H. C. McGregor. No. 1,306,306; June 10; v. 263; p. 286.
 Cushioned wheel. A. S. Duffles and F. Mand. No. 1,307,989; June 24; v. 263; p. 578.
 Cuspector. R. J. Wilson. No. 1,306,428; June 3; v. 263; p. 27.
 Cutter. See—
 Broad-cutter. Paper-cutter.
 Check-cutter. Sheet-cutter.
 Cutter for envelope-machines, Adjustable. A. Norick. No. 1,306,496; June 10; v. 263; p. 370.
 Cutting-board. F. C. Bennett. No. 1,307,944; June 24; v. 263; p. 581.
 Cutting clothes, Guiding and controlling instrument for. J. Barody. No. 1,307,252; June 17; v. 263; p. 488.
 Cutting-machine. L. W. Bleier. No. 1,306,827; June 10; v. 263; p. 288.
 Cyanogen and ammonia, Producing. P. A. Statz. No. 1,306,962; June 17; v. 263; p. 590.
 Cycle frame, Motor. G. E. Bradshaw. No. 1,306,996; June 17; v. 263; p. 594.
 Cylinder, Drawing glass. W. Westbury. No. 1,306,951; June 10; v. 263; p. 294.
 Cylinder, Engine. S. E. Wolgast. No. 1,306,843; June 17; v. 263; p. 308.
 Damper-regulator, Automatic. I. A. Becklund. No. 1,306,018; June 24; v. 263; p. 614.

Danger-signal. J. W. Pfost. No. 1,305,980; June 3; v. 263; p. 133.
 Date-book product and making same. J. H. Northrop. No. 1,307,691; June 24; v. 263; p. 553.
 Date-shredder. J. H. Northrop. No. 1,307,692; June 24; v. 263; p. 553.
 Dates, Machine for cleaning. J. H. Northrop. No. 1,307,693; June 24; v. 263; p. 554.
 Daventry, Folding. W. B. Frank. No. 1,306,475; June 10; v. 263; p. 260.
 Decey. L. Bache. No. 1,306,655; June 10; v. 263; p. 288.
 Dehydrating, Apparatus for. A. A. Goubert. No. 1,305,600; June 3; v. 263; p. 71.
 Delivering mechanism. A. Hyquist. No. 1,307,577; June 24; v. 263; p. 497.
 Delivery-box. F. Koss. No. 1,305,723; June 3; v. 263; p. 94.
 Dental appliance. B. Dymart. No. 1,306,689; June 17; v. 263; p. 338.
 Dental instrument. V. T. Dimitroff. No. 1,306,948; June 17; v. 263; p. 594.
 Dental instrument. M. M. Kerr. No. 1,307,446; June 24; v. 263; p. 500.
 Dental. H. W. Hayes. No. 1,306,961; June 17; v. 263; p. 583.
 Derrick, Structural-steel. P. Yorke. No. 1,306,798; June 17; v. 263; p. 356.
 Desk and seat, Combination adjustable and convertible school. P. J. Jones and P. D. Schreiber. No. 1,306,486; June 10; v. 263; p. 288.
 Desk and seat, Combined. W. C. Bassant. No. 1,306,788; June 17; v. 263; p. 346.
 Desk, Box. W. Willis. No. 1,305,963; June 3; v. 263; p. 143.
 Detonator. C. H. Allison. No. 1,306,510; June 10; v. 263; p. 372.
 Dextrins, gums, and modified starch, Manufacturing. A. W. H. Lenders. No. 1,305,291; June 3; v. 263; p. 12.
 Dialkyldiarylureas, Producing. H. Wislitz. No. 1,307,570; June 24; v. 263; p. 522.
 Diatomaceous composition. T. M. Caven. No. 1,305,822; June 3; v. 263; p. 65.
 Die-press. K. Gammel. No. 1,305,274; June 3; v. 263; p. 9.
 Die-stock. A. H. Bates. No. 1,305,236; June 3; v. 263; p. 20.
 Die-stock. F. Feer. No. 1,307,580; June 24; v. 263; p. 583.
 Die-stock. J. T. Johnson. No. 1,306,907; June 17; v. 263; p. 379.
 Die-stock. I. W. Nonneman. No. 1,306,021; June 10; v. 263; p. 179.
 Die-stock. I. W. Nonneman. No. 1,307,141; June 17; v. 263; p. 420.
 Digger. See—
 Foot-hole digger.
 Direction-indicator. H. H. Banks. No. 1,306,098; June 10; v. 263; p. 182.
 Direction-signal. J. Erdie. No. 1,307,994; June 24; v. 263; p. 604.
 Dish-washer. F. W. Reynolds. No. 1,306,123; June 10; v. 263; p. 194.
 Dish-washer. M. Wagenhorst. No. 1,306,089; June 10; v. 263; p. 192.
 Disinfectant apparatus. R. J. Ciancagial. No. 1,307,535; June 24; v. 263; p. 525.
 Dish-cutting machine. A. Bogdanffy. No. 1,307,077; June 17; v. 263; p. 406.
 Dish-holder. O. A. Mezerumith. No. 1,306,360; June 17; v. 263; p. 389.
 Dish-wheel. L. B. Harvey. No. 1,307,005; June 17; v. 263; p. 204.
 Disks or slabs, Producing variously-colored decorative. A. B. Echlin. No. 1,307,248; June 24; v. 263; p. 589.
 Dispensing apparatus. O. Jaeger. No. 1,307,444; June 24; v. 263; p. 590.
 Dispensing-can. L. Story. No. 1,305,572; June 3; v. 263; p. 95.
 Display-receptacle. R. Rosenberg. No. 1,306,682; June 10; v. 263; p. 294.
 Distilling apparatus. R. A. Chenard. No. 1,307,184; June 17; v. 263; p. 438.
 Distilling apparatus. J. E. Doubleday. No. 1,306,667; June 17; v. 263; p. 338.
 Distilling apparatus. W. Fourness. No. 1,306,086; June 10; v. 263; p. 184.
 Diving-armor. J. F. Long. No. 1,305,656; June 3; v. 263; p. 61.
 Diving-armor. E. Nichol. No. 1,307,921; June 24; v. 263; p. 596.
 Doll. J. M. Spencer. No. 1,307,219; June 17; v. 263; p. 484.
 Door, Automatic. J. J. Sabia. No. 1,306,962; June 3; v. 263; p. 143.
 Door-bolt. H. Byre. No. 1,305,828; June 3; v. 263; p. 20.
 Door-check. H. M. Woodworth. No. 1,307,948; June 24; v. 263; p. 601.
 Door check and door. J. C. Schmidt. (Reliance) No. 1,307,474; June 24; v. 263; p. 616.
 Door, Core-over. F. A. Coleman. No. 1,307,483; June 24; v. 263; p. 515.
 Door-fastener. E. J. Wirts. No. 1,307,229; June 17; v. 263; p. 436.

Door-handle. C. P. Pond. No. 1,305,619; June 3; v. 263; p. 78.
 Door-jamb. Adjustable. C. C. Smith. No. 1,307,210; June 17; v. 263; p. 433.
 Door-lock. N. O. Billings. No. 1,305,950; June 3; v. 263; p. 133.
 Door-locking mechanism. J. F. Kinsane and F. E. Schoonmaker. No. 1,305,999; June 10; v. 263; p. 227.
 Door opener or closer. Automatic. P. L. De Marca. No. 1,307,245; June 24; v. 263; p. 491.
 Door or shutter. Vireproed. W. H. Patterson. No. 1,307,376; June 24; v. 263; p. 567.
 Door-stop. H. C. Voight. No. 1,305,676; June 3; v. 263; p. 85.
 Door-support. M. H. Paul. No. 1,307,377; June 24; v. 263; p. 587.
 Doorways. Sec. Hanger for flexible coverings for. W. H. Fitch. No. 1,307,440; June 24; v. 263; p. 503.
 Draft appliance. C. M. Simons. No. 1,305,443; June 10; v. 263; p. 200.
 Draft appliance to prevent shock. H. Kaler. No. 1,305,661; June 3; v. 263; p. 80.
 Draft-regulator. Automatic. T. M. Anderberg. No. 1,307,950; June 24; v. 263; p. 601.
 Draft-rigging. J. F. O'Connor. No. 1,307,307; June 17; v. 263; p. 451.
 Draft-rigging for railway-cars. J. F. O'Connor. No. 1,307,310; June 17; v. 263; p. 451.
 Draft-rigging. Making stop-plates for. J. F. O'Connor. No. 1,305,663; June 3; v. 263; p. 82.
 Draw-bar carrier. E. G. Averill. No. 1,305,967; June 10; v. 263; p. 173.
 Draw-bar construction. M. J. Lauby. No. 1,305,472; June 3; v. 263; p. 46.
 Drawing and measuring instrument. Combination. D. M. Bernard. No. 1,307,076; June 17; v. 263; p. 400.
 Drawing and measuring instrument. Combination. D. M. Bernard. No. 1,307,233; June 17; v. 263; p. 437.
 Drawing apparatus. J. O. Sparks. No. 1,305,961; June 17; v. 263; p. 360.
 Drawing apparatus. Glass. W. Westbury. No. 1,307,943; June 24; v. 263; p. 600.
 Drawing glass cylinders. W. Westbury. No. 1,307,946; June 24; v. 263; p. 601.
 Drawing instrument. O. E. Chasey. No. 1,307,953; June 24; v. 263; p. 603.
 Dredging apparatus. W. O'Connell. No. 1,307,370; June 24; v. 263; p. 495.
 Drier. Sec.—
 Curtain-drier. Hair-drier.
 Drier. F. T. Richards. No. 1,307,270; June 17; v. 263; p. 444.
 Drier for macaroni, &c. P. De Martini. No. 1,307,735; June 24; v. 263; p. 570.
 Dry cells. Composition for the manufacture of. G. W. B. Neg and E. A. Jenkins. No. 1,305,455; June 3; v. 263; p. 45.
 Dry-cleaning extractor. W. Forger. No. 1,307,661; June 24; v. 263; p. 547.
 Drying various substances. A. A. Goubert. No. 1,305,509; June 3; v. 263; p. 71.
 Drill. Sec.—
 Electric well-drill. Rock-drill.
 Grain-drill. Roller-boring drill.
 Drill. C. J. Smelling. No. 1,305,074; June 10; v. 263; p. 302.
 Drill-bit. M. J. A. Culmore. No. 1,305,371; June 10; v. 263; p. 247.
 Drilling and reaming machine. Portable. A. J. Coughtry. No. 1,305,467; June 10; v. 263; p. 265.
 Drilling and tapping machine. A. C. Fleta. No. 1,307,431; June 24; v. 263; p. 579.
 Drive mechanism. W. F. Drew. No. 1,305,330; June 10; v. 263; p. 239.
 Driving-chain. H. Benold and A. E. Carter. No. 1,305,501; June 10; v. 263; p. 281.
 Driving and steering wheel. C. M. Motte. No. 1,305,554; June 10; v. 263; p. 280.
 Driving connection. Resilient. G. H. F. Holy. No. 1,305,543; June 10; v. 263; p. 278.
 Driving mechanism. R. Janney. No. 1,307,319; June 24; v. 263; p. 577.
 Dress-mold. I. N. Heminger. No. 1,305,761; June 17; v. 263; p. 351.
 Dubbing-machine. D. L. Cobb and W. Moore. No. 1,305,249; June 10; v. 263; p. 225.
 Dumping butter-mold. E. A. Simpson. No. 1,305,128; June 10; v. 263; p. 199.
 Dust and valve cap. E. O. Williams. No. 1,307,947; June 24; v. 263; p. 601.
 Dynamic optometer. C. E. H. Armbruster. No. 1,305,734; June 17; v. 263; p. 340.
 Dynamic optometer. C. E. H. Armbruster. No. 1,305,735; June 17; v. 263; p. 340.
 Dynamic optometer. C. E. H. Armbruster. No. 1,305,736; June 17; v. 263; p. 340.
 Dynamo-casing. W. H. Hutchins. No. 1,305,695; June 17; v. 263; p. 339.
 Dynamo-electric machine. Variable-speed. A. H. Midgley. No. 1,307,090; June 17; v. 263; p. 413.
 Ear-protector. F. E. Miller. No. 1,305,323; June 3; v. 263; p. 113.
 Edge-setting machine. O. E. Angell. No. 1,305,064; June 3; v. 263; p. 120.

Educational appliance. A. H. Kennedy. No. 1,305,734; June 3; v. 263; p. 33.
 Educational device. C. A. Evans. No. 1,305,449; June 3; v. 263; p. 41.
 Egg and fruit carton. O. C. Foulson. No. 1,307,000; June 24; v. 263; p. 547.
 Egg candling, handling, and sorting device. W. F. D. Achermann. No. 1,305,561; June 3; v. 263; p. 119.
 Egg-holder. F. L. Lamas. No. 1,305,516; June 17; v. 263; p. 360.
 Egg-transferer. J. A. Van Borkum. No. 1,305,290; June 10; v. 263; p. 222.
 Egg-turning device. Automatic. P. S. Martin. (Retosue.) No. 1,305,514; June 3; v. 263; p. 110.
 Electric accumulator plate. H. Leitner and W. H. Hixley. No. 1,305,514; June 3; v. 263; p. 110.
 Electric apparatus. Vacuum. J. C. Fols. No. 1,307,455; June 24; v. 263; p. 611.
 Electric-arc welding, cutting, and repairing. C. J. Holslag. No. 1,305,342; June 3; v. 263; p. 25.
 Electric cables. Manufacture of. C. J. Beaver and E. A. Claremont. No. 1,305,247; June 3; v. 263; p. 4.
 Electric controller. H. F. Stratton. No. 1,305,950; June 3; v. 263; p. 157.
 Electric controller. H. F. Stratton. No. 1,305,951; June 3; v. 263; p. 157.
 Electric-current-changing means. C. J. Myers. No. 1,305,922; June 17; v. 263; p. 331.
 Electric-fitting connection. J. A. McKay. No. 1,307,060; June 24; v. 263; p. 586.
 Electric furnace. M. S. Clawson. No. 1,305,948; June 17; v. 263; p. 395.
 Electric furnace. O. A. Colby. No. 1,305,251; June 10; v. 263; p. 226.
 Electric furnace. O. A. Colby. No. 1,305,250; June 10; v. 263; p. 225.
 Electric furnace. F. Thorston, Jr., and O. A. Colby. No. 1,305,250; June 10; v. 263; p. 222.
 Elastic garment-fastener. C. W. Kinsman. No. 1,307,010; June 17; v. 263; p. 397.
 Electric heater. A. Harth. No. 1,307,196; June 17; v. 263; p. 430.
 Electric heater. C. T. Johnson. No. 1,305,320; June 17; v. 263; p. 361.
 Electric heater. F. Kuhn and J. A. Hand. No. 1,307,556; June 24; v. 263; p. 529.
 Electric heating device. Control for. G. H. Hill. No. 1,305,342; June 10; v. 263; p. 278.
 Electric inductance apparatus. B. F. Gardner. No. 1,307,003; June 17; v. 263; p. 412.
 Electric light. Portable. L. Frahar. No. 1,307,456; June 24; v. 263; p. 511.
 Electric light. Spacer for pendant. A. Powell. No. 1,307,923; June 24; v. 263; p. 594.
 Electric machine. Dynamo. W. B. Moses. No. 1,305,018; June 10; v. 263; p. 179.
 Electric machine. Dynamo. E. D. Priest. No. 1,305,625; June 10; v. 263; p. 293.
 Electric machines. Brush-holder for dynamo. B. W. Sweet. No. 1,307,023; June 17; v. 263; p. 401.
 Electric machines. Core member for dynamo. G. H. F. Holy. No. 1,305,004; June 3; v. 263; p. 73.
 Electric machines. Frame for dynamo. C. W. Starter and R. E. Holmud. No. 1,305,543; June 10; v. 263; p. 261.
 Electric machines. Frame for dynamo. C. W. Starter and A. R. Pribl. No. 1,305,544; June 10; v. 263; p. 262.
 Electric multiple switch. A. E. Francis. No. 1,305,035; June 17; v. 263; p. 374.
 Electric plug and socket. F. W. Richter. No. 1,305,303; June 3; v. 263; p. 15.
 Electric pull-switch. E. H. Van Loon. No. 1,305,672; June 10; v. 263; p. 302.
 Electric railway-gate. Automatic. C. P. Wilkinson, R. L. Edmail, and A. Wilkinson. No. 1,305,508; June 10; v. 263; p. 272.
 Electric regulating resistance. E. A. K. Turbison. No. 1,305,085; June 10; v. 263; p. 191.
 Electric regulation. J. L. Crovelling. No. 1,305,174; June 10; v. 263; p. 304.
 Electric regulator. W. F. Bouché and C. Hartmann. No. 1,307,645; June 24; v. 263; p. 582.
 Electric switch. G. A. Barnham. No. 1,307,948; June 24; v. 263; p. 593.
 Electric switch. A. C. Gilbert. No. 1,307,004; June 17; v. 263; p. 412.
 Electric switch. H. F. Hastings. No. 1,307,006; June 17; v. 263; p. 394.
 Electric switch. A. L. Johnston, Jr. No. 1,307,295; June 17; v. 263; p. 441.
 Electric switch. C. J. Klein. No. 1,305,552; June 17; v. 263; p. 367.
 Electric switch. C. J. Klein. No. 1,307,746; June 24; v. 263; p. 564.
 Electric switch. H. F. Krantz. No. 1,305,240; June 10; v. 263; p. 241.
 Electric switch. E. B. Merriam. No. 1,305,551; June 10; v. 263; p. 279.
 Electric switch. C. D. Ray and F. Koerner. No. 1,307,323; June 24; v. 263; p. 589.
 Electric-switch device. A. I. Fromm and J. F. Stix. No. 1,305,908; June 10; v. 263; p. 178.

Electric-wave-repeating apparatus. A. M. Nicolson. No. 1,307,511; June 24; v. 263; p. 521.
 Electric welding system. D. H. Wilson. No. 1,307,030; June 17; v. 263; p. 401.
 Electric well-drill. R. R. Bray. No. 1,307,347; June 24; v. 263; p. 532.
 Electrical apparatus. J. Wilkinson. No. 1,305,570; June 10; v. 263; p. 283.
 Electrical-discharge-producing device. W. and P. De-biller. No. 1,307,334; June 24; v. 263; p. 583.
 Electrical heating unit. F. Kuhn and J. A. Hand. No. 1,307,557; June 24; v. 263; p. 535.
 Electrical measurements. Method and apparatus for making. E. L. McDonald. No. 1,305,009; June 10; v. 263; p. 133.
 Electrical regulator. C. A. Boddie. No. 1,305,378; June 17; v. 263; p. 372.
 Electrical regulator. C. E. Marks. No. 1,305,354; June 17; v. 263; p. 363.
 Electrical switch. W. Ellerd-Stiles. No. 1,305,141; June 10; v. 263; p. 201.
 Electrically accelerating chemical reactions. Process and apparatus for. W. A. Schmidt and E. R. Wolcott. No. 1,307,930; June 24; v. 263; p. 597.
 Electricity-metering. E. O. Schweitzer. No. 1,305,356; June 10; v. 263; p. 244.
 Electrolytic apparatus. P. J. Kroll. No. 1,305,151; June 10; v. 263; p. 203.
 Electrolytic cell. L. W. Chubb. No. 1,305,443; June 3; v. 263; p. 40.
 Electrolytic cell. C. L. Fortescue. No. 1,305,458; June 3; v. 263; p. 43.
 Electrolytic cell. C. P. Townsend. No. 1,305,237; June 10; v. 263; p. 221.
 Electromagnetic overload device. C. H. Rippl. No. 1,305,587; June 3; v. 263; p. 134.
 Electromagnetic switch. E. J. Murphy. No. 1,305,555; June 10; v. 263; p. 290.
 Electromagnetic switch. P. H. Zimmer. No. 1,305,374; June 17; v. 263; p. 372.
 Elements. Producing pure. E. Weintraub. No. 1,305,538; June 10; v. 263; p. 282.
 Elevator. L. I. Ziegler. No. 1,305,606; June 10; v. 263; p. 272.
 Elevators. Control mechanism for hydraulic. A. B. Boyer. No. 1,347,750; June 24; v. 263; p. 545.
 Embroidery-machine. W. N. Parkes. No. 1,305,927; June 3; v. 263; p. 132.
 End-gate. A. R. Miller. No. 1,305,920; June 3; v. 263; p. 130.
 End-gate. C. Wellendorf. No. 1,305,426; June 3; v. 263; p. 37.
 End-gate fastener. N. K. Nelson. No. 1,305,117; June 10; v. 263; p. 197.
 End-latching mechanism. M. Brock. No. 1,305,247; June 10; v. 263; p. 224.
 Engine. Sec.—
 Air-cooled engine. Logging-engine.
 Automobile fire-engine. Pumping-machine engine.
 Carding-engine. Rotary engine.
 Coal-dust and liquid-fuel. Steam-engine.
 engine. Traction-engine.
 Explosion-engine. Two-stroke engine.
 Internal-combustion en-
 gine.
 Engine. C. E. Pratt. No. 1,305,717; June 17; v. 263; p. 343.
 Engine-house. J. R. Leighty and E. E. Ahlskog. No. 1,307,504; June 24; v. 263; p. 520.
 Engine-indicator. H. Brown. No. 1,305,575; June 10; v. 263; p. 284.
 Engine-manifold. F. A. Trahin. No. 1,307,004; June 24; v. 263; p. 333.
 Engine-starter. H. M. Townsend. No. 1,307,941; June 24; v. 263; p. 599.
 Engine starting apparatus. J. Bijur. No. 1,307,177; June 17; v. 263; p. 423.
 Engine starting apparatus. J. Bijur. No. 1,307,178; June 17; v. 263; p. 427.
 Engine starting system. W. A. Chryst. No. 1,305,137; June 10; v. 263; p. 201.
 Engine-timer. L. H. Whelan. No. 1,305,791; June 17; v. 263; p. 353.
 Engines. Auxiliary priming and air-controlling device for internal-combustion. G. F. Zucker. No. 1,305,210; June 10; v. 263; p. 214.
 Engines. Breather for internal-combustion. C. F. Felts. No. 1,305,421; June 10; v. 263; p. 284.
 Engines. Carbon-eliminator and lubricator for gas. E. E. Young. No. 1,305,559; June 3; v. 263; p. 119.
 Engines. Carbon-removing means for internal-combustion. H. B. Basher. No. 1,305,637; June 10; v. 263; p. 295.
 Engines. Combustion and thermodynamic conversion with-
 in. M. E. Wolfard. No. 1,305,579; June 3; v. 263; p. 67.
 Engines. Fuel-heater for explosive. G. H. Hayes. No. 1,307,124; June 17; v. 263; p. 413.
 Engines. Liquid-fuel-supply apparatus for internal-combustion. J. Higginson and H. Arundel. No. 1,305,762; June 17; v. 263; p. 351.
 Engines. Lubricating device for. L. W. Meicher. No. 1,307,304; June 17; v. 263; p. 431.
 Engines. Means for preventing vibration of reciprocating. H. G. Chastain and H. W. Stock. No. 1,305,522; June 10; v. 263; p. 274.

Engines. Mechanical starter for explosive. A. J. Haug. No. 1,305,720; June 3; v. 263; p. 92.
 Engines. Mechanism for facilitating the starting of internal-combustion. C. Y. Knight. No. 1,305,908; June 3; v. 263; p. 127.
 Engines. Oil-cooling system for explosive. I. I. Metzger. No. 1,307,016; June 17; v. 263; p. 364.
 Engines. Oiling mechanism for internal-combustion. E. J. Gulick. No. 1,305,355; June 3; v. 263; p. 24.
 Engines. Starter for internal-combustion. E. P. Sommers. No. 1,307,026; June 17; v. 263; p. 400.
 Engines. Temperature-indicating device for cooling systems for internal-combustion. L. V. Aronson. No. 1,305,396; June 10; v. 263; p. 251.
 Engines. Variable-stroke operating mechanism for. T. H. Van Dike. No. 1,307,167; June 17; v. 263; p. 425.
 Engines. Water-heater for auto fire. C. H. Fox. No. 1,305,791; June 3; v. 263; p. 104.
 Engines. Working cylinder for internal-combustion. C. Regenbogen and P. A. Ritter. No. 1,305,404; June 3; v. 263; p. 50.
 Envelop. F. A. Godley. No. 1,305,224; June 10; v. 263; p. 218.
 Envelop. W. L. Hamilton. No. 1,305,061; June 10; v. 263; p. 187.
 Envelop. G. F. Hogen. No. 1,305,378; June 10; v. 263; p. 187.
 Envelop. J. O'Brien. No. 1,305,304; June 3; v. 263; p. 14.
 Envelop. H. K. Schramm. No. 1,307,421; June 24; v. 263; p. 504.
 Envelop. Double safety. J. Suseraky. No. 1,307,278; June 17; v. 263; p. 445.
 Envelop. Safety. S. Klotz. No. 1,307,447; June 24; v. 263; p. 510.
 Reophagus. Extractor for obstructed. W. H. Corey. No. 1,305,773; June 3; v. 263; p. 103.
 Ethylidene diacetate. J. Koetschet and M. Beudet. No. 1,305,944; June 17; v. 263; p. 388.
 Evener. Three-horse. G. D. Houston. No. 1,305,366; June 3; v. 263; p. 26.
 Excavating-machine. B. McIntire. No. 1,305,350; June 10; v. 263; p. 243.
 Exerciser. A. A. Hendrickson. No. 1,307,905; June 24; v. 263; p. 593.
 Exhaust and intake manifold. Combination. C. C. Herbert. No. 1,305,698; June 17; v. 263; p. 376.
 Expander. F. E. Key. No. 1,305,908; June 3; v. 263; p. 109.
 Expanding-tool. Split-rim. H. W. Stollenwerk. No. 1,305,209; June 10; v. 263; p. 213.
 Expansion and fastening device. G. C. Raeger. No. 1,307,418; June 24; v. 263; p. 504.
 Expansion-joint. A. H. Sloan. No. 1,305,236; June 10; v. 263; p. 221.
 Explosion-engine. E. L. P. Colardeau. No. 1,307,896; June 24; v. 263; p. 591.
 Explosion-motor. C. H. Claudel. No. 1,307,185; June 17; v. 263; p. 428.
 Explosion-motors in general. Sparking plug for. J. F. Ledanola. No. 1,307,910; June 24; v. 263; p. 593.
 Explosive. W. Rintoul and D. Cross. No. 1,305,440; June 10; v. 263; p. 259.
 Explosive composition. W. R. Swint. No. 1,307,706; June 24; v. 263; p. 567.
 Explosive compounds. R. L. Hill and A. J. Strane. No. 1,307,405; June 24; v. 263; p. 519.
 Explosive. Nitrostatarch. C. E. Waller. No. 1,305,845; June 3; v. 263; p. 116.
 Explosive. Nitrostatarch. C. E. Waller. No. 1,305,846; June 3; v. 263; p. 116.
 Extractor. Sec.—
 Cork or stopper extractor. Dry-cleaning extractor.
 Eye-protector. J. R. Walker. No. 1,307,223; June 17; v. 263; p. 435.
 Eye-protector. F. Willson. No. 1,305,366; June 10; v. 263; p. 246.
 Eye-protector. F. Willson. No. 1,305,367; June 10; v. 263; p. 246.
 Eye-wiper. C. B. Carr. No. 1,305,442; June 3; v. 263; p. 40.
 Eyeglass-mounting. E. J. R. Beatty. No. 1,307,477; June 24; v. 263; p. 515.
 Fabric. Sec.—
 Compound fabric.
 Fabric and making same. Double-pile. G. F. Hutchins and G. Crossland. No. 1,307,006; June 17; v. 263; p. 390.
 Fabric. Apparatus for impregnating fragile. E. Weinheim. No. 1,305,650; June 10; v. 263; p. 298.
 Fabric-cutting machine. H. Maimin. No. 1,305,480; June 3; v. 263; p. 47.
 Fabric for spring-beds. J. B. Andres. No. 1,305,986; June 10; v. 263; p. 173.
 Fabric-treating machine. H. M. Dudley. No. 1,305,520; June 10; v. 263; p. 275.
 Fabrics having the property of invisibility. Production of. F. Cochrane. No. 1,305,213; June 10; v. 263; p. 215.
 Fabrics. Method of and means for finishing the edges of woven. H. W. Owen. No. 1,307,004; June 24; v. 263; p. 554.
 Fabrics or the like. Seam-detector for. F. A. and W. F. Papineau. No. 1,305,713; June 17; v. 263; p. 342.
 Fair-leader. S. A. Soule. No. 1,307,989; June 24; v. 263; p. 609.

Fastener, O. T. Bell. No. 1,306,366; June 10; v. 263; p. 247.
 Fastener, H. H. Cobe. No. 1,306,979; June 3; v. 263; p. 142.
 Fastener, Necktie. J. Zagel. No. 1,307,073; June 17; v. 263; p. 409.
 Fastener, Packaging. W. R. Elliott. No. 1,306,107; June 10; v. 263; p. 195.
 Fasteners, Machine for carding snap. R. H. Berkley. No. 1,307,997; June 24; v. 263; p. 610.
 Fastening. C. J. Rohland. No. 1,306,379; June 10; v. 263; p. 230.
 Fastening device. W. J. Putnam. No. 1,306,277; June 10; v. 263; p. 230.
 Fastening device. D. Quinlan. No. 1,307,925; June 24; v. 263; p. 586.
 Faucet clamp or coupling. A. J. Frey. No. 1,306,476; June 10; v. 263; p. 266.
 Feed-chute for tube-machines. Antifriction. E. E. Davidson. No. 1,306,445; June 3; v. 263; p. 41.
 Feed-cutting machine. J. A. Rankin. No. 1,306,500; June 10; v. 263; p. 270.
 Feed-delivery mechanism. Card. W. W. Lasker. No. 1,307,661; June 24; v. 263; p. 551.
 Feed mechanism. R. L. Wilcox. No. 1,305,320; June 3; v. 263; p. 10.
 Feed mechanism, Drill. J. B. Hast. No. 1,307,547; June 24; v. 263; p. 528.
 Feed-regulator. E. R. Draver. No. 1,307,349; June 24; v. 263; p. 492.
 Feed-water apparatus. J. L. Hughes. No. 1,307,408; June 24; v. 263; p. 501.
 Feeder, Automatic bag. F. J. Patterson. No. 1,305,832; June 3; v. 263; p. 114.
 Feeding mechanism, Sheet-metal. J. R. and E. D. Abrams. No. 1,307,171; June 17; v. 263; p. 425.
 Feeding mechanism, Stock. A. E. Schlader. No. 1,305,672; June 3; v. 263; p. 54.
 Felt and making same. A. L. Clapp. No. 1,305,770; June 3; v. 263; p. 102.
 Felt and making same. R. P. Perry. No. 1,305,404; June 3; v. 263; p. 33.
 Felts, Manufacturing. R. P. Perry. No. 1,307,750; June 24; v. 263; p. 524.
 Fence-wires, Means for splicing and stretching. C. H. Matthews and J. E. Matthews. No. 1,307,406; June 24; v. 263; p. 502.
 Fender. See—
 Automobile fender. Submarine fender.
 Fiber-bearing plants, Process and apparatus for treating. L. N. Gillis. No. 1,307,250; June 17; v. 263; p. 440.
 File handle or holder. O. L. Heckmann. No. 1,305,283; June 3; v. 263; p. 10.
 File, Paper. C. M. Deason. No. 1,305,589; June 3; v. 263; p. 60.
 Filing-cabinet. C. B. Ulrich. No. 1,306,728; June 17; v. 263; p. 345.
 Filing drawings, sheets of paper, linen, Ac. Drawer for. R. Kirk. No. 1,306,651; June 17; v. 263; p. 367.
 Filing units of intelligence. W. F. Schmidt. No. 1,305,939; June 3; v. 263; p. 135.
 Film-gate. C. J. Peterson. No. 1,305,405; June 3; v. 263; p. 23.
 Film-reel. S. Kohn. No. 1,307,554; June 24; v. 263; p. 529.
 Filter. E. J. Sweetland. No. 1,305,317; June 3; v. 263; p. 17.
 Finger. J. Becker. No. 1,305,984; June 3; v. 263; p. 143.
 Finger-ring. H. E. Grossman. No. 1,307,398; June 24; v. 263; p. 501.
 Finger-tip protector. D. A. M. Sansotta. No. 1,306,443; June 10; v. 263; p. 260.
 Fire-door. S. C. Fisher. No. 1,306,006; June 24; v. 263; p. 612.
 Fire-extinguisher. J. Fisher. No. 1,305,457; June 3; v. 263; p. 43.
 Fire-extinguisher. D. W. Patterson. No. 1,306,017; June 10; v. 263; p. 292.
 Fire-extinguisher composition. H. S. Mork. No. 1,306,708; June 17; v. 263; p. 342.
 Fire-extinguisher composition. H. S. Mork. No. 1,306,709; June 17; v. 263; p. 342.
 Fire-extinguishing composition. H. S. Mork. No. 1,306,707; June 17; v. 263; p. 342.
 Fire-extinguishing system, Automatic. S. H. Brooks. No. 1,307,619; June 24; v. 263; p. 539.
 Fire-kidder. A. J. Gerhardt. No. 1,305,009; June 24; v. 263; p. 612.
 Fire-screen. W. A. Graybeal. No. 1,307,517; June 24; v. 263; p. 578.
 Firearm. A. Mercer, Sr. No. 1,306,017; June 24; v. 263; p. 614.
 Firearm-sight. G. N. Long. No. 1,307,912; June 24; v. 263; p. 584.
 Firearm-sight. E. F. Watson. No. 1,307,646; June 24; v. 263; p. 545.
 Firearm-sight. E. F. Watson. No. 1,307,647; June 24; v. 263; p. 545.
 Firearm. Cartridge-magazine for. C. A. Nelson. No. 1,304,972; June 17; v. 263; p. 329.
 Firearm, Luminous sight for. E. S. Palmer. No. 1,307,063; June 17; v. 263; p. 407.
 Firearm, Night-sight for. A. L. Boone. No. 1,304,979; June 17; v. 263; p. 373.
 Firearm, Safety device for. R. Larson. No. 1,306,946; June 17; v. 263; p. 338.
 Fireplace-lining. J. T. Nelson. No. 1,304,612; June 10; v. 263; p. 251.
 Fireproof tile wall. E. V. Johnson. No. 1,307,779; June 24; v. 263; p. 569.
 Fish-cleaning device. E. H. Waugh. No. 1,306,841; June 17; v. 263; p. 365.
 Fish-hook. A. T. Moore. No. 1,307,411; June 24; v. 263; p. 502.
 Fish-hook, Weedless. A. V. Lindquist. No. 1,306,883; June 10; v. 263; p. 249.
 Fishing apparatus. H. J. Edmondson. No. 1,307,022; June 24; v. 263; p. 541.
 Fishing appliance. H. A. Olson. No. 1,307,513; June 24; v. 263; p. 522.
 Fishing-line, Double-swivel connecting-link for. C. L. Johnson. No. 1,306,226; June 10; v. 263; p. 218.
 Fishing-reel. F. R. Liddell. No. 1,306,910; June 3; v. 263; p. 123.
 Fishing-reel attachment. G. L. Curtis. No. 1,307,900; June 24; v. 263; p. 602.
 Flaps and the like, Antifouling device for. O. Klamroth. No. 1,306,915; June 17; v. 263; p. 379.
 Flaps, Extension-staff and container for. A. Coe. No. 1,306,985; June 3; v. 263; p. 124.
 Flame-spreaders and wick-stops, Lifter for. L. S. Chadwick. No. 1,306,101; June 10; v. 263; p. 194.
 Flange-wrench. C. F. Hult. No. 1,307,128; June 17; v. 263; p. 418.
 Flash-light. H. Bieber. No. 1,306,740; June 17; v. 263; p. 247.
 Flash-light battery. A. S. Lybne. No. 1,307,968; June 24; v. 263; p. 586.
 Flat-iron, Automatic switch for. F. A. Schultz. No. 1,306,723; June 17; v. 263; p. 344.
 Flax-cutter. B. S. Summers. No. 1,306,032; June 10; v. 263; p. 181.
 Flething-machine. W. G. Gibbins. No. 1,307,782; June 24; v. 263; p. 561.
 Flexible-connection box. W. W. Lasker. No. 1,307,083; June 24; v. 263; p. 532.
 Flight, Mechanical. A. L. W. Bagg. No. 1,306,326; June 10; v. 263; p. 228.
 Float-controlled switch. L. W. Downes and W. S. Mayer. No. 1,307,189; June 17; v. 263; p. 423.
 Floor-box. H. Krantz. No. 1,306,610; June 3; v. 263; p. 74.
 Floor construction, Ferroconcrete. F. P. Billmer. No. 1,307,173; June 17; v. 263; p. 427.
 Flooring. E. C. Dittmar. (Belgium.) No. 14,690; June 10; v. 263; p. 302.
 Flour, Treatment of. H. Greville. No. 1,306,323; June 10; v. 263; p. 240.
 Flower, Artificial. J. E. Burrows. No. 1,307,617; June 24; v. 263; p. 546.
 Fluid-agitating mechanism. N. D. Nielsen. No. 1,307,595; June 24; v. 263; p. 536.
 Fluid-catch. P. R. Peterson. No. 1,307,997; June 24; v. 263; p. 554.
 Fluid-discharging apparatus. C. W. Kincaid. No. 1,306,239; June 3; v. 263; p. 12.
 Fluid-fuel burner. C. Buschart. No. 1,307,313; June 17; v. 263; p. 423.
 Fluid-gage. H. Hastings. No. 1,305,719; June 3; v. 263; p. 92.
 Flying-machine. G. Haden. No. 1,307,947; June 17; v. 263; p. 464.
 Fluid-meter. B. Irwin. No. 1,305,908; June 3; v. 263; p. 168.
 Fluid-meter, Indicating differential. W. J. Crowell, Jr. No. 1,306,465; June 10; v. 263; p. 233.
 Fluid-meter. J. W. Chadwick. No. 1,304,991; June 10; v. 263; p. 224.
 Fluid-pressure coupling. L. D. Woodruff. No. 1,305,582; June 3; v. 263; p. 62.
 Flying-machine. A. G. Lament. No. 1,306,585; June 3; v. 263; p. 62.
 Flying-machine. J. H. Petros and P. Hardin. No. 1,307,631; June 17; v. 263; p. 399.
 Folding-machine. H. Shapira. No. 1,305,748; June 3; v. 263; p. 98.
 Flying-machine. C. Simank. No. 1,306,993; June 10; v. 263; p. 199.
 Flying-machine, Bomb for. D. A. Hawken. No. 1,306,064; June 10; v. 263; p. 261.
 Foldable box. V. Ruggiero. No. 1,307,787; June 24; v. 263; p. 546.
 Folding and stitching machine. D. Bolser. No. 1,307,148; June 17; v. 263; p. 422.
 Folding seat. L. L. Williams. No. 1,307,940; June 24; v. 263; p. 581.
 Folding table. C. W. Coffin. No. 1,306,466; June 10; v. 263; p. 264.
 Folding table. J. L. Mackay. No. 1,307,784; June 24; v. 263; p. 579.
 Food material, Apparatus for treating. J. D. Bolton. No. 1,307,075; June 17; v. 263; p. 469.
 Foot-warmer. C. H. Buchanan. No. 1,307,618; June 24; v. 263; p. 546.
 Force-feed lubricator. W. J. Schlaech. No. 1,307,999; June 24; v. 263; p. 603.

Forging-block. M. F. Williams. No. 1,306,954; June 3; v. 263; p. 118.
 Furling, bursting charges. C. L. Reese. No. 1,307,899; June 24; v. 263; p. 537.
 Fountain. See—
 Stock-fountain.
 Frame. See—
 Bed-frame. Test-frame.
 Framework for display publicity by machine. C. R. Finch. No. 1,307,293; June 17; v. 263; p. 448.
 Friction-drive. A. F. Armington. No. 1,306,596; June 3; v. 263; p. 120.
 Friction-surface. H. Froed. No. 1,307,857; June 24; v. 263; p. 584.
 Fruit juice, Preservation of citrus. R. F. Bacon. No. 1,305,244; June 3; v. 263; p. 2.
 Fruit-picker. J. V. Powers. No. 1,307,417; June 24; v. 263; p. 504.
 Fruit-stoner. C. Mink. No. 1,306,965; June 3; v. 263; p. 31.
 Fuel and making same. O. Meyers. No. 1,305,992; June 3; v. 263; p. 11.
 Fuel, Apparatus for containing and consuming. J. Schaak. No. 1,305,671; June 3; v. 263; p. 84.
 Fuel, Art of burning. J. M. Schutz. No. 1,306,323; June 10; v. 263; p. 220.
 Fuel-burning apparatus. J. M. Schutz. No. 1,306,325; June 10; v. 263; p. 221.
 Fuel, Combustion of powdered. H. B. Pruden. No. 1,307,575; June 24; v. 263; p. 498.
 Fuel, Device for aerating powdered. A. G. Klayton. No. 1,307,965; June 24; v. 263; p. 494.
 Fuel-feed system. E. A. Edwards. No. 1,306,969; June 17; v. 263; p. 364.
 Fuel-feed system. H. W. Hamilton. No. 1,306,377; June 10; v. 263; p. 248.
 Fuel-feeding device. W. J. Emba. No. 1,305,648; June 3; v. 263; p. 80.
 Fuel, Fluid-pressure apparatus for burning powdered. F. A. Leonard, M. F. Maloney, and E. Pandrich. No. 1,306,728; June 3; v. 263; p. 84.
 Fuel-gasifying apparatus, Liquid. B. A. Burrell. No. 1,305,699; June 3; v. 263; p. 87.
 Fuel, Liquid. A. A. Backhaus. No. 1,306,244; June 10; v. 263; p. 224.
 Fuel-tank and means for supporting it. A. Monsen. No. 1,307,138; June 17; v. 263; p. 420.
 Fuel-vaporizer. C. M. Dyer. No. 1,307,993; June 24; v. 263; p. 500.
 Funnel. L. L. Tittle, Jr. No. 1,306,319; June 10; v. 263; p. 237.
 Funnel, Collapsible. W. J. Smith. No. 1,305,927; June 3; v. 263; p. 77.
 Fur-stretcher. J. H. Stahr. No. 1,307,522; June 24; v. 263; p. 523.
 Furnace. See—
 Annealing-furnace. Locomotive-boiler furnace.
 Boiler-furnace. Refuse-destructor furnace.
 Electric furnace. Steam-boiler furnace.
 Intravenous furnace. Underfeed furnace.
 Furnace. O. H. Hertel. No. 1,306,180; June 10; v. 263; p. 209.
 Furnace. W. J. Kennedy. No. 1,307,906; June 24; v. 263; p. 593.
 Furnace. H. A. Maynard and P. Stanfield. No. 1,306,017; June 10; v. 263; p. 178.
 Furnace. F. H. Oehlke. No. 1,307,971; June 24; v. 263; p. 496.
 Furnace construction. C. J. Baumann. No. 1,307,338; June 24; v. 263; p. 490.
 Furnace for annealing condenser-tubes. C. T. Magill. No. 1,307,744; June 24; v. 263; p. 563.
 Furnace for effecting reactions between one or more solid and one or more gaseous substances. O. F. S. and O. I. Carlson and K. G. Boman. No. 1,305,441; June 3; v. 263; p. 46.
 Furnace-lining from dead-burned magnesite, Manufacture of bricks and. A. G. McNally. No. 1,306,475; June 3; v. 263; p. 44.
 Furnaces, Air-feeding device for. J. E. S. Fulton. No. 1,305,990; June 10; v. 263; p. 175.
 Furnaces, Reverting apparatus for regenerative reversing. H. R. Gehr. No. 1,307,994; June 17; v. 263; p. 595.
 Furniture. F. W. McArdle. No. 1,306,398; June 10; v. 263; p. 222.
 Furniture. W. E. Winter. No. 1,305,255; June 3; v. 263; p. 118.
 Furniture, Camp. J. H. Wittmann. No. 1,306,042; June 10; v. 263; p. 182.
 Furniture-foot. W. F. Werner. No. 1,306,427; June 3; v. 263; p. 87.
 Furniture-joint. A. White. No. 1,306,453; June 10; v. 263; p. 261.
 Furniture, Making materials for covering. H. B. Morris. No. 1,306,310; June 10; v. 263; p. 225.
 Furniture, Printer's. F. W. Morgan. No. 1,307,140; June 17; v. 263; p. 420.
 Fuse, Detonating. J. Harri. No. 1,306,995; June 17; v. 263; p. 279.
 Fuse, Renewable knife-blade. J. M. Coote. No. 1,306,090; June 24; v. 263; p. 611.
 Fuse setter, Automatic time. R. Redpath and H. Hellberg. No. 1,307,689; June 24; v. 263; p. 544.
 Fusing. E. G. Fowler. No. 1,307,002; June 17; v. 263; p. 395.
 Gage. See—
 Fuel-gage. Screw-thread gage.
 Limit-gage. Water-gage.
 Micrometer drilling-gage. Water-level boiler-gage.
 Pressure-gage.
 Gage. J. C. Fairweather. No. 1,305,968; June 10; v. 263; p. 175.
 Gage. G. F. Gregory. No. 1,307,546; June 24; v. 263; p. 539.
 Galvanic battery. J. E. Preston. No. 1,307,102; June 17; v. 263; p. 414.
 Game. A. H. H. Des Barres. No. 1,306,044; June 10; v. 263; p. 183.
 Game apparatus. K. S. Chung. No. 1,305,341; June 3; v. 263; p. 31.
 Game apparatus. D. M. Miller. No. 1,307,871; June 24; v. 263; p. 586.
 Game-board. J. F. Curry. No. 1,307,437; June 24; v. 263; p. 504.
 Garbage and the like, Extracting values from. R. Wells. No. 1,307,991; June 24; v. 263; p. 609.
 Garbage and the like, Extracting values from. R. Wells. No. 1,307,992; June 24; v. 263; p. 609.
 Garment. H. R. Ketch. No. 1,307,533; June 24; v. 263; p. 629.
 Garment. M. Lindeberg. No. 1,305,911; June 3; v. 263; p. 128.
 Garment attachment. J. P. Reising. No. 1,306,027; June 10; v. 263; p. 180.
 Garment, Game-retaining. B. F. Cox. No. 1,307,244; June 17; v. 263; p. 489.
 Garment-receptacle. W. P. Newlon. No. 1,307,221; June 17; v. 263; p. 432.
 Garment-supporter. R. T. Clarke. No. 1,306,901; June 17; v. 263; p. 588.
 Garment-supporter. A. T. Van Alstyne. No. 1,305,418; June 3; v. 263; p. 35.
 Garment-supporter. A. T. Van Alstyne. No. 1,305,419; June 3; v. 263; p. 36.
 Garment, Woman's working. M. E. Rhoads. No. 1,305,907; June 3; v. 263; p. 15.
 Gas, Apparatus for conditioning. J. E. Bolling. No. 1,305,518; June 3; v. 263; p. 54.
 Gas-burner. G. L. Blanchard. No. 1,305,436; June 3; v. 263; p. 39.
 Gas-burner. I. J. Foltz. No. 1,307,294; June 17; v. 263; p. 448.
 Gas-burner. L. A. Riley, 2d. No. 1,306,501; June 10; v. 263; p. 270.
 Gas-burner. A. Steinbart. No. 1,306,446; June 10; v. 263; p. 260.
 Gas-burner, Adjustable. R. V. Westlin. No. 1,307,226; June 17; v. 263; p. 435.
 Gas-engine, Rotary. J. W. Green. No. 1,305,906; June 3; v. 263; p. 140.
 Gas-heaters, Gas-supply regulator for. W. P. Powers. No. 1,305,742; June 3; v. 263; p. 97.
 Gas-meter. E. S. Dickey. No. 1,305,646; June 3; v. 263; p. 78.
 Gas-meter. E. S. Dickey. No. 1,306,217; June 10; v. 263; p. 216.
 Gas-meter. E. S. Dickey. No. 1,306,218; June 10; v. 263; p. 216.
 Gas-meter. E. S. Dickey. No. 1,306,219; June 10; v. 263; p. 216.
 Gas meter, Wet. H. Chrisman. No. 1,305,893; June 3; v. 263; p. 123.
 Gas meter, Wet. A. G. Holmes. No. 1,305,800; June 3; v. 263; p. 108.
 Gas-producer. C. W. Lummls. No. 1,305,913; June 3; v. 263; p. 129.
 Gas-regulator. W. P. Powers. No. 1,305,743; June 3; v. 263; p. 97.
 Gas, Scrubber, cleanser, and cooler for. D. J. Smith. No. 1,307,321; June 17; v. 263; p. 453.
 Gasket-retaining means. L. D. Woodruff. No. 1,306,043; June 10; v. 263; p. 183.
 Gaskets, Method and machine for manufacture of asbestos. H. Hall. No. 1,307,788; June 24; v. 263; p. 571.
 Gasoline and other hydrocarbons, Recovery of. W. E. Walker. No. 1,307,230; June 17; v. 263; p. 445.
 Gate. See—
 Crossing-gate. Film-gate.
 Electric railway-gate. Sluice-gate.
 End-gate.
 Gate. G. Beedle. No. 1,307,906; June 24; v. 263; p. 610.
 Gate. G. F. Hodgson. No. 1,307,126; June 17; v. 263; p. 418.
 Gate-closer. W. H. McCarty. No. 1,305,650; June 3; v. 263; p. 83.
 Gate-operating mechanism. I. D. Bates. No. 1,307,894; June 24; v. 263; p. 574.
 Gase-dispensing device. G. S. Elder. No. 1,307,542; June 24; v. 263; p. 527.
 Gear and transmission, Driving. J. I. Umsted. No. 1,306,205; June 10; v. 263; p. 214.

Gear, Ball-bearing worm. H. J. Staffensen. No. 1,307,422; June 24; v. 263; p. 512.
 Gear, Best steering and reversing. J. G. A. Kitchen. No. 1,306,913; June 17; v. 263; p. 370.
 Gear, Best steering and reversing. J. G. A. Kitchen. No. 1,306,914; June 17; v. 263; p. 370.
 Gear, Friction. W. H. Miner. No. 1,307,303; June 17; v. 263; p. 450.
 Gear, Friction. J. F. O'Connor. No. 1,307,300; June 17; v. 263; p. 451.
 Gear-shift-locking mechanism. T. A. Goodie. No. 1,307,354; June 24; v. 263; p. 492.
 Gears, Forming worm. W. E. Beck. No. 1,305,437; June 3; v. 263; p. 89.
 Gears, Machine for cutting crown. E. R. Fellows. No. 1,304,331; June 10; v. 263; p. 239.
 Gearing. E. B. Gustafson. No. 1,305,719; June 3; v. 263; p. 92.
 Gearing. C. L. Kenney. No. 1,307,202; June 17; v. 263; p. 431.
 Gearing, Change-speed. T. and G. von Zweigbergk. No. 1,307,230; June 17; v. 263; p. 450.
 Gearing, Organized thrust-bearing and reduction. W. W. Smith. No. 1,306,157; June 10; v. 263; p. 204.
 Gearing, Power-transmission toothed. B. E. Wingfield. No. 1,300,653; June 10; v. 263; p. 209.
 Gearless transmission and differential mechanism. T. Z. Millard, B. H. Osterhout, and C. R. Cheney. No. 1,307,917; June 24; v. 263; p. 506.
 Geometrical instrument. F. Benson. No. 1,300,165; June 10; v. 263; p. 204.
 Generator. See—
 Acetylene-generator.
 Gin-compass. S. H. Dunlap. No. 1,305,733; June 3; v. 263; p. 105.
 Ginger-root, Extracting pungent principle from. H. Nomura. No. 1,306,710; June 17; v. 263; p. 342.
 Glass. H. P. Gage and W. C. Taylor. No. 1,305,793; June 3; v. 263; p. 104.
 Glass. H. P. Gage and W. C. Taylor. No. 1,305,794; June 3; v. 263; p. 104.
 Glass, Apparatus for the manufacture of plate. H. K. Hitchcock. No. 1,307,557; June 24; v. 263; p. 493.
 Glass cylinders, Splitting-back for. J. Murphy. No. 1,307,309; June 17; v. 263; p. 432.
 Glass delivering and melting apparatus. E. Rehrant. No. 1,307,150; June 17; v. 263; p. 422.
 Glass-matting process. T. Ueda. No. 1,306,505; June 10; v. 263; p. 271.
 Glass-stowing tool. J. A. Bechtel. No. 1,304,993; June 17; v. 263; p. 393.
 Glass-working. F. L. O. Wadsworth. No. 1,307,537; June 24; v. 263; p. 524.
 Glove-cleaning machine. E. Jaques. No. 1,305,902; June 3; v. 263; p. 127.
 Glycerin, Apparatus for distilling. R. Boutet. No. 1,306,944; June 17; v. 263; p. 385.
 Goggles. K. Malcom. No. 1,306,549; June 10; v. 263; p. 279.
 Goggles, Frame-edging for. H. F. Shindel. No. 1,306,357; June 10; v. 263; p. 244.
 Golf-bag pocket. J. H. Smith. No. 1,306,083; June 10; v. 263; p. 191.
 Golf-club. W. Robertson. No. 1,306,029; June 10; v. 263; p. 181.
 Golf-club. A. B. Suckman. No. 1,305,953; June 3; v. 263; p. 137.
 Governing apparatus. P. B. Tice. No. 1,305,820; June 3; v. 263; p. 17.
 Governor, Engine. N. M. Lower. No. 1,305,367; June 3; v. 263; p. 83.
 Governor, Speed-control. B. F. Merritt. No. 1,306,072; June 10; v. 263; p. 188.
 Governor, Spring-motor. G. T. Cherington. No. 1,306,882; June 3; v. 263; p. 123.
 Grade-finder. E. Karadaghli. No. 1,307,130; June 17; v. 263; p. 418.
 Grain binders and harvesters, Driving mechanism for. B. C. Dill. No. 1,306,906; June 17; v. 263; p. 359.
 Grain-binders, Elevator attachment for. H. J. Case. No. 1,306,579; June 3; v. 263; p. 123.
 Grain-binders, Hand-trip for. Y. B. Ellingsworth. No. 1,307,240; June 17; v. 263; p. 439.
 Grain-drill. T. Larson. No. 1,306,923; June 17; v. 263; p. 362.
 Grain-drill hopper. M. J. Fritz. No. 1,306,273; June 3; v. 263; p. 9.
 Grain-drills, Disk-bearing for. C. W. Robinson. No. 1,306,770; June 17; v. 263; p. 354.
 Grain-separator. T. O. Vaughn. No. 1,306,870; June 17; v. 263; p. 371.
 Grain-separator. J. K. White. No. 1,306,239; June 10; v. 263; p. 222.
 Grain-shocker. G. A. Durant. No. 1,307,191; June 17; v. 263; p. 429.
 Grain-shocker. C. O. Lindgren. No. 1,306,703; June 17; v. 263; p. 341.
 Grain-sieve. N. G. Ek. No. 1,306,267; June 3; v. 263; p. 7.
 Grain, Treating. J. I. Logan. No. 1,307,367; June 24; v. 263; p. 464.
 Grapple. H. C. Waknitz. No. 1,306,206; June 10; v. 263; p. 214.

Grate attachment. R. W. Anthony. No. 1,306,940; June 17; v. 263; p. 384.
 Grate-bar, Segmental. C. F. Wald. No. 1,306,729; June 17; v. 263; p. 345.
 Grate, Blowing. C. W. Hall. No. 1,307,777; June 24; v. 263; p. 509.
 Grass-trimming implement. W. P. Anthony. No. 1,307,471; June 24; v. 263; p. 514.
 Grease-cap. W. D. C. Dodge. No. 1,306,527; June 3; v. 263; p. 84.
 Grease-dispensing apparatus. J. H. Montgomery. No. 1,306,607; June 10; v. 263; p. 290.
 Grenade, Hand. E. J. W. Magdale. No. 1,306,718; June 17; v. 263; p. 343.
 Grenade, Apparatus for igniting. F. L. Lobland. No. 1,307,464; June 24; v. 263; p. 513.
 Grid-making machine. H. S. Coyer. No. 1,306,690; June 3; v. 263; p. 87.
 Grinder and shredder. H. J. Shalton. No. 1,307,761; June 24; v. 263; p. 506.
 Grinder, Automatic rough-hall. J. J. McIntyre and C. Koehler. No. 1,306,767; June 17; v. 263; p. 352.
 Grinder, Self-adjusting. A. J. Wernette. No. 1,306,769; June 3; v. 263; p. 106.
 Grinders, Ac. Force-feed attachment for alfalfa. F. W. Johnson. No. 1,306,607; June 3; v. 263; p. 72.
 Grinding and cutting machine. L. A. Francon. No. 1,304,423; June 10; v. 263; p. 254.
 Grinding instrumentality and producing same. R. Forryth. No. 1,306,007; June 24; v. 263; p. 612.
 Grinding-machine. F. L. Harr. No. 1,306,400; June 10; v. 263; p. 232.
 Grinding-machine. R. Forryth. No. 1,306,006; June 24; v. 263; p. 612.
 Grinding-machine for sickle-bars. E. W. Wells. No. 1,306,363; June 17; v. 263; p. 391.
 Grinding machine, Track. F. J. Vennig. No. 1,306,564; June 3; v. 263; p. 126.
 Grinding-mill. C. Morgan. No. 1,306,610; June 10; v. 263; p. 290.
 Grinding-plate for feed-mill. G. J. Covert and B. A. Shaw. No. 1,304,408; June 10; v. 263; p. 268.
 Grippow. C. F. Bennion. No. 1,306,436; June 3; v. 263; p. 86.
 Guard. L. E. Boyer. No. 1,307,723; June 24; v. 263; p. 509.
 Guard for pigs. W. D. James. No. 1,307,903; June 24; v. 263; p. 505.
 Guard-rail clamp. E. C. Zimmerman. No. 1,306,963; June 17; v. 263; p. 392.
 Gummed-binding scales, Hand-operated. A. Berbowitz. No. 1,307,591; June 24; v. 263; p. 509.
 Gun, Automatic. C. A. Newman. No. 1,307,304; June 24; v. 263; p. 432.
 Gun, Gas-operated. W. R. Clark. No. 1,306,019; June 24; v. 263; p. 614.
 Gun, Machine. J. F. O'Malley. No. 1,307,318; June 17; v. 263; p. 403.
 Gun-magazine filler, Machine. C. A. Nelson. No. 1,306,019; June 10; v. 263; p. 179.
 Gun, Mail-carrier-discharging. A. Latsch. No. 1,307,733; June 24; v. 263; p. 670.
 Gun-mounting. G. Simson. No. 1,306,330; June 3; v. 263; p. 118.
 Gun mountings, Means for preventing gas interference with projectiles in multiple. D. F. Ambury. No. 1,306,580; June 10; v. 263; p. 344.
 Gun-sight. O. H. Conner, Jr. No. 1,306,178; June 10; v. 263; p. 304.
 Gun-sight. H. R. Frensdorff. No. 1,307,441; June 24; v. 263; p. 503.
 Gun-sighting apparatus. A. T. Dawson and G. T. Buchanan. No. 1,306,400; June 10; v. 263; p. 294.
 Gun-stock attachment. J. Wernad. No. 1,307,539; June 24; v. 263; p. 524.
 Guns, Hand-grip for. C. D. Wilson. No. 1,307,409; June 24; v. 263; p. 514.
 Guns, Loading magazine-drums of Lewis and like. J. E. Dunwoody. No. 1,306,416; June 10; v. 263; p. 265.
 Guns, Safety device for hammerless. E. C. Evans. No. 1,306,346; June 3; v. 263; p. 22.
 Guns, Shock-absorbing device for. C. Pearson. No. 1,306,617; June 3; v. 263; p. 75.
 Guns, Sight-controlling linkage for anti-aircraft. E. V. Morse. No. 1,306,611; June 10; v. 263; p. 296.
 Gyrometer. N. Minorsky. No. 1,306,553; June 10; v. 263; p. 270.
 Hair-corn, Ornamental. E. B. Robinson. No. 1,306,300; June 3; v. 263; p. 75.
 Hair-drier. G. Qualman. No. 1,306,123; June 10; v. 263; p. 196.
 Hair-fastener. J. Gang. No. 1,306,580; June 10; v. 263; p. 286.
 Hair-retaining device. G. I. Landry and G. E. Kelley. No. 1,306,088; June 10; v. 263; p. 189.
 Hammer, File-driver. F. H. Mackie. No. 1,307,390; June 24; v. 263; p. 535.
 Hand attachment, Artificial. A. R. Linton. No. 1,307,806; June 24; v. 263; p. 559.
 Handle. See—
 Carrying-bag handle. Deer-handle.
 Hanger. See—
 Adjustable hanger. Shade-hanger.
 Broom-hanger. Shaft-hanger.

Harp, Zolman. C. Kitching. No. 1,306,372; June 3; v. 263; p. 27.
 Harp, Trolley. J. Baill and F. Girard. No. 1,306,206; June 10; v. 263; p. 233.
 Harrow and locust-killing machine. J. J. Gurdi. No. 1,306,699; June 10; v. 263; p. 196.
 Harvester, Bean. H. C. Tolbert. No. 1,306,304; June 10; v. 263; p. 213.
 Harvester, Beet. S. B. Robinson. No. 1,307,272; June 10; v. 263; p. 444.
 Harvester, Corn. J. A. St. John. No. 1,306,317; June 10; v. 263; p. 236.
 Harvester-root-tensioning clamp. J. Reinger. No. 1,307,579; June 24; v. 263; p. 538.
 Harvesting machine, Beet. C. W. Rogers. No. 1,307,640; June 24; v. 263; p. 544.
 Hay-lock, Automatic. J. R. Francis. No. 1,307,906; June 24; v. 263; p. 604.
 Hat and clothes hook. D. Okamoto. No. 1,306,500; June 3; v. 263; p. 83.
 Hat appliance. J. F. Allison. No. 1,306,989; June 17; v. 263; p. 398.
 Hat-protector. L. W. Hackney. No. 1,305,857; June 3; v. 263; p. 24.
 Hat-retaining device. W. R. Dale. No. 1,305,904; June 3; v. 263; p. 88.
 Hatband. A. M. Adams and M. W. Landau. No. 1,307,172; June 17; v. 263; p. 439.
 Hat-pin head. W. H. Mohr. No. 1,306,970; June 17; v. 263; p. 389.
 Hay, Apparatus for curing, transporting, and stacking. R. J. Richardson. No. 1,307,764; June 24; v. 263; p. 505.
 Hay-loader. G. S. Bergerud. No. 1,306,463; June 10; v. 263; p. 264.
 Hay-press. S. T. Edmonson. No. 1,306,784; June 3; v. 263; p. 108.
 Hay-rack bed-plate. A. B. Anderson and J. L. Peterson. No. 1,307,541; June 24; v. 263; p. 581.
 Hay stacking and curing device. W. H. Mayberry. No. 1,306,623; June 3; v. 263; p. 112.
 Head, Capping. A. E. Bethel. No. 1,305,765; June 3; v. 263; p. 101.
 Head or tail light for automobiles. L. N. Heartail. No. 1,306,283; June 3; v. 263; p. 10.
 Headlight, Automobile. C. A. Sandstedt. No. 1,307,758; June 24; v. 263; p. 503.
 Headlight, Dirigible. J. H. de Hart. No. 1,307,970; June 24; v. 263; p. 605.
 Headlight, Dirigible automobile. E. Eggmann. No. 1,307,745; June 3; v. 263; p. 106.
 Headlight-lens. W. H. Sherrod. No. 1,306,790; June 17; v. 263; p. 364.
 Headlight-screen, Controllable. W. A. Schroeder. No. 1,306,498; June 3; v. 263; p. 51.
 Heat-conservator. J. C. Bond. No. 1,306,361; June 10; v. 263; p. 280.
 Heat from underground conduits, Dissipating. G. F. Wernert. No. 1,307,079; June 17; v. 263; p. 408.
 Heat-insulated receptacle. E. W. Johnson. No. 1,306,908; June 3; v. 263; p. 127.
 Heat-insulating composition and articles made therefrom. F. A. Hendon. No. 1,307,548; June 24; v. 263; p. 528.
 Heat-insulating composition and articles made therefrom. F. A. Hendon. No. 1,307,549; June 24; v. 263; p. 528.
 Heater. See—
 Automobile-heater. Motor-vehicle heater.
 Electric heater. Tank-car heater.
 Magnetic heater. Water-heater.
 Manifold heater.
 Heater. M. Latsky. No. 1,306,292; June 3; v. 263; p. 12.
 Heating appliance. T. A. Ronstrom. No. 1,307,332; June 17; v. 263; p. 455.
 Heating means and system. A. Terry. No. 1,306,755; June 3; v. 263; p. 80.
 Heating system, Hot-air. W. G. Felton. No. 1,306,420; June 10; v. 263; p. 255.
 Heating system, Oven. E. Piron. No. 1,306,023; June 10; v. 263; p. 179.
 Heel, Cushion. E. D. Stallford. No. 1,307,990; June 24; v. 263; p. 609.
 Heel, Detachable. C. Orien. No. 1,306,389; June 10; v. 263; p. 269.
 Heel, Detachable. L. Smith, S. D. McOsker, and J. E. Simpson. No. 1,307,433; June 24; v. 263; p. 505.
 Heel-seat-sitting machine. E. J. Wentworth and F. H. Perry. No. 1,307,235; June 17; v. 263; p. 440.
 Heel-seat-forming machine. E. J. Wentworth. No. 1,307,284; June 17; v. 263; p. 446.
 Helmet. R. Malcom. No. 1,306,580; June 10; v. 263; p. 279.
 Hen's nest-box. H. Nagelsaber. No. 1,305,736; June 3; v. 263; p. 86.
 Hides, Machine for cutting. C. F. Klein. No. 1,306,361; June 10; v. 263; p. 277.
 High-tension discharge, Obtaining of unidirectional. O. J. and L. Lodge. No. 1,307,742; June 24; v. 263; p. 543.
 Hinge, Screen. J. B. Bradley. No. 1,306,684; June 17; v. 263; p. 337.
 Hinged members, Support for. J. F. Larson. No. 1,306,683; June 17; v. 263; p. 360.

Hitching device. G. Chromy. No. 1,305,884; June 3; v. 263; p. 124.
 Hog-housing device. F. A. Webster. No. 1,306,965; June 10; v. 263; p. 249.
 Hog-ringer. A. T. Parker. No. 1,306,714; June 17; v. 263; p. 342.
 Holst. C. S. Bowman. No. 1,307,964; June 24; v. 263; p. 602.
 Holder. O. M. Drooge and G. A. Robinson. No. 1,306,885; June 10; v. 263; p. 288.
 Holder for stick material. F. Grant. No. 1,306,179; June 10; v. 263; p. 209.
 Hook. See—
 Fish-hook. Safety-hook.
 Hat and clothes hook. Timber-hook.
 Hook. D. Flood and A. Pearson. No. 1,305,802; June 3; v. 263; p. 125.
 Hoop. See—
 Cheese-hoop. Toy hoop.
 Horsehoe attachment. S. Noro. No. 1,307,636; June 24; v. 263; p. 542.
 Hose-band. C. G. Neiglick. No. 1,305,787; June 3; v. 263; p. 98.
 Hose-clamp. E. Karadaghli. No. 1,307,129; June 17; v. 263; p. 418.
 Hose-coupling. T. P. Sallee. No. 1,307,273; June 17; v. 263; p. 444.
 Hose-stand. R. E. Rice. No. 1,306,676; June 10; v. 263; p. 303.
 Hose-supporter. F. H. Childs. No. 1,306,900; June 17; v. 263; p. 358.
 House. See—
 Engine-house.
 House-wiring apparatus. G. H. Inman. No. 1,305,968; June 3; v. 263; p. 140.
 Hub construction. F. Spranger. No. 1,306,503; June 10; v. 263; p. 271.
 Hubs and axles, Connecting means for. L. H. Buckner. No. 1,306,519; June 10; v. 263; p. 274.
 Hulling-machine. D. Krause. No. 1,305,811; June 3; v. 263; p. 110.
 Humidification, Effecting. L. H. Parber. No. 1,307,675; June 24; v. 263; p. 557.
 Humidifier. R. D. Smith. No. 1,305,943; June 3; v. 263; p. 125.
 Humidifier. W. G. Smith and J. P. Link. No. 1,305,945; June 3; v. 263; p. 126.
 Humidifier apparatus. R. D. Smith. No. 1,305,944; June 3; v. 263; p. 126.
 Humidifier, Pocket. M. G. Hilpert. No. 1,305,467; June 3; v. 263; p. 48.
 Hydrant, Fire. E. Charland. No. 1,306,578; June 10; v. 263; p. 284.
 Hydraulic press. F. S. Kochendorfer. No. 1,307,586; June 24; v. 263; p. 534.
 Hydraulic systems, Attachment for. F. J. Davis. No. 1,306,583; June 10; v. 263; p. 285.
 Hydrocarbons. H. C. Petersen. No. 1,307,318; June 17; v. 263; p. 402.
 Hydrocarbons, Twin-seat. G. H. Curtis. No. 1,306,749; June 17; v. 263; p. 349.
 Hydrocarbons, Apparatus for cracking. J. W. Coast, Jr. No. 1,307,734; June 24; v. 263; p. 559.
 Hydrocarbons, Igniting. L. L. Scott. No. 1,307,214; June 17; v. 263; p. 433.
 Hydrocarbons, Making halogen derivatives of. H. H. Dew. No. 1,306,472; June 10; v. 263; p. 266.
 Hydrom. Apparatus for making. F. D. Moses. No. 1,306,531; June 17; v. 263; p. 263.
 Hydroplane, also applicable to hydroaeroplanes. C. J. Lake. No. 1,307,135; June 17; v. 263; p. 419.
 Ice-cream-cone package. L. H. Lanier. No. 1,306,906; June 3; v. 263; p. 128.
 Ice-cutting machine. E. B. Coburn. No. 1,306,047; June 10; v. 263; p. 184.
 Ice-cutting machine. H. L. F. Trebert. No. 1,307,524; June 24; v. 263; p. 524.
 Ice-cutting tool. H. L. F. Trebert. No. 1,307,525; June 24; v. 263; p. 524.
 Ice-shaving machine. A. Mosca. No. 1,305,484; June 3; v. 263; p. 46.
 Igniter. P. Brown. No. 1,307,342; June 24; v. 263; p. 490.
 Igniter. P. Brown. No. 1,307,343; June 24; v. 263; p. 490.
 Ignition apparatus. W. E. Moses. No. 1,306,116; June 10; v. 263; p. 197.
 Ignition-coil. E. P. Lee. No. 1,307,867; June 24; v. 263; p. 586.
 Ignition systems, Circuit-breaker for. G. B. Maegly. No. 1,306,071; June 10; v. 263; p. 188.
 Image and producing same, Colored. J. I. Crabtree. No. 1,306,962; June 3; v. 263; p. 159.
 Incandescent lights, Interior reflector for. R. D. Sedano. No. 1,305,537; June 3; v. 263; p. 115.
 Inclinator. C. A. Gibbs. No. 1,305,710; June 3; v. 263; p. 91.
 Incombustible and waterproof product for use in constructions. A. F. Campa y Menendez. No. 1,305,993; June 10; v. 263; p. 174.
 Index. J. H. Rand. No. 1,306,026; June 10; v. 263; p. 180.

Indicating and registering instruments, Spring suspension device for. E. Letord. No. 1,307,435; June 24; v. 263; p. 552.
 Indicating verticality or orientation, Instrument for. J. T. Clarke. No. 1,306,882; June 17; v. 263; p. 373.
 Indicator: See—
 Automobile direction-indicator. Engine-indicator.
 Angularity-indicator. Radiator-indicator.
 Current-indicator. Spark-indicator.
 Direction-indicator. Tire-deflating indicator.
 Indicator. W. A. Dorais and J. B. Feiss. No. 1,306,265; June 3; v. 263; p. 5.
 Induction-motor. R. Elshoff. No. 1,306,532; June 10; v. 263; p. 276.
 Ink-recorder, Electrically-operated. L. Williams. No. 1,306,985; June 17; v. 263; p. 192.
 Ink-well and cover therefor. C. E. Birch. No. 1,306,909; June 3; v. 263; p. 121.
 Insulating-pad. W. E. Clarke. No. 1,306,444; June 3; v. 263; p. 40.
 Insect-proof attachment for furniture and other articles. J. Kruse. No. 1,306,553; June 3; v. 263; p. 61.
 Instrument-board. D. F. Johnston. No. 1,306,287; June 3; v. 263; p. 11.
 Instrument. Spacing. F. L. Dobbys. No. 1,307,133; June 17; v. 263; p. 423.
 Instruments. Nut for stringed. W. I. Kirk. No. 1,307,501; June 24; v. 263; p. 520.
 Insulating material. C. J. Burkley. No. 1,306,520; June 10; v. 263; p. 374.
 Insulating-support. E. H. Lanyon. No. 1,306,670; June 10; v. 263; p. 362.
 Integrating and recording instrument. J. W. Gamble and W. B. Glebe. No. 1,306,706; June 3; v. 263; p. 50.
 Integrating mechanism. E. H. Messiter. No. 1,307,340; June 24; v. 263; p. 405.
 Interbearing-block. S. A. Smith. No. 1,306,678; June 10; v. 263; p. 308.
 Internal-combustion engine. C. I. Adams. No. 1,306,930; June 17; v. 263; p. 384.
 Internal-combustion engine. B. B. Arnold. No. 1,306,334; June 3; v. 263; p. 56.
 Internal-combustion engine. L. Costales. No. 1,307,619; June 24; v. 263; p. 540.
 Internal-combustion engine. M. Davis. No. 1,307,180; June 17; v. 263; p. 423.
 Internal-combustion engine. F. W. Dobbels. No. 1,307,487; June 24; v. 263; p. 517.
 Internal-combustion engine. J. M. Evans. No. 1,306,461; June 3; v. 263; p. 42.
 Internal-combustion engine. E. B. Galbreath. No. 1,307,045; June 17; v. 263; p. 403.
 Internal-combustion engine. W. G. Gernandt. No. 1,306,894; June 3; v. 263; p. 125.
 Internal-combustion engine. W. G. Gernandt. No. 1,306,533; June 3; v. 263; p. 57.
 Internal-combustion engine. E. G. Johansen. No. 1,306,680; June 17; v. 263; p. 340.
 Internal-combustion engine. E. H. McCollum. No. 1,306,728; June 3; v. 263; p. 54.
 Internal-combustion engine. P. Mohrleek. No. 1,306,490; June 10; v. 263; p. 270.
 Internal-combustion engine. O. S. Paymant. No. 1,306,618; June 10; v. 263; p. 292.
 Internal-combustion engine. A. M. Roseman. No. 1,306,777; June 17; v. 263; p. 354.
 Internal-combustion engine. J. C. Sommer. No. 1,306,639; June 10; v. 263; p. 254.
 Internal-combustion engine. G. R. Stanley. No. 1,306,198; June 10; v. 263; p. 212.
 Internal-combustion engine. W. J. Still. No. 1,306,979; June 17; v. 263; p. 391.
 Internal-combustion engine. R. F. Taylor. No. 1,306,416; June 3; v. 263; p. 38.
 Internal-combustion engine. M. A. Tipton. No. 1,306,038; June 10; v. 263; p. 163.
 Internal-combustion engine. M. O. Trudeau. No. 1,307,221; June 17; v. 263; p. 424.
 Internal-combustion engine. J. P. Ward. No. 1,307,282; June 17; v. 263; p. 446.
 Internal-combustion engine. M. R. Wolfard. No. 1,306,877; June 3; v. 263; p. 64.
 Internal-combustion engine. M. R. Wolfard. No. 1,306,878; June 3; v. 263; p. 64.
 Internal-combustion engine. M. R. Wolfard. No. 1,306,880; June 3; v. 263; p. 67.
 Internal-combustion engine. M. R. Wolfard. No. 1,306,881; June 3; v. 263; p. 68.
 Internal-combustion engine-cooling system. W. M. Fulton, J. V. Giesler, and H. T. Patton. No. 1,306,000; June 10; v. 263; p. 178.
 Internal-combustion engine. Piston for. P. A. Ritter. No. 1,306,607; June 3; v. 263; p. 64.
 Internal-combustion engine. Throttle mechanism for. C. J. Gustafson. No. 1,306,006; June 10; v. 263; p. 177.
 Intergenerative furnace. J. M. Schutz. No. 1,306,224; June 10; v. 263; p. 221.
 Iron: See—
 Whittemore-iron.
 Iron or steel. Alloying zinc with. B. F. Dimm. No. 1,307,853; June 24; v. 263; p. 583.
 Iron sponge into solid iron. Transforming. A. Binding-Larsen. No. 1,306,929; June 17; v. 263; p. 382.

Ironing-board. S. R. Haines. No. 1,306,503; June 17; v. 263; p. 375.
 Irregularly-shaped stampings. Apparatus for making. C. R. Weaver. No. 1,307,170; June 17; v. 263; p. 425.
 Jack: See—
 Automobile-jack. Motor-vehicle jack.
 Bolting-up jack. Pipe-jack.
 Lifting-jack.
 Jacketed can. E. K. Ford. No. 1,306,898; June 17; v. 263; p. 380.
 Jar: See—
 Museum-jar.
 Jar and other receptacle. C. W. Kettler. No. 1,307,503; June 24; v. 263; p. 494.
 Jewel. H. Gilroy. No. 1,306,011; June 24; v. 263; p. 513.
 Jeweler's tool chuck and handle. A. F. Robbins. No. 1,306,354; June 10; v. 263; p. 244.
 Jewels. Instrument for handling. F. Cheney. No. 1,306,881; June 3; v. 263; p. 123.
 Joint: See—
 Expansion-joint. Tank-hunter joint.
 Furniture-joint. Universal joint.
 Ball-joint. Universal driving-joint.
 Joint. M. D. Gross. No. 1,307,123; June 17; v. 263; p. 417.
 Joint or coupling for rods or the like. A. F. Ford and H. J. Mitchell. No. 1,306,886; June 17; v. 263; p. 387.
 Joints, Lubricating means for universal. C. T. Myers. No. 1,306,220; June 10; v. 263; p. 510.
 Journal-box, Regulating. A. Bessley. No. 1,306,400; June 10; v. 263; p. 362.
 Kettle-lid. E. F. Mellinger. No. 1,306,825; June 3; v. 263; p. 112.
 Key-duplicating machine. S. Segal. No. 1,307,378; June 24; v. 263; p. 497.
 Key-fastener. N. R. Holcomb. No. 1,307,400; June 24; v. 263; p. 519.
 Keyboard composing-machine. J. B. Bancroft and M. C. Leckie. No. 1,307,710; June 24; v. 263; p. 554.
 Keyboards, Interlocking release mechanism for. W. W. Lasker. No. 1,306,840; June 3; v. 263; p. 62.
 Kila. J. D. Hoff. No. 1,307,974; June 24; v. 263; p. 608.
 Kila. C. H. Zwernmann. No. 1,306,161; June 10; v. 263; p. 205.
 Kitchen and table article. A. J. Cunningham. No. 1,306,777; June 3; v. 263; p. 168.
 Kitchen stool. T. Smolinsky. No. 1,306,783; June 17; v. 263; p. 385.
 Knickerbockers. H. Walker. No. 1,306,935; June 17; v. 263; p. 383.
 Knife: See—
 Skiving-knife. Sliding-knife.
 Knitted fabric body. G. Davidson and H. C. Doctor. No. 1,306,446; June 3; v. 263; p. 41.
 Knitting fabric sections and making fabrics having transferred sections. Machine for. W. H. Childrey. No. 1,306,523; June 10; v. 263; p. 274.
 Knitting-machine. J. Waterfield. No. 1,306,321; June 10; v. 263; p. 237.
 Knitting machine. French-welt. W. Larkin. No. 1,307,907; June 24; v. 263; p. 593.
 Knitting-machines. Beard-opener for spring-beard-needle. F. Wilcomb. No. 1,306,575; June 3; v. 263; p. 68.
 Knitting machines. Take-up for circular. H. E. Houseman. No. 1,307,260; June 24; v. 263; p. 493.
 Lamp. T. I. Duffy. No. 1,306,238; June 3; v. 263; p. 8.
 Lamp. C. E. Godley. No. 1,306,012; June 24; v. 263; p. 613.
 Lamp-burner. J. Haas. No. 1,306,010; June 10; v. 263; p. 177.
 Lamp-cap. S. Heath. No. 1,306,082; June 10; v. 263; p. 187.
 Lamp. Electric. F. G. Keyes. No. 1,306,280; June 10; v. 263; p. 234.
 Lamp. Electric. F. G. Keyes. No. 1,306,913; June 17; v. 263; p. 379.
 Lamp-focusing means. E. A. Everett. No. 1,307,355; June 24; v. 263; p. 534.
 Lamp-holder. C. J. Peterson. No. 1,306,408; June 3; v. 263; p. 33.
 Lamp, Incandescent electric. C. H. McKay. No. 1,306,206; June 3; v. 263; p. 13.
 Lamp support. Electric. C. U. Widmer. No. 1,306,032; June 3; v. 263; p. 116.
 Lamp. Adjustable fixture for electric. C. A. Hinesill. No. 1,306,390; June 3; v. 263; p. 11.
 Lamp. Apparatus for heating incandescent. A. Swan. No. 1,306,643; June 10; v. 263; p. 297.
 Lamp or sign structure. Protector for. J. L. Dawen. No. 1,306,006; June 3; v. 263; p. 33.
 Land-roller. G. R. Karl. No. 1,306,953; June 3; v. 263; p. 80.
 Lamp. Quartz. F. G. Keyes. No. 1,307,590; June 24; v. 263; p. 519.
 Lamps. Means for lighting and extinguishing gas. F. Swanson. No. 1,307,044; June 24; v. 263; p. 445.
 Landing device. Variable. F. C. Farrow. No. 1,306,894; June 3; v. 263; p. 70.
 Last. E. Engel. No. 1,306,106; June 10; v. 263; p. 195.
 Latch. Crib drop-saddle. A. F. Kuno. No. 1,306,996; June 10; v. 263; p. 203.

Lath. Gate. L. J. H. Newman. No. 1,307,780; June 24; v. 263; p. 571.
 Latex and product thereof. Treating. E. M. Stocum. No. 1,306,535; June 17; v. 263; p. 364.
 Lath attachment. Engine. O. E. Robinson. No. 1,306,720; June 17; v. 263; p. 343.
 Lath, Automatic. H. H. Lawrence. No. 1,306,473; June 3; v. 263; p. 46.
 Lath, Concrete. E. J. Kerna. No. 1,307,400; June 24; v. 263; p. 510.
 Lath, Attachment for. J. J. Schurger. No. 1,307,520; June 24; v. 263; p. 523.
 Laundry, Sorting-rack for rough-dry. F. L. Auerbach. No. 1,306,297; June 10; v. 263; p. 233.
 Lawn-sprinkler. F. L. Morse. No. 1,307,634; June 24; v. 263; p. 543.
 Lead. Electrolytic deposition of. D. F. Harbaugh. No. 1,306,479; June 10; v. 263; p. 267.
 Lead. Extraction of. E. H. Berglund. No. 1,306,942; June 17; v. 263; p. 584.
 Lead-testing apparatus. M. A. Cammer and F. W. Geissenhauer. No. 1,307,347; June 24; v. 263; p. 491.
 Leather, Apparatus for the manufacture of substitute hide. E. Weinheim. No. 1,306,848; June 3; v. 263; p. 116.
 Leather and leather substitute. Preservative for. L. A. Milne. No. 1,307,060; June 17; v. 263; p. 406.
 Leather, Manufacture of substitute hide. E. Weinheim. No. 1,306,840; June 10; v. 263; p. 294.
 Leather substitute. J. D. Prince. No. 1,306,821; June 3; v. 263; p. 70.
 Lens. W. Churchill and E. Pascucci. No. 1,307,579; June 24; v. 263; p. 533.
 Lens, Compressor. A. B. Wells. No. 1,307,528; June 24; v. 263; p. 524.
 Lens-mounting. G. A. Bader. No. 1,307,573; June 24; v. 263; p. 532.
 Lens systems. Apparatus for. O. Hecker. No. 1,306,900; June 3; v. 263; p. 142.
 Lensing. Apparatus for surfacing. J. H. Pearson. (Re-issue.) No. 14,606; June 10; v. 263; p. 305.
 Letter-drafting instrument. W. Hepfinger. No. 1,307,736; June 24; v. 263; p. 542.
 Letter-carrier. F. A. Brey. No. 1,306,945; June 17; v. 263; p. 385.
 Letter-sheet, envelope, and coin-holder. A. W. Wallmuth. No. 1,306,047; June 10; v. 263; p. 207.
 Level. W. Salt. No. 1,305,495; June 3; v. 263; p. 50.
 Lever. G. C. Pharo. No. 1,306,119; June 10; v. 263; p. 197.
 Lever and support for use with wigglers, Bell-crank. E. F. Frazier. No. 1,306,424; June 10; v. 263; p. 256.
 Lever-lock. G. C. Jensen. No. 1,307,497; June 24; v. 263; p. 519.
 Lever locking-clamp. Single. J. Graves. No. 1,306,426; June 10; v. 263; p. 257.
 Lid-supporting member. F. Cirelli. No. 1,306,846; June 17; v. 263; p. 304.
 Lid-preserver. C. M. Primm. No. 1,307,752; June 24; v. 263; p. 565.
 Life-saving device. Automatic. J. Herak. No. 1,306,011; June 10; v. 263; p. 177.
 Lifting-jack. C. W. Fisher. No. 1,306,455; June 3; v. 263; p. 43.
 Lifting-jack. P. J. Harrah. No. 1,307,348; June 24; v. 263; p. 605.
 Lifting-jack. R. B. Jester. No. 1,307,340; June 24; v. 263; p. 493.
 Light: See—
 Electric light. Photographer's flash-light.
 Flash-light.
 Light-dimmer. H. E. May. No. 1,307,746; June 24; v. 263; p. 568.
 Lighting-structure. H. C. Adam. No. 1,307,572; June 24; v. 263; p. 532.
 Lighting-system control. E. J. Edwards. No. 1,306,411; June 10; v. 263; p. 234.
 Lightning-arrestor. J. C. Armer. No. 1,307,905; June 24; v. 263; p. 610.
 Limb. Artificial. G. de Catalan Catalani. No. 1,305,768; June 3; v. 263; p. 102.
 Limb, Artificial. C. Hofer. No. 1,305,721; June 3; v. 263; p. 93.
 Limb socket, Artificial. T. Van Kannel. No. 1,305,573; June 3; v. 263; p. 63.
 Limit-gate. F. O. Wells. No. 1,307,426; June 24; v. 263; p. 504.
 Limb-lock. O. A. Holmstrom. No. 1,307,081; June 17; v. 263; p. 468.
 Line-switch. J. N. Reynolds. No. 1,306,124; June 10; v. 263; p. 158.
 Liquid-container plug. J. H. Ross. No. 1,307,755; June 24; v. 263; p. 563.
 Liquid-feed system. M. A. Feiler. No. 1,306,008; June 3; v. 263; p. 612.
 Liquid-fuel burner. A. L. Hestell. No. 1,306,405; June 3; v. 263; p. 64.
 Liquid-fuel igniter and burner. J. Squires and C. P. King. No. 1,307,707; June 24; v. 263; p. 573.
 Liquid storage and delivery apparatus. J. M. Miller. No. 1,307,837; June 24; v. 263; p. 576.
 Liquid storage and delivery apparatus. J. M. Miller. No. 1,307,838; June 24; v. 263; p. 578.
 Liquid storage and delivery apparatus. J. M. Miller. No. 1,307,839; June 24; v. 263; p. 579.

263 O. G.—v

Liquid. Treatment of sewage or contaminated. L. Linden. No. 1,307,886; June 24; v. 263; p. 582.
 Liquids from vessels or containers. Discharge of. W. R. Tate and A. V. Park. No. 1,305,754; June 3; v. 263; p. 50.
 Liquids or the like. Draw-off device for explosive. L. Kessler. No. 1,306,150; June 10; v. 263; p. 203.
 Liquids. Temperature-changing apparatus for. W. J. Davis. No. 1,307,728; June 24; v. 263; p. 580.
 Liquors. Treating saline. J. H. Moore. No. 1,306,800; June 3; v. 263; p. 64.
 Loading and unloading apparatus. F. R. Walker. No. 1,306,158; June 10; v. 263; p. 204.
 Loading-machine. N. L. Barger and J. P. Donaldson. No. 1,307,335; June 24; v. 263; p. 499.
 Loading-machine. J. F. Joy. No. 1,306,044; June 10; v. 263; p. 187.
 Loading machines. Gathering mechanism for coal. J. F. Joy. No. 1,307,000; June 17; v. 263; p. 394.
 Localizing foreign substances which have become embedded in the human body. Means for. J. Bergson. No. 1,307,654; June 24; v. 263; p. 546.
 Lock: See—
 Automobile-lock. Line-lock.
 Barn-door lock. Nut-lock.
 Bolt and nut lock. Permutation-lock.
 Combination-lock. Rail-joint lock.
 Hoop-lock. Spindle-lock.
 Lever-lock. Switch-stand lock.
 Lock. L. V. Eldred. No. 1,307,395; June 24; v. 263; p. 500.
 Lock. J. D. Hessler. No. 1,307,971; June 24; v. 263; p. 605.
 Lock. A. J. Johnson. No. 1,306,819; June 17; v. 263; p. 361.
 Lock. C. Kemp. No. 1,305,409; June 3; v. 263; p. 45.
 Lock for stop-boxes. F. R. Crall. No. 1,307,346; June 24; v. 263; p. 491.
 Lock mechanism. H. Seder. No. 1,306,108; June 10; v. 263; p. 211.
 Locks. Gate for filling tumblers of. S. Segal. No. 1,307,870; June 24; v. 263; p. 497.
 Locker. Combination. W. L. Vance. No. 1,307,712; June 24; v. 263; p. 557.
 Locking device. J. L. Stubbeld. No. 1,307,161; June 17; v. 263; p. 424.
 Locking device for electric-furnace regulators of the Thury type. Automatic. J. Young. No. 1,307,768; June 24; v. 263; p. 507.
 Locking means for motor-vehicles. J. E. Goodwill. No. 1,305,277; June 3; v. 263; p. 9.
 Locking mechanism. N. D. Walden. No. 1,305,955; June 3; v. 263; p. 138.
 Locomotive. G. M. Eaton. (Re-issue.) No. 14,661; June 10; v. 263; p. 303.
 Locomotive-boiler furnace. A. H. Willett. No. 1,306,133; June 10; v. 263; p. 200.
 Locomotive-crane and the like. Outrigger operating and locking device for. W. Ferris. No. 1,307,545; June 24; v. 263; p. 527.
 Locomotive driving mechanism. G. M. Eaton. No. 1,306,531; June 10; v. 263; p. 276.
 Locomotive driving mechanism. A. A. Olson. No. 1,307,142; June 17; v. 263; p. 421.
 Locomotive. Electric. G. M. Eaton and G. H. F. Holy. No. 1,306,530; June 10; v. 263; p. 275.
 Locomotive exhaust-pipe. H. R. Stanford. No. 1,306,444; June 10; v. 263; p. 200.
 Locomotive fire-box. A. G. Kinyon. No. 1,307,364; June 24; v. 263; p. 494.
 Locomotive safety-apron. H. W. Rhinlander. No. 1,306,438; June 10; v. 263; p. 259.
 Locomotive. Storage-battery. E. Mancha and J. Teipel. No. 1,306,671; June 10; v. 263; p. 302.
 Logging-engine. B. C. Ball. No. 1,306,324; June 10; v. 263; p. 238.
 Loom for weaving pile fabrics. G. Koch. No. 1,305,373; June 3; v. 263; p. 27.
 Loom, picker-stick check. J. W. Herbert and J. A. Andrews. No. 1,305,790; June 3; v. 263; p. 108.
 Loom, Weft-replenishing. L. Aitken. No. 1,307,904; June 24; v. 263; p. 610.
 Looms. Picking apparatus for weaving. M. T. Pickstone. No. 1,306,190; June 10; v. 263; p. 211.
 Looms. Reed for weaving. M. T. Pickstone. No. 1,306,189; June 10; v. 263; p. 211.
 Looms. Shuttle-change mechanism for. M. Auerbach. No. 1,307,324; June 24; v. 263; p. 489.
 Looms. Stop-motion for. H. Le Doux. No. 1,307,012; June 17; v. 263; p. 487.
 Looms. Yarn-feeding mechanism for. B. A. Clark. No. 1,307,341; June 17; v. 263; p. 428.
 Lubricating ammunition. Means for. J. T. Thompson. No. 1,307,066; June 17; v. 263; p. 408.
 Lubricating apparatus. A. V. Gullborg. No. 1,307,738; June 24; v. 263; p. 561.
 Lubricating means. A. V. Gullborg. No. 1,307,734; June 24; v. 263; p. 561.
 Lubricating system. F. D. Winkley. (Re-issue.) No. 14,667; June 10; v. 263; p. 303.
 Lubricator: See—
 Farce-feed lubricator. Vehicle-spring lubricator.
 Lug. Spinner. R. J. Eldredge. No. 1,306,520; June 3; v. 263; p. 56.

Lug-strap. E. T. Packard. No. 1,305,402; June 3; v. 263; p. 32.
 Magazine and signal. Reserve. F. A. Ruckman. No. 1,305,355; June 10; v. 263; p. 244.
 Magazine catch and release. G. Hammond. No. 1,307,492; June 24; v. 263; p. 518.
 Magnesia brick and making the same. H. H. Hanson and H. K. Moore. No. 1,307,197; June 17; v. 263; p. 480.
 Magnetic heater. C. S. Cushman. No. 1,307,778; June 24; v. 263; p. 568.
 Magneto-igniters. Mounting for. A. R. Baker. No. 1,306,134; June 10; v. 263; p. 200.
 Magnetron. Condenser for ignition. E. A. Watson. No. 1,307,716; June 24; v. 263; p. 554.
 Mail-box. M. O. Courtney. No. 1,307,242; June 17; v. 263; p. 484.
 Mail-box. Receiving and distributing. F. K. Wiel. No. 1,307,649; June 24; v. 263; p. 546.
 Mail-boxes. Electrically-operated signal for. H. R. Newquist. No. 1,307,305; June 17; v. 263; p. 460.
 Mail-protecting apparatus. J. J. Mason. No. 1,305,732; June 3; v. 263; p. 95.
 Mailing-machine. Apparatus for enveloping. F. McCarthy. No. 1,305,390; June 3; v. 263; p. 30.
 Manifold-halter. C. M. Kendall. No. 1,307,780; June 24; v. 263; p. 569.
 Manifolding and cash register. Autographing. A. Krauth. No. 1,307,679; June 24; v. 263; p. 551.
 Marine log. E. W. Dorey. No. 1,307,624; June 24; v. 263; p. 541.
 Massage device. J. R. Marsico. No. 1,305,917; June 3; v. 263; p. 130.
 Massage-machine. Electric. C. W. Kent. No. 1,305,725; June 3; v. 263; p. 94.
 Mat-fitting. A. C. Hayden. No. 1,306,236; June 10; v. 263; p. 240.
 Mata. Machine for assembling sole-leather and like. A. C. Hayden. No. 1,306,337; June 10; v. 263; p. 240.
 Matches. Method and means for assembling. M. Paridon. No. 1,305,561; June 3; v. 263; p. 63.
 Mattress. M. G. Stevenson. No. 1,306,787; June 17; v. 263; p. 355.
 Mattress. Metallic spring. J. Epatin. No. 1,307,543; June 24; v. 263; p. 527.
 Mattress. Surf. H. H. Marshall. No. 1,307,828; June 24; v. 263; p. 578.
 Measuring instrument. J. C. Barrett. No. 1,305,640; June 3; v. 263; p. 79.
 Measuring instrument. H. W. Hacker. No. 1,307,775; June 24; v. 263; p. 566.
 Measuring instrument. H. W. Hacker. No. 1,307,776; June 24; v. 263; p. 569.
 Measuring instrument. Electrical. W. E. Porter and A. L. R. Ellis. No. 1,306,624; June 10; v. 263; p. 293.
 Measuring liquid-levels. Device for. A. Williams. No. 1,306,453; June 10; v. 263; p. 262.
 Mechanical classifier. F. E. Marcy. No. 1,306,188; June 10; v. 263; p. 210.
 Mechanical movement. A. H. De Vos. No. 1,306,104; June 10; v. 263; p. 193.
 Mechanical shovel. F. Lerch. No. 1,307,448; June 24; v. 263; p. 510.
 Metal bar. C. B. King and R. A. Young. No. 1,307,054; June 17; v. 263; p. 406.
 Metal-catcher. Pneumatic. A. J. Roberts. No. 1,306,777; June 17; v. 263; p. 323.
 Metal. Means for melting and casting. I. Hall. No. 1,306,376; June 10; v. 263; p. 248.
 Metal. Pot for use in annealing and carbonizing. J. G. McCarron. No. 1,306,601; June 10; v. 263; p. 288.
 Metal sheets. Apparatus for coating. E. C. Porter. No. 1,307,832; June 24; v. 263; p. 573.
 Metal to a finely-divided condition. Method and apparatus for reducing. E. J. Hall. No. 1,306,060; June 10; v. 263; p. 186.
 Metal wool. Machine for manufacturing. J. G. Brockenridge. No. 1,306,880; June 17; v. 263; p. 373.
 Metals from silicates. Extracting. L. L. Jackson. No. 1,305,960; June 3; v. 263; p. 140.
 Metals from their ores. Recovering. D. F. Harbaugh. No. 1,306,480; June 10; v. 263; p. 267.
 Metals. Making compounds of rare. R. McKnight. No. 1,306,070; June 10; v. 263; p. 188.
 Metallic nitride. Apparatus for production of. F. T. Snyder. No. 1,305,414; June 3; v. 263; p. 25.
 Meter. See—
 Fluid-meter. Water-meter.
 Gas-meter.
 Meter. M. Smith. No. 1,307,157; June 17; v. 263; p. 423.
 Meter inlet control. Sensitive weir. D. E. Yarnall. No. 1,307,600; June 24; v. 263; p. 538.
 Meter-panel. Shift-socket. H. F. Krantz. No. 1,306,241; June 10; v. 263; p. 341.
 Meters. Means for testing. R. L. Desandorf. No. 1,306,657; June 10; v. 263; p. 299.
 Meters. Means for testing gas. R. L. Desandorf. No. 1,306,658; June 10; v. 263; p. 299.
 Meters. Means for testing gas. R. L. Desandorf. No. 1,306,659; June 10; v. 263; p. 300.
 Meters. Testing gas. R. L. Desandorf. No. 1,306,660; June 10; v. 263; p. 300.

Micrometer. J. F. Garbin. No. 1,307,816; June 24; v. 263; p. 576.
 Micrometer drilling-gage. B. Bollie. No. 1,305,873; June 3; v. 263; p. 121.
 Milk-dispensing apparatus. G. Foulke. No. 1,306,313; June 10; v. 263; p. 236.
 Milk-receptacle. I. Nasl. No. 1,306,971; June 17; v. 263; p. 389.
 Milking apparatus. L. Dinsen. No. 1,307,539; June 24; v. 263; p. 526.
 Milking-machine. C. K. Salisbury. No. 1,306,634; June 10; v. 263; p. 293.
 Milking-machine. B. N. Saunders. No. 1,307,929; June 24; v. 263; p. 597.
 Mill. See—
 Ball-mill. Grinding-mill.
 Mill liner. Ball. J. R. Ball. No. 1,307,982; June 24; v. 263; p. 602.
 Mills. Retarder for rod. J. L. and S. A. Smith. No. 1,307,156; June 17; v. 263; p. 423.
 Milling-machine. F. A. Parsons. No. 1,307,749; June 24; v. 263; p. 544.
 Mine. Submarine. C. E. Egan and E. F. Jackson. No. 1,306,372; June 10; v. 263; p. 247.
 Mining. Angle-gage for use in. F. Rived. No. 1,307,987; June 24; v. 263; p. 606.
 Mold. See—
 Capital-mold. Dumping butter-mold.
 Dress-mold. Sectional mold.
 Mold. K. A. Palmer and J. C. Irvin. No. 1,307,373; June 24; v. 263; p. 494.
 Molding-machine. L. Hansen. No. 1,306,538; June 10; v. 263; p. 277.
 Molding-machine. E. H. Mumford. No. 1,306,075; June 10; v. 263; p. 189.
 Molybdenum. Extraction of. T. R. Förlund. No. 1,305,350; June 3; v. 263; p. 23.
 Monocline with subsidiary planes. C. E. P. Gordon. No. 1,305,534; June 3; v. 263; p. 57.
 Monument. Artificial. S. Le Dett. No. 1,307,906; June 24; v. 263; p. 496.
 Mop. W. Severna. No. 1,307,215; June 17; v. 263; p. 433.
 Mordanting by means of calcium antimony tartrate. S. M. Hermann. No. 1,307,860; June 24; v. 263; p. 584.
 Motor or cannon and projectile adapted for use there-with. P. C. Van Duren, A. Delan, and M. Leblanc. No. 1,307,384; June 24; v. 263; p. 494.
 Motion. Means for converting rotary into reciprocating. W. B. Baldwin and J. Curtin. No. 1,307,474; June 24; v. 263; p. 515.
 Mortising-machine. J. W. Evisler. No. 1,305,309; June 3; v. 263; p. 8.
 Motor. See—
 Explosion-motor. Surf-motor.
 Fluid-motor. Surf or wave motor.
 Induction-motor. Water-motor.
 Pneumatic motor. Wind and water motor.
 Motor-control system. H. R. Canfield. No. 1,306,213; June 10; v. 263; p. 215.
 Motor-control system. E. H. McLain and J. Eaton. No. 1,306,548; June 10; v. 263; p. 276.
 Motor-controller. M. M. Goldenstein. No. 1,307,888; June 24; v. 263; p. 564.
 Motor-controller. E. T. Henderson. No. 1,306,897; June 17; v. 263; p. 376.
 Motor-controller. R. E. Hunter. No. 1,306,484; June 10; v. 263; p. 267.
 Motor-controller. A. Simon. No. 1,307,838; June 24; v. 263; p. 580.
 Motor-cycle and aeroplane. Combined. C. D. Hunter. No. 1,307,607; June 17; v. 263; p. 412.
 Motor-meter and radiator-cool. W. A. Flower and L. H. Wellheimer. No. 1,306,143; June 10; v. 263; p. 202.
 Motor-starting mechanism. M. R. Hutchinson. No. 1,306,183; June 10; v. 263; p. 209.
 Motor-switch. Automatic. W. F. Paster. No. 1,306,076; June 10; v. 263; p. 189.
 Motor-vehicle heater. E. B. Barrett. No. 1,306,876; June 17; v. 263; p. 372.
 Motor-vehicle jack. L. E. Harding. No. 1,307,980; June 24; v. 263; p. 584.
 Motors. Means for controlling the circuits of electric. L. P. Hunt. No. 1,306,544; June 10; v. 263; p. 276.
 Motors. System of control for electric. E. W. Jones. No. 1,306,545; June 10; v. 263; p. 278.
 Mowers. Guard-finger for. F. Crawford. No. 1,306,898; June 17; v. 263; p. 338.
 Muffe-charger. E. D. Hallock. No. 1,306,613; June 24; v. 263; p. 613.
 Muffler. Internal-combustion-engine. S. I. Fekete. No. 1,306,347; June 3; v. 263; p. 23.
 Multiple-drilling machine. G. T. Trundale, Jr. No. 1,306,687; June 10; v. 263; p. 182.
 Museum-jar. Rectangular. F. L. Hinkley. No. 1,307,898; June 24; v. 263; p. 493.
 Music-leaf turner. E. E. Helfrich. No. 1,306,462; June 10; v. 263; p. 267.
 Music-sheets. Cutter for perforating. B. Vergara. No. 1,306,323; June 3; v. 263; p. 11.
 Music-sheets. Take-up spool for. C. V. Jamieson. No. 1,307,287; June 17; v. 263; p. 441.

Music turner. Sheet. W. U. Mowll and A. T. Palmer. No. 1,305,829; June 3; v. 263; p. 113.
 Musical instruments. Roll-shifting mechanism for. L. W. Southgate. No. 1,307,424; June 24; v. 263; p. 508.
 Musical setting or score. J. Quintile and C. R. Metcalfe. No. 1,307,147; June 17; v. 263; p. 422.
 Nails. Container for string. J. P. Dubosh. No. 1,307,042; June 17; v. 263; p. 408.
 Nails or the like where desired. Device for driving or positioning. J. P. Dubosh. No. 1,307,043; June 17; v. 263; p. 403.
 Necktie-fastener. J. A. Soderstrom. No. 1,305,947; June 3; v. 263; p. 136.
 Needle-threader. F. P. Jackman. No. 1,306,068; June 10; v. 263; p. 301.
 Nitrogen compounds. Fixation-chamber for making. A. Kaufman. No. 1,307,983; June 24; v. 263; p. 494.
 Nitroglycerol. J. Barab. No. 1,307,083; June 17; v. 263; p. 401.
 Nitroglycerol. J. Barab. No. 1,307,083; June 17; v. 263; p. 402.
 Note-sheet control. Hatchet-regulator for. W. A. Watson. No. 1,306,207; June 10; v. 263; p. 214.
 Notes, bills, and other paper money. Method and means for holding. F. J. Widdowson. No. 1,305,528; June 3; v. 263; p. 19.
 Nozzle. Spraying. B. G. Patterson. No. 1,307,514; June 24; v. 263; p. 522.
 Nut-lock. R. U. Day. No. 1,305,088; June 3; v. 263; p. 39.
 Nut-lock. H. G. Elfborg. No. 1,306,418; June 10; v. 263; p. 285.
 Nut-lock. F. Imo. No. 1,307,961; June 24; v. 263; p. 595.
 Nut-lock. H. F. McGrath. No. 1,305,729; June 3; v. 263; p. 94.
 Nut-lock. A. V. Powell. No. 1,307,024; June 24; v. 263; p. 394.
 Nut spanner. Thumb. G. Baehr. No. 1,307,890; June 24; v. 263; p. 586.
 Nuts and product thereof. Treating. H. V. Dunham. No. 1,307,660; June 17; v. 263; p. 411.
 Obstructor. M. Tisa. No. 1,305,084; June 10; v. 263; p. 182.
 Oil-burner. J. B. Anderson. No. 1,306,458; June 10; v. 263; p. 363.
 Oil-burner. W. K. Ellsworth. No. 1,307,625; June 24; v. 263; p. 541.
 Oil-burner. W. T. Fling. No. 1,306,968; June 17; v. 263; p. 387.
 Oil-burner. R. Perlick. No. 1,307,064; June 17; v. 263; p. 407.
 Oil-burner. Gas-generating. E. L. Miller. No. 1,307,206; June 17; v. 263; p. 432.
 Oil-can. H. M. Berdahl. No. 1,307,478; June 24; v. 263; p. 615.
 Oil-can. A. E. Matteson. No. 1,307,506; June 24; v. 263; p. 536.
 Oil-clearing system and apparatus. W. L. Morris. No. 1,305,724; June 3; v. 263; p. 94.
 Oil-gage signal and circuit-breaker. H. M. Dickerson. No. 1,305,963; June 3; v. 263; p. 129.
 Oil-store. J. Stolpe and A. Mattson. No. 1,307,219; June 17; v. 263; p. 434.
 Oil-tanks. Means for heating oil in. C. W. Stokes and H. B. Reddish. No. 1,306,288; June 10; v. 263; p. 232.
 Oil-wells. Excluding water from drilled. J. C. Swan. No. 1,307,027; June 17; v. 263; p. 400.
 Oils and fats. Apparatus for hydrogenating. H. Lane. No. 1,307,288; June 24; v. 263; p. 525.
 Other and disinfectant. Automatic bag. N. M. Doty. No. 1,306,985; June 3; v. 263; p. 140.
 Otter. Hog. H. D. Duckham. No. 1,306,478; June 10; v. 263; p. 364.
 Others. Thermo-container for hand. C. A. Wood. No. 1,306,677; June 3; v. 263; p. 95.
 Oiling device. H. A. Winholt. No. 1,307,889; June 24; v. 263; p. 589.
 Oiling device for loose pulleys, gears, &c. Ring. C. A. Dietrich. No. 1,306,763; June 17; v. 263; p. 349.
 Oiling machine. Ball. R. E. Johnson. No. 1,307,496; June 24; v. 263; p. 519.
 Ophthalmic mounting. N. M. Baker. No. 1,306,514; June 10; v. 263; p. 273.
 Ophthalmic mounting. O. B. Carson. No. 1,306,521; June 10; v. 263; p. 274.
 Ophthalmic mounting. G. H. Day. No. 1,306,697; June 3; v. 263; p. 96.
 Ophthalmic mounting. G. H. Day. No. 1,306,627; June 10; v. 263; p. 276.
 Ophthalmic mounting. W. B. Greene. No. 1,306,533; June 10; v. 263; p. 276.
 Ophthalmic mounting. P. H. Herbert. No. 1,306,540; June 10; v. 263; p. 277.
 Ophthalmic mounting. E. L. Schumacher. No. 1,306,779; June 17; v. 263; p. 354.
 Optical telegraph. A. A. Michelson. No. 1,306,893; June 3; v. 263; p. 31.
 Orchestra. G. P. Smith. No. 1,305,942; June 3; v. 263; p. 128.
 Ordnance. Sighting apparatus for. A. T. Dawson and G. T. Buckham. No. 1,306,412; June 10; v. 263; p. 364.

Ordnance. Sighting apparatus for. A. T. Dawson and G. T. Buckham. No. 1,306,412; June 10; v. 263; p. 364.
 Ore classifying and separating apparatus. L. H. Falley. No. 1,307,620; June 24; v. 263; p. 541.
 Ore-concentrating machine. N. A. Stratton. No. 1,306,450; June 10; v. 263; p. 261.
 Ore-separating machine. J. W. Miller. No. 1,306,270; June 10; v. 263; p. 228.
 Ores. Hydraulic separator for crushed. H. R. Wahl. No. 1,306,361; June 10; v. 263; p. 245.
 Ores. Treating line. D. S. McAfee. No. 1,305,817; June 3; v. 263; p. 111.
 Ores. Treating silicious. G. H. Wigton. No. 1,305,327; June 3; v. 263; p. 19.
 Organ. Reed. F. Waschek. No. 1,307,715; June 24; v. 263; p. 558.
 Ornaments. Nail article. H. Elie. No. 1,306,627; June 10; v. 263; p. 292.
 Outlet-box. H. Krantz. No. 1,305,611; June 3; v. 263; p. 74.
 Oven. Gas-burner for coal. H. Lange. No. 1,306,917; June 17; v. 263; p. 380.
 Oven. Oil-burner for bake. W. F. Yost. No. 1,305,679; June 3; v. 263; p. 85.
 Package-carrier. F. J. Garrison. No. 1,306,849; June 17; v. 263; p. 367.
 Package. Merchandising. L. J. Boerlin. No. 1,306,574; June 10; v. 263; p. 232.
 Package-tie. G. W. Stout. No. 1,306,753; June 3; v. 263; p. 99.
 Packaging bricks for transportation. W. T. Hooker. No. 1,307,385; June 17; v. 263; p. 441.
 Packing case. Ammunition. J. B. Peoples. No. 1,306,312; June 10; v. 263; p. 286.
 Packing-ring. P. R. Peterson. No. 1,307,696; June 24; v. 263; p. 554.
 Packing. Rod. L. J. Farland and L. F. Robert. No. 1,307,301; June 24; v. 263; p. 592.
 Pad. See—
 Lining-pad. Vehicle-top bow-pad.
 Paddle-wheel. F. J. Lissud. No. 1,305,737; June 3; v. 263; p. 94.
 Padlock. P. E. Swider and J. Lesinski. No. 1,307,158; June 17; v. 263; p. 423.
 Padlock. Combination. T. A. Goode. No. 1,307,442; June 24; v. 263; p. 569.
 Padlock. Keyless. J. E. Grisamore. No. 1,306,427; June 10; v. 263; p. 257.
 Pail. Berry. W. S. Jacobson. No. 1,307,256; June 17; v. 263; p. 441.
 Painter's stripping mechanism. V. Jansen. No. 1,305,545; June 3; v. 263; p. 59.
 Pan. See—
 Baking-pan.
 Panel-board. E. A. Olley. No. 1,307,019; June 17; v. 263; p. 399.
 Paper and the like. Folded sheet of. W. Y. Irwin. No. 1,307,443; June 24; v. 263; p. 569.
 Paper. Apparatus for conditioning printed. P. Altki-son. No. 1,306,466; June 10; v. 263; p. 262.
 Paper-box-forming machine. G. H. Bartlett. No. 1,305,511; June 3; v. 263; p. 53.
 Paper-cutter. A. Rowden and R. A. Hafford. No. 1,307,151; June 17; v. 263; p. 422.
 Paper-feeding machine. R. J. Neisel. No. 1,305,309; June 3; v. 263; p. 32.
 Paper leaves. Manufacturing. G. Iwatsubo. No. 1,307,404; June 24; v. 263; p. 502.
 Paper. Manifolding or duplicating. C. L. Spence. No. 1,306,765; June 17; v. 263; p. 355.
 Pasteurization apparatus. A. P. Murray. No. 1,307,689; June 24; v. 263; p. 553.
 Pasteurizer. L. S. Pfeuts. No. 1,305,833; June 3; v. 263; p. 114.
 Pedal mechanism for pneumatic devices. J. O. Schwarz and G. Bjorklund. No. 1,306,081; June 10; v. 263; p. 180.
 Pelt and hide washing or bating machine. Scudding attachment to. W. Cox. No. 1,305,774; June 3; v. 263; p. 103.
 Pen and pencil clip. M. M. Reid. No. 1,306,774; June 17; v. 263; p. 283.
 Pen. Fountain. W. A. Haskins. No. 1,307,630; June 24; v. 263; p. 542.
 Pen. Fountain. E. Hugeta. No. 1,307,359; June 24; v. 263; p. 493.
 Pen. Fountain. A. L. Sowerby. No. 1,306,394; June 10; v. 263; p. 251.
 Pen-nib. G. A. Lowdell. No. 1,307,303; June 17; v. 263; p. 431.
 Pen. Pneumatic fountain. J. F. Gardner. No. 1,307,105; June 17; v. 263; p. 430.
 Pen. Rolling. J. A. Hagerstrom. No. 1,305,538; June 3; v. 263; p. 88.
 Pen. Trench fountain. A. Lawrie. No. 1,307,782; June 24; v. 263; p. 570.
 Pencil attachment. T. O. Tippet. No. 1,306,393; June 10; v. 263; p. 213.
 Pencil extension. W. B. McIlvra. No. 1,306,477; June 3; v. 263; p. 47.
 Pencil-pointers. Chip-receptacle for. R. A. and A. F. Wilson. No. 1,306,585; June 3; v. 263; p. 118.
 Percolator. H. D. Marcus. No. 1,307,745; June 24; v. 263; p. 568.

Percolator, Coffee. C. M. Downham. No. 1,306,688; June 17; v. 263; p. 338.
 Percolator, Coffee. J. S. Dunlap. No. 1,306,415; June 10; v. 263; p. 285.
 Perforating-machine. W. W. Lasker. No. 1,305,557; June 3; v. 263; p. 62.
 Perforating-machines, Set-bar mechanism for. W. W. Lasker. No. 1,307,682; June 24; v. 263; p. 552.
 Permutation-lock. J. G. Grant. No. 1,305,881; June 3; v. 263; p. 80.
 Petroleum, Treating. W. A. Schmidt and E. R. Wolcott. No. 1,307,681; June 24; v. 263; p. 557.
 Phenolic condensation product and making same. L. H. Backlund. No. 1,306,681; June 17; v. 263; p. 257.
 Phonograph. M. B. Peal. No. 1,307,020; June 17; v. 263; p. 390.
 Phonograph arm and horn attachment. G. A. Hoover. No. 1,306,182; June 10; v. 263; p. 209.
 Phonograph, Illustrative. W. C. Huss. No. 1,307,550; June 24; v. 263; p. 526.
 Phonograph-records, Method of and apparatus for making. J. V. Erickson. No. 1,307,512; June 24; v. 263; p. 576.
 Phonographs, Dancing figure for. J. M. Foster. No. 1,307,121; June 17; v. 263; p. 417.
 Phonograph, Tone-regulator for. C. H. Smith. No. 1,306,196; June 10; v. 263; p. 212.
 Photograph-holder. M. I. D. Einstein. No. 1,307,394; June 24; v. 263; p. 500.
 Photographic-film spool. B. D. Chamberlin. No. 1,306,881; June 17; v. 263; p. 372.
 Photographer's flash-light. A. W. Straight. No. 1,307,220; June 17; v. 263; p. 434.
 Photographic objective. C. W. Frederick and F. E. Ross. No. 1,306,968; June 17; v. 263; p. 357.
 Photographic-printing apparatus. J. G. Capetoff. No. 1,306,946; June 17; v. 263; p. 385.
 Photographic shutter. F. A. G. Pirwitz. No. 1,307,751; June 24; v. 263; p. 604.
 Photographs, Device for displaying. E. Barthelmy. No. 1,306,345; June 3; v. 263; p. 3.
 Photography, Color. F. E. Ives. No. 1,306,904; June 17; v. 263; p. 377.
 Piano and phonograph, Combined player. M. Clark. No. 1,306,647; June 17; v. 263; p. 367.
 Piano, Player. O. M. Kennedy. (Reissue.) No. 1,467,2; June 24; v. 263; p. 618.
 Piano-players, Tracking-control mechanism for. C. H. Peterson. No. 1,307,515; June 24; v. 263; p. 522.
 Pianos, Automatic playing attachment for. A. Johnson. A. C. Swanson, and A. H. Utterberg. No. 1,307,062; June 17; v. 263; p. 405.
 Pianos, Tracker and pedal connections for player grand. O. Johnson. No. 1,307,297; June 17; v. 263; p. 449.
 Pick. H. J. Williams. No. 1,307,289; June 17; v. 263; p. 447.
 Picker. See—
 Fruit-picker.
 Picture apparatus, Motion. S. F. Stein. No. 1,307,223; June 17; v. 263; p. 452.
 Picture, Changeable. C. W. Sallburg. No. 1,306,835; June 3; v. 263; p. 114.
 Picture machine, Motion. C. F. Jenkins. No. 1,306,904; June 3; v. 263; p. 108.
 Picture machine, Moving. J. A. Cameron. No. 1,307,987; June 24; v. 263; p. 603.
 Picture machines, Attachment for moving. E. G. Dowd. No. 1,307,541; June 24; v. 263; p. 537.
 Pictures, Apparatus for taking photographs for the stereoscopic projection of motion. E. N. Baruch. No. 1,307,074; June 17; v. 263; p. 406.
 Pictures, Producing moving. L. B. Brainard. No. 1,307,846; June 24; v. 263; p. 562.
 Pigeonholes, Device for indicating the presence of articles in. G. F. Fleckenstein. No. 1,306,787; June 17; v. 263; p. 360.
 Pin. See—
 Cotter-pin.
 Clothes-pin.
 Pipe. See—
 Locomotive exhaust-pipe.
 Pipe-cleaner. S. and J. Pokocak. No. 1,306,925; June 17; v. 263; p. 381.
 Pipe connection. C. E. Cole. No. 1,307,537; June 24; v. 263; p. 526.
 Pipe-coupling. W. C. Codd. No. 1,307,392; June 24; v. 263; p. 496.
 Pipe-coupling. J. H. Dohner. No. 1,307,540; June 24; v. 263; p. 526.
 Pipe-cover. F. H. Kline. No. 1,307,978; June 24; v. 263; p. 607.
 Pipe-fitting. D. Jackson. No. 1,307,551; June 24; v. 263; p. 528.
 Pipe-handling means. W. W. Manning. No. 1,307,505; June 24; v. 263; p. 520.
 Pipe-jack. J. H. Jones. No. 1,305,905; June 3; v. 263; p. 108.
 Pipes or tubes, Fitting for fastening reinforcement-belts to wooden. A. Kiehlund. No. 1,307,845; June 24; v. 263; p. 565.
 Pipe-puller. A. F. Braun. No. 1,306,426; June 3; v. 263; p. 30.
 Pipe-reinforcement and coupling therefor. W. L. Blaser and W. D. Candee. No. 1,305,698; June 3; v. 263; p. 82.
 Pipe-threading apparatus. E. F. Butler. No. 1,306,171; June 10; v. 263; p. 297.
 Pipe-wrench. A. J. Granberg. No. 1,306,534; June 10; v. 263; p. 276.
 Piston. G. E. Chedra. No. 1,307,985; June 24; v. 263; p. 590.
 Piston for heat-engines. E. Schneider. No. 1,306,839; June 17; v. 263; p. 365.
 Piston, Valved. N. Koltz. No. 1,306,332; June 10; v. 263; p. 249.
 Pivot. B. Liebowitz. No. 1,305,815; June 3; v. 263; p. 110.
 Planer and cutter head. J. Heggan. No. 1,306,950; June 3; v. 263; p. 80.
 Planer, Self-propelled floor. W. J. Moore. No. 1,306,724; June 3; v. 263; p. 65.
 Planer-box. N. Barlow. No. 1,305,484; June 3; v. 263; p. 34.
 Planter, Potato. L. E. Waterman. No. 1,306,423; June 3; v. 263; p. 36.
 Planters, Check-row device for corn. O. H. Kohlhaas. No. 1,306,621; June 17; v. 263; p. 362.
 Planters, Depth-gage for corn. P. Vastekka. No. 1,306,326; June 3; v. 263; p. 18.
 Planting-machine marker. A. H. Krota. No. 1,306,162; June 10; v. 263; p. 302.
 Planter-board support. E. H. Fletcher. No. 1,307,514; June 24; v. 263; p. 576.
 Planter's dolly. A. Taggart. No. 1,307,980; June 24; v. 263; p. 600.
 Plastic materials, Machine for treating. H. J. Hoyt. (Reissue.) No. 1,468,3; June 10; v. 263; p. 364.
 Pliers. J. A. Briggs. No. 1,305,679; June 3; v. 263; p. 123.
 Plow. C. S. Jackson. No. 1,305,267; June 3; v. 263; p. 26.
 Plow. A. J. Marshall. No. 1,307,408; June 24; v. 263; p. 562.
 Plow. C. H. Melvin. No. 1,306,705; June 17; v. 263; p. 361.
 Plow. A. Mitchell. No. 1,307,918; June 24; v. 263; p. 594.
 Plow, Snow. C. W. Morris. No. 1,307,410; June 24; v. 263; p. 594.
 Plow, tractor, stop draft-gear. B. F. Umbower. No. 1,307,538; June 24; v. 263; p. 499.
 Plows, Automatic cultivator attachment for. O. W. Johnson. No. 1,307,672; June 24; v. 263; p. 540.
 Plows, Combined seeding and cultivating attachment for. W. R. White and A. E. Acra. No. 1,305,850; June 3; v. 263; p. 117.
 Plow, Draft adjustment for. E. S. Smith. No. 1,307,795; June 24; v. 263; p. 572.
 Plowshare, edge, Detachable. F. A. Nordquist. No. 1,307,780; June 24; v. 263; p. 571.
 Pneumatic cleaner. G. W. Allen. No. 1,305,942; June 3; v. 263; p. 3.
 Pneumatic despatch-tube apparatus. E. B. Ferriss. No. 1,305,408; June 3; v. 263; p. 83.
 Pneumatic motor. G. W. Wallin. No. 1,306,159; June 10; v. 263; p. 205.
 Pneumatic separator. F. H. Quade, Jr. No. 1,306,094; June 10; v. 263; p. 160.
 Pocket-book. W. A. Smith. No. 1,305,500; June 3; v. 263; p. 43.
 Pocket-book, Lady's. J. Stember. No. 1,307,324; June 17; v. 263; p. 464.
 Pockets, Safety attachment for. H. Abramovitch. No. 1,306,296; June 10; v. 263; p. 253.
 Polish. E. Batra. No. 1,306,064; June 3; v. 263; p. 94.
 Portable buildings, Folding frame for. M. Rasmussen. No. 1,305,360; June 3; v. 263; p. 15.
 Portable carrier. N. Orloff. No. 1,307,987; June 24; v. 263; p. 594.
 Portable housing structure. W. A. Wilcox. No. 1,305,570; June 3; v. 263; p. 68.
 Post. See—
 Sign and lighting post.
 Window-post.
 Post-hole digger. K. C. Fraser. No. 1,306,792; June 3; v. 263; p. 106.
 Pot. See—
 Coffee-pot.
 Potash, Art of recovering. W. Hoskins. No. 1,307,127; June 17; v. 263; p. 418.
 Poultry-perch. J. E. Evans. No. 1,306,480; June 3; v. 263; p. 42.
 Powder-charging device. H. D. Smiley. No. 1,306,316; June 10; v. 263; p. 236.
 Powder-measuring device, Automatic. P. Stephaneff. No. 1,306,447; June 10; v. 263; p. 260.
 Power-transmitting device. F. H. V. Jacobson. No. 1,307,976; June 24; v. 263; p. 603.
 Power-transmission mechanism. S. J. Johnson. No. 1,305,371; June 3; v. 263; p. 27.
 Power-transmission mechanism. J. J. Wittlinger. No. 1,305,700; June 3; v. 263; p. 100.
 Power transmission, Variable-speed. R. C. Bohmann. No. 1,305,871; June 3; v. 263; p. 121.
 Power units, Universal bolting-attachment for. M. M. Kahn. No. 1,307,011; June 17; v. 263; p. 297.

Press. See—
 Banding-press.
 Hydraulic press.
 Printing-press.
 Press. C. H. Fowler. No. 1,307,945; June 24; v. 263; p. 604.
 Press. C. V. Wright. No. 1,306,455; June 10; v. 263; p. 302.
 Press-guard. E. W. Zeh. No. 1,305,763; June 3; v. 263; p. 101.
 Presses, Drying-out attachment for. H. F. Crawford. No. 1,307,041; June 17; v. 263; p. 403.
 Pressure-cooker. E. C. Klier. No. 1,305,702; June 3; v. 263; p. 89.
 Pressure-gage. J. A. Bowden. No. 1,306,245; June 10; v. 263; p. 224.
 Pressure governor, Fluid-stream. W. H. Wright. No. 1,306,762; June 3; v. 263; p. 101.
 Pressure-regulating device. F. H. Hopkins. No. 1,305,985; June 3; v. 263; p. 36.
 Pressures, Method of and apparatus for exhausting to low. O. E. Buckley. No. 1,307,990; June 24; v. 263; p. 611.
 Prime mover. E. J. Stoddard. No. 1,306,965; June 17; v. 263; p. 370.
 Printing apparatus. E. R. Angell. No. 1,307,532; June 24; v. 263; p. 528.
 Printing apparatus. D. R. N. Taylor. No. 1,307,325; June 17; v. 263; p. 454.
 Printing device. J. A. Duncan. No. 1,307,119; June 17; v. 263; p. 417.
 Printing-forms, Making matrices for casting elements of. A. L. Knight. No. 1,307,676; June 24; v. 263; p. 580.
 Printing-forms, Matrix for casting elements of. A. L. Knight. No. 1,307,676; June 24; v. 263; p. 580.
 Printing-machine. J. G. Cushing and F. C. Munro. No. 1,305,778; June 3; v. 263; p. 104.
 Printing-machine. F. S. Weiss. No. 1,305,949; June 3; v. 263; p. 117.
 Printing-machine, Multicolor. E. J. Hauser. No. 1,307,007; June 17; v. 263; p. 364.
 Printing-machine, Planographic. E. J. Smith. No. 1,306,726; June 17; v. 263; p. 344.
 Printing-machine, Textile. L. Flick. No. 1,306,890; June 3; v. 263; p. 125.
 Printing-machine, Textile. L. Flick. No. 1,305,891; June 3; v. 263; p. 125.
 Printing-machine, Textile. F. Shurl. No. 1,307,068; June 24; v. 263; p. 557.
 Printing-machine, Web. H. A. W. Wood. No. 1,307,380; June 24; v. 263; p. 499.
 Printing-press. J. A. Allen. No. 1,306,431; June 3; v. 263; p. 38.
 Printing-press. A. F. Harris. No. 1,307,980; June 24; v. 263; p. 604.
 Printing-press. E. C. Seymour. No. 1,305,808; June 3; v. 263; p. 94.
 Printing-presses, Blanket-cylinder for. E. J. Dechman. No. 1,306,096; June 10; v. 263; p. 183.
 Printing-presses, Cleaner for offset-winding drums of. J. M. Trier. No. 1,306,646; June 10; v. 263; p. 297.
 Printing-presses, Sheet-feeding device for. F. M. Turck and R. C. White. No. 1,306,087; June 10; v. 263; p. 102.
 Printing-presses, Delivery mechanism for. H. M. Barber. No. 1,306,082; June 17; v. 263; p. 357.
 Printing-presses, Sheet-controlling device for. F. M. Turck and R. C. White. No. 1,306,088; June 10; v. 263; p. 101.
 Printing-presses, Sheet-delivery mechanism for. H. M. Barber. No. 1,306,298; June 10; v. 263; p. 252.
 Printing-presses, Sheet-delivery mechanism for. H. M. Barber. No. 1,306,590; June 10; v. 263; p. 252.
 Printing-presses, Sheet-delivering device for. F. M. Turck and R. C. White. No. 1,306,088; June 10; v. 263; p. 102.
 Printing-press web-renewing device. H. A. W. Wood. No. 1,306,429; June 3; v. 263; p. 38.
 Profiling-machine, Automatic. E. J. Luster. No. 1,306,266; June 10; v. 263; p. 220.
 Projectile. W. H. Livers. No. 1,306,265; June 10; v. 263; p. 227.
 Projectile. J. M. Rogers. No. 1,307,410; June 24; v. 263; p. 564.
 Projectile. W. A. Wilkins. No. 1,307,007; June 24; v. 263; p. 368.
 Propeller. W. H. Armstrong. No. 1,307,106; June 17; v. 263; p. 414.
 Propeller, Ship. W. C. Gregg. No. 1,306,892; June 17; v. 263; p. 378.
 Propeller. J. C. Ryan. No. 1,307,634; June 24; v. 263; p. 568.
 Puller. See—
 Pipe-puller.
 Wheel-puller.
 Pulley. H. Deusta. No. 1,306,636; June 3; v. 263; p. 58.
 Pulley, Combination differential direct-power drive and friction-clutch. N. H. Morris. No. 1,305,616; June 3; v. 263; p. 75.
 Pulley-mounting. H. G. Beede. No. 1,306,517; June 10; v. 263; p. 272.
 Pump plants, Sand and silt catcher for wood. T. Queller. No. 1,306,456; June 10; v. 263; p. 239.
 Pulverizing and separating mill, Self-contained. J. M. Schutz. No. 1,306,413; June 3; v. 263; p. 34.
 Pump. W. T. Krause. No. 1,305,390; June 3; v. 263; p. 12.
 Pump. A. L. Owen. No. 1,305,487; June 3; v. 263; p. 46.
 Pump. C. Wirth. No. 1,307,071; June 17; v. 263; p. 408.
 Pump, Air. R. Warneck. No. 1,305,758; June 3; v. 263; p. 100.
 Pump and pot, Melting. H. A. W. Wood. No. 1,305,430; June 3; v. 263; p. 83.
 Pump and strainer therefor. O. F. Persson. No. 1,306,621; June 10; v. 263; p. 292.
 Pump, Bilge. L. Weston and J. R. Jones. No. 1,305,500; June 3; v. 263; p. 54.
 Pump, Bilge. L. Weston and J. R. Jones. No. 1,305,500; June 3; v. 263; p. 52.
 Pump, Fluid. M. E. Newcomb. No. 1,307,210; June 17; v. 263; p. 432.
 Pump, Glycerine-dispensing. C. R. Miller. No. 1,305,827; June 3; v. 263; p. 115.
 Pump, Multiple-bellows. L. R. Roberts. No. 1,307,480; June 24; v. 263; p. 512.
 Pump, Rotary. M. T. Chapman. No. 1,307,115; June 17; v. 263; p. 416.
 Pump, Screw. F. A. and R. Brooks. No. 1,306,160; June 10; v. 263; p. 207.
 Pump-supporting bracket. G. F. and J. W. Lawver. No. 1,306,599; June 10; v. 263; p. 285.
 Pump, Three. H. Casler. No. 1,307,089; June 17; v. 263; p. 402.
 Pumps, Automatic reversing device for rotary. J. O. Schirmer. No. 1,307,002; June 24; v. 263; p. 537.
 Pumps, Self-lubricating piston for air. P. H. Stapley. No. 1,306,640; June 10; v. 263; p. 296.
 Pumping apparatus for musical instruments. M. E. Wright. No. 1,306,937; June 17; v. 263; p. 383.
 Pumping-machine. M. T. and M. C. Chapman. No. 1,307,110; June 17; v. 263; p. 416.
 Pumping mechanism. E. E. Bartlett. No. 1,306,572; June 10; v. 263; p. 283.
 Punch. E. L. Miller. No. 1,306,920; June 17; v. 263; p. 381.
 Punch and spacing device, Combined. H. Kershaw. No. 1,306,013; June 10; v. 263; p. 178.
 Punch, Hand. F. H. Hahnemann. No. 1,305,898; June 3; v. 263; p. 126.
 Punch-press. W. B. Gooding. No. 1,305,461; June 3; v. 263; p. 44.
 Punching and riveting machine. F. X. Pearne. No. 1,305,972; June 3; v. 263; p. 141.
 Punching-machine. L. H. Bullard. No. 1,306,766; June 3; v. 263; p. 101.
 Punching-machine engine. W. P. Krause. No. 1,306,067; June 10; v. 263; p. 185.
 Push-button. A. F. O. Wilck. No. 1,306,002; June 10; v. 263; p. 192.
 Puttee and making the same. J. Boyd. No. 1,307,225; June 17; v. 263; p. 437.
 Radiator. H. N. Searles. No. 1,306,976; June 17; v. 263; p. 390.
 Radiator-casing, Humidifying device in combination with. W. M. Fulton. No. 1,305,532; June 3; v. 263; p. 57.
 Radiator-guard. F. S. Warman. No. 1,306,265; June 10; v. 263; p. 245.
 Radiator-guard. F. S. Warman. No. 1,306,364; June 10; v. 263; p. 246.
 Radiator-indicator. R. T. Newton. No. 1,306,557; June 10; v. 263; p. 280.
 Radiator-support. W. Krafva. No. 1,305,810; June 3; v. 263; p. 100.
 Radiators, Drainage-plug for water-cooling. F. W. Kilder. No. 1,306,186; June 10; v. 263; p. 210.
 Radiators, Wall-hanger for. R. T. Mullen and J. W. Moore. No. 1,306,272; June 10; v. 263; p. 229.
 Radio receiving apparatus. A. N. Edmonds. No. 1,304,474; June 10; v. 263; p. 206.
 Radius-rod. R. F. Scall. No. 1,306,562; June 10; v. 263; p. 281.
 Raft, Reversible pontoon. H. B. Perry and H. W. Chambers. No. 1,306,275; June 10; v. 263; p. 229.
 Rail. J. E. Cunningham. No. 1,307,852; June 24; v. 263; p. 588.
 Rail. J. H. Mathias. No. 1,306,907; June 17; v. 263; p. 380.
 Rail-anchor. H. G. Gillmor. No. 1,306,889; June 17; v. 263; p. 374.
 Rail-anchor. H. G. Gillmor. No. 1,307,490; June 24; v. 263; p. 518.
 Rail-anchor and manufacture thereof. E. C. Danner. No. 1,307,084; June 17; v. 263; p. 411.
 Rail-holding means. U. Dietz. No. 1,307,085; June 17; v. 263; p. 411.
 Rail-joint. M. A. Ratishauser. No. 1,307,585; June 24; v. 263; p. 588.
 Rail-joint. W. P. Thomson. No. 1,306,981; June 17; v. 263; p. 391.
 Rail-joint. T. D. Viger. No. 1,307,168; June 17; v. 263; p. 425.
 Rail-joint lock. W. Paul. No. 1,306,622; June 10; v. 263; p. 179.
 Rail-points, Device at. A. J. Jocat and P. Hansen. No. 1,306,305; June 10; v. 263; p. 234.
 Rail-tie. W. P. Mckimburg. No. 1,306,968; June 17; v. 263; p. 380.

Railway and tramway vehicles, Bogie for. J. H. Thomas. No. 1,307,526; June 17; v. 263; p. 484.
 Railway-crossing signal. H. S. Bersley. No. 1,307,998; June 24; v. 263; p. 611.
 Railway-crossing signal. J. H. Mangan. No. 1,307,916; June 24; v. 263; p. 594.
 Railway hand-brake. W. H. Sauvage. No. 1,308,635; June 10; v. 263; p. 295.
 Railway. Elevated. D. Humphrey. No. 1,308,225; June 10; v. 263; p. 218.
 Railway-rail joint. J. J. Branagan. No. 1,307,110; June 17; v. 263; p. 418.
 Railway safety system. F. Denette. No. 1,308,002; June 24; v. 263; p. 611.
 Railway-signal. R. H. Barnes. No. 1,307,476; June 24; v. 263; p. 615.
 Railway-signal. L. V. Lewis. No. 1,307,741; June 24; v. 263; p. 563.
 Railway-signal. J. F. Salchil. No. 1,306,687; June 17; v. 263; p. 266.
 Railway-signal. Emergency. D. R. Sullivan. No. 1,307,523; June 24; v. 263; p. 523.
 Railway-signal. Safety device to compel proper observance of. J. B. Martin. No. 1,305,391; June 3; v. 263; p. 31.
 Railway system. Elevated. F. Steffens. No. 1,308,418; June 3; v. 263; p. 38.
 Railway system and locomotive therefor. Light. F. H. Dutton. No. 1,308,681; June 10; v. 263; p. 185.
 Railway switches. Protector for. H. Foss. No. 1,307,662; June 24; v. 263; p. 548.
 Railway-tie. U. O. Long. No. 1,306,014; June 10; v. 263; p. 178.
 Railway-tie. V. E. Randall. No. 1,306,487; June 10; v. 263; p. 259.
 Railway-tie. Waterproof. S. A. Stoneback. No. 1,307,565; June 24; v. 263; p. 531.
 Railway-track signal device. J. Smith. No. 1,307,380; June 24; v. 263; p. 497.
 Railways and tramways. Permanent way of. J. A. Roberts. No. 1,307,880; June 24; v. 263; p. 598.
 Railways. Trolley for electric. E. E. Moore. No. 1,306,608; June 10; v. 263; p. 290.
 Ramming-machine. Compound. P. W. Gates. No. 1,308,425; June 10; v. 263; p. 257.
 Range. Combination coal and gas. J. C. Van Riper, Jr., and S. A. Pritschau. No. 1,307,713; June 24; v. 263; p. 557.
 Range. Combined coal and gas. H. C. Maul. No. 1,306,260; June 10; v. 263; p. 228.
 Range. Combined coal and gas. O. Siegler. No. 1,307,762; June 24; v. 263; p. 546.
 Range. Electric. F. W. Hewitt. No. 1,307,048; June 17; v. 263; p. 404.
 Range-finders. Graduating. F. Twyman. No. 1,308,320; June 10; v. 263; p. 257.
 Razor. Automatic safety. W. J. Ross. No. 1,308,441; June 10; v. 263; p. 259.
 Razor-blade holder. A. F. Barro. No. 1,306,516; June 10; v. 263; p. 273.
 Razor. Safety. B. Ames. No. 1,305,832; June 3; v. 263; p. 19.
 Razor. Safety. A. J. Baxter. No. 1,307,652; June 24; v. 263; p. 546.
 Re-align roll and re-stipping machine. G. W. Beadle. No. 1,306,094; June 10; v. 263; p. 193.
 Receptacle. A. Hoffeldt. No. 1,305,544; June 3; v. 263; p. 59.
 Receptacle. A. H. Swedfeger. No. 1,305,630; June 3; v. 263; p. 77.
 Receptacle. R. S. Reynolds. No. 1,307,926; June 24; v. 263; p. 596.
 Receptacle-closure. J. A. Watt. No. 1,307,169; June 17; v. 263; p. 426.
 Receptacle. Tank and like. J. H. Humphreys. No. 1,307,584; June 24; v. 263; p. 534.
 Reciprocating mechanism. H. McIntire. No. 1,306,351; June 10; v. 263; p. 243.
 Record-holder. E. A. Banachbach. No. 1,306,737; June 17; v. 263; p. 346.
 Recording device. R. H. Rogers. No. 1,306,631; June 10; v. 263; p. 264.
 Rectifier. P. M. Rainey. No. 1,307,517; June 24; v. 263; p. 522.
 Reducing-machine. H. M. Plalsted. No. 1,306,772; June 17; v. 263; p. 353.
 Reel. See—
 Film-reel. Fishing-reel.
 Reel construction. W. I. Tuttle. No. 1,307,526; June 24; v. 263; p. 524.
 Reductor. A. Ames, Jr. No. 1,306,511; June 10; v. 263; p. 272.
 Refrigerating apparatus. A. P. Anderson. No. 1,307,431; June 24; v. 263; p. 507.
 Refrigerating apparatus. G. A. Wegner. No. 1,305,428; June 3; v. 263; p. 37.
 Refrigerating apparatus. Compressor for. E. O. Olsen. No. 1,307,061; June 17; v. 263; p. 406.
 Refrigerator. E. I. Long. No. 1,307,302; June 17; v. 263; p. 450.
 Refrigerator. Air-cooled. C. T. Adair. No. 1,305,842; June 3; v. 263; p. 116.
 Refuse-destructor furnace. H. N. Leask. No. 1,307,909; June 24; v. 263; p. 593.
 Register. See—
 Account-register.
 Register-guide and gripper. M. T. Joy. No. 1,305,904; June 3; v. 263; p. 127.
 Regulating device. Furnace. G. F. Machlet. No. 1,306,013; June 10; v. 263; p. 178.
 Regulation. System of. F. C. Hancker. No. 1,306,364; June 17; v. 263; p. 375.
 Regulator. See—
 Current-regulator. Electrical regulator.
 Damper-regulator. Feed-regulator.
 Draft-regulator. Gas-regulator.
 Electric regulator. Tension-regulator.
 Regulator. W. Hodgson. No. 1,305,963; June 3; v. 263; p. 73.
 Reinforcing-bars. Means for spacing. W. E. White. No. 1,306,964; June 17; v. 263; p. 592.
 Relay. E. R. Coe. No. 1,307,725; June 24; v. 263; p. 559.
 Relay. W. S. Levin. No. 1,305,381; June 3; v. 263; p. 28.
 Re-railer. H. A. W. Smith. No. 1,305,625; June 3; v. 263; p. 70.
 Re-railer. H. A. W. Smith. No. 1,305,626; June 3; v. 263; p. 77.
 Resilient wheel. B. L. Dewey. No. 1,304,176; June 10; v. 263; p. 204.
 Resilient wheel. M. Philipp. No. 1,307,312; June 17; v. 263; p. 432.
 Resinous products. Manufacture of. C. N. Forrest and J. V. Meigs. No. 1,306,780; June 3; v. 263; p. 108.
 Retread-mold. Full-circle collapsible. P. M. Stephan. No. 1,307,708; June 24; v. 263; p. 573.
 Rheostat. H. D. Stone. No. 1,307,643; June 24; v. 263; p. 544.
 Rheostat. Speed-controlled. H. A. Burgess. No. 1,305,941; June 3; v. 263; p. 139.
 Revolving and folding table. M. H. Houston. No. 1,308,066; June 10; v. 263; p. 301.
 Ribbon-holder. Auxiliary. W. A. De Long, Jr. No. 1,308,666; June 3; v. 263; p. 124.
 Riddle. G. C. Batten. No. 1,306,325; June 10; v. 263; p. 238.
 Rifle-bolt. T. O. Mudd. No. 1,305,330; June 3; v. 263; p. 112.
 Rim and tire. W. R. Miller. No. 1,307,572; June 24; v. 263; p. 596.
 Rim contractor and expander. C. Bullivant. No. 1,308,967; June 17; v. 263; p. 394.
 Rim. Detachable. J. N. Foster. No. 1,306,967; June 17; v. 263; p. 267.
 Rim. Vehicle-wheel. R. W. Ashley. No. 1,305,632; June 3; v. 263; p. 84.
 Rims. Device for breaking, contracting, and expanding. G. L. Lewis. No. 1,305,654; June 3; v. 263; p. 61.
 Ring. See—
 Finger-ring. Packing-ring.
 Riveting and punching machine. F. Y. Pearne. No. 1,306,974; June 3; v. 263; p. 141.
 Riving-machine. F. Y. Pearne. No. 1,305,973; June 3; v. 263; p. 141.
 Road-surfacing machine. R. E. Reynolds. No. 1,306,353; June 10; v. 263; p. 244.
 Rock-drill. Percussion. J. Fletcher. No. 1,305,349; June 3; v. 263; p. 23.
 Rod. See—
 Connecting-rod. Radius-rod.
 Rod coupling. Sucker-rod or pull. W. J. Sheldon and C. H. Allen. No. 1,305,311; June 3; v. 263; p. 16.
 Roentgen-ray tubes. Apparatus for exciting. F. Eleber. No. 1,305,495; June 3; v. 263; p. 50.
 Roll-passes. Switch for. T. D. Hodge. No. 1,307,125; June 17; v. 263; p. 418.
 Roller. See—
 Land-roller. Shade-roller.
 Roller. F. H. Wolever and W. J. Price. No. 1,305,330; June 3; v. 263; p. 18.
 Roller-bit. T. Patin. No. 1,305,488; June 3; v. 263; p. 48.
 Roller-bit. T. Patin. No. 1,305,489; June 3; v. 263; p. 48.
 Roller-boring drill. H. R. Hughes. No. 1,306,064; June 17; v. 263; p. 339.
 Roller-supporting device. E. J. McCauley. No. 1,306,155; June 10; v. 263; p. 204.
 Rompers. A. F. Chase. No. 1,307,950; June 24; v. 263; p. 603.
 Roof-bracket. P. P. Melanson. No. 1,306,484; June 10; v. 263; p. 258.
 Room-rack for hotels and the like. F. A. Muschenheim and F. W. Blandala. No. 1,307,585; June 24; v. 263; p. 536.
 Rotary engine. T. F. Brackett. No. 1,307,490; June 24; v. 263; p. 516.
 Rotary engine. H. H. Friend. No. 1,307,906; June 24; v. 263; p. 502.
 Rotary engine. J. Sollano. No. 1,306,314; June 3; v. 263; p. 16.
 Rotary engine. E. Ulland. No. 1,306,238; June 10; v. 263; p. 222.
 Rotary engine and pump. G. L. Jacques. No. 1,307,631; June 24; v. 263; p. 542.
 Rotary screw. F. H. Beach. No. 1,306,686; June 3; v. 263; p. 94.
 Rotary steam-engine. Reversible. W. J. Dunfee. No. 1,305,245; June 3; v. 263; p. 22.

Rolling-holder. E. E. Hanecorn and M. J. Griffin. No. 1,305,540; June 3; v. 263; p. 58.
 Rubber-dam clamp. Naphia or roll attachment for. J. W. Ivory. No. 1,306,007; June 17; v. 263; p. 240.
 Rubber heel. Metal-protected. W. E. Hildebrand. No. 1,307,787; June 24; v. 263; p. 562.
 Rubbing mechanism. F. H. Friel. No. 1,306,533; June 10; v. 263; p. 278.
 Rupture. W. E. Schneider and G. E. Voelken. No. 1,305,497; June 3; v. 263; p. 50.
 Rag-extractor. H. E. McNelly. No. 1,307,550; June 24; v. 263; p. 530.
 Rule. Column. G. T. Trundle, Jr. No. 1,306,038; June 10; v. 263; p. 183.
 Rule. Head. W. A. Glimpse. No. 1,307,967; June 24; v. 263; p. 604.
 Rust-preventing coating. G. H. and W. H. Allen. No. 1,306,221; June 3; v. 263; p. 19.
 Saddle. C. A. Persons. No. 1,306,622; June 10; v. 263; p. 203.
 Saddle mechanism. Top-roll. J. V. Cunliff. No. 1,307,117; June 17; v. 263; p. 416.
 Saddle. Top-roll. E. Dixon. No. 1,306,528; June 10; v. 263; p. 275.
 Safe. Flexible. G. Marrio. No. 1,307,268; June 17; v. 263; p. 442.
 Safety device for ships. M. J. Christensen. No. 1,307,040; June 17; v. 263; p. 403.
 Safety-hoist. H. Phillips and J. Greenwald. No. 1,305,861; June 3; v. 263; p. 123.
 Safety-hook. M. Gorman. No. 1,307,251; June 17; v. 263; p. 440.
 Safety or shield pin. J. W. Ivory. No. 1,306,818; June 17; v. 263; p. 361.
 Safety panel-box. H. F. Krantz. No. 1,306,345; June 10; v. 263; p. 263.
 Safety panel-box. H. F. Krantz. No. 1,306,346; June 10; v. 263; p. 242.
 Safety panel-box. H. F. Krantz. No. 1,306,347; June 10; v. 263; p. 242.
 Safety receiving-box. J. Friedland. No. 1,307,352; June 24; v. 263; p. 492.
 Self-shaker. K. W. Weidlich. No. 1,307,838; June 24; v. 263; p. 560.
 Sanding-machine. K. F. G. Maler. No. 1,305,731; June 3; v. 263; p. 95.
 Sanding-machine. K. F. G. Maler and L. G. McKnight. No. 1,305,910; June 3; v. 263; p. 129.
 Sash and the like. Joint for metallic. A. Rush. No. 1,305,746; June 3; v. 263; p. 98.
 Sash. Mechanism for operating window. U. E. Tuomi. No. 1,306,666; June 17; v. 263; p. 370.
 Sash or window fastener. E. Keuser, Sr. No. 1,305,550; June 3; v. 263; p. 61.
 Saw-carrying device. J. C. Munkers. No. 1,305,831; June 3; v. 263; p. 112.
 Saw-jointer. F. M. Boult. No. 1,307,234; June 17; v. 263; p. 437.
 Saw. Pneumatic. J. M. Abrams. No. 1,306,395; June 10; v. 263; p. 251.
 Saw reconstruction. G. L. Blanchard. No. 1,306,741; June 17; v. 263; p. 247.
 Sawing and splitting machine. Wood. L. M. Van Slyke. No. 1,307,714; June 24; v. 263; p. 557.
 Sawing-machine. L. I. Yeomans. No. 1,305,858; June 3; v. 263; p. 119.
 Sawing machine. Tree. A. McPherson. No. 1,305,479; June 3; v. 263; p. 47.
 Scaffold. K. Kempy. No. 1,305,723; June 3; v. 263; p. 93.
 Scaffold. Building. J. E. Yeagley. No. 1,307,610; June 24; v. 263; p. 539.
 Scale-pole. J. R. Jackson. No. 1,307,318; June 24; v. 263; p. 577.
 Scale. Rotatable. T. Iuchi. No. 1,307,535; June 24; v. 263; p. 534.
 Scale. Track. A. S. Vogt. (Belauze). No. 14,675; June 24; v. 263; p. 616.
 Scale. Weighing. H. S. Bergen. No. 1,306,992; June 10; v. 263; p. 174.
 School-bag. C. F. Henderson. No. 1,305,797; June 3; v. 263; p. 107.
 Scraper. Disk. A. A. Rodgers. No. 1,306,629; June 10; v. 263; p. 294.
 Screen. See—
 Fire-screen. Wall-screen.
 Headlight-screen. Window-screen.
 Screen attachment. W. F. Piller. No. 1,306,715; June 17; v. 263; p. 343.
 Screen construction. W. N. Cropper. No. 1,307,726; June 24; v. 263; p. 559.
 Screens for use in producing half-tone negatives. W. E. R. Larson. No. 1,307,824; June 24; v. 263; p. 578.
 Screens. Washer for well. J. O. Mack. No. 1,305,914; June 3; v. 263; p. 129.
 Screw-thread gage. R. H. Parker. No. 1,307,451; June 24; v. 263; p. 510.
 Screw-threads by chasers. Device for cutting. E. M. Wilkey. No. 1,307,104; June 17; v. 263; p. 414.
 Screw-threads. Cutter or hob for milling. G. Richards. No. 1,306,955; June 17; v. 263; p. 304.
 Screw-threads. Cutter or hob for milling. G. Richards. No. 1,306,956; June 17; v. 263; p. 308.
 Screw-threads. Tap for cutting. E. M. Wilkey. No. 1,307,103; June 17; v. 263; p. 414.
 Seal. M. H. Jackson. No. 1,306,905; June 17; v. 263; p. 377.
 Sealing-machine. H. E. Biever. No. 1,306,573; June 10; v. 263; p. 283.
 Sealing machine. Can. J. C. Bowers. No. 1,306,168; June 10; v. 263; p. 207.
 Sealing means for burial-caskets, &c. R. H. Almirety. No. 1,306,457; June 10; v. 263; p. 263.
 Seam for sewed articles. T. J. Hayes. No. 1,305,542; June 3; v. 263; p. 59.
 Seamer. F. D. Stowe. No. 1,306,449; June 10; v. 263; p. 261.
 Seamer. Multiple-spindle double. I. F. Warne and J. C. Tallafiero. No. 1,306,648; June 10; v. 263; p. 297.
 Search-lights. Shutter mechanism for. G. Reborn. No. 1,306,677; June 10; v. 263; p. 190.
 Seat. See—
 Folding seat. Vehicle-seat.
 Spring-seat.
 Seat for children. Auxiliary. A. A. Harris. No. 1,306,468; June 3; v. 263; p. 44.
 Seat. Structure. Upholstered. H. N. Pedersen. No. 1,306,619; June 10; v. 263; p. 292.
 Sectional boiler. W. M. Mackay. No. 1,306,675; June 10; v. 263; p. 302.
 Sectional bull-wheel. R. B. Woodworth. No. 1,306,782; June 17; v. 263; p. 356.
 Sectional mold. W. M. Yeomans. No. 1,307,470; June 24; v. 263; p. 514.
 Seers and plaster. Fender for. B. C. Mendenhall. No. 1,305,826; June 3; v. 263; p. 112.
 Seeding-machine. B. M. Steele. No. 1,305,500; June 3; v. 263; p. 61.
 Selvage-trimmer. W. C. Stevens. No. 1,306,642; June 10; v. 263; p. 296.
 Separator. See—
 Centrifugal separator. Pneumatic separator.
 Grain-separator. Tooth-separator.
 Separator. J. Good. No. 1,306,003; June 10; v. 263; p. 176.
 Setting tools or facilitating the setting of same. Apparatus for automatically. R. H. Carpmal and J. C. Sotham. No. 1,306,578; June 3; v. 263; p. 122.
 Sewed articles. Seam for. G. S. Gatchell. No. 1,306,110; June 10; v. 263; p. 196.
 Sewing-machine. F. J. T. and H. C. Bell. No. 1,307,842; June 24; v. 263; p. 581.
 Sewing-machine. P. A. Bowen. No. 1,306,994; June 17; v. 263; p. 393.
 Sewing-machine. J. R. Moffatt. No. 1,306,605; June 10; v. 263; p. 289.
 Sewing-machine. J. R. Moffatt. No. 1,307,264; June 17; v. 263; p. 443.
 Sewing-machine. C. A. Moore. No. 1,307,304; June 17; v. 263; p. 450.
 Sewing-machine stand. L. C. Kiehle. No. 1,306,763; June 17; v. 263; p. 351.
 Sewing-machine threads. Tension-testing device for. C. F. Dilks. No. 1,306,780; June 3; v. 263; p. 104.
 Sewing-machines. Hemmer for. J. E. Chalmers. No. 1,305,263; June 3; v. 263; p. 4.
 Sewing-machines. Needle-guard attachment for. F. P. Gardner. No. 1,307,265; June 17; v. 263; p. 448.
 Sewing-machine. Presser-foot mechanism for. A. H. De Voe. No. 1,306,752; June 17; v. 263; p. 349.
 Serving-tray. Combined rack and. L. F. Bar. No. 1,305,512; June 3; v. 263; p. 53.
 Shade-bracket. M. M. Koval. No. 1,306,114; June 10; v. 263; p. 196.
 Shaft-coupling. G. T. Nelson. No. 1,305,925; June 3; v. 263; p. 131.
 Shade-guide. W. L. Smith. No. 1,307,709; June 24; v. 263; p. 556.
 Shade-hanger. P. Blasko. No. 1,306,463; June 10; v. 263; p. 204.
 Shade holder or support. L. W. Andersen. No. 1,305,985; June 10; v. 263; p. 173.
 Shade-roller. J. A. Sharps and I. G. Cutright. No. 1,306,127; June 10; v. 263; p. 199.
 Shade. Window. J. Dunlop. No. 1,307,729; June 24; v. 263; p. 560.
 Shaft-coupling. A. G. Herreshoff. No. 1,306,541; June 10; v. 263; p. 277.
 Shaft-hanger. C. B. Pieper. No. 1,306,623; June 10; v. 263; p. 293.
 Shaft support. Buggy. W. A. Braybeal. No. 1,307,252; June 17; v. 263; p. 440.
 Shafting. Flexible coupling for. G. E. Beach. No. 1,306,943; June 17; v. 263; p. 384.
 Sharpener. Knife. Z. T. Blackman. No. 1,307,953; June 24; v. 263; p. 602.
 Sharpener. Pencil. T. Imasumi. No. 1,306,903; June 17; v. 263; p. 377.
 Sharpening-machine. R. A. Anschutz. No. 1,306,733; June 17; v. 263; p. 346.
 Sharpening razors. E. Dion. No. 1,307,658; June 24; v. 263; p. 547.
 Sheet collecting, associating and folding machine. H. M. Barber. No. 1,305,999; June 10; v. 263; p. 173.
 Sheet-cutter. C. H. Hartman. No. 1,306,009; June 10; v. 263; p. 177.

Sheet-glass. Apparatus for drawing. J. H. Wendt. No. 1,305,288; June 3; v. 263; p. 11.
Sheet-glass. Manufacturing. E. Hopkinson. No. 1,305,286; June 3; v. 263; p. 11.
Sheet metal. A. E. Gillespie. No. 1,306,000; June 17; v. 263; p. 358.
Sheet metal. Apparatus for forming. J. H. Bickley. No. 1,306,106; June 10; v. 263; p. 204.
Sheet package of reversely-folded material. Consecutive. C. W. Morden. No. 1,307,130; June 17; v. 263; p. 420.
Sheet-registering mechanism. Reversible. J. R. Perry. No. 1,306,741; June 3; v. 263; p. 97.
Sheet-stripping machine. S. Barrille and I. L. Marzhan. No. 1,306,602; June 17; v. 263; p. 363.
Shell and like forgings. Production of. S. Z. de Feirault. No. 1,306,583; June 10; v. 263; p. 285.
Shell, Explosive. R. L. Cushing. No. 1,306,215; June 10; v. 263; p. 215.
Shell, Explosive. E. A. Hawks. No. 1,305,967; June 3; v. 263; p. 140.
Shell, Flame-light. S. C. Davidson. No. 1,306,407; June 10; v. 263; p. 253.
Shells and the like. Gas. C. Steenstrup. No. 1,306,641; June 10; v. 263; p. 296.
Shield. Glass. O. Redmond. No. 1,306,026; June 10; v. 263; p. 203.
Shield, Sanitary. J. W. Taylor. No. 1,307,162; June 17; v. 263; p. 424.
Shingle. Sheet-metal. L. Kuehn. No. 1,306,488; June 10; v. 263; p. 268.
Ship and constructing same. Reinforced-concrete. R. R. Leffer. No. 1,306,579; June 3; v. 263; p. 28.
Ship-convey submarine defenses. M. Carrau. No. 1,305,877; June 3; v. 263; p. 122.
Ship-socket. A. M. Monroe. No. 1,306,407; June 10; v. 263; p. 270.
Ships from torpedoes. Means for protecting. J. Dinera. No. 1,306,700; June 3; v. 263; p. 99.
Shipping case or container. C. S. Dudley. No. 1,307,080; June 17; v. 263; p. 411.
Shipping-cases. Partition and reinforcing member for. H. L. Howell and H. E. Martin. No. 1,306,796; June 17; v. 263; p. 357.
Shirt. H. S. Kratz. No. 1,306,226; June 10; v. 263; p. 210.
Shock-absorber. L. C. and J. H. Brahat. No. 1,307,365; June 24; v. 263; p. 602.
Shock-absorber. J. P. MacLean. No. 1,306,016; June 10; v. 263; p. 178.
Shock-absorber. R. T. Newton. No. 1,306,558; June 10; v. 263; p. 290.
Shock-absorber. N. Schachter. No. 1,307,750; June 24; v. 263; p. 566.
Shock-absorber. N. Schachter. No. 1,307,835; June 24; v. 263; p. 580.
Shock-absorber for the polish or sucker rods of oil-pumps. R. Cousins. No. 1,307,243; June 17; v. 263; p. 438.
Shock-absorber for vehicles. J. F. O'Connor. No. 1,307,311; June 17; v. 263; p. 451.
Shock-absorbing mechanism. Friction. J. F. O'Connor. No. 1,307,312; June 17; v. 263; p. 451.
Shock-absorbing mechanism. Friction. J. F. O'Connor. No. 1,307,313; June 17; v. 263; p. 452.
Shock-absorbing mechanism. Friction. J. F. O'Connor. No. 1,307,314; June 17; v. 263; p. 452.
Shock-absorbing mechanism. Friction. J. F. O'Connor. No. 1,307,315; June 17; v. 263; p. 452.
Shock-absorbing mechanism. High-capacity friction. J. F. O'Connor. No. 1,306,065; June 3; v. 263; p. 82.
Shock-loader. J. J. Krogan. No. 1,306,507; June 10; v. 263; p. 288.
Shoe. P. H. Brown. No. 1,306,006; June 17; v. 263; p. 304.
Shoe-beating machine. A. M. Rogers. No. 1,306,030; June 10; v. 263; p. 204.
Shoe-bottoms. Machine for filling. A. Thoma. No. 1,306,727; June 17; v. 263; p. 345.
Shoe-buttoner. W. Vogel. No. 1,306,790; June 17; v. 263; p. 386.
Shoe-cleaning machine. O. Hostad. No. 1,307,670; June 24; v. 263; p. 540.
Shoe-fastening device. V. M. Taylor. No. 1,307,279; June 17; v. 263; p. 448.
Shoe-heel. J. S. Feien. No. 1,307,985; June 24; v. 263; p. 608.
Shoe-laces. Retaining means for. L. B. Smith. No. 1,306,840; June 17; v. 263; p. 305.
Shoe, Reinforced. A. Dreyling. No. 1,306,782; June 3; v. 263; p. 104.
Shoe-sole. W. F. Gillespie. No. 1,305,450; June 3; v. 263; p. 44.
Shoe-sole. Metal and rubber. E. E. Lambert. No. 1,306,812; June 3; v. 263; p. 110.
Shoe-stretcher. W. Holub. No. 1,307,778; June 24; v. 263; p. 599.
Shoe-trimming machine. A. Eppler and W. V. Neal. No. 1,307,811; June 24; v. 263; p. 575.
Shoes. Device for polishing. J. N. Sperkha. No. 1,307,276; June 17; v. 263; p. 445.
Shovel. See—
Shovel and ash-sifter. Combination. C. E. Thomas. No. 1,306,931; June 17; v. 263; p. 382.

Shovel attachment. J. J. Van Valkenburg. No. 1,307,328; June 17; v. 263; p. 464.
Shovel, Fire. L. C. Moulton. No. 1,307,308; June 17; v. 263; p. 443.
Shutter-panel. Safety. H. F. Krantz. No. 1,306,348; June 10; v. 263; p. 342.
Shuttle. Tinting. G. A. Houseman. No. 1,306,692; June 17; v. 263; p. 339.
Shuttle, Tension device for. J. Barton and W. Cotterill. No. 1,307,336; June 24; v. 263; p. 489.
Sickle-bar. A. D. Abbeville. No. 1,306,243; June 10; v. 263; p. 223.
Side frame and journal-box. Equalizing. A. Beasley. No. 1,306,461; June 10; v. 263; p. 263.
Sifter. Ash. M. J. Feeney. No. 1,306,063; June 10; v. 263; p. 185.
Sifter. Ash. J. Road. No. 1,306,683; June 10; v. 263; p. 295.
Sign and lighting post. Collapsible. W. H. Brown. No. 1,307,655; June 24; v. 263; p. 547.
Sign-fasher. L. B. Brown. No. 1,307,237; June 17; v. 263; p. 437.
Signal. See—
Auto direction-signal. Direction-signal.
Automobile-signal. Railway-signal.
Automobile theft-signal. Railway-cramming signal.
Danger-signal. Traffic-signal.
Signal. J. H. Holliday. No. 1,306,181; June 10; v. 263; p. 308.
Signal. G. R. Marzico. No. 1,306,493; June 10; v. 263; p. 268.
Signal. F. L. Schoening. No. 1,305,836; June 3; v. 263; p. 124.
Signal devices. Circuit-closer for. P. F. Morris. No. 1,307,100; June 17; v. 263; p. 413.
Signal-operating and collision-preventing apparatus. R. L. Neely. No. 1,306,888; June 17; v. 263; p. 364.
Signals. Circuit-interrupter for traffic. O. Freytag. No. 1,306,649; June 3; v. 263; p. 80.
Signals. Direction-indicator for use in connection with vehicle direction. O. L. Britton. No. 1,306,444; June 10; v. 263; p. 264.
Signals. Electrical apparatus for transmitting or receiving. A. T. Dawson and G. T. Buckham. No. 1,306,410; June 10; v. 263; p. 234.
Signalling device. N. H. Tunks. No. 1,305,844; June 3; v. 263; p. 116.
Signalling device. J. W. White. No. 1,305,986; June 3; v. 263; p. 126.
Signalling means. W. Taylor, J. Miles, and H. Burden. No. 1,307,710; June 24; v. 263; p. 597.
Signalling system. J. F. Moran. No. 1,306,074; June 10; v. 263; p. 180.
Signalling system. C. S. Rhoads, Jr. No. 1,307,758; June 24; v. 263; p. 565.
Signalling system for transmitting information from a sending-station to one or more receiving-stations. J. L. Hall. No. 1,306,593; June 10; v. 263; p. 297.
Signalling system. Party-line selective. T. C. Martin. No. 1,306,464; June 10; v. 263; p. 260.
Signalling system. Selective. W. T. Powell. No. 1,306,716; June 17; v. 263; p. 342.
Silo-base anchor. H. B. Curry. No. 1,306,092; June 3; v. 263; p. 88.
Shifting-halfe. A. M. Alexander. No. 1,306,943; June 3; v. 263; p. 120.
Shack adjuster. Draw-bar. P. H. Donovan. No. 1,307,067; June 17; v. 263; p. 411.
Shed. Power-driven. C. C. Brayton and A. A. Allan. No. 1,306,844; June 3; v. 263; p. 79.
Sleigh. Motor-cycle. A. Hamner. No. 1,306,428; June 10; v. 263; p. 257.
Slicing-knife. Adjustable. C. H. Krapf. No. 1,306,944; June 3; v. 263; p. 127.
Slimes. Treatment of electrolytic. W. C. Ferguson. No. 1,306,767; June 3; v. 263; p. 108.
Slimes. Treatment of electrolytic. W. C. Ferguson. No. 1,306,768; June 3; v. 263; p. 108.
Silver-lap and ribbon-lap machines. Guard for. M. T. O'Malley. No. 1,306,711; June 17; v. 263; p. 342.
Sluice-gate. E. L. Broome. No. 1,306,970; June 10; v. 263; p. 247.
Snap-switch. C. C. Stirling. No. 1,306,980; June 10; v. 263; p. 245.
Snap-switch. Rotary. J. P. Hayes and J. E. Barnhart. No. 1,306,541; June 3; v. 263; p. 59.
Soap-dispenser. A. W. McCord. No. 1,306,476; June 3; v. 263; p. 40.
Soap. Dye. L. C. Cates. No. 1,307,113; June 17; v. 263; p. 416.
Soap-holder. C. L. May. No. 1,306,912; June 3; v. 263; p. 130.
Socket. Bow. E. E. Adams. No. 1,307,105; June 17; v. 263; p. 414.
Socket for fasteners. D. Bourque. No. 1,306,830; June 3; v. 263; p. 55.
Soil cultivation. L. N. Lyon. No. 1,306,847; June 10; v. 263; p. 279.
Soler. Machine for operating on. A. E. Johnson. No. 1,307,830; June 24; v. 263; p. 577.
Solvent and making same. Composit. C. Mith. No. 1,306,221; June 10; v. 263; p. 217.
Soot-ejector. G. Purvia. No. 1,306,508; June 3; v. 263; p. 64.

Sound-box. J. Brandstetter. No. 1,307,300; June 17; v. 263; p. 457.
Sound-record. F. L. Young. No. 1,306,030; June 24; v. 263; p. 615.
Sound reproducing and recording apparatus. R. T. Turner. No. 1,306,121; June 10; v. 263; p. 260.
Spade. Fast. G. W. Felton. No. 1,306,807; June 17; v. 263; p. 300.
Spear-forming machine. S. Plymale. No. 1,307,000; June 24; v. 263; p. 555.
Spear-gun device. F. Lowenstein. No. 1,306,810; June 3; v. 263; p. 111.
Spear-indicator. H. Anderson. No. 1,306,844; June 17; v. 263; p. 306.
Spear-plug. L. R. Benn. No. 1,307,176; June 17; v. 263; p. 436.
Spear-plug. J. Bloomer and J. Schaben. No. 1,307,804; June 24; v. 263; p. 594.
Spear-plug. J. W. Drummond. No. 1,307,008; June 17; v. 263; p. 411.
Spear-plug. G. L. Herz. No. 1,306,304; June 10; v. 263; p. 234.
Spear-plug. J. Iacono. No. 1,306,817; June 17; v. 263; p. 341.
Spear-plug. W. A. Lathaw. No. 1,306,613; June 3; v. 263; p. 74.
Spear-plug. E. R. Main. No. 1,306,600; June 3; v. 263; p. 68.
Spear-plug. L. C. Menalith. No. 1,306,824; June 3; v. 263; p. 70.
Spear-plug. J. A. Moreau. No. 1,306,271; June 10; v. 263; p. 236.
Spear-plug. I. B. Owens. No. 1,306,834; June 17; v. 263; p. 364.
Spear-plug indicator. C. F. Planco. No. 1,306,331; June 10; v. 263; p. 230.
Spear-plug. Vacuum-operated make-and-break. H. G. Irwin. No. 1,306,607; June 10; v. 263; p. 301.
Spectacle-frame. W. S. Kearl. No. 1,306,362; June 10; v. 263; p. 251.
Speed-controlling mechanism. N. Lombard. No. 1,306,368; June 3; v. 263; p. 30.
Speed-measuring instrument. N. B. Hall. No. 1,307,689; June 24; v. 263; p. 542.
Speed of induction-motors. Double-range regulating set for controlling. J. I. Hall. No. 1,306,864; June 10; v. 263; p. 257.
Speed transmission. Variable. H. U. Durant. No. 1,307,486; June 24; v. 263; p. 517.
Spindle-lock. Micrometer-calliper. F. O. Jaques, Sr. No. 1,306,806; June 17; v. 263; p. 377.
Spirit-level attachment. W. E. Wallop. No. 1,306,636; June 3; v. 263; p. 74.
Spring-holder. W. E. and M. A. Anderson. No. 1,306,677; June 10; v. 263; p. 262.
Spring. Trolling. G. Robertson. No. 1,306,719; June 17; v. 263; p. 342.
Sprocket for containers. Sanitary pouring. D. P. Long and D. G. Peterson. No. 1,306,283; June 10; v. 263; p. 237.
Spring. See—
Vehicle-spring.
Spring-seat. S. W. Clark. No. 1,306,771; June 3; v. 263; p. 102.
Spring-wheel. C. J. McCord. No. 1,305,558; June 3; v. 263; p. 62.
Sprinkler. See—
Lawn-sprinkler.
Water-sprinkler.
Sprinkler-head. H. B. Long. No. 1,306,480; June 10; v. 263; p. 263.
Square. A. Schachal. No. 1,306,722; June 17; v. 263; p. 344.
Squeegee. Lemon and lime. J. E. Bolton and J. D. Wilk. No. 1,306,839; June 3; v. 263; p. 21.
Stabilizer. J. Utgar. No. 1,306,818; June 10; v. 263; p. 237.
Stacker. Hay. L. E. Claussen and E. E. Bowers. No. 1,306,748; June 17; v. 263; p. 346.
Stacker. Hay. O. F. Vroom. No. 1,306,420; June 3; v. 263; p. 80.
Stacker. Wheat. O. P. Westworth. No. 1,306,842; June 17; v. 263; p. 346.
Stamp-milling machine. W. H. Amy. No. 1,306,480; June 10; v. 263; p. 262.
Stamps, labels, and the like. Mechanism for applying. E. L. Smith. No. 1,306,350; June 10; v. 263; p. 243.
Stand. See—
Bewig-machine stand.
Horse-stand.
Starter. Impulse. P. Osterberg. No. 1,307,791; June 24; v. 263; p. 572.
Starting switch. Motor. H. F. Krantz. No. 1,306,375; June 3; v. 263; p. 27.
Steam effect. Method and apparatus for eliminating. E. E. Butcher. No. 1,306,170; June 10; v. 263; p. 207.
Stay-applying machine. Feeding device for. H. De Smith. No. 1,306,242; June 3; v. 263; p. 21.
Stay-applying machine. Feeding device for. H. De Smith. No. 1,306,243; June 3; v. 263; p. 22.
Stay. Garment. A. J. Cook. No. 1,306,888; June 17; v. 263; p. 372.
Steam-blower. J. S. Nichols. No. 1,306,818; June 10; v. 263; p. 201.

Steam-blower furnace. W. J. Bolly. No. 1,306,400; June 3; v. 263; p. 34.
Steam-condenser of the jet or contact type. A. E. L. Seane. No. 1,307,768; June 24; v. 263; p. 586.
Steam-ejectors arranged in series. Device for insuring stability of working. M. Delaporte. No. 1,306,414; June 10; v. 263; p. 255.
Steam-engine. W. F. Kiesel, Jr. No. 1,307,821; June 24; v. 263; p. 577.
Steam-generating apparatus. P. H. Centnel. No. 1,306,888; June 17; v. 263; p. 374.
Steam of high pressure. Producing. J. V. Blomquist. No. 1,307,612; June 24; v. 263; p. 530.
Steam-sterilizer. H. Spitz. No. 1,305,600; June 3; v. 263; p. 51.
Steam-trap. W. Winsom. No. 1,307,288; June 17; v. 263; p. 447.
Steel and like metal plates. Machinery or apparatus for handling, manipulating, or transporting. T. Thomson. No. 1,306,319; June 3; v. 263; p. 17.
Steel. Compound for tempering. C. C. Trinkle. No. 1,307,465; June 24; v. 263; p. 513.
Steel-planting device. Drill. J. Ditson. No. 1,306,106; June 10; v. 263; p. 195.
Steering-gear. J. E. Marceau. No. 1,305,297; June 3; v. 263; p. 13.
Steering-gear. J. E. Marceau. No. 1,305,304; June 3; v. 263; p. 13.
Steering mechanism. Power. A. Stewart. No. 1,306,030; June 10; v. 263; p. 181.
Steering-strain-relieving device for automobiles. W. G. and G. W. Wade. No. 1,305,635; June 3; v. 263; p. 78.
Steering-wheel brake. J. C. Rhodes, G. E. Gaffay, and J. G. Sheehan. No. 1,305,934; June 3; v. 263; p. 134.
Stencil-cutting machine. O. S. Watts. No. 1,305,847; June 3; v. 263; p. 116.
Step-ladder. Traveling. T. Kieper. No. 1,306,546; June 10; v. 263; p. 278.
Steps or step-ladder. Foldable. W. A. S. Hall. No. 1,305,281; June 3; v. 263; p. 10.
Stetoscope. Photo-casting apparatus. H. F. Beckman. No. 1,306,086; June 10; v. 263; p. 134.
Sticker. G. G. Rockledge. No. 1,307,792; June 24; v. 263; p. 572.
Stitching machine. Wire. E. G. Rand. No. 1,306,026; June 10; v. 263; p. 186.
Stock-feeder. H. H. Dunham. No. 1,307,120; June 17; v. 263; p. 417.
Stock-feeders. R. E. Shaffer. No. 1,307,521; June 24; v. 263; p. 523.
Stock-releasing device. J. Hill. No. 1,307,355; June 24; v. 263; p. 403.
Stoker. Furnace. T. A. Marsh. No. 1,306,482; June 3; v. 263; p. 47.
Stoker. Locomotive. H. Lindsay. No. 1,305,655; June 3; v. 263; p. 81.
Stone cutting and surfacing machine. E. G. Rand. No. 1,305,834; June 3; v. 263; p. 114.
Stone-gathering machine. J. W. Schroeder. No. 1,306,940; June 3; v. 263; p. 135.
Storage batteries. Voltage-regulating means for. J. J. Sinclair. No. 1,306,815; June 10; v. 263; p. 236.
Storage-battery containers. Forming. J. M. Ahlgren. No. 1,306,679; June 17; v. 263; p. 337.
Storm-cash bracket. I. W. Sipas. No. 1,306,929; June 17; v. 263; p. 352.
Stove. F. Beckman and H. Bauer. No. 1,307,483; June 24; v. 263; p. 507.
Stove. Combination. P. and F. Will. No. 1,307,388; June 24; v. 263; p. 460.
Stove construction. R. H. Miller. No. 1,305,894; June 3; v. 263; p. 31.
Stove. Cooking. J. Ofman. No. 1,306,485; June 10; v. 263; p. 255.
Stove. Oil-burner. W. T. Fling. No. 1,306,954; June 17; v. 263; p. 337.
Stove. Attachment for. M. F. Tremain. No. 1,307,163; June 17; v. 263; p. 424.
Stoves. Combination stove-top and water-heater for gas and vapor. W. J. Elliott. No. 1,306,647; June 3; v. 263; p. 80.
Stoves into soft-coal heaters. Means for converting base-burner. P. J. Alwart. No. 1,306,764; June 3; v. 263; p. 101.
Stove. Petroleum-oil. H. B. Hemphill. No. 1,307,583; June 24; v. 263; p. 534.
Stoves. Reservoir for oil. R. Perlick. No. 1,307,578; June 24; v. 263; p. 587.
Stovepipe-fastener. C. F. Townsend. No. 1,305,504; June 3; v. 263; p. 52.
Strainer. W. B. Willis. No. 1,307,569; June 24; v. 263; p. 581.
Strainer. Coffee. W. B. Durgin. No. 1,306,050; June 10; v. 263; p. 194.
Strainer. Milk. G. A. Konkle. No. 1,307,077; June 24; v. 263; p. 551.
Strap. See—
Lap-strap.
Street-indicating device. E. P. Follett. No. 1,306,371; June 3; v. 263; p. 5.
Street-sweeping machine. B. Kern. No. 1,306,910; June 17; v. 263; p. 378.
Street-sweeping machine. B. Kern. No. 1,306,911; June 17; v. 263; p. 379.

Stress-recorder. H. J. Fereday. No. 1,307,902; June 24; v. 263; p. 592.
Structures, Mold for segmental. W. H. Evers. No. 1,305,704; June 3; v. 263; p. 90.
Subaqueous matter by way of sweeping. Apparatus for searching and locating. Y. Matsumura. No. 1,305,483; June 3; v. 263; p. 48.
Submarine fender. M. Sapusak. No. 1,307,518; June 24; v. 263; p. 522.
Supporter. L. C. Leak. No. 1,307,503; June 24; v. 263; p. 520.
Supporting and hoisting mechanism. I. Benjamin. No. 1,307,653; June 24; v. 263; p. 546.
Surf-motor. J. E. Bichel. No. 1,307,998; June 24; v. 263; p. 500.
Surf or wave motor. W. Gregersen. No. 1,307,095; June 17; v. 263; p. 412.
Surgical instruments, Scalpel or handle for. H. Weder. Sr. and C. H. Wolf. No. 1,307,717; June 24; v. 263; p. 534.
Suspenders attachment. W. E. Lane. No. 1,306,489; June 10; v. 263; p. 268.
Suspenders. J. D. Evans. No. 1,305,530; June 3; v. 263; p. 56.
Swab-protector and nut-lock. W. V. Turner. No. 1,307,166; June 17; v. 263; p. 425.
Swaging-machine. R. W. Ruth. No. 1,304,232; June 10; v. 263; p. 220.
Sweeper, Street. A. O. Bishop. No. 1,307,190; June 17; v. 263; p. 427.
Sweeper, Street. C. Finkbe and I. Cohen. No. 1,306,004; June 24; v. 263; p. 612.
Sweeping machine, Street. A. Blecher. No. 1,306,877; June 17; v. 263; p. 372.
Swing. J. B. Dunlap. No. 1,307,774; June 24; v. 263; p. 568.
Switch. See—
Electric switch. Float-controlled switch.
Electric pull-switch. Line-switch.
Electrical switch. Motor-switch.
Electromagnetic switch. Snap-switch.
Electric multiple switch. Starting-switch.
Switch-machine. W. K. Howe, W. S. Henry, and F. N. Hall. No. 1,307,200; June 17; v. 263; p. 431.
Switch operating and locking mechanism. J. W. Walla. No. 1,306,567; June 10; v. 263; p. 282.
Switch-operating mechanism. O. H. and A. F. Pieper. No. 1,306,770; June 17; v. 263; p. 352.
Switch-panel. H. F. Krantz. No. 1,306,342; June 10; v. 263; p. 241.
Switch-stand lock. J. J. Dillon. No. 1,304,105; June 10; v. 263; p. 195.
Switch unit, Entrance. C. D. Platt. No. 1,306,191; June 10; v. 263; p. 211.
Switchboard. H. F. Krantz. No. 1,305,374; June 3; v. 263; p. 27.
Switchboard mechanism. H. Krantz. No. 1,305,376; June 3; v. 263; p. 28.
Switchboard, Safety. H. F. Krantz. No. 1,306,344; June 10; v. 263; p. 242.
Swivel connection. J. S. Lawson. No. 1,305,909; June 3; v. 263; p. 128.
Syringes. H. S. Jones. No. 1,306,184; June 10; v. 263; p. 210.
Syringes for injecting cement in teeth. W. R. Howard. No. 1,306,516; June 17; v. 263; p. 361.
Syringes, Valveless. F. S. Dickinson. No. 1,307,245; June 17; v. 263; p. 489.
Syringes, Sterilizing apparatus for hypodermic. H. R. Franklin. No. 1,307,249; June 17; v. 263; p. 440.
Table. See—
Cora-bushing table.
Folding table.
Revolving and folding table.
Table. J. A. Kiefer. No. 1,305,800; June 3; v. 263; p. 109.
Table and bed, Combined. J. Marlanich. No. 1,305,661; June 3; v. 263; p. 82.
Table-leaf combination. L. W. Penneck. No. 1,307,145; June 17; v. 263; p. 421.
Table opening and closing device. S. A. Clark. No. 1,307,808; June 24; v. 263; p. 575.
Table slide, Extension. A. P. Schloerb. No. 1,305,310; June 3; v. 263; p. 16.
Tabulating-machine. C. D. Lake. No. 1,307,740; June 24; v. 263; p. 562.
Tachimeter. W. W. G. Bruhn. No. 1,306,046; June 10; v. 263; p. 184.
Tag-fastening means. D. D. Cutting. No. 1,305,093; June 3; v. 263; p. 88.
Tag, Shipping. A. J. Lyons. No. 1,306,402; June 10; v. 263; p. 269.
Talking-machine. R. G. Royal. No. 1,305,745; June 3; v. 263; p. 97.
Talking-machine, Self-operating. G. W. Woodward. No. 1,306,241; June 10; v. 263; p. 223.
Talking-machines, Controlling mechanism for. R. S. Marsh. No. 1,307,014; June 17; v. 263; p. 398.
Tank. See—
Wood tank.
Tank-car heater. E. A. Schreiber. No. 1,306,837; June 17; v. 263; p. 365.

Tank-heater joint. W. R. Schaeffer. No. 1,307,708; June 24; v. 263; p. 554.
Tanks, Adjustable support for glass. M. B. Diskin. No. 1,306,754; June 17; v. 263; p. 250.
Tanks, Fire-extinguishing inlet for fuel. S. H. Brocha. No. 1,307,614; June 24; v. 263; p. 530.
Tape-moltening machine. Multiple-length series-delivery. C. H. Crowell. No. 1,306,776; June 3; v. 263; p. 108.
Target. A. Lasalle. No. 1,306,953; June 3; v. 263; p. 81.
Target apparatus. D. C. Coy. No. 1,306,048; June 10; v. 263; p. 184.
Teeth in correct positions. Means for placing. F. L. Stanton and G. D. Fish. No. 1,307,332; June 24; v. 263; p. 468.
Telegraph receiver, Printing. H. V. Grotjohann. No. 1,306,536; June 3; v. 263; p. 58.
Telegraph-repeater. C. W. McKibben. No. 1,307,558; June 24; v. 263; p. 530.
Telegraph system. J. H. Ball. No. 1,306,280; June 10; v. 263; p. 233.
Telegraph system. R. Pope. No. 1,305,620; June 3; v. 263; p. 76.
Telegraphic apparatus, Ship's. W. and W. R. Chadburn. No. 1,307,183; June 17; v. 263; p. 427.
Telegraphs, Take-up device for engine-room. F. J. Davis. No. 1,307,127; June 24; v. 263; p. 500.
Telegraphy, Radio. L. F. Fuller. No. 1,306,223; June 10; v. 263; p. 518.
Telegraphy, Wireless. R. A. Weagant. No. 1,306,306; June 10; v. 263; p. 214.
Telemeter. J. Mihalyi. No. 1,307,306; June 17; v. 263; p. 481.
Telemeter, Hydraulic. W. Wallace. No. 1,307,281; June 17; v. 263; p. 444.
Telephone coin-receivers. Counter for. G. E. Reina. No. 1,306,514; June 10; v. 263; p. 258.
Telephone district exchange system. R. D. Willis and T. G. Martin. No. 1,306,526; June 17; v. 263; p. 263.
Telephone-exchange, Automatic. F. A. Landquist. No. 1,307,589; June 24; v. 263; p. 535.
Telephone-exchange system. A. H. Dyson. No. 1,307,400; June 24; v. 263; p. 517.
Telephone-exchange system, Semi-automatic. F. Lubberger. No. 1,306,524; June 17; v. 263; p. 262.
Telephone-exchange system. A. E. Lundell. No. 1,307,057; June 17; v. 263; p. 408.
Telephone lockout system, Intercommunicating. F. W. Adair. No. 1,307,651; June 24; v. 263; p. 546.
Telephone-receiver support. K. L. Standish. No. 1,306,445; June 10; v. 263; p. 200.
Telephone signal-boxes, Chime attachment for. C. M. Van Heusen. No. 1,307,468; June 24; v. 263; p. 513.
Telephone signal-boxes, Chime attachment for. C. M. Van Heusen. No. 1,307,467; June 24; v. 263; p. 514.
Telephone switching apparatus, Automatic. T. G. Martin. (Reissue.) No. 1,406,665; June 10; v. 263; p. 208.
Telephone system. E. H. Hirschman. No. 1,305,901; June 3; v. 263; p. 142.
Telephone system. L. H. Johnson. No. 1,306,063; June 10; v. 263; p. 187.
Telephone system. F. A. Landquist. No. 1,307,688; June 24; v. 263; p. 533.
Telephone system and apparatus. A. E. Keith. No. 1,307,977; June 24; v. 263; p. 604.
Telephone system, Automatic. E. A. Mellinger. No. 1,306,529; June 17; v. 263; p. 263.
Telephone system, Automatic. W. T. Powell. No. 1,306,837; June 17; v. 263; p. 263.
Telephone system, Automatic and semi-automatic. O. Grahn. No. 1,307,196; June 17; v. 263; p. 480.
Telephone system having instantaneous disconnect and recall. H. D. Currier. No. 1,306,864; June 17; v. 263; p. 260.
Telephone system, Loud-speaking intercommunicating. N. A. Kurman. No. 1,307,931; June 24; v. 263; p. 607.
Telephone system, Machine-switching. H. P. Clausen and C. L. Goodrum. No. 1,307,536; June 24; v. 263; p. 526.
Telephone system, Semi-automatic. B. D. Willis. No. 1,306,826; June 17; v. 263; p. 263.
Temple. G. H. Day. No. 1,306,905; June 17; v. 263; p. 389.
Temple. L. Fortson. No. 1,306,778; June 17; v. 263; p. 383.
Tension mechanism, Yarn. L. T. Houghton. No. 1,306,148; June 10; v. 263; p. 203.
Tensionometer. W. P. Grafton. No. 1,306,391; June 17; v. 263; p. 575.
Tent-frame, Folding. M. Ostroski. No. 1,306,615; June 10; v. 263; p. 251.
Teething apparatus. G. Kaupert. No. 1,306,006; June 10; v. 263; p. 187.
Teething complex liquid. Apparatus for. A. T. Saunders. No. 1,307,801; June 24; v. 263; p. 537.
Teething-machine. L. E. Foster. No. 1,307,091; June 17; v. 263; p. 411.
Textile fabric, Attachment for unravelling. J. Brown. No. 1,305,586; June 3; v. 263; p. 69.
Thermal circuit-breaker. R. Dijkstra. No. 1,307,006; June 17; v. 263; p. 411.

Thermometer. R. H. Bristol. No. 1,307,687; June 17; v. 263; p. 402.
Thermometer, Sterilizing-carrier for clinical. C. J. Langley and C. P. Wood. No. 1,305,471; June 3; v. 263; p. 48.
Thermostat. C. W. Hack. No. 1,306,007; June 10; v. 263; p. 177.
Thorium, Scand. Treatment of. L. W. Ryan. No. 1,307,182; June 17; v. 263; p. 422.
Thorium, Recovery of. L. W. Ryan. No. 1,307,183; June 17; v. 263; p. 422.
Thread placer and cutter. R. A. Marshall. No. 1,307,015; June 17; v. 263; p. 388.
Thread-uniting machine. E. F. Hathaway. No. 1,306,706; June 3; v. 263; p. 90.
Threshing apparatus. A. E. Reimel. No. 1,306,028; June 10; v. 263; p. 180.
Threshing or shelling grain. Machine for. C. L. St. Clair. No. 1,307,323; June 17; v. 263; p. 458.
Throttle-controlling apparatus. W. T. Sears. No. 1,307,794; June 24; v. 263; p. 572.
Thymol, Synthetic manufacture of. C. E. Andrews. No. 1,306,512; June 10; v. 263; p. 272.
Tie. See—
Package-tie. Railway-tie.
Rail-tie.
Tie-spacer. W. L. Ballinger. No. 1,307,391; June 17; v. 263; p. 448.
Tie, Building. D. McIntyre. No. 1,305,294; June 3; v. 263; p. 15.
Tie, Scar. J. A. Bried. No. 1,306,246; June 10; v. 263; p. 224.
Timber-jack. M. Paulsen. No. 1,305,563; June 3; v. 263; p. 63.
Timber-jack. A. M. Clough. No. 1,304,902; June 17; v. 263; p. 383.
Time-recorder, Autographic. H. Hartman and J. Bröden. No. 1,306,481; June 10; v. 263; p. 267.
Timer. H. W. Muhlsten and C. Land. No. 1,306,580; June 3; v. 263; p. 63.
Tire. M. Freedman. No. 1,307,730; June 24; v. 263; p. 561.
Tire. A. T. Schyllander. No. 1,306,724; June 17; v. 263; p. 344.
Tire-adjuster. M. Kimbel. No. 1,307,181; June 17; v. 263; p. 419.
Tire and adjustable rim. Beadless wheel. F. B. Turner. No. 1,307,164; June 17; v. 263; p. 424.
Tire-carrier. A. Novy. No. 1,305,400; June 3; v. 263; p. 32.
Tire, Automobile. W. C. Fleisher. No. 1,306,055; June 10; v. 263; p. 185.
Tire-carrier. G. C. Jensen. No. 1,307,963; June 24; v. 263; p. 598.
Tire-curing, Apparatus for curing. P. P. Beagle and R. Stephenson. No. 1,307,079; June 17; v. 263; p. 410.
Tire-curing, Reinforcing for. A. H. Gruber. No. 1,306,234; June 10; v. 263; p. 240.
Tire-core, Reelient. J. J. Wohlgemuth and F. Lilly. No. 1,307,590; June 24; v. 263; p. 573.
Tire-deflating indicator. A. L. Stahl. No. 1,306,315; June 3; v. 263; p. 16.
Tire for vehicles. W. E. Munz. No. 1,307,308; June 17; v. 263; p. 432.
Tire for vehicles, Pneumatic. H. Bretscher. No. 1,307,036; June 17; v. 263; p. 402.
Tire-holder. E. E. Packer. No. 1,306,712; June 17; v. 263; p. 342.
Tire-mounting and clamp therefor. J. R. Holcombe. No. 1,306,314; June 17; v. 263; p. 360.
Tire-protector. A. Alfable. No. 1,305,957; June 3; v. 263; p. 188.
Tire-protector. M. C. Altmayer. No. 1,307,531; June 24; v. 263; p. 525.
Tire-repairing device. F. B. Dunlap. No. 1,307,190; June 17; v. 263; p. 429.
Tire, Reelient. D. B. Steele. No. 1,306,267; June 10; v. 263; p. 231.
Tire-rim clamps, Filler-cap for. J. B. Stroud. No. 1,306,906; June 17; v. 263; p. 361.
Tire-rim-locking device. T. A. Smith. No. 1,307,461; June 24; v. 263; p. 513.
Tire-shoe. W. J. Kelly. No. 1,307,445; June 24; v. 263; p. 509.
Tire, Spring. R. B. Bether. No. 1,306,109; June 10; v. 263; p. 194.
Tire-tool. J. Bjorall. No. 1,305,337; June 3; v. 263; p. 20.
Tire-unwrapping machine. C. Brown. No. 1,306,086; June 10; v. 263; p. 193.
Tire-valve. H. P. Kraft. No. 1,305,552; June 3; v. 263; p. 61.
Tire-valve. H. P. Kraft. No. 1,307,990; June 24; v. 263; p. 607.
Tire valve, Pneumatic. C. B. Harshart. No. 1,305,264; June 3; v. 263; p. 7.
Tire, Vehicle. L. H. Ferguson. No. 1,306,587; June 10; v. 263; p. 206.
Tire, Vehicle. S. D. Hartog. No. 1,307,123; June 17; v. 263; p. 417.
Tire, Vehicle. H. L. Ocha. No. 1,306,768; June 17; v. 263; p. 382.

Tire, Vehicle-wheel. R. G. McMullen. No. 1,305,819; June 3; v. 263; p. 111.
Tires, Inner tube for. L. D. Tibbets. No. 1,306,130; June 10; v. 263; p. 200.
Tires, Inner tube for pneumatic. C. R. Rawdon and J. H. Heltmann. No. 1,305,522; June 3; v. 263; p. 76.
Tires, Making pneumatic. E. Hopkinson. No. 1,305,801; June 3; v. 263; p. 108.
Tires, Method of and means for inflating and introducing sealing liquid into pneumatic. D. L. Anthony. No. 1,307,173; June 17; v. 263; p. 426.
Tires, Retreading. F. E. McEwen. No. 1,306,002; June 10; v. 263; p. 269.
Tires, Traction and anti-skid device for truck. D. Willis and R. H. Martens. No. 1,306,730; June 17; v. 263; p. 345.
Tires, Valve-cap for automobile. T. D. Milles. No. 1,306,486; June 10; v. 263; p. 260.
Tobacco-can. R. Drake. No. 1,306,256; June 3; v. 263; p. 8.
Tobacco-hanging machine. A. P. Gilbert. No. 1,306,374; June 10; v. 263; p. 247.
Tobacco-press. S. B. Minnich. No. 1,306,004; June 10; v. 263; p. 289.
Toe-grinder. F. Shirley. No. 1,305,749; June 3; v. 263; p. 98.
Toilet apparatus. C. H. Haggood. No. 1,305,358; June 3; v. 263; p. 24.
Toilet, Camp. J. H. Wittmann. No. 1,306,041; June 10; v. 263; p. 183.
Toilets, Flushing device for. A. Sigoula. No. 1,306,285; June 10; v. 263; p. 231.
Tone-regulator. G. A. Frost. No. 1,307,064; June 24; v. 263; p. 548.
Tongs, Fruit-squeezing. G. C. Keppeler. No. 1,305,806; June 3; v. 263; p. 109.
Tongs, Jagot. A. A. Hanlan. No. 1,306,255; June 10; v. 263; p. 226.
Tongue, Timber. J. J. Verrette and A. W. White. No. 1,307,597; June 24; v. 263; p. 589.
Tongues, Making pin. G. W. Dover. No. 1,306,049; June 10; v. 263; p. 184.
Tool. S. K. Nomencland. No. 1,307,018; June 17; v. 263; p. 384.
Tool-casing, Power-operated. A. R. Petterson and A. P. Warner. No. 1,307,146; June 17; v. 263; p. 421.
Tool, Combination. R. C. Hayden. No. 1,306,866; June 17; v. 263; p. 378.
Tool, Combination. C. T. Madson. No. 1,305,821; June 3; v. 263; p. 111.
Tool, Combination hand. G. B. Caldwell. No. 1,306,587; June 3; v. 263; p. 69.
Tool-feeding mechanism. H. A. Pedrick. No. 1,307,296; June 17; v. 263; p. 443.
Tool, Greeting. J. G. Bricker. No. 1,306,135; June 10; v. 263; p. 200.
Tool, Hand. W. A. Bernard. No. 1,305,513; June 3; v. 263; p. 63.
Tool, Hand. G. W. Hazel. No. 1,305,899; June 3; v. 263; p. 128.
Tool-handle-attaching means. J. F. Burke. No. 1,305,488; June 3; v. 263; p. 87.
Tool-holder. A. Marti and A. Oesch. (Reissue.) No. 1,406,664; June 10; v. 263; p. 303.
Tool-holder. M. Movshovitch. No. 1,307,017; June 17; v. 263; p. 394.
Tool-holder. J. K. Tufts. No. 1,306,030; June 10; v. 263; p. 183.
Tool-holder, Interchangeable. W. F. Straub. No. 1,307,937; June 24; v. 263; p. 599.
Tool, Pneumatic impact. W. Burlingham. No. 1,306,300; June 10; v. 263; p. 283.
Tool-retainer. W. H. and S. V. Johnson. No. 1,307,911; June 24; v. 263; p. 594.
Tool, Sharpening. L. Hermann. No. 1,305,602; June 3; v. 263; p. 72.
Tool, Wire-splicing. S. C. Prosser. No. 1,307,516; June 24; v. 263; p. 522.
Tooth-separator. J. W. Ivory. No. 1,306,096; June 17; v. 263; p. 386.
Torpedo-guard. G. Rinaldi. No. 1,307,023; June 17; v. 263; p. 399.
Torpedo-guard. C. Sealy. No. 1,307,274; June 17; v. 263; p. 444.
Torpedo, Self-propelled terrestrial. F. McNicol. No. 1,307,406; June 24; v. 263; p. 502.
Torpedo-tube construction, Submarine. A. L. Busch. No. 1,305,578; June 3; v. 263; p. 122.
Torpedoes, Aerial for automobile. J. H. Hammond, Jr. No. 1,306,145; June 10; v. 263; p. 202.
Towers, Filling material for absorption, reaction, mixing and cooling. H. Nielsen. No. 1,307,635; June 24; v. 263; p. 543.
Toy. T. H. Bamforth. No. 1,305,638; June 3; v. 263; p. 78.
Toy. H. G. Gould. No. 1,306,111; June 10; v. 263; p. 198.
Toy. H. E. Green. No. 1,306,592; June 10; v. 263; p. 267.
Toy, Bank. N. A. Smith. No. 1,305,750; June 3; v. 263; p. 98.
Toy boat. F. A. Lappin. No. 1,307,260; June 17; v. 263; p. 441.

Toy boat. O. E. Wall. No. 1,306,362; June 10; v. 263; p. 246.
 Toy camera. A. L. Kerr. No. 1,305,907; June 3; v. 263; p. 100.
 Toy cannon. O. E. Droege and G. A. Robinson. No. 1,306,584; June 10; v. 263; p. 288.
 Toy child's. W. Bollenbacher. No. 1,306,517; June 3; v. 263; p. 54.
 Toy hoop. M. E. Holden. No. 1,307,006; June 17; v. 263; p. 412.
 Toy machine-gun. G. H. Carlson. No. 1,306,577; June 10; v. 263; p. 284.
 Toy pistol. C. A. Bailey. No. 1,306,335; June 3; v. 263; p. 20.
 Toy pistol. C. A. Bailey. No. 1,307,472; June 24; v. 263; p. 231.
 Toy submarine. R. Seidl. No. 1,306,284; June 10; v. 263; p. 231.
 Toy trundle. G. T. Ernest and J. Barry. No. 1,306,785; June 17; v. 263; p. 350.
 Toy wrist-watch and whistle. Combined. H. J. Geer. No. 1,306,602; June 10; v. 263; p. 300.
 Traction device. R. Fagan. No. 1,307,192; June 17; v. 263; p. 429.
 Traction-engine. J. A. Watson. No. 1,307,044; June 24; v. 263; p. 600.
 Traction-vehicle. W. F. Drexler and E. Bessler. No. 1,306,584; June 17; v. 263; p. 374.
 Traction-wheel. H. Strain. No. 1,305,977; June 3; v. 263; p. 142.
 Traction-wheel transmission mechanism. J. K. Gumpfer. No. 1,306,005; June 10; v. 263; p. 176.
 Tractor. S. G. Balts and S. I. Feketa. No. 1,305,433; June 3; v. 263; p. 38.
 Tractor. E. E. Chandler. No. 1,307,481; June 24; v. 263; p. 516.
 Tractor. B. F. Cooper. No. 1,306,579; June 10; v. 263; p. 284.
 Tractor. J. A. Cowan. No. 1,306,400; June 10; v. 263; p. 205.
 Tractor. L. C. Erbe. No. 1,305,448; June 3; v. 263; p. 41.
 Tractor. C. Gregory. No. 1,307,904; June 24; v. 263; p. 592.
 Tractor. O. W. Johnson. No. 1,307,678; June 24; v. 263; p. 550.
 Tractor. O. Lodge. No. 1,305,396; June 3; v. 263; p. 20.
 Tractor. G. Malone. No. 1,305,481; June 3; v. 263; p. 47.
 Tractor. A. A. Tibbitts. No. 1,306,644; June 10; v. 263; p. 297.
 Tractor. E. F. Townsend. No. 1,305,908; June 3; v. 263; p. 52.
 Tractor. E. F. Townsend. No. 1,305,906; June 3; v. 263; p. 52.
 Tractor. R. L. Williamson. No. 1,307,330; June 17; v. 263; p. 435.
 Tractor-controlling mechanism. Adjustable mounting for. A. H. Reed. No. 1,305,932; June 3; v. 263; p. 183.
 Tractor frame and transmission-housing. Combination. J. M. Kroyer. No. 1,307,553; June 24; v. 263; p. 629.
 Tractor-track. J. C. French. No. 1,306,178; June 10; v. 263; p. 208.
 Tractor-tread. J. Franco. No. 1,305,593; June 3; v. 263; p. 70.
 Tractor-wheel. V. E. Nelson. No. 1,305,303; June 3; v. 263; p. 14.
 Tractors. Power and hand steering mechanism for. P. Wiederhold. No. 1,305,325; June 3; v. 263; p. 18.
 Tractors. Track for. W. J. Sanderson. No. 1,306,282; June 10; v. 263; p. 231.
 Tractors upon their steering-axles and strengthening such axles. Mounting. H. Austin. No. 1,305,243; June 3; v. 263; p. 3.
 Traffic control. Power-actuated system of. G. B. Gray. No. 1,306,759; June 17; v. 263; p. 350.
 Traffic-signal. O. A. Erdmann. No. 1,307,544; June 24; v. 263; p. 527.
 Trailer. J. C. Drew. No. 1,305,905; June 10; v. 263; p. 174.
 Train-control system. L. R. Wallace. No. 1,306,787; June 3; v. 263; p. 100.
 Train-control system. Automatic. G. P. Finnigan. No. 1,305,345; June 3; v. 263; p. 22.
 Train-control system. Automatic. W. K. Howe. No. 1,306,390; June 10; v. 263; p. 240.
 Train-controlling mechanism. W. T. White. No. 1,306,331; June 3; v. 263; p. 117.
 Train-despatch deliverer. R. L. Wanamaker. No. 1,306,506; June 10; v. 263; p. 271.
 Train-hose coupling. A. Remer and J. S. Tripp. No. 1,306,927; June 17; v. 263; p. 382.
 Train-order holder. G. A. Davis. No. 1,305,994; June 10; v. 263; p. 174.
 Train signal and stop. Automatic. W. S. Levin. No. 1,305,390; June 3; v. 263; p. 20.
 Train signaling and control system. Combined automatic. J. W. Buell. (Reissue). No. 14,076; June 24; v. 263; p. 616.
 Train-stop. Automatic. R. Carlsle. No. 1,307,907; June 24; v. 263; p. 575.
 Train-stop mechanism. H. R. Novens. No. 1,305,726; June 3; v. 263; p. 94.
 Train-stopping mechanism. Automatic. S. Anderson. No. 1,306,751; June 17; v. 263; p. 348.
 Transferrable wheel. W. Hopicky. No. 1,306,290; June 10; v. 263; p. 230.
 Transformer. Alternating-current welding. C. J. Holstad. No. 1,305,900; June 3; v. 263; p. 24.
 Transformer. Alternating-current welding. C. J. Holstad. No. 1,305,901; June 3; v. 263; p. 24.
 Translating device. A. M. Nielsen. No. 1,307,510; June 24; v. 263; p. 521.
 Transmission. A. E. Struberg. No. 1,306,978; June 17; v. 263; p. 301.
 Transmitting apparatus. J. J. Comer. No. 1,305,325; June 3; v. 263; p. 54.
 Transmitter. Impulse. J. C. Field. No. 1,306,034; June 10; v. 263; p. 185.
 Transom-operator. H. G. Veight. No. 1,306,302; June 10; v. 263; p. 232.
 Transom-operator. H. G. Veight and A. A. Page. No. 1,306,301; June 10; v. 263; p. 232.
 Trap. See—
 Animal-trap. Steam-trap.
 Trap. J. B. Anderson. No. 1,305,333; June 3; v. 263; p. 19.
 Trap. H. Cherep. No. 1,305,558; June 3; v. 263; p. 60.
 Trap. H. G. Greene and F. R. Adams. No. 1,307,363; June 24; v. 263; p. 534.
 Trap. F. Koppel. No. 1,307,678; June 24; v. 263; p. 551.
 Trap for clay pigeons. Hand. R. W. Sibley. No. 1,306,393; June 10; v. 263; p. 251.
 Trap for throwing clay pigeons. Hand. G. A. Johnson. No. 1,306,331; June 10; v. 263; p. 240.
 Tray. Egg-turning. S. C. Beamer. No. 1,306,164; June 10; v. 263; p. 308.
 Tray. Hospital medicine. W. R. Grant. No. 1,306,591; June 10; v. 263; p. 204.
 Tread. Metal. P. Kana. No. 1,306,300; June 10; v. 263; p. 241.
 Treating solid-bearing solutions. Apparatus for. L. C. Trent. No. 1,307,529; June 17; v. 263; p. 454.
 Trenching apparatus. T. F. Moore. No. 1,305,306; June 3; v. 263; p. 31.
 Trimmer. See—
 Salvage-trimmer.
 Trimming machine. Joint. J. G. Lauretta. No. 1,305,578; June 3; v. 263; p. 28.
 Trip device. S. Anderson. No. 1,306,732; June 17; v. 263; p. 345.
 Trolley-conductor device. N. J. A. Wahlberg. No. 1,306,506; June 10; v. 263; p. 282.
 Trolley-harp. J. M. Johnston. No. 1,306,000; June 10; v. 263; p. 302.
 Trough. See—
 Automobile drip-trough.
 Truck. Elevating. F. L. Eidmann. No. 1,306,417; June 10; v. 263; p. 255.
 Truck for tunnel-boring. C. H. Ewermann. No. 1,306,100; June 10; v. 263; p. 204.
 Truck. Hand. R. M. Lovejoy. No. 1,307,067; June 24; v. 263; p. 453.
 Truck. Locomotive. A. C. Bunker. No. 1,307,616; June 24; v. 263; p. 540.
 Truck. Tension. I. Trolley. No. 1,306,343; June 3; v. 263; p. 116.
 Truck. Trailer. B. A. Cadman. No. 1,306,321; June 3; v. 263; p. 58.
 Truck. Brake arrangement for car. B. W. Kadel. No. 1,306,400; June 3; v. 263; p. 45.
 Trucks. Dump-controlling mechanism for. S. L. Leag. No. 1,306,340; June 10; v. 263; p. 243.
 Trucks. Internal-drive rear axle for motor. F. H. Farmer. No. 1,306,453; June 3; v. 263; p. 42.
 Trucks. Supporting-frame for. H. F. Cartwright. No. 1,306,005; June 17; v. 263; p. 338.
 Trunk-circuit. H. D. Currier. No. 1,306,406; June 10; v. 263; p. 253.
 Trunk-circuit. H. D. Currier. No. 1,307,533; June 24; v. 263; p. 525.
 Trusses. Apparatus for repairing worn pin-bearings of pin-connected. W. Hohner and L. R. Manville. No. 1,304,901; June 17; v. 263; p. 377.
 Tub. See—
 Bath-tub.
 Tube and its stuffing-box. Stern. J. Faksa. No. 1,307,615; June 24; v. 263; p. 575.
 Tube-expander. A. S. Robinson. No. 1,306,000; June 3; v. 263; p. 53.
 Tube-expander. E. Walsh. No. 1,306,932; June 17; v. 263; p. 391.
 Tube-folding machine. K. A. Palmer and J. C. Irvin. No. 1,306,008; June 3; v. 263; p. 53.
 Tube. Inner. F. B. Bomier. No. 1,307,700; June 24; v. 263; p. 548.
 Tube. Inner. F. B. Bomier. No. 1,307,770; June 24; v. 263; p. 548.
 Tube. Stay, strut, and like element. H. C. Dickson. No. 1,306,952; June 17; v. 263; p. 330.
 Tubular rolls. Cage for. C. S. Lockwood. No. 1,307,302; June 17; v. 263; p. 442.
 Tumblers and other glass articles. Machine for finishing. H. H. Pitt. No. 1,307,483; June 24; v. 263; p. 511.

Tungsten powder. Compressing. C. Pfannkohl. No. 1,305,975; June 3; v. 263; p. 141.
 Turbine-blower. A. W. Carlson. No. 1,307,111; June 17; v. 263; p. 415.
 Turbine-blade and making the same. J. Y. Dahlstrand. No. 1,307,032; June 17; v. 263; p. 410.
 Turbine. Explosive. W. E. John. No. 1,306,113; June 10; v. 263; p. 180.
 Turbine. Expansion. C. T. Osborn. No. 1,306,388; June 10; v. 263; p. 250.
 Turbine-nozzle structures. Making. J. F. Metten. No. 1,307,736; June 24; v. 263; p. 571.
 Turbine. Steam. C. W. Jones. No. 1,307,304; June 24; v. 263; p. 545.
 Turbines and the like. Lubricating system for condensing. O. D. H. Bentley. No. 1,306,958; June 3; v. 263; p. 123.
 Turbines. Means for preventing racing in jet. F. Sengberg and L. M. Edithson. No. 1,307,703; June 24; v. 263; p. 558.
 Turbocycle. C. Hinderman. No. 1,305,350; June 3; v. 263; p. 24.
 Turbocycle and cable-head. J. W. Dickson. No. 1,306,590; June 3; v. 263; p. 70.
 Turbine. F. J. Percy. No. 1,307,317; June 17; v. 263; p. 452.
 Turbine. A. L. Schultz. No. 1,307,932; June 24; v. 263; p. 597.
 Turbine. A. E. Osterberg and G. A. Oberg. No. 1,307,032; June 17; v. 263; p. 407.
 Two-stroke engine. Valveless. G. Dolne-Doban. No. 1,306,061; June 10; v. 263; p. 300.
 Type-bar. Mechanically-actuated. J. G. Holbourn. No. 1,306,302; June 17; v. 263; p. 377.
 Type-casting machine. Matrix-holder for. M. C. Isdahl. No. 1,307,671; June 24; v. 263; p. 546.
 Type-distributor. A. E. Wilson. No. 1,306,333; June 10; v. 263; p. 253.
 Type frequency-changers. System of lead distribution for synchronous. F. D. Newbury. No. 1,306,566; June 10; v. 263; p. 280.
 Type-writer. J. A. Wherry. No. 1,307,648; June 24; v. 263; p. 545.
 Type-writing and computing machine. Combined. W. L. Gumprecht. No. 1,305,537; June 3; v. 263; p. 53.
 Type-writing machine. F. A. Cook. No. 1,306,360; June 17; v. 263; p. 304.
 Type-writing machine. M. Garbel. No. 1,306,303; June 3; v. 263; p. 125.
 Type-writing machine. J. A. B. Smith. No. 1,307,641; June 24; v. 263; p. 544.
 Type-writing machine. Tabulating mechanism for. L. C. Myers. No. 1,306,532; June 17; v. 263; p. 364.
 Typographic composing-machine. W. Wigg. No. 1,307,718; June 24; v. 263; p. 554.
 Typographical casting-machine. D. S. Kennedy. No. 1,306,500; June 17; v. 263; p. 378.
 Typographical machine. D. S. Kennedy. No. 1,305,548; June 3; v. 263; p. 60.
 Typographical machine. D. S. Kennedy. No. 1,306,908; June 17; v. 263; p. 378.
 Typographical machine. Apparatus for automatically operating. J. Mayer. No. 1,306,910; June 17; v. 263; p. 378.
 Umbrella. Foldable. F. R. Strickland. No. 1,307,936; June 24; v. 263; p. 590.
 Underfeed furnace. F. A. Steverling. No. 1,306,194; June 10; v. 263; p. 212.
 Undergarment. Union. J. K. P. Pine. No. 1,307,416; June 24; v. 263; p. 508.
 Union-undergarment. J. K. P. Pine. No. 1,306,771; June 17; v. 263; p. 353.
 Universal joint. F. Kiehne. No. 1,307,674; June 24; v. 263; p. 540.
 Universal driving-joint. J. V. Munger. No. 1,306,302; June 3; v. 263; p. 14.
 Universal joint. N. G. Dickinson. No. 1,306,290; June 3; v. 263; p. 5.
 Universal joint. G. A. McCombe. No. 1,307,743; June 24; v. 263; p. 543.
 V-belt. C. F. Deck. No. 1,306,354; June 10; v. 263; p. 225.
 Valve. W. J. Brown. No. 1,306,576; June 10; v. 263; p. 284.
 Valve. C. O. Fortney. No. 1,305,997; June 10; v. 263; p. 173.
 Valve. E. Maide. No. 1,307,915; June 24; v. 263; p. 604.
 Valve. H. E. Morton. No. 1,307,650; June 24; v. 263; p. 510.
 Valve. W. A. Murray and C. E. Putnam. No. 1,306,180; June 10; v. 263; p. 204.
 Valve. F. L. Randall and L. R. Schmid. No. 1,307,908; June 24; v. 263; p. 598.
 Valve. H. Rompach. No. 1,306,391; June 10; v. 263; p. 260.
 Valve. J. S. Whitten. No. 1,307,567; June 17; v. 263; p. 447.
 Valve-control. Pneumatic. S. L. Fisher. No. 1,307,330; June 24; v. 263; p. 492.
 Valve and gate. Compressed-air. C. E. Barnheart. No. 1,306,361; June 3; v. 263; p. 6.
 Valve and gate. Compressed-air. C. E. Barnheart. No. 1,306,361; June 3; v. 263; p. 6.
 Valve and means for cooling same. A. O. Dady. No. 1,306,470; June 10; v. 263; p. 265.
 Valve and means for cooling same. Exhaust. A. O. Dady. No. 1,306,471; June 10; v. 263; p. 265.
 Valve apparatus. Throttle. J. C. Chambers. No. 1,307,114; June 17; v. 263; p. 416.
 Valve. Automatic brake-applying safety. J. E. Stiegelmeier. No. 1,306,504; June 10; v. 263; p. 371.
 Valve. Back-pressure release. H. D. Williams. No. 1,307,839; June 24; v. 263; p. 580.
 Valve. Compound. J. W. Grantland. No. 1,306,715; June 3; v. 263; p. 92.
 Valve construction. E. Bush. No. 1,307,331; June 24; v. 263; p. 499.
 Valve. Electrically-operated. J. E. Davidson and C. Holm. No. 1,307,580; June 24; v. 263; p. 501.
 Valve. Fluid-pressure-actuated. J. W. Mitchell. No. 1,307,207; June 17; v. 263; p. 482.
 Valve. Flush. C. A. Bush. No. 1,307,576; June 24; v. 263; p. 598.
 Valve for internal-combustion engines. A. O. Dady. No. 1,306,175; June 10; v. 263; p. 208.
 Valve-gear. L. Costales. No. 1,306,949; June 17; v. 263; p. 386.
 Valve-gear mechanism. J. C. Glenn. No. 1,306,332; June 10; v. 263; p. 240.
 Valve-grinder. Hand. C. E. Tideman. No. 1,306,932; June 17; v. 263; p. 382.
 Valve-grinding tool. H. F. Gellerman. No. 1,307,206; June 17; v. 263; p. 448.
 Valve-holding tool. L. R. Buchanan. No. 1,307,772; June 24; v. 263; p. 568.
 Valve mechanism. R. J. C. Tamper. No. 1,306,807; June 17; v. 263; p. 370.
 Valve mechanism. Planter. A. S. Krotz. No. 1,306,153; June 10; v. 263; p. 204.
 Valve. Needle. C. E. Hale. No. 1,305,530; June 3; v. 263; p. 58.
 Valve-operating mechanism. M. A. Tipt. No. 1,306,096; June 10; v. 263; p. 182.
 Valve-operating mechanism. Engine. C. S. Murdock. No. 1,306,307; June 3; v. 263; p. 32.
 Valve. Piston distribution. C. W. Duke. No. 1,306,001; June 24; v. 263; p. 611.
 Valve. Pop. J. T. Dickson. No. 1,305,964; June 3; v. 263; p. 130.
 Valve. Pressure-indicating air. C. B. Barnheart. No. 1,306,263; June 3; v. 263; p. 6.
 Valve. Pressure-indicating. C. B. Barnheart. No. 1,306,263; June 3; v. 263; p. 7.
 Valve-remover. L. A. Galentine and H. N. Gillette. No. 1,306,887; June 17; v. 263; p. 374.
 Valve. Rotary dust. M. C. Peters. No. 1,306,270; June 10; v. 263; p. 230.
 Valve. Rotary engine. J. E. Davenport. No. 1,305,695; June 3; v. 263; p. 58.
 Valve. Relief. F. G. G. No. 1,305,507; June 3; v. 263; p. 71.
 Valve. Relief. F. G. G. No. 1,305,508; June 3; v. 263; p. 71.
 Valve. Relief. R. H. Mueller. No. 1,306,618; June 3; v. 263; p. 74.
 Valve. Safety. A. Bechert. No. 1,305,747; June 3; v. 263; p. 86.
 Valve. Sanitary overflow. C. N. Skalla. No. 1,307,400; June 24; v. 263; p. 512.
 Valve structure. W. C. Stevenson. No. 1,305,976; June 3; v. 263; p. 142.
 Valve structure. Air. C. B. Barnheart. No. 1,305,206; June 3; v. 263; p. 7.
 Valve. Water. L. Baun. No. 1,305,806; June 3; v. 263; p. 121.
 Valve. Water-change. F. E. Worden. No. 1,305,583; June 3; v. 263; p. 60.
 Valves. Guide for dry-type gas-meter. E. S. Dickey. No. 1,306,220; June 10; v. 263; p. 217.
 Varnish and making the same. Z. N. Bergman. No. 1,307,905; June 24; v. 263; p. 574.
 Vegetables. Apparatus for treating and drying. D. J. Penlock. No. 1,306,635; June 17; v. 263; p. 364.
 Vehicle. E. S. Brown. No. 1,307,723; June 24; v. 263; p. 550.
 Vehicle. H. W. Romanoff. No. 1,306,080; June 10; v. 263; p. 100.
 Vehicle-body. C. A. Miner. No. 1,307,767; June 24; v. 263; p. 571.
 Vehicle-body. J. M. Perlman. No. 1,306,836; June 17; v. 263; p. 265.
 Vehicle-body. W. B. Preuty. No. 1,305,407; June 3; v. 263; p. 33.
 Vehicle-body roof. H. G. Moore. No. 1,306,009; June 10; v. 263; p. 250.
 Vehicle-brake mechanism. C. W. Kupper. No. 1,306,766; June 17; v. 263; p. 352.
 Vehicle. Chassis. P. W. Koons. No. 1,306,910; June 17; v. 263; p. 300.
 Vehicle control. J. E. Hutz. No. 1,307,810; June 24; v. 263; p. 575.
 Vehicle-control system. F. E. Dutton. No. 1,307,945; June 24; v. 263; p. 401.
 Vehicle-coupling. G. L. Bungardner. No. 1,307,844; June 24; v. 263; p. 401.

Vehicle drive, Motor. H. L. Parriah. No. 1,305,928; June 3; v. 263; p. 182.
 Vehicle-locking means, Motor. W. E. Borton. No. 1,305,919; June 3; v. 263; p. 54.
 Vehicle, Motor. E. J. Beauchemin. No. 1,305,946; June 3; v. 263; p. 3.
 Vehicle, Motor. E. L. Dickerson. No. 1,307,622; June 24; v. 263; p. 541.
 Vehicle of the self-laying-track type. E. Fuchs. No. 1,307,092; June 17; v. 263; p. 412.
 Vehicle-propeller. J. H. Nyenhuis. No. 1,305,401; June 3; v. 263; p. 32.
 Vehicle-seat. E. K. Graf. No. 1,307,666; June 24; v. 263; p. 548.
 Vehicle-seat. E. Q. Mosca. No. 1,306,498; June 10; v. 263; p. 270.
 Vehicle-spring. E. H. Oderman. No. 1,307,586; June 24; v. 263; p. 536.
 Vehicle-spring lubricator. W. H. Thiemer. No. 1,307,464; June 24; v. 263; p. 518.
 Vehicle-springs, Flexible cover for laminated. W. F. Cottrell. No. 1,307,607; June 24; v. 263; p. 547.
 Vehicle-top bow-pad. F. D. France. No. 1,306,586; June 17; v. 263; p. 374.
 Vehicle-towing mechanism. S. E. Lawrence. No. 1,307,781; June 24; v. 263; p. 570.
 Vehicle-wheel. E. K. Baker. No. 1,307,473; June 24; v. 263; p. 515.
 Vehicle-wheel. W. Blair. No. 1,307,611; June 24; v. 263; p. 539.
 Vehicle-wheel. J. Grabowicki. No. 1,305,535; June 3; v. 263; p. 57.
 Vehicle-wheel. C. McBeth. No. 1,305,820; June 3; v. 263; p. 111.
 Vehicle-wheel. G. Mitro. No. 1,306,921; June 17; v. 263; p. 351.
 Vehicle-wheel. H. Seastrom. No. 1,306,192; June 10; v. 263; p. 211.
 Vehicle-wheel. A. W. Woodward. No. 1,306,761; June 3; v. 263; p. 100.
 Vehicle-wheel, Resilient. O. G. Worsley. No. 1,306,454; June 10; v. 263; p. 262.
 Vehicle-wheel, Demountable metal tire for. J. M. Millman. No. 1,306,236; June 10; v. 263; p. 231.
 Vehicles, Collapsible or folding hood for. A. Kirth. No. 1,305,554; June 3; v. 263; p. 62.
 Vehicles, Combined battery and tool box for. E. A. Hawthorne. No. 1,306,146; June 10; v. 263; p. 302.
 Vehicles, Driving mechanism for heavy mechanically-propelled. W. G. Wilson. No. 1,306,662; June 10; v. 263; p. 266.
 Vehicles, Driving mechanism for motor. E. J. Kane. No. 1,306,066; June 10; v. 263; p. 187.
 Vehicles, Driving mechanism for motor. E. J. Kane. No. 1,306,227; June 10; v. 263; p. 216.
 Vehicles, Ignition device for motor. J. A. Heany. No. 1,306,601; June 3; v. 263; p. 72.
 Vehicles, Mechanical hoist for motor. A. T. Scannell. No. 1,307,164; June 17; v. 263; p. 422.
 Vehicles, Power attachment for motor. C. M. Stevenson. No. 1,306,448; June 10; v. 263; p. 261.
 Vehicles, Signal system for moving. C. H. Chatfield. No. 1,306,523; June 3; v. 263; p. 55.
 Vehicles, Signal system for moving. L. Ringer. No. 1,306,936; June 3; v. 263; p. 134.
 Vehicles, Spring suspension mechanism of motor. G. H. D. Ralls. No. 1,306,626; June 17; v. 263; p. 361.
 Vehicles, Springing of motor road. A. C. Wickman. No. 1,307,606; June 24; v. 263; p. 533.
 Vehicles, Starting device for mixed motor. J. E. Cotter. No. 1,307,551; June 24; v. 263; p. 533.
 Vehicles, Torsion-rod for motor. A. Mousen. No. 1,307,137; June 17; v. 263; p. 420.
 Vehicles, Transmission-gearing for motor. W. O. Kahn. No. 1,307,632; June 24; v. 263; p. 543.
 Vending-machine. F. J. Gerrard. No. 1,305,796; June 3; v. 263; p. 106.
 Vending-machine. W. F. Taylor. No. 1,306,201; June 10; v. 263; p. 213.
 Vent-box. W. W. Bythiner and F. Montague. No. 1,306,767; June 3; v. 263; p. 102.
 Ventilating ridge-roll for buildings. J. H. Wickstrom. No. 1,307,228; June 17; v. 263; p. 496.
 Ventilator. B. R. Andrews. No. 1,306,545; June 17; v. 263; p. 366.
 Ventilator. O. Debold. No. 1,306,253; June 10; v. 263; p. 225.
 Ventilator. A. J. Marcoux and R. G. Bray. No. 1,306,966; June 17; v. 263; p. 388.
 Ventilator. E. Mayeda. No. 1,307,449; June 24; v. 263; p. 510.
 Ventilator. C. P. Lyle. No. 1,305,389; June 3; v. 263; p. 30.
 Ventilator. J. Sylvan. No. 1,306,966; June 17; v. 263; p. 370.
 Vessel, Cargo. J. J. Lynn. No. 1,307,983; June 24; v. 263; p. 606.
 Vessels, Mat for stopping leaks in. T. Achiba. No. 1,306,935; June 17; v. 263; p. 394.
 Vessels, Treating porous. G. H. Haddfield and A. E. Hawtree. No. 1,306,575; June 10; v. 263; p. 243.
 Vial-bow-hair fastener. H. Lang. No. 1,307,557; June 24; v. 263; p. 520.

Violin-bridge attachment. F. A. Hart. No. 1,306,663; June 10; v. 263; p. 300.
 Violin-inspecting device. H. P. Fisher. No. 1,306,963; June 17; v. 263; p. 386.
 Vise. H. A. Tooker. No. 1,306,831; June 3; v. 263; p. 18.
 Vise-jaws, Face-plate for. G. H. Hahnboen. No. 1,307,649; June 17; v. 263; p. 494.
 Vise-jaws, Face-plate for. G. H. Hahnboen. No. 1,307,650; June 17; v. 263; p. 494.
 Voting-machine. A. Lee. No. 1,307,686; June 17; v. 263; p. 413.
 Voting-machine. D. P. McCarthy. No. 1,307,913; June 24; v. 263; p. 564.
 Vulcanizable materials, Treatment of. R. E. Price. No. 1,306,614; June 24; v. 263; p. 614.
 Vulcanizer. S. W. Harris. No. 1,306,008; June 10; v. 263; p. 177.
 Vulcanizer. G. H. Lewis. No. 1,306,474; June 3; v. 263; p. 44.
 Vulcanizing apparatus. J. E. Raser. No. 1,306,466; June 3; v. 263; p. 33.
 Vulcanizing press for battery-jars. J. R. Gammat. No. 1,306,604; June 10; v. 263; p. 176.
 Wagon. F. A. Bort. No. 1,307,100; June 17; v. 263; p. 415.
 Wagon, Dump. H. M. Rasm. No. 1,306,679; June 3; v. 263; p. 54.
 Wagon for ice, ice-cream, and the like. A. Friedrich. No. 1,307,644; June 17; v. 263; p. 493.
 Walking-chair. J. T. McGrath. No. 1,307,058; June 17; v. 263; p. 404.
 Wall construction. C. E. Quana. No. 1,305,462; June 3; v. 263; p. 49.
 Wall construction. O. O. Schalk. No. 1,307,793; June 24; v. 263; p. 672.
 Wall construction. E. N. Wood. No. 1,307,767; June 24; v. 263; p. 567.
 Wall-screens. J. O. Mack. No. 1,305,915; June 3; v. 263; p. 123.
 Warp-handling machine. H. D. Colman. No. 1,306,136; June 10; v. 263; p. 301.
 Warp stop-motion. J. Regan. No. 1,307,623; June 17; v. 263; p. 399.
 Warp-winding mechanism. M. F. Field and C. D. Lanning. No. 1,306,706; June 3; v. 263; p. 90.
 Warps, Machine for operating. T. E. Bingham and E. D. Farber. No. 1,306,697; June 10; v. 263; p. 193.
 Washer. See—
 Dish-washer.
 Washer-feeding machine. C. J. De Math. No. 1,307,909; June 24; v. 263; p. 592.
 Washing-machine. F. M. Mulligan. No. 1,307,919; June 24; v. 263; p. 595.
 Washing-machine gearing. J. Nelson. No. 1,307,161; June 17; v. 263; p. 413.
 Washing-machine, Power. H. H. Toll and P. C. Duff. No. 1,306,583; June 3; v. 263; p. 137.
 Wash-tube and the like, Cover for. W. Fader. J. Schatman and L. Goldberg. No. 1,307,433; June 24; v. 263; p. 504.
 Watch. C. L. Depallier. No. 1,306,146; June 10; v. 263; p. 201.
 Water-closet apparatus, Mechanism for. W. U. Griffiths. No. 1,306,055; June 10; v. 263; p. 166.
 Water-bow alarm. L. Laitman. No. 1,306,184; June 10; v. 263; p. 204.
 Water-gauge. J. R. West. No. 1,307,235; June 17; v. 263; p. 435.
 Water-heater. E. R. Stack. No. 1,306,197; June 10; v. 263; p. 212.
 Water-heaters, Automatic control for gas. P. H. Hamilton. No. 1,306,512; June 17; v. 263; p. 369.
 Water-level boiler-gauge. C. H. Lank. No. 1,307,963; June 24; v. 263; p. 607.
 Water-meter. E. A. Bassett. No. 1,307,237; June 24; v. 263; p. 439.
 Water-meter. W. R. Jones. No. 1,306,467; June 10; v. 263; p. 203.
 Wave-motor. A. Reen. No. 1,306,974; June 17; v. 263; p. 390.
 Water-motor, Oscillatory. F. Stichel. No. 1,306,933; June 17; v. 263; p. 389.
 Water or steam, Heater for hot. J. T. Duntling. No. 1,306,686; June 3; v. 263; p. 54.
 Water-sprinkler. J. E. Rico. No. 1,306,411; June 3; v. 263; p. 34.
 Water-wheel. E. R. Pent and G. W. Chandler. No. 1,306,222; June 10; v. 263; p. 217.
 Watering device. M. J. Young. No. 1,307,439; June 24; v. 263; p. 506.
 Waterproof cement. S. Cabot. No. 1,306,643; June 3; v. 263; p. 78.
 Waterproof paper. K. Koungal. No. 1,307,466; June 24; v. 263; p. 592.
 Waterproofing fabric. J. E. Paquet. No. 1,306,274; June 10; v. 263; p. 229.
 Waterproofing fabric. H. P. Pearson. No. 1,307,573; June 24; v. 263; p. 495.
 Weaver, Calif. E. A. Gerveth. No. 1,306,390; June 10; v. 263; p. 296.
 Web-associating mechanism. H. M. Barber. No. 1,306,988; June 10; v. 263; p. 173.

Web-replenishing mechanism. E. H. Ryan. No. 1,307,024; June 17; v. 263; p. 409.
 Weighing and carton-filling device. J. U. Manischewitz. No. 1,306,187; June 10; v. 263; p. 219.
 Weighing and recording device. H. H. Jensen. No. 1,306,546; June 3; v. 263; p. 60.
 Weighing-machine. P. Edtbaer. No. 1,306,052; June 10; v. 263; p. 185.
 Welding cast-iron. D. H. Wilson. No. 1,306,295; June 10; v. 263; p. 233.
 Welding-machine, Electric. G. Giulio. No. 1,306,959; June 17; v. 263; p. 587.
 Welding spot. W. E. Thomson. No. 1,305,503; June 3; v. 263; p. 51.
 Welding system, Electric. D. H. Wilson. No. 1,306,394; June 10; v. 263; p. 232.
 Welding-tool. J. J. Campbell. No. 1,306,746; June 17; v. 263; p. 348.
 Well-drill attachment. A. J. Habenbaugh. No. 1,306,708; June 3; v. 263; p. 59.
 Well-heating machine. M. F. Drogan. No. 1,306,656; June 10; v. 263; p. 299.
 Wheel, Acquiring machine. M. Schiebendrein. No. 1,307,760; June 24; v. 263; p. 568.
 Wheel, See—
 Abrasive wheel. Sectional bull-wheel.
 Auto-wheel. Spring-wheel.
 Current-wheel. Traction-wheel.
 Cast-iron wheel. Tractor-wheel.
 Disk-wheel. Transformable wheel.
 Driving and steering wheel. Vehicle-wheel.
 Paddle-wheel. Water-wheel.
 Resilient wheel.
 Wheel. E. R. Beeman. No. 1,307,035; June 17; v. 263; p. 402.
 Wheel. T. C. McGuffee. No. 1,306,739; June 3; v. 263; p. 94.
 Wheel. L. H. Perlman. No. 1,307,567; June 17; v. 263; p. 443.
 Wheel. L. H. Perlman. No. 1,307,369; June 17; v. 263; p. 443.
 Wheel and tire carrier. L. A. Birby. No. 1,307,181; June 17; v. 263; p. 427.
 Wheel attachment. J. K. Gumpfer. No. 1,306,004; June 10; v. 263; p. 176.
 Wheel centering and balancing device. Abrasive. J. C. Spence. No. 1,306,678; June 3; v. 263; p. 142.
 Wheel construction and mounting. W. H. Cowell. (Re-issue.) No. 1,4689; June 10; v. 263; p. 393.
 Wheel-guller. D. L. Towler. No. 1,306,523; June 3; v. 263; p. 19.
 Wheel-rim, Divisible. J. C. Barber. No. 1,306,515; June 10; v. 263; p. 278.
 Wheel-teeth, Cutter for helical. A. M. Midgley. No. 1,307,633; June 24; v. 263; p. 543.
 Wheels and disks, Manufacture of rolled. T. R. Knowles. No. 1,306,365; June 10; v. 263; p. 327.
 Wheels and the like, Demountable rim for wire. R. W. Ashley and F. Overkirch. No. 1,306,683; June 3; v. 263; p. 84.
 Wheels, Demountable rim for vehicle. E. R. McKay. No. 1,306,823; June 17; v. 263; p. 363.
 Wheels, Drive connection for dirigible vehicle. E. R. Dahlman. No. 1,307,961; June 24; v. 263; p. 603.
 Wheels, Hydraulic press for turbine. G. V. Sullivan. No. 1,307,764; June 24; v. 263; p. 567.
 Whitewash-iron. W. J. Cass. No. 1,307,239; June 17; v. 263; p. 433.
 Wind and water motor. F. W. Pendergast. No. 1,306,511; June 10; v. 263; p. 235.
 Wind instruments, Mute for. W. C. Kilder. No. 1,307,259; June 17; v. 263; p. 441.
 Wind-shield and top support. M. A. Frine. No. 1,307,627; June 24; v. 263; p. 542.
 Wind-shield holder. F. Meyers. No. 1,306,919; June 3; v. 263; p. 180.
 Wind-shield, Attachment for. H. Goldsmith and J. T. Punda. No. 1,307,491; June 24; v. 263; p. 513.
 Winding and measuring machine. G. W. Weiss. No. 1,306,080; June 10; v. 263; p. 192.
 Winding and measuring mechanism, Fabric. J. Overlake. No. 1,306,740; June 3; v. 263; p. 64.
 Winding-machine. J. W. Robbins. No. 1,307,276; June 24; v. 263; p. 497.
 Winding-machine, Spindle or holder for cones for. H. Holt and A. Souley. No. 1,306,286; June 10; v. 263; p. 233.
 Winding-machines, Yarn support and guide for. A. R. Rhoades. No. 1,307,700; June 24; v. 263; p. 558.
 Winding-machines, Yarn tension for. A. R. Rhoades. No. 1,307,701; June 24; v. 263; p. 558.
 Windlass, Self-anchoring. E. C. Wingate. No. 1,307,269; June 24; v. 263; p. 499.
 Windmill. C. E. Flinchbaugh. No. 1,305,789; June 3; v. 263; p. 104.
 Windmills, Transmission mechanism for. G. N. Rouse. No. 1,306,933; June 3; v. 263; p. 133.
 Window-cleanser. W. C. Graham. No. 1,306,273; June 3; v. 263; p. 9.
 Window-cleanser. L. Sonderogger. No. 1,306,948; June 3; v. 263; p. 186.
 Window construction. L. B. Wilton. No. 1,307,337; June 24; v. 263; p. 493.
 Window-fastener. G. E. Carson. No. 1,307,112; June 17; v. 263; p. 415.
 Window-glass-blowing head. W. E. Standley. No. 1,307,381; June 24; v. 263; p. 498.
 Window-opener. H. J. Lindemann. No. 1,306,614; June 3; v. 263; p. 74.
 Window-post. P. M. Kling. No. 1,307,622; June 24; v. 263; p. 577.
 Window-screens. J. E. Collette, Jr. No. 1,306,329; June 10; v. 263; p. 236.
 Window shade and curtain bracket. R. J. Brown. No. 1,306,090; June 10; v. 263; p. 194.
 Window, Vertically sliding or swinging sash. F. E. Stowe. No. 1,306,316; June 3; v. 263; p. 17.
 Windows, Sash-holder for. C. Nystrom. No. 1,307,306; June 17; v. 263; p. 460.
 Wire bag-ties, Tool for tying. A. M. Bates. No. 1,306,163; June 10; v. 263; p. 304.
 Wire chala. F. W. Smith, Jr. No. 1,306,673; June 3; v. 263; p. 84.
 Wire fabric, Apparatus for making woven. W. Schneider. No. 1,306,859; June 24; v. 263; p. 369.
 Wire-fastening device. A. J. Christopher. No. 1,307,240; June 17; v. 263; p. 438.
 Wire-fence fabric, Machine for manufacturing. W. H. Sommer. No. 1,307,563; June 24; v. 263; p. 530.
 Wire-loop machine. J. Hank. No. 1,307,735; June 24; v. 263; p. 563.
 Wire, Machine for tying objects with. R. M. Warwick. No. 1,306,422; June 3; v. 263; p. 34.
 Wire or cable clamp. P. M. Benedict. No. 1,307,240; June 24; v. 263; p. 499.
 Wire rope, Abrasive. G. M. Selby. No. 1,306,636; June 10; v. 263; p. 295.
 Wire-stretcher. L. E. Danner. No. 1,305,779; June 3; v. 263; p. 104.
 Wire-tightener. J. G. Wilson. No. 1,307,650; June 24; v. 263; p. 544.
 Wire-stripping machine, Insulated. M. C. France. No. 1,306,588; June 10; v. 263; p. 296.
 Wire-tightening device. O. Hisselman. No. 1,305,798; June 3; v. 263; p. 107.
 Wire-winding machine. N. Crane. No. 1,307,636; June 24; v. 263; p. 540.
 Wood-charring machine. C. A. Wabensian. No. 1,305,421; June 3; v. 263; p. 56.
 Wood tank. W. H. Parton. No. 1,306,616; June 10; v. 263; p. 291.
 Woodworking, Housing-machine for. A. E. Dager. No. 1,304,252; June 10; v. 263; p. 225.
 Work-holding clamp. J. P. Leimbach. No. 1,306,433; June 10; v. 263; p. 356.
 Work-support. T. Smolinsky. No. 1,306,783; June 17; v. 263; p. 355.
 Woven fabric, Edge-fusling and uniting. G. M. Hamea. No. 1,306,620; June 3; v. 263; p. 56.
 Wrapping-machine. E. E. Smith. No. 1,306,355; June 10; v. 263; p. 248.
 Wrench. See—
 Adjustable wrench. Pipe-wrench.
 Flange-wrench.
 Wrench. A. C. Allan. No. 1,306,794; June 17; v. 263; p. 257.
 Wrench. W. de Rooy. No. 1,305,587; June 3; v. 263; p. 124.
 Wrench. A. M. Cunha. No. 1,307,486; June 24; v. 263; p. 517.
 Wrench. W. D. Morrison. No. 1,306,553; June 10; v. 263; p. 250.
 Wrench. A. A. Moss. No. 1,307,592; June 24; v. 263; p. 525.
 Wrench. G. E. Nilson. No. 1,306,020; June 10; v. 263; p. 179.
 Wrench. R. J. Statham. No. 1,306,628; June 3; v. 263; p. 77.
 Wrench attachment. C. D. Firster. No. 1,307,193; June 17; v. 263; p. 429.
 Wrenches, Attachment for. O. H. Buck. No. 1,306,249; June 3; v. 263; p. 4.
 Writing instrument. V. Steelreath. No. 1,307,159; June 17; v. 263; p. 423.
 Writing-machines, Justifying lines in. E. M. von Marchthal. No. 1,307,083; June 17; v. 263; p. 406.
 X-ray apparatus, Film-holder for. H. F. Waite. No. 1,307,586; June 24; v. 263; p. 498.
 X-ray-tube holder and shield. H. F. Waite. No. 1,307,585; June 24; v. 263; p. 498.
 X-ray-tube current-measuring system. H. F. Waite. No. 1,307,645; June 24; v. 263; p. 545.
 Yeast and making same, Dry. G. F. Whitney. No. 1,306,549; June 10; v. 263; p. 282.
 Yohimbin-arsenic pharmaceutical product. W. Grättschen. No. 1,305,463; June 3; v. 263; p. 44.
 Yoke, Draft. H. C. Buhoup. No. 1,306,402; June 10; v. 263; p. 252.
 Yoke for draft-rigging and making the same. J. W. Dalman. No. 1,307,083; June 17; v. 263; p. 410.
 Yoke for oxen and cattle, Draft. C. McLaughlin. No. 1,307,914; June 24; v. 263; p. 594.
 Zirconium and its application in the production of pure zirconium. Manufacture of a compound of W. Rosenbain and E. H. Rodd. No. 1,307,861; June 24; v. 263; p. 588.

ALPHABETICAL LIST OF DESIGNS.

Air-blast cleaning device. G. B. Pickett. No. 53,390; June 8; v. 263; p. 144.
 Automobile. J. M. J. an. O. W. Hedrick. No. 53,391; June 17; v. 263; p. 453.
 Badge, Military-service. H. E. Myers. No. 53,438; June 17; v. 263; p. 461.
 Badge or similar article of manufacture. R. A. Klapp. No. 53,452; June 17; v. 263; p. 460.
 Bag-frame. C. C. Holden. Nos. 53,414-15; June 10; v. 263; p. 306.
 Bed-pan. D. Hogan. No. 53,443; June 17; v. 263; p. 459.
 Bottle-stopper. F. Rustant. No. 53,428; June 10; v. 263; p. 310.
 Bottle-stopper. F. Rustant. Nos. 53,467-8; June 17; v. 263; p. 462.
 Brush, Tooth-. C. W. Lloyd. No. 53,458; June 17; v. 263; p. 460.
 Bucket. E. A. Edwards. No. 53,488; June 17; v. 263; p. 457.
 Buckle. S. Moskowitz. No. 53,457; June 17; v. 263; p. 460.
 Button, Service-. E. Isakson. No. 53,446; June 17; v. 263; p. 460.
 Can or similar receptacle. Sifter-top. L. Gerhardt. No. 53,412; June 10; v. 263; p. 307.
 Candy or confectionery. Bar or cake of. R. S. Mason. No. 53,422; June 10; v. 263; p. 306.
 Can, Delivery. Package-delivery-. E. G. Pilkington. No. 53,400; June 8; v. 263; p. 145.
 Clevin, Double. M. Clemens. No. 53,406; June 10; v. 263; p. 306.
 Clothes rack and stand. A. Kinder. No. 53,451; June 17; v. 263; p. 459.
 Coin, Token-. W. Plüm. No. 53,462; June 17; v. 263; p. 461.
 Doll. H. E. Keiman. Nos. 53,440-50; June 17; v. 263; p. 459.
 Electric-heater casing. F. Kuhn and J. A. Hand. No. 53,417; June 10; v. 263; p. 309.
 Electric-switch handle. C. D. Platt. No. 53,401; June 8; v. 263; p. 145.
 Engine crank-case and dynamo-shell. Combined. M. C. Cosgray. No. 53,409; June 10; v. 263; p. 307.
 Flag, pennant, curtain, table-cover, etc. M. J. Acher. No. 53,429; June 17; v. 263; p. 459.
 Flag, pennant, or similar article. W. J. Sweeney. No. 53,471; June 17; v. 263; p. 463.
 Game-board. W. Ahlmgren. No. 53,430; June 17; v. 263; p. 456.
 Hand-bag frame. C. Massa. No. 53,423; June 10; v. 263; p. 309.
 Hand-bag frame. G. Montroll. Nos. 53,424-5; June 10; v. 263; p. 309.
 Humidifier. R. D. Smith. No. 53,408; June 8; v. 263; p. 145.
 Lamp and bracket, Piano-. C. Eberhart, Jr. No. 53,394; June 8; v. 263; p. 144.
 Lamp and bracket, Piano-. A. Fraser. No. 53,395; June 8; v. 263; p. 144.
 Lamp standard, Electric-. J. M. Hansen. No. 53,396; June 8; v. 263; p. 144.
 Lamp-standard. J. L. Ronsko. No. 53,402; June 8; v. 263; p. 146.
 Lighting-fixtures, Arm for. G. Westphal. No. 53,472; June 17; v. 263; p. 463.
 Lighting-fixtures, Arm for. G. Westphal. No. 53,475; June 17; v. 263; p. 463.
 Lighting-fixtures, Canopy for. G. Westphal. No. 53,474; June 17; v. 263; p. 463.
 Lighting-fixtures, Flute for. G. Westphal. No. 53,477; June 17; v. 263; p. 464.
 Lighting-fixtures, Ring for. G. Westphal. No. 53,478; June 17; v. 263; p. 464.
 Lighting-fixtures, Spindle for. G. Westphal. No. 53,479; June 17; v. 263; p. 463.
 Lighting-fixtures, Spindle for. G. Westphal. No. 53,479; June 17; v. 263; p. 463.
 Mirror, Hair-brush, or similar toilet article. K. Kasal. No. 53,448; June 17; v. 263; p. 459.
 Mouthpiece, Porcelain transmitter. G. E. Maguire. No. 53,435; June 17; v. 263; p. 460.
 Musical instrument. H. G. Borg and H. R. Richardson. No. 53,470; June 17; v. 263; p. 462.
 Necktie-rack. H. E. Green. No. 53,440; June 17; v. 263; p. 458.
 Oil-. G. 352.
 Oil, Ringing. W. H. Brown. Nos. 53,466-7; June 10; v. 263; p. 306.
 Pin-holder. C. F. Eaton. No. 53,411; June 10; v. 263; p. 307.
 Powder-box, cream-lar, or other similar toilet article. K. Kasal. No. 53,447; June 17; v. 263; p. 459.
 Powder boxes, Cap or cover for talcum-. M. Hoffman. No. 53,425; June 17; v. 263; p. 458.
 Powder-pail. A. Marcus. No. 53,436; June 8; v. 263; p. 145.
 Powders, Container for toilet and other. C. S. Humphrey. No. 53,446; June 17; v. 263; p. 459.
 Radiator. A. O. Holttom. No. 53,444; June 17; v. 263; p. 458.
 Radiator-casing. C. L. Granger. No. 53,413; June 10; v. 263; p. 307.
 Ring, or similar article of jewelry. C. W. Clarke. No. 53,439; June 17; v. 263; p. 457.
 Rocking-chair and cradle attachment. S. B. Arnold. No. 53,426; June 8; v. 263; p. 143.
 Sausage, Berlin. W. Lettingham. No. 53,464; June 17; v. 263; p. 460.
 Settee and phonograph-cabinet. Combined. J. E. Blankinship. No. 53,431; June 17; v. 263; p. 454.
 Silk, Printed. J. H. Bunting. Nos. 53,423-4; June 17; v. 263; p. 464.
 Silk, Printed. L. F. Orcutt. No. 53,459; June 17; v. 263; p. 461.
 Silk, Printed. W. G. Reith. Nos. 53,460-6; June 17; v. 263; p. 461-2.
 Standard, Machine-. L. Brownell. No. 53,432; June 17; v. 263; p. 454.
 Stocking. W. E. Chigman. No. 53,426; June 17; v. 263; p. 457.
 Store, Gun, and J. A. Hand. No. 53,410; June 10; v. 263; p. 306.
 Store, Gun. G. Finn. No. 53,430; June 17; v. 263; p. 457.
 Telephone-carphone or similar phonetic device. H. G. Page. No. 53,400; June 17; v. 263; p. 461.
 Tire, Elastic vehicle. L. R. Davis. No. 53,410; June 10; v. 263; p. 307.
 Tire, or casing, Vehicle. C. Wright. No. 53,479; June 17; v. 263; p. 464.
 Tire, Pneumatic. I. R. Banner. No. 53,427; June 10; v. 263; p. 310.
 Tire-protector. H. Lighthorne. No. 53,421; June 10; v. 263; p. 309.
 Tone-arm. W. J. McManara. No. 53,456; June 17; v. 263; p. 460.
 Toy. J. A. Pansbach. No. 53,461; June 17; v. 263; p. 460.
 Umbrella. A. E. MacDonald. No. 53,397; June 8; v. 263; p. 144.
 Umbrella attachment. G. Compad. No. 53,487; June 17; v. 263; p. 457.
 Valve casing and handle, Radiator-. J. F. Brightman. No. 53,400; June 10; v. 263; p. 306.
 Valve casing, Thermocouple. H. S. Caldwell. No. 53,398; June 8; v. 263; p. 143.
 Watch-dial. A. Levin and J. Modin. No. 53,420; June 10; v. 263; p. 306.
 Watchcase. A. Levin and J. Modin. Nos. 53,418-19; June 10; v. 263; p. 306.
 Wheel. W. J. F. Moore. No. 53,428; June 10; v. 263; p. 309.
 Wheel, Wind-. T. M. Samson. No. 53,409; June 17; v. 263; p. 462.

ALPHABETICAL LIST OF TRADE-MARKS.

Account-Sading machines. Automatic. Liberty Systems Corporation. No. 125,525; June 17; v. 263; p. 478.

Als, liquor, and porter. Home Brewing Co. No. 125,818; June 17; v. 263; p. 478.

American Chemical Co. No. 125,715; June 3; v. 263; p. 164.

Apparel, Ladies' outer. Samuel Stores, Inc. No. 125,847; June 17; v. 263; p. 479.

Apparel, Ladies' wearings. M. N. Hyman. No. 125,818; June 17; v. 263; p. 478.

Apparel, Men's outer wearings. Saks and Company. No. 125,848; June 17; v. 263; p. 479.

Automobile and furniture polish. H. H. Brundage. No. 125,778; June 17; v. 263; p. 477.

Automobile body and furniture polishes. G. H. Irvine. No. 125,742; June 10; v. 263; p. 327.

Automobile-trucks. Brooklyn Automobile Company. No. 125,818; June 3; v. 263; p. 161.

Automobiles and automobile-trucks. Chicago Pneumatic Tool Company. No. 125,820; June 3; v. 263; p. 161.

Automobiles, wagons, trucks, &c. The Turbuli Motor Truck and Wagon Co. No. 125,683; June 3; v. 263; p. 163.

Blow-powder. Native Products Co. No. 125,708; June 3; v. 263; p. 164.

Balm, Antiseptic and healing. W. Taylor. No. 125,766; June 10; v. 263; p. 328.

Batteries and parts thereof. Storage. Willard Storage Battery Company. No. 125,772-3; June 10; v. 263; p. 328.

Beardings, Die-cast, &c. Mussey-Lyon Co. No. 125,829; June 17; v. 263; p. 478.

Belt for women, Cloth athletic. L. Hosen. No. 125,814; June 17; v. 263; p. 478.

Betting, Leather. The Ulmer Leather Co. No. 125,684; June 3; v. 263; p. 163.

Betting, Leather. The Ulmer Leather Company. No. 125,713; June 3; v. 263; p. 164.

Beverage, Maltose cereal. Burkhardt Brewing Company. No. 125,779; June 17; v. 263; p. 477.

Beverage, Non-intoxicating cereal. American Products Company. No. 125,776; June 17; v. 263; p. 477.

Beverage sold as a soft drink. C. L. Centivire Brewing Co. No. 125,780; June 17; v. 263; p. 477.

Bird-line. A. O. Myskowski. No. 125,830; June 17; v. 263; p. 478.

Boots and shoe taps. Emory Hool Sales Company. No. 125,802; June 17; v. 263; p. 477.

Bread. C. F. Hathaway & Son. No. 125,874; June 24; v. 263; p. 631.

Bread. R. L. Nafziger. No. 125,761; June 10; v. 263; p. 328.

Bread, rolls, and cakes. P. M. Dorach. No. 125,726; June 10; v. 263; p. 327.

Brushes. George Borgfeldt & Co. No. 125,611; June 3; v. 263; p. 161.

Brushes, shaving. De Luzo Brush Company. No. 125,798; June 17; v. 263; p. 477.

Brushes, Tooth. Williams Brush Company. No. 125,857; June 17; v. 263; p. 478.

Buttons. Federal Button Company. No. 125,636; June 3; v. 263; p. 162.

Cakes. Ward Baking Company. No. 125,699; June 3; v. 263; p. 163.

Candies. Eye Brand Confectionery. No. 125,870; June 24; v. 263; p. 631.

Candies. The Touraine Company. No. 125,898; June 24; v. 263; p. 631.

Candy. Maple Confectionery Co. No. 125,808; June 24; v. 263; p. 631.

Candy. C. C. Mahan. No. 125,748; June 10; v. 263; p. 328.

Candy, and more particularly chocolates and bonbons. E. J. Schoenerman. No. 125,884; June 24; v. 263; p. 631.

Candy, Chocolate. The Puritan Chocolate Co. No. 125,880; June 24; v. 263; p. 631.

Canned article of food. Crocker & Company. No. 125,724; June 10; v. 263; p. 327.

Canned asparagus. Hickmott Canning Company. No. 125,899; June 3; v. 263; p. 162.

Canned fruits and berries. H. G. Prince & Co. No. 125,879; June 24; v. 263; p. 631.

Canned fruits and vegetables. W. F. Assan Canning Co. No. 125,605; June 3; v. 263; p. 161.

Canned pineapples. Hawaiian Pineapple Co. No. 125,646; June 3; v. 263; p. 162.

Canned pineapples. Hawaiian Pineapple Company. No. 125,648; June 3; v. 263; p. 162.

Canned tomatoes. Stone Packing Company. No. 125,681; June 3; v. 263; p. 163.

Canned vegetables and fruits. Sour, coffee. H. G. Hill Grocery Company. No. 125,741; June 10; v. 263; p. 327.

Cantaloupes, Fresh. United Growers Association of Turlock. No. 125,696; June 3; v. 263; p. 163.

Carbon-remover and gas-aver. C. J. Ulrich. No. 125,767; June 10; v. 263; p. 328.

Catalogues and monthly magazines. Michigan State Auto School. No. 125,664; June 3; v. 263; p. 162.

Certain named foods. Haas Baruch & Co. No. 125,708; June 3; v. 263; p. 164.

Certain named receptacles made of pyroxylin. J. W. Pickering. No. 125,672; June 3; v. 263; p. 163.

Chocolate coatings as applied to confectionery. Borden's Condensed Milk Company. No. 125,718; June 10; v. 263; p. 327.

Cigars. United Cigar Manufacturing Company. No. 125,713; June 3; v. 263; p. 164.

Cigars, cigarettes, cheroots, manufactured tobacco. Ledger Sons & Co. No. 125,861; June 3; v. 263; p. 163.

Cinematographic films. World Film Corporation. No. 125,698; June 3; v. 263; p. 164.

Clinical powder for carpets, rugs, &c. D. B. Conclia. No. 125,624; June 3; v. 263; p. 161.

Clothing, Certain named. Cooper Underwear Company. No. 125,795; June 17; v. 263; p. 477.

Coffee. Stowell Coffee Co. No. 125,848; June 17; v. 263; p. 479.

Coffee, tea, cocoa, lemon and vanilla extracts. G. L. Nef. No. 125,753; June 10; v. 263; p. 328.

Coloring for foods. H. Kohnstamm & Co. No. 125,747; June 10; v. 263; p. 328.

Coloring substances. J. C. Mathers and J. Papish. No. 125,827; June 17; v. 263; p. 478.

Cooling composition for hot boxes. J. Q. Gill. No. 125,730; June 10; v. 263; p. 327.

Cooling preparation for use during the machining of metal. Flake Brothers Refining Co. No. 125,721; June 10; v. 263; p. 327.

Core compound used in metal-foundries. &c. Hill and Griffith Company. No. 125,651; June 3; v. 263; p. 162.

Cotton and linen articles, Certain named. John S. & Sons Limited. No. 125,721; June 10; v. 263; p. 327.

Cotton piece goods. Amory Browne Export Corp. No. 125,716; June 10; v. 263; p. 327.

Cotton piece goods. W. E. Grace & Co. No. 125,807; June 17; v. 263; p. 478.

Cotton piece goods. Neuss, Henslein & Co. No. 125,832; June 17; v. 263; p. 478.

Cotton piece goods. Thorndike Company. No. 125,766; June 10; v. 263; p. 328.

Cotton piece goods. Watta, Stebbins & Co. No. 125,770; June 10; v. 263; p. 328.

Cotton-seed salad-oil. Herman Kienler Co. No. 125,659; June 3; v. 263; p. 162.

Cough-drops. G. H. Dietz. No. 125,701; June 3; v. 263; p. 164.

Disinfectant. J. H. Karp. No. 125,818; June 17; v. 263; p. 478.

Disinfectants and insecticides. United Sanitary Products Co. No. 125,708; June 10; v. 263; p. 328.

Dresses, Ladies'. Lerner & Goldsmith. No. 125,824; June 17; v. 263; p. 478.

Drills and files. Monmouth Steel and Tool Company. No. 125,750; June 10; v. 263; p. 328.

Drills, Rock. The Denver Rock Drill Manufacturing Company. No. 125,800; June 17; v. 263; p. 477.

Duplicating-machines. Duplicator Manufacturing Company. No. 125,632; June 3; v. 263; p. 161.

Dye, Leather. Restorf & Beitmann. No. 125,757; June 10; v. 263; p. 328.

Dyes. North American Dye Corporation. No. 125,755; June 10; v. 263; p. 328.

Dyes. E. Suter & Company. No. 125,849; June 17; v. 263; p. 479.

Egg substitute. Arthur N. Christy & Co. No. 125,864; June 24; v. 263; p. 631.

Eggs. I. A. Wallins. No. 125,687; June 3; v. 263; p. 163.

Elksenber, Meyer, Atlanta, Ga. Non-alcoholic maltless beverage. No. 125,869; June 24; v. 263; p. 631.

Enameled metal ware. National Enameling and Stamping Co. No. 125,882; June 10; v. 263; p. 328.

Enameled ware, Household. Columbian Enameling & Stamping Company. No. 125,905; June 24; v. 263; p. 631.

Engine tools, Internal-combustion. The Loomis-Heardsley Mfg. Co. No. 125,635; June 3; v. 263; p. 162.

Engines and parts thereof, Internal-combustion. United States of America. No. 125,853; June 17; v. 263; p. 479.

Eyschman, H. W. Scheibel. No. 125,844; June 17; v. 263; p. 479.

F

Feed, stock and poultry. J. J. Badenoch Co. No. 125,802; June 24; v. 263; p. 631.
 Fertilizer, cotton-plant. A. D. Adair & McCarty Bros. No. 125,774; June 17; v. 263; p. 477.
 Fire-engines, water-towers, etc. American La France Fire Engine Co. No. 125,861; June 24; v. 263; p. 631.
 Fish. Davis Bros. Fisheries, Inc. No. 125,620; June 3; v. 263; p. 161.
 Flaga. John C. Dettra & Company. No. 125,628; June 3; v. 263; p. 161.
 Flavoring compounds. Joseph Burnett Company. No. 125,614; June 3; v. 263; p. 161.
 Flavoring extracts and powders. Vanilla. Henry H. Ottens Mfg. Co. No. 125,609; June 3; v. 263; p. 163.
 Floorings or gratings. Metal. Irving Iron Works Company. No. 125,816; June 17; v. 263; p. 478.
 Flour, self-rising. Southwestern Milling Company. No. 125,761; June 10; v. 263; p. 328.
 Flour, self-rising pancake. C. A. Gambrill Manuf'g Company. No. 125,872; June 24; v. 263; p. 631.
 Flour, wheat. F. H. Hartman. No. 125,646; June 3; v. 263; p. 162.
 Flour, wheat. Holley Milling Company. No. 125,653; June 3; v. 263; p. 162.
 Flour, wheat. Mammoth Spring Milling Company. No. 125,706; June 3; v. 263; p. 164.
 Flour, wheat. Ottawa Milling Company. No. 125,870; June 24; v. 263; p. 631.
 Flour, wheat. J. Rosenstein. No. 125,676; June 3; v. 263; p. 163.
 Flour, wheat. Washburn Crosby Co. No. 125,600; June 3; v. 263; p. 163.
 Fly-swatters. A. V. Martin. No. 125,875; June 24; v. 263; p. 631.
 Food, Japanese. K. Nakamura. No. 125,667; June 3; v. 263; p. 163.
 Food, stock. Syracuse Milling Company. No. 125,885; June 24; v. 263; p. 631.
 Foods, certain named. Frank E. Davis Company. No. 125,625; June 3; v. 263; p. 161.
 Foods, certain named. H. A. Johnson Co. No. 125,657; June 3; v. 263; p. 162.
 Foods, certain named. Ideal Marketaria Company. No. 125,656; June 3; v. 263; p. 162.
 Foods, certain named. G. W. Fell. No. 125,877; June 24; v. 263; p. 631.
 Fruits, fresh. Consumers Fruit Company of America. No. 125,866; June 24; v. 263; p. 631.
 Fruits, fresh citrus. Bryn Mawr Fruit-Growers Association. No. 125,615; June 3; v. 263; p. 161.
 Furniture and house-furnishings. M. H. Greenberg. No. 125,806; June 17; v. 263; p. 478.
 Game-boards and pieces therefor. G. H. Parker. No. 125,834; June 17; v. 263; p. 478.
 Gas-generators and generator-cartridges. The Thermalene Company. No. 125,682; June 3; v. 263; p. 163.
 Gas mantles and lamps. Weisbach Company. No. 125,690; June 3; v. 263; p. 163.
 Glass slides in microscopic work. E. Leitz, Inc. No. 125,823; June 17; v. 263; p. 478.
 Grease, lubricating. Fiske Brothers Refining Co. No. 125,722; June 10; v. 263; p. 327.
 Gum, chewing. Goudey Gum Co. No. 125,737; June 10; v. 263; p. 327.
 Hair-color restorer, depilatory, etc. Heesig-Ellis Drug Co. No. 125,811; June 17; v. 263; p. 478.
 Hair-nets. A. A. West. No. 125,771; June 10; v. 263; p. 328.
 Hair-shampooing preparation. E. O. Heinrich. No. 125,704; June 3; v. 263; p. 164.
 Hair-tonic. M. Commins. No. 125,723; June 10; v. 263; p. 327.
 Hammers, pneumatic riveting. Chicago Pneumatic Tool Company. No. 125,618-19; June 3; v. 263; p. 161.
 Hammers, pneumatic riveting. Chicago Pneumatic Tool Company. No. 125,621; June 3; v. 263; p. 161.
 Hats. Frank Katz Hat Co. No. 125,819; June 17; v. 263; p. 478.
 Hats, men's. Rogers Peet Company. No. 125,840; June 17; v. 263; p. 479.
 Heat and cold insulation materials. General Insulating & Manufacturing Company. No. 125,606; June 17; v. 263; p. 478.
 Heaters and heating-stoves. Water. Lawson Manufacturing Company. No. 125,600; June 3; v. 263; p. 162.
 Ice-cream cones and wafers. M. Goldberg. No. 125,642; June 3; v. 263; p. 162.
 Iron and steel. Federal Tool & Alloy Steel Corporation. No. 125,730; June 10; v. 263; p. 327.
 Jelly-powders. Waukesha Pure Food Company. No. 125,602; June 3; v. 263; p. 163.
 Knitted and woven underwear, shirts, etc. Ligon, Hinkle & Co. No. 125,826; June 17; v. 263; p. 478.
 Ladies' and gentlemen's cravats. A. Siegmán, Inc. No. 125,762; June 10; v. 263; p. 328.
 Lamp sockets, electric. Despard & Gordon Company. No. 125,627; June 3; v. 263; p. 161.
 Lard. Augustine & Kyer. No. 125,607; June 3; v. 263; p. 161.
 Leather, side and cut lace. F. B. Williams. No. 125,697; June 3; v. 263; p. 163.
 Lintiment. R. C. Wineland. No. 125,858; June 17; v. 263; p. 479.

Lintiment. F. C. Young. No. 125,900; June 17; v. 263; p. 479.
 Macaronic foods. United States Macaroni Company. No. 125,769; June 10; v. 263; p. 328.
 Margarita cooking compound. King R. Graham, Inc. No. 125,644; June 3; v. 263; p. 162.
 Massaging instruments. P. Seeshurstian. No. 125,600; June 3; v. 263; p. 161.
 Medicine for live stock. Parson's Chemical Works. No. 125,710; June 3; v. 263; p. 164.
 Medicine, rheumatism. C. V. Newell. No. 125,764; June 10; v. 263; p. 328.
 Medicinal tonic for the nervous system. J. Bourasania. No. 125,720; June 10; v. 263; p. 327.
 Metals and metal castings for forgings. Certain named. Driver-Harris Company. No. 125,800; June 3; v. 263; p. 161.
 Metal and wood working machines, parts, and accessories. Pratt & Whitney Company. No. 125,808; June 17; v. 263; p. 478.
 Milk, evaporated. J. F. O'Brien. No. 125,608; June 3; v. 263; p. 163.
 Milk, evaporated. The Ohio Dairy Company. No. 125,709; June 3; v. 263; p. 164.
 Mine or pit cars. The Bonney Floyd Company. No. 125,610; June 3; v. 263; p. 161.
 Molasses. Sugar Products Company. No. 125,764; June 10; v. 263; p. 328.
 Motor-cycles and bicycles. Excelsior Motor Mfg. and Supply Co. No. 125,637; June 3; v. 263; p. 163.
 Motors and dynamo, lamp-rheostats, etc. Demonstration. Chicago Apparatus Company. No. 125,622; June 3; v. 263; p. 161.
 Oak-tanned leather belting and cut lace-leather. F. R. Williams. No. 125,714; June 3; v. 263; p. 164.
 Oil, olive. A. Rubino. No. 125,883; June 24; v. 263; p. 631.
 Oil, peanut. The E. Clarke Company. No. 125,622; June 3; v. 263; p. 161.
 Oil, salad. Cavalli & Barpar. No. 125,641; June 3; v. 263; p. 162.
 Oil, white mineral. Standard Oil Company. No. 125,763; June 10; v. 263; p. 328.
 Oil, lubricating. Schenck Oil Co. No. 125,700; June 10; v. 263; p. 328.
 Ointment for certain named ailments. E. P. Hime. No. 125,711; June 3; v. 263; p. 164.
 Onion-seeds, garden-seeds, bulbs, and plants. Everett R. Peacock Co. No. 125,671; June 3; v. 263; p. 163.
 Overalls and jumpers. Jellies Clothing Manufacturing Co. No. 125,617; June 17; v. 263; p. 478.
 Paint, ready-mixed. W. M. Scott. No. 125,845; June 17; v. 263; p. 479.
 Paints and varnishes. Preservative Paint Company. No. 125,836; June 17; v. 263; p. 478.
 Paints and varnishes. Twin City Varnish Co. No. 125,850; June 17; v. 263; p. 478.
 Paints, varnishes, etc. Hoyt & Canfield Co. No. 125,740; June 10; v. 263; p. 327.
 Paper on which labels are to be printed. Gummed. De-see Paper Company. No. 125,631; June 3; v. 263; p. 161.
 Paper-pulp spoons. The Dairy Cup Company. No. 125,768; June 17; v. 263; p. 477.
 Paper, writing, printing, etc. Auer & Twitchell. No. 125,700; June 3; v. 263; p. 164.
 Paste, adhesive. E. E. Brick. No. 125,777; June 17; v. 263; p. 477.
 Perfumes, toilet water, face-powder, etc. Alfred Wright, Inc. No. 125,680; June 17; v. 263; p. 479.
 Periodicals, monthly. The Engineering Magazine Company. No. 125,608; June 3; v. 263; p. 162.
 Pharmaceutical preparation for general utility. Ac. J. Bourasania. No. 125,719; June 10; v. 263; p. 327.
 Phonographically-recorded talk or conversation, blanks or forms on which to inscribe. Thomas A. Edison, Incorporated. No. 125,684; June 3; v. 263; p. 162.
 Piano-polish. J. Hardy. No. 125,738; June 10; v. 263; p. 327.
 Planes and bath-chucks, etc. Carpenters' Union Manufacturing Company. No. 125,683; June 17; v. 263; p. 479.
 Picture films, motion. Remayne Super-Film Company. No. 125,841; June 17; v. 263; p. 479.
 Picture films, motion. Rochester Film Mfg. Co. No. 125,759; June 10; v. 263; p. 328.
 Picture films, motion. Rochester Film Mfg. Co. No. 125,842; June 17; v. 263; p. 479.
 Pipes, cigar and cigarette holders. Sacher's. Kaufmann Bros. & Roudy. No. 125,839; June 17; v. 263; p. 478.
 Plaster, wall. Geo. W. Fack & Son. No. 125,670; June 3; v. 263; p. 163.
 Popcorn. H. A. Kesting. No. 125,746; June 10; v. 263; p. 329.
 Porcelain ware. Don Krongelitz Porcelainfabrik. No. 125,780; June 17; v. 263; p. 477.
 Pork, canned, and lard. E. A. Price. No. 125,878; June 24; v. 263; p. 631.
 Preparation for certain named ailments and diseases. M. P. Kacman. No. 125,745; June 10; v. 263; p. 328.
 Preparations for the treatment of caries. Ac. F. H. Osborn. No. 125,786; June 10; v. 263; p. 329.

Rainproof overcoats. United States Rubber Company. No. 125,884; June 17; v. 263; p. 479.
 Razors and razor-blades. J. Melkenthin & Sons. No. 125,749; June 10; v. 263; p. 328.
 Receptacles. Edwin B. Nathan. No. 125,831; June 17; v. 263; p. 478.
 Remedy for piles. W. D. Chryssa. No. 125,794; June 17; v. 263; p. 477.
 Resuscitating apparatus. Ac. Draeger Oxygen Apparatus Company. No. 125,727; June 10; v. 263; p. 327.
 Ribbons. Johnson, Cowdin & Co. No. 125,743-4; June 10; v. 263; p. 327.
 Roofing. Diem and Wing Paper Company. No. 125,629; June 3; v. 263; p. 161.
 Roofing, felt. C. H. Harris. No. 125,810; June 17; v. 263; p. 478.
 Roofing material. Flintkote Company. No. 125,805; June 17; v. 263; p. 478.
 Roofing, prepared. Standard Paint Company. No. 125,846; June 17; v. 263; p. 479.
 Rope, cord, twine. American Manufacturing Company. No. 125,775; June 17; v. 263; p. 477.
 Rubbers, food-jar. Frantz Bros. Rubber Co. No. 125,640; June 3; v. 263; p. 162.
 Sandwich-slices. Salad. Rialto Corporation. No. 125,758; June 10; v. 263; p. 328.
 Satins, venetians, and colored cotton piece goods. J. Kridel, Sons & Co. No. 125,822; June 17; v. 263; p. 478.
 Seeds. The Atlantic Seed Company. No. 125,606; June 3; v. 263; p. 161.
 Seeds. F. W. Bolgiano. No. 125,883; June 24; v. 263; p. 631.
 Seeds. H. W. Gordinier & Sons Co. No. 125,643; June 3; v. 263; p. 162.
 Seeds. John A. Salzer Seed Company. No. 125,677; June 3; v. 263; p. 163.
 Shade-cloth. Oswego Shade Cloth Company. No. 125,633; June 17; v. 263; p. 478.
 Shades, porch. Hitz Jacobs & Company. No. 125,652; June 3; v. 263; p. 162.
 Shampoo. A. A. West. No. 125,856; June 17; v. 263; p. 479.
 Shears, mule. M. E. Heimerdinger. No. 125,649; June 3; v. 263; p. 162.
 Sheets, sheetings, etc. Utica Steam & Mohawk Valley Cotton Mills. No. 125,855; June 17; v. 263; p. 479.
 Shock absorber for Ford cars. E. H. Haasler. No. 125,647; June 3; v. 263; p. 162.
 Shoe-dressings, cleaners, etc. John Klapes. No. 125,821; June 17; v. 263; p. 478.
 Shoe fabrics. D. W. Herrman. No. 125,739; June 10; v. 263; p. 327.
 Shoe-hisings in the piece. Farnsworth, Hoyt Co. No. 125,729; June 10; v. 263; p. 327.
 Shoes, men's and women's. Marshall Field & Company. No. 125,707; June 3; v. 263; p. 164.
 Shortening, vegetable. W. S. Forbes & Co. No. 125,638; June 3; v. 263; p. 162.
 Signal device, automobile or other vehicle visible. C. L. Hyde. No. 125,654; June 3; v. 263; p. 162.
 Silk piece goods. Empire Silk Company. No. 125,803-4; June 17; v. 263; p. 477.
 Silk and silk-mixed piece goods. Rice-Stir Dry Goods Company. No. 125,838; June 17; v. 263; p. 479.
 Silk and silk-mixture fabrics. Cheney Brothers. No. 125,781-93; June 17; v. 263; p. 477.
 Spark-plugs. Blomster and Schaben. No. 125,612; June 3; v. 263; p. 161.
 Steel. Crucible Steel Company of America. No. 125,725; June 10; v. 263; p. 327.

Stock feed. Edgar-Morgan Company. No. 125,833; June 3; v. 263; p. 162.
 Surgical devices to compress the flesh. W. H. Fitz Gerald. No. 125,733; June 10; v. 263; p. 327.
 Tablets for treatment of the skin. Emollient. F. W. Hampshire & Co. No. 125,800; June 17; v. 263; p. 478.
 Tablets, mouth and throat antiseptic. H. Moccarter. No. 125,605; June 3; v. 263; p. 162.
 Tablets, purgative liver. Caloids Company. No. 125,722; June 10; v. 263; p. 327.
 Talking-machine and phonograph cabinets. Sonora Phonograph Corporation. No. 125,680; June 3; v. 263; p. 163.
 Tape, adhesive. F. Risk. No. 125,839; June 17; v. 263; p. 479.
 Tapers, night. P. A. Beatty. No. 125,717; June 10; v. 263; p. 327.
 Teeth and dental articulators. Artificial. H. D. Justi. No. 125,658; June 3; v. 263; p. 162.
 Tennis-rackets. F. L. Shasenger. No. 125,679; June 3; v. 263; p. 163.
 Textile goods for underwear. Fairfax Textile Mills. No. 125,728; June 10; v. 263; p. 327.
 Thermometers. H. Weinbagen. No. 125,684; June 3; v. 263; p. 163.
 Threads and yarns. Certain named. Richardson Silk Company. No. 125,881; June 24; v. 263; p. 631.
 Threads and yarns. Textile. Domestic Mills Company. No. 125,867; June 24; v. 263; p. 631.
 Ties, cravats, four-in-hand and bow-ties. Friedman Bros. & Sons Neckwear Company. No. 125,734; June 10; v. 263; p. 327.
 Tire-patch. L. H. Scott. No. 125,678; June 3; v. 263; p. 163.
 Tires and tubes for pneumatic tires. Rubber. The Ideal Tire & Rubber Company. No. 125,656; June 3; v. 263; p. 162.
 Tire-patches. W. M. Prince. No. 125,675; June 3; v. 263; p. 163.
 Tire-puncture-sealing compositions. Pneumatic. D. S. Mumfrey. No. 125,666; June 3; v. 263; p. 163.
 Tires, rubber. Ford Motor Company. No. 125,762; June 3; v. 263; p. 164.
 Transmission and brake fabric linings. Advance Automobile Accessories Corporation. No. 125,690; June 3; v. 263; p. 164.
 Undergarment, women's and girls'. L. Hitzeman. No. 125,812; June 17; v. 263; p. 478.
 Varnish, paint, enamel. E. F. Monday. No. 125,838; June 17; v. 263; p. 478.
 Vehicle-tops. Goldo-Patent Manufacturing Co. No. 125,873; June 24; v. 263; p. 631.
 Vehicles, motor. Pierce-Arrow Motor Car Company. No. 125,673-4; June 3; v. 263; p. 163.
 Vests and veiling. Fuld, Traube & Co. No. 125,735; June 10; v. 263; p. 327.
 Ventilators and tin fire-doors. Roof. Falstrom & Tornquist Co. No. 125,871; June 24; v. 263; p. 631.
 Washing compound. A. & A. Underberg. No. 125,685; June 3; v. 263; p. 163.
 Waterproof adhesive cement. Ulmer Leather Company. No. 125,651; June 17; v. 263; p. 479.
 Wax, medicinal. J. Kochanowski. No. 125,705; June 3; v. 263; p. 164.
 Whisky. The Dublin Distillers Co. No. 125,801; June 17; v. 263; p. 477.
 Whisky. Jack Daniel Distilling Company. No. 125,797; June 17; v. 263; p. 477.
 X-ray tubes. Wappler Electric Co. No. 125,688; June 3; v. 263; p. 163.
 Yarn, machine-twist, etc. Spun silk. Cheney Brothers. No. 125,616-17; June 3; v. 263; p. 161.

ALPHABETICAL LIST OF LABELS.

"Patria." (For Food Products.) I. Burger. No. 21,270; June 17; v. 263; p. 468.

CLASSIFICATION OF PATENTS

JUNE, 1919.

NOTE.—First number—class, second number—subclass, third number—patent number.

1- 14: 1,305,300	10-120.5: 1,305,171	20- 43: 1,305,310	30- 70: 1,305,430	40- 42: 1,305,203	50- 60: 1,305,130
15: 1,305,301	120: 1,305,172	44: 1,305,311	71: 1,305,431	43: 1,305,204	61: 1,305,131
16: 1,305,302	121: 1,305,173	45: 1,305,312	72: 1,305,432	44: 1,305,205	62: 1,305,132
17: 1,305,303	122: 1,305,174	46: 1,305,313	73: 1,305,433	45: 1,305,206	63: 1,305,133
18: 1,305,304	123: 1,305,175	47: 1,305,314	74: 1,305,434	46: 1,305,207	64: 1,305,134
19: 1,305,305	124: 1,305,176	48: 1,305,315	75: 1,305,435	47: 1,305,208	65: 1,305,135
20: 1,305,306	125: 1,305,177	49: 1,305,316	76: 1,305,436	48: 1,305,209	66: 1,305,136
21: 1,305,307	126: 1,305,178	50: 1,305,317	77: 1,305,437	49: 1,305,210	67: 1,305,137
22: 1,305,308	127: 1,305,179	51: 1,305,318	78: 1,305,438	50: 1,305,211	68: 1,305,138
23: 1,305,309	128: 1,305,180	52: 1,305,319	79: 1,305,439	51: 1,305,212	69: 1,305,139
24: 1,305,310	129: 1,305,181	53: 1,305,320	80: 1,305,440	52: 1,305,213	70: 1,305,140
25: 1,305,311	130: 1,305,182	54: 1,305,321	81: 1,305,441	53: 1,305,214	71: 1,305,141
26: 1,305,312	131: 1,305,183	55: 1,305,322	82: 1,305,442	54: 1,305,215	72: 1,305,142
27: 1,305,313	132: 1,305,184	56: 1,305,323	83: 1,305,443	55: 1,305,216	73: 1,305,143
28: 1,305,314	133: 1,305,185	57: 1,305,324	84: 1,305,444	56: 1,305,217	74: 1,305,144
29: 1,305,315	134: 1,305,186	58: 1,305,325	85: 1,305,445	57: 1,305,218	75: 1,305,145
30: 1,305,316	135: 1,305,187	59: 1,305,326	86: 1,305,446	58: 1,305,219	76: 1,305,146
31: 1,305,317	136: 1,305,188	60: 1,305,327	87: 1,305,447	59: 1,305,220	77: 1,305,147
32: 1,305,318	137: 1,305,189	61: 1,305,328	88: 1,305,448	60: 1,305,221	78: 1,305,148
33: 1,305,319	138: 1,305,190	62: 1,305,329	89: 1,305,449	61: 1,305,222	79: 1,305,149
34: 1,305,320	139: 1,305,191	63: 1,305,330	90: 1,305,450	62: 1,305,223	80: 1,305,150
35: 1,305,321	140: 1,305,192	64: 1,305,331	91: 1,305,451	63: 1,305,224	81: 1,305,151
36: 1,305,322	141: 1,305,193	65: 1,305,332	92: 1,305,452	64: 1,305,225	82: 1,305,152
37: 1,305,323	142: 1,305,194	66: 1,305,333	93: 1,305,453	65: 1,305,226	83: 1,305,153
38: 1,305,324	143: 1,305,195	67: 1,305,334	94: 1,305,454	66: 1,305,227	84: 1,305,154
39: 1,305,325	144: 1,305,196	68: 1,305,335	95: 1,305,455	67: 1,305,228	85: 1,305,155
40: 1,305,326	145: 1,305,197	69: 1,305,336	96: 1,305,456	68: 1,305,229	86: 1,305,156
41: 1,305,327	146: 1,305,198	70: 1,305,337	97: 1,305,457	69: 1,305,230	87: 1,305,157
42: 1,305,328	147: 1,305,199	71: 1,305,338	98: 1,305,458	70: 1,305,231	88: 1,305,158
43: 1,305,329	148: 1,305,200	72: 1,305,339	99: 1,305,459	71: 1,305,232	89: 1,305,159
44: 1,305,330	149: 1,305,201	73: 1,305,340	100: 1,305,460	72: 1,305,233	90: 1,305,160
45: 1,305,331	150: 1,305,202	74: 1,305,341	101: 1,305,461	73: 1,305,234	91: 1,305,161
46: 1,305,332	151: 1,305,203	75: 1,305,342	102: 1,305,462	74: 1,305,235	92: 1,305,162
47: 1,305,333	152: 1,305,204	76: 1,305,343	103: 1,305,463	75: 1,305,236	93: 1,305,163
48: 1,305,334	153: 1,305,205	77: 1,305,344	104: 1,305,464	76: 1,305,237	94: 1,305,164
49: 1,305,335	154: 1,305,206	78: 1,305,345	105: 1,305,465	77: 1,305,238	95: 1,305,165
50: 1,305,336	155: 1,305,207	79: 1,305,346	106: 1,305,466	78: 1,305,239	96: 1,305,166
51: 1,305,337	156: 1,305,208	80: 1,305,347	107: 1,305,467	79: 1,305,240	97: 1,305,167
52: 1,305,338	157: 1,305,209	81: 1,305,348	108: 1,305,468	80: 1,305,241	98: 1,305,168
53: 1,305,339	158: 1,305,210	82: 1,305,349	109: 1,305,469	81: 1,305,242	99: 1,305,169
54: 1,305,340	159: 1,305,211	83: 1,305,350	110: 1,305,470	82: 1,305,243	100: 1,305,170
55: 1,305,341	160: 1,305,212	84: 1,305,351	111: 1,305,471	83: 1,305,244	101: 1,305,171
56: 1,305,342	161: 1,305,213	85: 1,305,352	112: 1,305,472	84: 1,305,245	102: 1,305,172
57: 1,305,343	162: 1,305,214	86: 1,305,353	113: 1,305,473	85: 1,305,246	103: 1,305,173
58: 1,305,344	163: 1,305,215	87: 1,305,354	114: 1,305,474	86: 1,305,247	104: 1,305,174
59: 1,305,345	164: 1,305,216	88: 1,305,355	115: 1,305,475	87: 1,305,248	105: 1,305,175
60: 1,305,346	165: 1,305,217	89: 1,305,356	116: 1,305,476	88: 1,305,249	106: 1,305,176
61: 1,305,347	166: 1,305,218	90: 1,305,357	117: 1,305,477	89: 1,305,250	107: 1,305,177
62: 1,305,348	167: 1,305,219	91: 1,305,358	118: 1,305,478	90: 1,305,251	108: 1,305,178
63: 1,305,349	168: 1,305,220	92: 1,305,359	119: 1,305,479	91: 1,305,252	109: 1,305,179
64: 1,305,350	169: 1,305,221	93: 1,305,360	120: 1,305,480	92: 1,305,253	110: 1,305,180
65: 1,305,351	170: 1,305,222	94: 1,305,361	121: 1,305,481	93: 1,305,254	111: 1,305,181
66: 1,305,352	171: 1,305,223	95: 1,305,362	122: 1,305,482	94: 1,305,255	112: 1,305,182
67: 1,305,353	172: 1,305,224	96: 1,305,363	123: 1,305,483	95: 1,305,256	113: 1,305,183
68: 1,305,354	173: 1,305,225	97: 1,305,364	124: 1,305,484	96: 1,305,257	114: 1,305,184
69: 1,305,355	174: 1,305,226	98: 1,305,365	125: 1,305,485	97: 1,305,258	115: 1,305,185
70: 1,305,356	175: 1,305,227	99: 1,305,366	126: 1,305,486	98: 1,305,259	116: 1,305,186
71: 1,305,357	176: 1,305,228	100: 1,305,367	127: 1,305,487	99: 1,305,260	117: 1,305,187
72: 1,305,358	177: 1,305,229	101: 1,305,368	128: 1,305,488	100: 1,305,261	118: 1,305,188
73: 1,305,359	178: 1,305,230	102: 1,305,369	129: 1,305,489	101: 1,305,262	119: 1,305,189
74: 1,305,360	179: 1,305,231	103: 1,305,370	130: 1,305,490	102: 1,305,263	120: 1,305,190
75: 1,305,361	180: 1,305,232	104: 1,305,371	131: 1,305,491	103: 1,305,264	121: 1,305,191
76: 1,305,362	181: 1,305,233	105: 1,305,372	132: 1,305,492	104: 1,305,265	122: 1,305,192
77: 1,305,363	182: 1,305,234	106: 1,305,373	133: 1,305,493	105: 1,305,266	123: 1,305,193
78: 1,305,364	183: 1,305,235	107: 1,305,374	134: 1,305,494	106: 1,305,267	124: 1,305,194
79: 1,305,365	184: 1,305,236	108: 1,305,375	135: 1,305,495	107: 1,305,268	125: 1,305,195
80: 1,305,366	185: 1,305,237	109: 1,305,376	136: 1,305,496	108: 1,305,269	126: 1,305,196
81: 1,305,367	186: 1,305,238	110: 1,305,377	137: 1,305,497	109: 1,305,270	127: 1,305,197
82: 1,305,368	187: 1,305,239	111: 1,305,378	138: 1,305,498	110: 1,305,271	128: 1,305,198
83: 1,305,369	188: 1,305,240	112: 1,305,379	139: 1,305,499	111: 1,305,272	129: 1,305,199
84: 1,305,370	189: 1,305,241	113: 1,305,380	140: 1,305,500	112: 1,305,273	130: 1,305,200
85: 1,305,371	190: 1,305,242	114: 1,305,381	141: 1,305,501	113: 1,305,274	131: 1,305,201
86: 1,305,372	191: 1,305,243	115: 1,305,382	142: 1,305,502	114: 1,305,275	132: 1,305,202
87: 1,305,373	192: 1,305,244	116: 1,305,383	143: 1,305,503	115: 1,305,276	133: 1,305,203
88: 1,305,374	193: 1,305,245	117: 1,305,384	144: 1,305,504	116: 1,305,277	134: 1,305,204
89: 1,305,375	194: 1,305,246	118: 1,305,385	145: 1,305,505	117: 1,305,278	135: 1,305,205
90: 1,305,376	195: 1,305,247	119: 1,305,386	146: 1,305,506	118: 1,305,279	136: 1,305,206
91: 1,305,377	196: 1,305,248	120: 1,305,387	147: 1,305,507	119: 1,305,280	137: 1,305,207
92: 1,305,378	197: 1,305,249	121: 1,305,388	148: 1,305,508	120: 1,305,281	138: 1,305,208
93: 1,305,379	198: 1,305,250	122: 1,305,389	149: 1,305,509	121: 1,305,282	139: 1,305,209
94: 1,305,380	199: 1,305,251	123: 1,305,390	150: 1,305,510	122: 1,305,283	140: 1,305,210
95: 1,305,381	200: 1,305,252	124: 1,305,391	151: 1,305,511	123: 1,305,284	141: 1,305,211
96: 1,305,382	201: 1,305,253	125: 1,305,392	152: 1,305,512	124: 1,305,285	142: 1,305,212
97: 1,305,383	202: 1,305,254	126: 1,305,393	153: 1,305,513	125: 1,305,286	143: 1,305,213
98: 1,305,384	203: 1,305,255	127: 1,305,394	154: 1,305,514	126: 1,305,287	144: 1,305,214
99: 1,305,385	204: 1,305,256	128: 1,305,395	155: 1,305,515	127: 1,305,288	145: 1,305,215
100: 1,305,386	205: 1,305,257	129: 1,305,396	156: 1,305,516	128: 1,305,289	146: 1,305,216
101: 1,305,387	206: 1,305,258	130: 1,305,397	157: 1,305,517	129: 1,305,290	147: 1,305,217
102: 1,305,388	207: 1,305,259	131: 1,305,398	158: 1,305,518	130: 1,305,291	148: 1,305,218
103: 1,305,389	208: 1,305,260	132: 1,305,399	159: 1,305,519	131: 1,305,292	149: 1,305,219
104: 1,305,390	209: 1,305,261	133: 1,305,400	160: 1,305,520	132: 1,305,293	150: 1,305,220
105: 1,305,391	210: 1,305,262	134: 1,305,401	161: 1,305,521	133: 1,305,294	151: 1,305,221
106: 1,305,392	211: 1,305,263	135: 1,305,402	162: 1,305,522	134: 1,305,295	152: 1,305,222
107: 1,305,393	212: 1,305,264	136: 1,305,403	163: 1,305,523	135: 1,305,296	153: 1,305,223
108: 1,305,394	213: 1,305,265	137: 1,305,404	164: 1,305,524	136: 1,305,297	154: 1,305,224
109: 1,305,395	214: 1,305,266	138: 1,305,405	165: 1,305,525	137: 1,305,298	155: 1,305,225
110: 1,305,396	215: 1,305,267	139: 1,305,406	166: 1,305,526	138: 1,305,299	156: 1,305,226
111: 1,305,397	216: 1,305,268	140: 1,305,407	167: 1,305,527	139: 1,305,300	157: 1,305,227
112: 1,305,398	217: 1,305,269	141: 1,305,408	168: 1,305,528	140: 1,305,301	158: 1,305,228
113: 1,305,399	218: 1,305,270	142: 1,305,409	169: 1,305,529	141: 1,305,302	159: 1,305,229
114: 1,305,400	219: 1,305,271	143: 1,305,410	170: 1,305,530	142: 1,305,303	160: 1,305,230
115: 1,305,401	220: 1,305,272	144: 1,305,411	171: 1,305,531	143: 1,305,304	161: 1,305,231
116: 1,305,402	221: 1,305,273	145: 1,305,412	172: 1,305,532	144: 1,305,305	162: 1,305,232
117: 1,305,403	222: 1,305,274	146: 1,305,413	173: 1,305,533	145: 1,305,306</	

CLASSIFICATION OF PATENTS.

37: 1: 1,305,019	51- 7: 1,305,083	64- 50: 1,305,013	73- 111: 1,305,576	79- 62: 1,305,554	89- 17: 1,305,004
38- 1: 1,305,416	11: 1,305,089	51: 1,305,075	122: 1,305,084	63: 1,305,576	18: 1,305,004
39- 1: 1,305,000	12: 1,305,077	52: 1,305,080	167: 1,305,084	64: 1,305,584	19: 1,305,004
40- 1: 1,305,000	13: 1,305,083	53: 1,305,075	177: 1,305,087	65: 1,305,584	20: 1,305,004
41- 2: 1,305,000	14: 1,305,083	54: 1,305,084	178: 1,305,087	66: 1,305,584	21: 1,305,004
42- 3: 1,305,000	15: 1,305,083	55: 1,305,084	179: 1,305,087	67: 1,305,584	22: 1,305,004
43- 4: 1,305,000	16: 1,305,083	56: 1,305,084	180: 1,305,087	68: 1,305,584	23: 1,305,004
44- 5: 1,305,000	17: 1,305,083	57: 1,305,084	181: 1,305,087	69: 1,305,584	24: 1,305,004
45- 6: 1,305,000	18: 1,305,083	58: 1,305,084	182: 1,305,087	70: 1,305,584	25: 1,305,004
46- 7: 1,305,000	19: 1,305,083	59: 1,305,084	183: 1,305,087	71: 1,305,584	26: 1,305,004
47- 8: 1,305,000	20: 1,305,083	60: 1,305,084	184: 1,305,087	72: 1,305,584	27: 1,305,004
48- 9: 1,305,000	21: 1,305,083	61: 1,305,084	185: 1,305,087	73: 1,305,584	28: 1,305,004
49- 10: 1,305,000	22: 1,305,083	62: 1,305,084	186: 1,305,087	74: 1,305,584	29: 1,305,004
50- 11: 1,305,000	23: 1,305,083	63: 1,305,084	187: 1,305,087	75: 1,305,584	30: 1,305,004
51- 12: 1,305,000	24: 1,305,083	64: 1,305,084	188: 1,305,087	76: 1,305,584	31: 1,305,004
52- 13: 1,305,000	25: 1,305,083	65: 1,305,084	189: 1,305,087	77: 1,305,584	32: 1,305,004
53- 14: 1,305,000	26: 1,305,083	66: 1,305,084	190: 1,305,087	78: 1,305,584	33: 1,305,004
54- 15: 1,305,000	27: 1,305,083	67: 1,305,084	191: 1,305,087	79: 1,305,584	34: 1,305,004
55- 16: 1,305,000	28: 1,305,083	68: 1,305,084	192: 1,305,087	80: 1,305,584	35: 1,305,004
56- 17: 1,305,000	29: 1,305,083	69: 1,305,084	193: 1,305,087	81: 1,305,584	36: 1,305,004
57- 18: 1,305,000	30: 1,305,083	70: 1,305,084	194: 1,305,087	82: 1,305,584	37: 1,305,004
58- 19: 1,305,000	31: 1,305,083	71: 1,305,084	195: 1,305,087	83: 1,305,584	38: 1,305,004
59- 20: 1,305,000	32: 1,305,083	72: 1,305,084	196: 1,305,087	84: 1,305,584	39: 1,305,004
60- 21: 1,305,000	33: 1,305,083	73: 1,305,084	197: 1,305,087	85: 1,305,584	40: 1,305,004
61- 22: 1,305,000	34: 1,305,083	74: 1,305,084	198: 1,305,087	86: 1,305,584	41: 1,305,004
62- 23: 1,305,000	35: 1,305,083	75: 1,305,084	199: 1,305,087	87: 1,305,584	42: 1,305,004
63- 24: 1,305,000	36: 1,305,083	76: 1,305,084	200: 1,305,087	88: 1,305,584	43: 1,305,004
64- 25: 1,305,000	37: 1,305,083	77: 1,305,084	201: 1,305,087	89: 1,305,584	44: 1,305,004
65- 26: 1,305,000	38: 1,305,083	78: 1,305,084	202: 1,305,087	90: 1,305,584	45: 1,305,004
66- 27: 1,305,000	39: 1,305,083	79: 1,305,084	203: 1,305,087	91: 1,305,584	46: 1,305,004
67- 28: 1,305,000	40: 1,305,083	80: 1,305,084	204: 1,305,087	92: 1,305,584	47: 1,305,004
68- 29: 1,305,000	41: 1,305,083	81: 1,305,084	205: 1,305,087	93: 1,305,584	48: 1,305,004
69- 30: 1,305,000	42: 1,305,083	82: 1,305,084	206: 1,305,087	94: 1,305,584	49: 1,305,004
70- 31: 1,305,000	43: 1,305,083	83: 1,305,084	207: 1,305,087	95: 1,305,584	50: 1,305,004
71- 32: 1,305,000	44: 1,305,083	84: 1,305,084	208: 1,305,087	96: 1,305,584	51: 1,305,004
72- 33: 1,305,000	45: 1,305,083	85: 1,305,084	209: 1,305,087	97: 1,305,584	52: 1,305,004
73- 34: 1,305,000	46: 1,305,083	86: 1,305,084	210: 1,305,087	98: 1,305,584	53: 1,305,004
74- 35: 1,305,000	47: 1,305,083	87: 1,305,084	211: 1,305,087	99: 1,305,584	54: 1,305,004
75- 36: 1,305,000	48: 1,305,083	88: 1,305,084	212: 1,305,087	100: 1,305,584	55: 1,305,004
76- 37: 1,305,000	49: 1,305,083	89: 1,305,084	213: 1,305,087	101: 1,305,584	56: 1,305,004
77- 38: 1,305,000	50: 1,305,083	90: 1,305,084	214: 1,305,087	102: 1,305,584	57: 1,305,004
78- 39: 1,305,000	51: 1,305,083	91: 1,305,084	215: 1,305,087	103: 1,305,584	58: 1,305,004
79- 40: 1,305,000	52: 1,305,083	92: 1,305,084	216: 1,305,087	104: 1,305,584	59: 1,305,004
80- 41: 1,305,000	53: 1,305,083	93: 1,305,084	217: 1,305,087	105: 1,305,584	60: 1,305,004
81- 42: 1,305,000	54: 1,305,083	94: 1,305,084	218: 1,305,087	106: 1,305,584	61: 1,305,004
82- 43: 1,305,000	55: 1,305,083	95: 1,305,084	219: 1,305,087	107: 1,305,584	62: 1,305,004
83- 44: 1,305,000	56: 1,305,083	96: 1,305,084	220: 1,305,087	108: 1,305,584	63: 1,305,004
84- 45: 1,305,000	57: 1,305,083	97: 1,305,084	221: 1,305,087	109: 1,305,584	64: 1,305,004
85- 46: 1,305,000	58: 1,305,083	98: 1,305,084	222: 1,305,087	110: 1,305,584	65: 1,305,004
86- 47: 1,305,000	59: 1,305,083	99: 1,305,084	223: 1,305,087	111: 1,305,584	66: 1,305,004
87- 48: 1,305,000	60: 1,305,083	100: 1,305,084	224: 1,305,087	112: 1,305,584	67: 1,305,004
88- 49: 1,305,000	61: 1,305,083	101: 1,305,084	225: 1,305,087	113: 1,305,584	68: 1,305,004
89- 50: 1,305,000	62: 1,305,083	102: 1,305,084	226: 1,305,087	114: 1,305,584	69: 1,305,004
90- 51: 1,305,000	63: 1,305,083	103: 1,305,084	227: 1,305,087	115: 1,305,584	70: 1,305,004
91- 52: 1,305,000	64: 1,305,083	104: 1,305,084	228: 1,305,087	116: 1,305,584	71: 1,305,004
92- 53: 1,305,000	65: 1,305,083	105: 1,305,084	229: 1,305,087	117: 1,305,584	72: 1,305,004
93- 54: 1,305,000	66: 1,305,083	106: 1,305,084	230: 1,305,087	118: 1,305,584	73: 1,305,004
94- 55: 1,305,000	67: 1,305,083	107: 1,305,084	231: 1,305,087	119: 1,305,584	74: 1,305,004
95- 56: 1,305,000	68: 1,305,083	108: 1,305,084	232: 1,305,087	120: 1,305,584	75: 1,305,004
96- 57: 1,305,000	69: 1,305,083	109: 1,305,084	233: 1,305,087	121: 1,305,584	76: 1,305,004
97- 58: 1,305,000	70: 1,305,083	110: 1,305,084	234: 1,305,087	122: 1,305,584	77: 1,305,004
98- 59: 1,305,000	71: 1,305,083	111: 1,305,084	235: 1,305,087	123: 1,305,584	78: 1,305,004
99- 60: 1,305,000	72: 1,305,083	112: 1,305,084	236: 1,305,087	124: 1,305,584	79: 1,305,004
100- 61: 1,305,000	73: 1,305,083	113: 1,305,084	237: 1,305,087	125: 1,305,584	80: 1,305,004
101- 62: 1,305,000	74: 1,305,083	114: 1,305,084	238: 1,305,087	126: 1,305,584	81: 1,305,004
102- 63: 1,305,000	75: 1,305,083	115: 1,305,084	239: 1,305,087	127: 1,305,584	82: 1,305,004
103- 64: 1,305,000	76: 1,305,083	116: 1,305,084	240: 1,305,087	128: 1,305,584	83: 1,305,004
104- 65: 1,305,000	77: 1,305,083	117: 1,305,084	241: 1,305,087	129: 1,305,584	84: 1,305,004
105- 66: 1,305,000	78: 1,305,083	118: 1,305,084	242: 1,305,087	130: 1,305,584	85: 1,305,004
106- 67: 1,305,000	79: 1,305,083	119: 1,305,084	243: 1,305,087	131: 1,305,584	86: 1,305,004
107- 68: 1,305,000	80: 1,305,083	120: 1,305,084	244: 1,305,087	132: 1,305,584	87: 1,305,004
108- 69: 1,305,000	81: 1,305,083	121: 1,305,084	245: 1,305,087	133: 1,305,584	88: 1,305,004
109- 70: 1,305,000	82: 1,305,083	122: 1,305,084	246: 1,305,087	134: 1,305,584	89: 1,305,004
110- 71: 1,305,000	83: 1,305,083	123: 1,305,084	247: 1,305,087	135: 1,305,584	90: 1,305,004
111- 72: 1,305,000	84: 1,305,083	124: 1,305,084	248: 1,305,087	136: 1,305,584	91: 1,305,004
112- 73: 1,305,000	85: 1,305,083	125: 1,305,084	249: 1,305,087	137: 1,305,584	92: 1,305,004
113- 74: 1,305,000	86: 1,305,083	126: 1,305,084	250: 1,305,087	138: 1,305,584	93: 1,305,004
114- 75: 1,305,000	87: 1,305,083	127: 1,305,084	251: 1,305,087	139: 1,305,584	94: 1,305,004
115- 76: 1,305,000	88: 1,305,083	128: 1,305,084	252: 1,305,087	140: 1,305,584	95: 1,305,004
116- 77: 1,305,000	89: 1,305,083	129: 1,305,084	253: 1,305,087	141: 1,305,584	96: 1,305,004
117- 78: 1,305,000	90: 1,305,083	130: 1,305,084	254: 1,305,087	142: 1,305,584	97: 1,305,004
118- 79: 1,305,000	91: 1,305,083	131: 1,305,084	255: 1,305,087	143: 1,305,584	98: 1,305,004
119- 80: 1,305,000	92: 1,305,083	132: 1,305,084	256: 1,305,087	144: 1,305,584	99: 1,305,004
120- 81: 1,305,000	93: 1,305,083	133: 1,305,084	257: 1,305,087	145: 1,305,584	100: 1,305,004
121- 82: 1,305,000	94: 1,305,083	134: 1,305,084	258: 1,305,087	146: 1,305,584	101: 1,305,004
122- 83: 1,305,000	95: 1,305,083	135: 1,305,084	259: 1,305,087	147: 1,305,584	102: 1,305,004
123- 84: 1,305,000	96: 1,305,083	136: 1,305,084	260: 1,305,087	148: 1,305,584	103: 1,305,004
124- 85: 1,305,000	97: 1,305,083	137: 1,305,084	261: 1,305,087	149: 1,305,584	104: 1,305,004
125- 86: 1,305,000	98: 1,305,083	138: 1,305,084	262: 1,305,087	150: 1,305,584	105: 1,305,004
126- 87: 1,305,000	99: 1,305,083	139: 1,305,084	263: 1,305,087	151: 1,305,584	106: 1,305,004
127- 88: 1,305,000	100: 1,305,083	140: 1,305,084	264: 1,305,087	152: 1,305,584	107: 1,305,004
128- 89: 1,305,000	101: 1,305,083	141: 1,305,084	265: 1,305,087	153: 1,305,584	108: 1,305,004
129- 90: 1,305,000	102: 1,305,083	142: 1,305,084	266: 1,305,087	154: 1,305,584	109: 1,305,004
130- 91: 1,305,000	103: 1,305,083	143: 1,305,084	267: 1,305,087	155: 1,305,584	110: 1,305,004
131- 92: 1,305,000	104: 1,305,083	144: 1,305,084	268: 1,305,087	156: 1,305,584	111: 1,305,004
132- 93: 1,305,000	105: 1,305,083	145: 1,305,084	269: 1,305,087	157: 1,305,584	112: 1,305,004
133- 94: 1,305,000	106: 1,305,083	146: 1,305,084	270: 1,305,087	158: 1,305,584	113: 1,305,004
134- 95: 1,305,000	107: 1,305,083	147: 1,305,084	271: 1,305,087	159: 1,305,584	114: 1,305,004
135- 96: 1,305,000	108: 1,305,083	148: 1,305,084	272: 1,305,087	160: 1,305,584	115: 1,305,004
136- 97: 1,305,000	109: 1,305,083	149: 1,305,084	273: 1,305,087	161: 1,305,584	116: 1,305,004
137- 98: 1,305,000	110: 1,305,083	150: 1,305,084	274: 1,305,087	162: 1,305,584	117: 1,305,004
138- 99: 1,305,000	111: 1,305,083	151: 1,305,084	275: 1,305,087	163: 1,305,584	118: 1,305,004
139- 100: 1,305,000	112: 1,305,083	152: 1,305,084	276: 1,305,087	164: 1,305,584	119: 1,305,004
140- 101: 1,305,000	113: 1,305,083	153: 1,305,084	277: 1,305,087	165: 1,305,584	120: 1,305,004
141-					

[illegible]

188- 62: 1,307,000	175- 261: 1,308,200	168- 2: 1,308,200	194- 39: 1,308,201	213- 62: 1,307,207	208- 72: 1,308,208
189- 100: 1,308,201	176- 262: 1,308,202	169- 3: 1,308,203	195- 40: 1,308,202	214- 63: 1,307,208	209- 73: 1,308,209
190- 117: 1,307,203	177- 263: 1,308,203	170- 4: 1,308,204	196- 41: 1,308,203	215- 64: 1,307,209	210- 74: 1,308,210
191- 118: 1,307,204	178- 264: 1,308,204	171- 5: 1,308,205	197- 42: 1,308,204	216- 65: 1,307,210	211- 75: 1,308,211
192- 119: 1,307,205	179- 265: 1,308,205	172- 6: 1,308,206	198- 43: 1,308,205	217- 66: 1,307,211	212- 76: 1,308,212
193- 120: 1,307,206	180- 266: 1,308,206	173- 7: 1,308,207	199- 44: 1,308,206	218- 67: 1,307,212	213- 77: 1,308,213
194- 121: 1,307,207	181- 267: 1,308,207	174- 8: 1,308,208	200- 45: 1,308,207	219- 68: 1,307,213	214- 78: 1,308,214
195- 122: 1,307,208	182- 268: 1,308,208	175- 9: 1,308,209	201- 46: 1,308,208	220- 69: 1,307,214	215- 79: 1,308,215
196- 123: 1,307,209	183- 269: 1,308,209	176- 10: 1,308,210	202- 47: 1,308,209	221- 70: 1,307,215	216- 80: 1,308,216
197- 124: 1,307,210	184- 270: 1,308,210	177- 11: 1,308,211	203- 48: 1,308,210	222- 71: 1,307,216	217- 81: 1,308,217
198- 125: 1,307,211	185- 271: 1,308,211	178- 12: 1,308,212	204- 49: 1,308,211	223- 72: 1,307,217	218- 82: 1,308,218
199- 126: 1,307,212	186- 272: 1,308,212	179- 13: 1,308,213	205- 50: 1,308,212	224- 73: 1,307,218	219- 83: 1,308,219
200- 127: 1,307,213	187- 273: 1,308,213	180- 14: 1,308,214	206- 51: 1,308,213	225- 74: 1,307,219	220- 84: 1,308,220
201- 128: 1,307,214	188- 274: 1,308,214	181- 15: 1,308,215	207- 52: 1,308,214	226- 75: 1,307,220	221- 85: 1,308,221
202- 129: 1,307,215	189- 275: 1,308,215	182- 16: 1,308,216	208- 53: 1,308,215	227- 76: 1,307,221	222- 86: 1,308,222
203- 130: 1,307,216	190- 276: 1,308,216	183- 17: 1,308,217	209- 54: 1,308,216	228- 77: 1,307,222	223- 87: 1,308,223
204- 131: 1,307,217	191- 277: 1,308,217	184- 18: 1,308,218	210- 55: 1,308,217	229- 78: 1,307,223	224- 88: 1,308,224
205- 132: 1,307,218	192- 278: 1,308,218	185- 19: 1,308,219	211- 56: 1,308,218	230- 79: 1,307,224	225- 89: 1,308,225
206- 133: 1,307,219	193- 279: 1,308,219	186- 20: 1,308,220	212- 57: 1,308,219	231- 80: 1,307,225	226- 90: 1,308,226
207- 134: 1,307,220	194- 280: 1,308,220	187- 21: 1,308,221	213- 58: 1,308,220	232- 81: 1,307,226	227- 91: 1,308,227
208- 135: 1,307,221	195- 281: 1,308,221	188- 22: 1,308,222	214- 59: 1,308,221	233- 82: 1,307,227	228- 92: 1,308,228
209- 136: 1,307,222	196- 282: 1,308,222	189- 23: 1,308,223	215- 60: 1,308,222	234- 83: 1,307,228	229- 93: 1,308,229
210- 137: 1,307,223	197- 283: 1,308,223	190- 24: 1,308,224	216- 61: 1,308,223	235- 84: 1,307,229	230- 94: 1,308,230
211- 138: 1,307,224	198- 284: 1,308,224	191- 25: 1,308,225	217- 62: 1,308,224	236- 85: 1,307,230	231- 95: 1,308,231
212- 139: 1,307,225	199- 285: 1,308,225	192- 26: 1,308,226	218- 63: 1,308,225	237- 86: 1,307,231	232- 96: 1,308,232
213- 140: 1,307,226	200- 286: 1,308,226	193- 27: 1,308,227	219- 64: 1,308,226	238- 87: 1,307,232	233- 97: 1,308,233
214- 141: 1,307,227	201- 287: 1,308,227	194- 28: 1,308,228	220- 65: 1,308,227	239- 88: 1,307,233	234- 98: 1,308,234
215- 142: 1,307,228	202- 288: 1,308,228	195- 29: 1,308,229	221- 66: 1,308,228	240- 89: 1,307,234	235- 99: 1,308,235
216- 143: 1,307,229	203- 289: 1,308,229	196- 30: 1,308,230	222- 67: 1,308,229	241- 90: 1,307,235	236- 100: 1,308,236
217- 144: 1,307,230	204- 290: 1,308,230	197- 31: 1,308,231	223- 68: 1,308,230	242- 91: 1,307,236	237- 101: 1,308,237
218- 145: 1,307,231	205- 291: 1,308,231	198- 32: 1,308,232	224- 69: 1,308,231	243- 92: 1,307,237	238- 102: 1,308,238
219- 146: 1,307,232	206- 292: 1,308,232	199- 33: 1,308,233	225- 70: 1,308,232	244- 93: 1,307,238	239- 103: 1,308,239
220- 147: 1,307,233	207- 293: 1,308,233	200- 34: 1,308,234	226- 71: 1,308,233	245- 94: 1,307,239	240- 104: 1,308,240
221- 148: 1,307,234	208- 294: 1,308,234	201- 35: 1,308,235	227- 72: 1,308,234	246- 95: 1,307,240	241- 105: 1,308,241
222- 149: 1,307,235	209- 295: 1,308,235	202- 36: 1,308,236	228- 73: 1,308,235	247- 96: 1,307,241	242- 106: 1,308,242
223- 150: 1,307,236	210- 296: 1,308,236	203- 37: 1,308,237	229- 74: 1,308,236	248- 97: 1,307,242	243- 107: 1,308,243
224- 151: 1,307,237	211- 297: 1,308,237	204- 38: 1,308,238	230- 75: 1,308,237	249- 98: 1,307,243	244- 108: 1,308,244
225- 152: 1,307,238	212- 298: 1,308,238	205- 39: 1,308,239	231- 76: 1,308,238	250- 99: 1,307,244	245- 109: 1,308,245
226- 153: 1,307,239	213- 299: 1,308,239	206- 40: 1,308,240	232- 77: 1,308,239	251- 100: 1,307,245	246- 110: 1,308,246
227- 154: 1,307,240	214- 300: 1,308,240	207- 41: 1,308,241	233- 78: 1,308,240	252- 101: 1,307,246	247- 111: 1,308,247
228- 155: 1,307,241	215- 301: 1,308,241	208- 42: 1,308,242	234- 79: 1,308,241	253- 102: 1,307,247	248- 112: 1,308,248
229- 156: 1,307,242	216- 302: 1,308,242	209- 43: 1,308,243	235- 80: 1,308,242	254- 103: 1,307,248	249- 113: 1,308,249
230- 157: 1,307,243	217- 303: 1,308,243	210- 44: 1,308,244	236- 81: 1,308,243	255- 104: 1,307,249	250- 114: 1,308,250
231- 158: 1,307,244	218- 304: 1,308,244	211- 45: 1,308,245	237- 82: 1,308,244	256- 105: 1,307,250	251- 115: 1,308,251
232- 159: 1,307,245	219- 305: 1,308,245	212- 46: 1,308,246	238- 83: 1,308,245	257- 106: 1,307,251	252- 116: 1,308,252
233- 160: 1,307,246	220- 306: 1,308,246	213- 47: 1,308,247	239- 84: 1,308,246	258- 107: 1,307,252	253- 117: 1,308,253
234- 161: 1,307,247	221- 307: 1,308,247	214- 48: 1,308,248	240- 85: 1,308,247	259- 108: 1,307,253	254- 118: 1,308,254
235- 162: 1,307,248	222- 308: 1,308,248	215- 49: 1,308,249	241- 86: 1,308,248	260- 109: 1,307,254	255- 119: 1,308,255
236- 163: 1,307,249	223- 309: 1,308,249	216- 50: 1,308,250	242- 87: 1,308,249	261- 110: 1,307,255	256- 120: 1,308,256
237- 164: 1,307,250	224- 310: 1,308,250	217- 51: 1,308,251	243- 88: 1,308,250	262- 111: 1,307,256	257- 121: 1,308,257
238- 165: 1,307,251	225- 311: 1,308,251	218- 52: 1,308,252	244- 89: 1,308,251	263- 112: 1,307,257	258- 122: 1,308,258
239- 166: 1,307,252	226- 312: 1,308,252	219- 53: 1,308,253	245- 90: 1,308,252	264- 113: 1,307,258	259- 123: 1,308,259
240- 167: 1,307,253	227- 313: 1,308,253	220- 54: 1,308,254	246- 91: 1,308,253	265- 114: 1,307,259	260- 124: 1,308,260
241- 168: 1,307,254	228- 314: 1,308,254	221- 55: 1,308,255	247- 92: 1,308,254	266- 115: 1,307,260	261- 125: 1,308,261
242- 169: 1,307,255	229- 315: 1,308,255	222- 56: 1,308,256	248- 93: 1,308,255	267- 116: 1,307,261	262- 126: 1,308,262
243- 170: 1,307,256	230- 316: 1,308,256	223- 57: 1,308,257	249- 94: 1,308,256	268- 117: 1,307,262	263- 127: 1,308,263
244- 171: 1,307,257	231- 317: 1,308,257	224- 58: 1,308,258	250- 95: 1,308,257	269- 118: 1,307,263	264- 128: 1,308,264
245- 172: 1,307,258	232- 318: 1,308,258	225- 59: 1,308,259	251- 96: 1,308,258	270- 119: 1,307,264	265- 129: 1,308,265
246- 173: 1,307,259	233- 319: 1,308,259	226- 60: 1,308,260	252- 97: 1,308,259	271- 120: 1,307,265	266- 130: 1,308,266
247- 174: 1,307,260	234- 320: 1,308,260	227- 61: 1,308,261	253- 98: 1,308,260	272- 121: 1,307,266	267- 131: 1,308,267
248- 175: 1,307,261	235- 321: 1,308,261	228- 62: 1,308,262	254- 99: 1,308,261	273- 122: 1,307,267	268- 132: 1,308,268
249- 176: 1,307,262	236- 322: 1,308,262	229- 63: 1,308,263	255- 100: 1,308,262	274- 123: 1,307,268	269- 133: 1,308,269
250- 177: 1,307,263	237- 323: 1,308,263	230- 64: 1,308,264	256- 101: 1,308,263	275- 124: 1,307,269	270- 134: 1,308,270
251- 178: 1,307,264	238- 324: 1,308,264	231- 65: 1,308,265	257- 102: 1,308,264	276- 125: 1,307,270	271- 135: 1,308,271
252- 179: 1,307,265	239- 325: 1,308,265	232- 66: 1,308,266	258- 103: 1,308,265	277- 126: 1,307,271	272- 136: 1,308,272
253- 180: 1,307,266	240- 326: 1,308,266	233- 67: 1,308,267	259- 104: 1,308,266	278- 127: 1,307,272	273- 137: 1,308,273
254- 181: 1,307,267	241- 327: 1,308,267	234- 68: 1,308,268	260- 105: 1,308,267	279- 128: 1,307,273	274- 138: 1,308,274
255- 182: 1,307,268	242- 328: 1,308,268	235- 69: 1,308,269	261- 106: 1,308,268	280- 129: 1,307,274	275- 139: 1,308,275
256- 183: 1,307,269	243- 329: 1,308,269	236- 70: 1,308,270	262- 107: 1,308,269	281- 130: 1,307,275	276- 140: 1,308,276
257- 184: 1,307,270	244- 330: 1,308,270	237- 71: 1,308,271	263- 108: 1,308,270	282- 131: 1,307,276	277- 141: 1,308,277
258- 185: 1,307,271	245- 331: 1,308,271	238- 72: 1,308,272	264- 109: 1,308,271	283- 132: 1,307,277	278- 142: 1,308,278
259- 186: 1,307,272	246- 332: 1,308,272	239- 73: 1,308,273	265- 110: 1,308,272	284- 133: 1,307,278	279- 143: 1,308,279
260- 187: 1,307,273	247- 333: 1,308,273	240- 74: 1,308,274	266- 111: 1,308,273	285- 134: 1,307,279	280- 144: 1,308,280
261- 188: 1,307,274	248- 334: 1,308,274	241- 75: 1,308,275	267- 112: 1,308,274	286- 135: 1,307,280	281- 145: 1,308,281
262- 189: 1,307,275	249- 335: 1,308,275	242- 76: 1,308,276	268- 113: 1,308,275	287- 136: 1,307,281	282- 146: 1,308,282
263- 190: 1,307,276	250- 336: 1,308,276	243- 77: 1,308,277	269- 114: 1,308,276	288- 137: 1,307,282	283- 147: 1,308,283
264- 191: 1,307,277	251- 337: 1,308,277	244- 78: 1,308,278	270- 115: 1,308,277	289- 138: 1,307,283	284- 148: 1,308,284
265- 192: 1,307,278	252- 338: 1,308,278	245- 79: 1,308,279	271- 116: 1,308,278	290- 139: 1,307,284	285- 149: 1,308,285
266- 193: 1,307,279	253- 339: 1,308,279	246- 80: 1,308,280	272- 117: 1,308,279	291- 140: 1,307,285	286- 150: 1,308,286
267- 194: 1,307,280	254- 340: 1,308,280	247- 81: 1,308,281	273- 118: 1,308,280	292- 141: 1,307,286	287- 151: 1,308,287
268- 195: 1,307,281	255- 341: 1,308,281	248- 82: 1,308,282	274- 119: 1,308,281	293- 142: 1,307,287	288- 152: 1,308,288
269- 196: 1,307,282	256- 342: 1,308,282	249- 83: 1,308,283	275- 120: 1,308,282	294- 143: 1,307,288	289- 153: 1,308,289
270- 197: 1,307,283	257- 343: 1,308,283	250- 84: 1,308,284	276- 121: 1,308,283	295- 144: 1,307,289	290- 154: 1,308,290
271- 198: 1,307,284	258- 344: 1,308,284				

OFFICE
G A Z E T T E
UNITED STATES
PATENT OFFICE

VOL. 262-283

MAY - JUNE

1913

MICROPHOTED FROM
CLEVELAND, OHIO, DEPT. OF COMMERCE